API Reference

AWS Billing and Cost Management



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AWS Billing and Cost Management: API Reference

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Welcome

AWS Cost Explorer

You can use the Cost Explorer API to programmatically query your cost and usage data. You can query for aggregated data such as total monthly costs or total daily usage. You can also query for granular data. This might include the number of daily write operations for Amazon DynamoDB database tables in your production environment.

Service Endpoint

The Cost Explorer API provides the following endpoint:

- `https://ce.us-east-1.amazonaws.com`

For information about the costs that are associated with the Cost Explorer API, see AWS Cost Management Pricing.

AWS Billing and Cost Management Dashboards

AWS Billing and Cost Management Dashboards is a service that enables you to create, manage, and share dashboards that combine multiple visualizations of your AWS cost and usage data. You can combine multiple data sources including Cost Explorer, Savings Plans, and Reserved Instance metrics into unified dashboards, helping you analyze spending patterns and share cost insights across your organization.

You can use the AWS Billing and Cost Management Dashboards API to programmatically create, manage, and share dashboards. This includes creating custom dashboards, configuring widgets, managing dashboard permissions, and sharing dashboards across accounts in your organization.

AWS Data Exports

You can use the Data Exports API to create customized exports from multiple AWS cost management and billing datasets, such as cost and usage data and cost optimization recommendations.

The Data Exports API provides the following endpoint:

- https://bcm-data-exports.us-east-1.api.aws

AWS Pricing Calculator

You can use the Pricing Calculator API to programmatically create estimates for your planned cloud use. You can model usage and commitments such as Savings Plans and Reserved Instances, and generate estimated costs using your discounts and benefit sharing preferences.

The Pricing Calculator API provides the following endpoint:

- `https://bcm-pricing-calculator.us-east-1.api.aws`

AWS Billing and Cost Management Recommended Actions

You can use the AWS Billing and Cost Management Recommended Actions API to programmatically query your best practices and recommendations to optimize your costs.

The AWS Billing and Cost Management Recommended Actions API provides the following endpoint:

- https://bcm-recommended-actions.us-east-1.api.aws

AWS Billing

You can use the Billing API to programatically list the billing views available to you for a given time period. A billing view represents a set of billing data.

The Billing API provides the following endpoint:

`https://billing.us-east-1.api.aws`

AWS Budgets

Use the AWS Budgets API to plan your service usage, service costs, and instance reservations. This API reference provides descriptions, syntax, and usage examples for each of the actions and data types for the AWS Budgets feature.

Budgets provide you with a way to see the following information:

- How close your plan is to your budgeted amount or to the free tier limits
- Your usage-to-date, including how much you've used of your Reserved Instances (RIs)
- Your current estimated charges from AWS, and how much your predicted usage will accrue in charges by the end of the month
- How much of your budget has been used

AWS updates your budget status several times a day. Budgets track your unblended costs, subscriptions, refunds, and RIs. You can create the following types of budgets:

- **Cost budgets** - Plan how much you want to spend on a service.
- **Usage budgets** - Plan how much you want to use one or more services.
- **RI utilization budgets** - Define a utilization threshold, and receive alerts when your RI usage falls below that threshold. This lets you see if your RIs are unused or under-utilized.
- **RI coverage budgets** - Define a coverage threshold, and receive alerts when the number of your instance hours that are covered by RIs fall below that threshold. This lets you see how much of your instance usage is covered by a reservation.

Service Endpoint

The AWS Budgets API provides the following endpoint:

- https://budgets.amazonaws.com

For information about costs that are associated with the AWS Budgets API, see AWS Cost Management Pricing.

AWS Cost Optimization Hub

You can use the Cost Optimization Hub API to programmatically identify, filter, aggregate, and quantify savings for your cost optimization recommendations across multiple AWS Regions and AWS accounts in your organization.

The Cost Optimization Hub API provides the following endpoint:

- https://cost-optimization-hub.us-east-1.amazonaws.com

AWS Cost and Usage Report

You can use the AWS Cost and Usage Report API to programmatically create, query, and delete AWS Cost and Usage Report definitions.

AWS Cost and Usage Report track the monthly AWS costs and usage associated with your AWS account. The report contains line items for each unique combination of AWS product, usage type, and operation that your AWS account uses. You can configure the AWS Cost and Usage Report to show only the data that you want, using the AWS Cost and Usage Report API.

Service Endpoint

The AWS Cost and Usage Report API provides the following endpoint:

- cur.us-east-1.amazonaws.com

AWS Free Tier

You can use the AWS Free Tier API to query programmatically your Free Tier usage data.

Free Tier tracks your monthly usage data for all free tier offers that are associated with your AWS account. You can use the Free Tier API to filter and show only the data that you want.

Service endpoint

The Free Tier API provides the following endpoint:

- https://freetier.us-east-1.api.aws

For more information, see Using the AWS Free Tier in the *AWS Billing User Guide*.

AWS Invoicing

AWS Invoice Configuration

You can use AWS Invoice Configuration APIs to programmatically create, update, delete, get, and list invoice units. You can also programmatically fetch the information of the invoice receiver. For example, business legal name, address, and invoicing contacts.

You can use AWS Invoice Configuration to receive separate AWS invoices based your organizational needs. By using AWS Invoice Configuration, you can configure invoice units that are groups of AWS accounts that represent your business entities, and receive separate invoices for each business entity. You can also assign a unique member or payer account as the invoice receiver for each invoice unit. As you create new accounts within your Organizations using AWS Invoice Configuration APIs, you can automate the creation of new invoice units and subsequently automate the addition of new accounts to your invoice units.

AWS Procurement Portal Preferences

You can use AWS Procurement Portal Preferences APIs to programmatically create, update, delete, get, and list procurement portal connections and e-invoice delivery settings. You can also programmatically fetch and modify the status of procurement portal configurations. For example, SAP Business Network or Coupa connections, configure e-invoice delivery and purchase order retrieval features.

You can use AWS Procurement Portal Preferences to connect e-invoice delivery to your procurement portals based on your organizational needs. By using AWS Procurement Portal Preferences, you can configure connections to SAP Business Network and Coupa procurement portals that retrieve purchase orders and deliver AWS invoices on the same day they are generated. You can also set up testing environments to validate invoice delivery without affecting live transactions, and manage contact information for portal setup and support.

Administrative users should understand that billing read-only policies will show all procurement portal connection details. Review your IAM policies to ensure appropriate access controls are in place for procurement portal preferences.

AWS Invoice Management

You can use AWS Invoice Management APIs to programmatically list invoice summaries and get invoice documents. You can also programmatically fetch invoice documents with S3 pre-signed URLs.

You can use AWS Invoice Management to access invoice information based on your organizational needs. By using AWS Invoice Management, you can retrieve paginated lists of invoice summaries that include invoice metadata such as invoice IDs, amounts, and currencies without downloading documents. You can also download invoice documents in PDF format using S3 pre-signed URLs with built-in expiration. As you manage invoices across your organization using AWS Invoice Management APIs, you can create invoice retrieval processes and integrate invoice data into your financial systems.

Service endpoint

You can use the following endpoints for AWS Invoice Configuration, AWS Procurement Portal Preferences, and AWS Invoice Management:

- `https://invoicing.us-east-1.api.aws`

AWS Price List

The AWS Price List API is a centralized and convenient way to programmatically query AWS for services, products, and pricing information. The AWS Price List uses standardized product attributes such as `Location`, `Storage Class`, and `Operating System`, and provides prices at the SKU level. You can use the AWS Price List to do the following:

- Build cost control and scenario planning tools
- Reconcile billing data
- Forecast future spend for budgeting purposes
- Provide cost benefit analysis that compare your internal workloads with AWS

Use `GetServices` without a service code to retrieve the service codes for all AWS services, then `GetServices` with a service code to retrieve the attribute names for that service. After you have the service code and attribute names, you can use `GetAttributeValues` to see what values are available for an attribute. With the service code and an attribute name and value, you can use `GetProducts` to find specific products that you're interested in, such as an `AmazonEC2` instance, with a `Provisioned IOPS volumeType`.

You can use the following endpoints for the AWS Price List API:

- https://api.pricing.us-east-1.amazonaws.com
- https://api.pricing.ap-south-1.amazonaws.com
- https://api.pricing.eu-central-1.amazonaws.com

For more information, see Using the AWS Price List API in the *AWS Billing User Guide*.

For more information about AWS Billing and Cost Management endpoints, see AWS Billing and Cost Management endpoints in the *Amazon Web Services General Reference* .

For more information about AWS Billing and Cost Management quotas, see Quotas and restrictions in the *AWS Billing User Guide* and Quotas and restrictions in the *AWS Cost Management User Guide*.

Tax Settings

You can use the tax setting API to programmatically set, modify, and delete the tax registration number (TRN), associated business legal name, and address (Collectively referred to as "TRN information"). You can also programmatically view TRN information and tax addresses ("Tax profiles").

You can use this API to automate your TRN information settings instead of manually using the console.

Service Endpoint

- https://tax.us-east-1.amazonaws.com

Actions

The following actions are supported by AWS Cost Explorer:

- CreateAnomalyMonitor
- CreateAnomalySubscription
- CreateCostCategoryDefinition
- DeleteAnomalyMonitor
- DeleteAnomalySubscription
- DeleteCostCategoryDefinition
- DescribeCostCategoryDefinition
- GetAnomalies
- GetAnomalyMonitors
- GetAnomalySubscriptions
- GetApproximateUsageRecords
- GetCommitmentPurchaseAnalysis
- GetCostAndUsage
- GetCostAndUsageComparisons
- GetCostAndUsageWithResources
- GetCostCategories
- GetCostComparisonDrivers
- GetCostForecast
- GetDimensionValues
- GetReservationCoverage
- GetReservationPurchaseRecommendation
- GetReservationUtilization
- GetRightsizingRecommendation
- GetSavingsPlanPurchaseRecommendationDetails
- GetSavingsPlansCoverage
- GetSavingsPlansPurchaseRecommendation

- GetSavingsPlansUtilization
- GetSavingsPlansUtilizationDetails
- GetTags
- GetUsageForecast
- ListCommitmentPurchaseAnalyses
- ListCostAllocationTagBackfillHistory
- ListCostAllocationTags
- ListCostCategoryDefinitions
- ListCostCategoryResourceAssociations
- ListSavingsPlansPurchaseRecommendationGeneration
- ListTagsForResource
- ProvideAnomalyFeedback
- StartCommitmentPurchaseAnalysis
- StartCostAllocationTagBackfill
- StartSavingsPlansPurchaseRecommendationGeneration
- TagResource
- UntagResource
- UpdateAnomalyMonitor
- UpdateAnomalySubscription
- UpdateCostAllocationTagsStatus
- UpdateCostCategoryDefinition

The following actions are supported by AWS Billing and Cost Management Dashboards:

- CreateDashboard
- DeleteDashboard
- GetDashboard
- GetResourcePolicy
- ListDashboards
- ListTagsForResource
- TagResource

- UntagResource
- UpdateDashboard

The following actions are supported by AWS Data Exports:

- CreateExport
- DeleteExport
- GetExecution
- GetExport
- GetTable
- ListExecutions
- ListExports
- ListTables
- ListTagsForResource
- TagResource
- UntagResource
- UpdateExport

The following actions are supported by AWS Pricing Calculator:

- BatchCreateBillScenarioCommitmentModification
- BatchCreateBillScenarioUsageModification
- BatchCreateWorkloadEstimateUsage
- BatchDeleteBillScenarioCommitmentModification
- BatchDeleteBillScenarioUsageModification
- BatchDeleteWorkloadEstimateUsage
- BatchUpdateBillScenarioCommitmentModification
- BatchUpdateBillScenarioUsageModification
- BatchUpdateWorkloadEstimateUsage
- CreateBillEstimate
- CreateBillScenario
- CreateWorkloadEstimate

- DeleteBillEstimate
- DeleteBillScenario
- DeleteWorkloadEstimate
- GetBillEstimate
- GetBillScenario
- GetPreferences
- GetWorkloadEstimate
- ListBillEstimateCommitments
- ListBillEstimateInputCommitmentModifications
- ListBillEstimateInputUsageModifications
- ListBillEstimateLineItems
- ListBillEstimates
- ListBillScenarioCommitmentModifications
- ListBillScenarios
- ListBillScenarioUsageModifications
- ListTagsForResource
- ListWorkloadEstimates
- ListWorkloadEstimateUsage
- TagResource
- UntagResource
- UpdateBillEstimate
- UpdateBillScenario
- UpdatePreferences
- UpdateWorkloadEstimate

The following actions are supported by AWS Billing and Cost Management Recommended Actions:

- ListRecommendedActions

The following actions are supported by AWS Billing:

- AssociateSourceViews

- CreateBillingView
- DeleteBillingView
- DisassociateSourceViews
- GetBillingView
- GetResourcePolicy
- ListBillingViews
- ListSourceViewsForBillingView
- ListTagsForResource
- TagResource
- UntagResource
- UpdateBillingView

The following actions are supported by AWS Budgets:

- CreateBudget
- CreateBudgetAction
- CreateNotification
- CreateSubscriber
- DeleteBudget
- DeleteBudgetAction
- DeleteNotification
- DeleteSubscriber
- DescribeBudget
- DescribeBudgetAction
- DescribeBudgetActionHistories
- DescribeBudgetActionsForAccount
- DescribeBudgetActionsForBudget
- DescribeBudgetNotificationsForAccount
- DescribeBudgetPerformanceHistory
- DescribeBudgets
- DescribeNotificationsForBudget

- DescribeSubscribersForNotification
- ExecuteBudgetAction
- ListTagsForResource
- TagResource
- UntagResource
- UpdateBudget
- UpdateBudgetAction
- UpdateNotification
- UpdateSubscriber

The following actions are supported by AWS Cost Optimization Hub:

- GetPreferences
- GetRecommendation
- ListEfficiencyMetrics
- ListEnrollmentStatuses
- ListRecommendations
- ListRecommendationSummaries
- UpdateEnrollmentStatus
- UpdatePreferences

The following actions are supported by AWS Cost and Usage Report:

- DeleteReportDefinition
- DescribeReportDefinitions
- ListTagsForResource
- ModifyReportDefinition
- PutReportDefinition
- TagResource
- UntagResource

The following actions are supported by AWS Free Tier:

- GetAccountActivity
- GetAccountPlanState
- GetFreeTierUsage
- ListAccountActivities
- UpgradeAccountPlan

The following actions are supported by AWS Invoicing:

- BatchGetInvoiceProfile
- CreateInvoiceUnit
- CreateProcurementPortalPreference
- DeleteInvoiceUnit
- DeleteProcurementPortalPreference
- GetInvoicePDF
- GetInvoiceUnit
- GetProcurementPortalPreference
- ListInvoiceSummaries
- ListInvoiceUnits
- ListProcurementPortalPreferences
- ListTagsForResource
- PutProcurementPortalPreference
- TagResource
- UntagResource
- UpdateInvoiceUnit
- UpdateProcurementPortalPreferenceStatus

The following actions are supported by AWS Price List:

- DescribeServices
- GetAttributeValues
- GetPriceListFileUrl
- GetProducts

- ListPriceLists

The following actions are supported by Tax Settings:

- BatchDeleteTaxRegistration
- BatchGetTaxExemptions
- BatchPutTaxRegistration
- DeleteSupplementalTaxRegistration
- DeleteTaxRegistration
- GetTaxExemptionTypes
- GetTaxInheritance
- GetTaxRegistration
- GetTaxRegistrationDocument
- ListSupplementalTaxRegistrations
- ListTaxExemptions
- ListTaxRegistrations
- PutSupplementalTaxRegistration
- PutTaxExemption
- PutTaxInheritance
- PutTaxRegistration

AWS Cost Explorer

The following actions are supported by AWS Cost Explorer:

- CreateAnomalyMonitor
- CreateAnomalySubscription
- CreateCostCategoryDefinition
- DeleteAnomalyMonitor
- DeleteAnomalySubscription
- DeleteCostCategoryDefinition
- DescribeCostCategoryDefinition

- GetAnomalies
- GetAnomalyMonitors
- GetAnomalySubscriptions
- GetApproximateUsageRecords
- GetCommitmentPurchaseAnalysis
- GetCostAndUsage
- GetCostAndUsageComparisons
- GetCostAndUsageWithResources
- GetCostCategories
- GetCostComparisonDrivers
- GetCostForecast
- GetDimensionValues
- GetReservationCoverage
- GetReservationPurchaseRecommendation
- GetReservationUtilization
- GetRightsizingRecommendation
- GetSavingsPlanPurchaseRecommendationDetails
- GetSavingsPlansCoverage
- GetSavingsPlansPurchaseRecommendation
- GetSavingsPlansUtilization
- GetSavingsPlansUtilizationDetails
- GetTags
- GetUsageForecast
- ListCommitmentPurchaseAnalyses
- ListCostAllocationTagBackfillHistory
- ListCostAllocationTags
- ListCostCategoryDefinitions
- ListCostCategoryResourceAssociations
- ListSavingsPlansPurchaseRecommendationGeneration
- ListTagsForResource

- ProvideAnomalyFeedback
- StartCommitmentPurchaseAnalysis
- StartCostAllocationTagBackfill
- StartSavingsPlansPurchaseRecommendationGeneration
- TagResource
- UntagResource
- UpdateAnomalyMonitor
- UpdateAnomalySubscription
- UpdateCostAllocationTagsStatus
- UpdateCostCategoryDefinition

CreateAnomalyMonitor

Service: AWS Cost Explorer

Creates a new cost anomaly detection monitor with the requested type and monitor specification.

Request Syntax

```
{
   "AnomalyMonitor": {
      "CreationDate": "string",
      "DimensionalValueCount": number,
      "LastEvaluatedDate": "string",
      "LastUpdatedDate": "string",
      "MonitorArn": "string",
      "MonitorDimension": "string",
      "MonitorName": "string",
      "MonitorSpecification": {
         "And": [
            "Expression"
         ],
         "CostCategories": {
            "Key": "string",
            "MatchOptions": [ "string" ],
            "Values": [ "string" ]
         },
         "Dimensions": {
            "Key": "string",
            "MatchOptions": [ "string" ],
            "Values": [ "string" ]
         },
         "Not": "Expression",
         "Or": [
            "Expression"
         ],
         "Tags": {
            "Key": "string",
            "MatchOptions": [ "string" ],
            "Values": [ "string" ]
         }
      },
      "MonitorType": "string"
   },
   "ResourceTags": [
```

```
      {
         "Key": "string",
         "Value": "string"
      }
   ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

AnomalyMonitor

The cost anomaly detection monitor object that you want to create.

Type: AnomalyMonitor object

Required: Yes

ResourceTags

An optional list of tags to associate with the specified `AnomalyMonitor`. You can use resource tags to control access to your `monitor` using IAM policies.

Each tag consists of a key and a value, and each key must be unique for the resource. The following restrictions apply to resource tags:

- Although the maximum number of array members is 200, you can assign a maximum of 50 user-tags to one resource. The remaining are reserved for AWS use
- The maximum length of a key is 128 characters
- The maximum length of a value is 256 characters
- Keys and values can only contain alphanumeric characters, spaces, and any of the following: `_.:/=+@-`
- Keys and values are case sensitive
- Keys and values are trimmed for any leading or trailing whitespaces
- Don't use `aws:` as a prefix for your keys. This prefix is reserved for AWS use

Type: Array of ResourceTag objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: No

Response Syntax

```
{
   "MonitorArn": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

MonitorArn

The unique identifier of your newly created cost anomaly detection monitor.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see Common Errors.

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

Examples

The following are sample requests and responses of the `CreateAnomalyMonitor` operation.

Example 1

The following example for the `CreateAnomalyMonitor` operation creates an AWS managed services monitor with resource tags.

Sample Request

```
{
    "AnomalyMonitor": {
        "MonitorName": "Monitor name",
        "MonitorType": "DIMENSIONAL",
        "MonitorDimension": "SERVICE"
    },
    "ResourceTags": [
        {
            "Key": "tag key",
            "Value": "tag value"
        }
    ]
}
```

Sample Response

```
{
    "MonitorArn": "arn:${partition}:ce::${account-id}:anomalymonitor/${monitor-id}"
}
```

Example 2

The following example for the `CreateAnomalyMonitor` operation creates an AWS managed linked account monitor.

Sample Request

```
{
    "AnomalyMonitor": {
        "MonitorName": "Monitor name",
        "MonitorType": "DIMENSIONAL",
        "MonitorDimension": "LINKED_ACCOUNT"
    }
}
```

Sample Response

```
{
    "MonitorArn": "arn:${partition}:ce::${account-id}:anomalymonitor/${monitor-id}"
}
```

Example 3

The following example for the `CreateAnomalyMonitor` operation creates an AWS managed cost allocation tag monitor.

Sample Request

```
{
    "AnomalyMonitor": {
        "MonitorName": "Monitor name",
        "MonitorType": "DIMENSIONAL",
        "MonitorDimension": "TAG",
        "MonitorSpecification": {
            "Tags": {
                "Key": "tag key"
            }
        }
    }
}
```

Sample Response

```
{
    "MonitorArn": "arn:${partition}:ce::${account-id}:anomalymonitor/${monitor-id}"
}
```

Example 4

The following example for the `CreateAnomalyMonitor` operation creates an AWS managed cost category monitor.

Sample Request

```
{
    "AnomalyMonitor": {
        "MonitorName": "Monitor name",
```

```
        "MonitorType": "DIMENSIONAL",
        "MonitorDimension": "COST_CATEGORY",
        "MonitorSpecification": {
            "CostCategories": {
                "Key": "cost category key"
            }
        }
    }
}
```

Sample Response

```
{
    "MonitorArn": "arn:${partition}:ce::${account-id}:anomalymonitor/${monitor-id}"
}
```

Example 5

The following example for the `CreateAnomalyMonitor` operation creates a customer managed linked account monitor. You can track up to ten linked accounts with a single monitor.

Sample Request

```
{
    "AnomalyMonitor": {
        "MonitorName": "Monitor name",
        "MonitorType": "CUSTOM",
        "MonitorSpecification": {
            "Dimensions": {
                "Key": "LINKED_ACCOUNT",
                "Values": [
                    "000011112222",
                    "111122223333"
                ]
            }
        }
    }
}
```

Sample Response

```
{
```

```
    "MonitorArn": "arn:${partition}:ce::${account-id}:anomalymonitor/${monitor-id}"
}
```

Example 6

The following example for the `CreateAnomalyMonitor` operation creates a customer managed cost allocation tag monitor. You can track up to ten tag values with a single monitor.

Sample Request

```
{
    "AnomalyMonitor": {
        "MonitorName": "Monitor name",
        "MonitorType": "CUSTOM",
        "MonitorSpecification": {
            "Tags": {
                "Key": "tag key",
                "Values": [
                    "tag value 1",
                    "tag value 2"
                ]
            }
        }
    }
}
```

Sample Response

```
{
    "MonitorArn": "arn:${partition}:ce::${account-id}:anomalymonitor/${monitor-id}"
}
```

Example 7

The following example for the `CreateAnomalyMonitor` operation creates a customer managed cost category monitor. You can track one value with a single monitor.

Sample Request

```
{
    "AnomalyMonitor": {
        "MonitorName": "Monitor name",
```

```
        "MonitorType": "CUSTOM",
        "MonitorSpecification": {
            "CostCategories": {
                "Key": "cost category key",
                "Values": [ "cost category value" ]
            }
        }
    }
}
```

Sample Response

```
{
    "MonitorArn": "arn:${partition}:ce::${account-id}:anomalymonitor/${monitor-id}"
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

CreateAnomalySubscription

Service: AWS Cost Explorer

Adds an alert subscription to a cost anomaly detection monitor. You can use each subscription to define subscribers with email or SNS notifications. Email subscribers can set an absolute or percentage threshold and a time frequency for receiving notifications.

Request Syntax

```
{
   "AnomalySubscription": {
      "AccountId": "string",
      "Frequency": "string",
      "MonitorArnList": [ "string" ],
      "Subscribers": [
         {
            "Address": "string",
            "Status": "string",
            "Type": "string"
         }
      ],
      "SubscriptionArn": "string",
      "SubscriptionName": "string",
      "Threshold": number,
      "ThresholdExpression": {
         "And": [
            "Expression"
         ],
         "CostCategories": {
            "Key": "string",
            "MatchOptions": [ "string" ],
            "Values": [ "string" ]
         },
         "Dimensions": {
            "Key": "string",
            "MatchOptions": [ "string" ],
            "Values": [ "string" ]
         },
         "Not": "Expression",
         "Or": [
            "Expression"
         ],
         "Tags": {
```

```
            "Key": "string",
            "MatchOptions": [ "string" ],
            "Values": [ "string" ]
         }
      }
   },
   "ResourceTags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

AnomalySubscription

The cost anomaly subscription object that you want to create.

Type: AnomalySubscription object

Required: Yes

ResourceTags

An optional list of tags to associate with the specified `AnomalySubscription`. You can use resource tags to control access to your `subscription` using IAM policies.

Each tag consists of a key and a value, and each key must be unique for the resource. The following restrictions apply to resource tags:

- Although the maximum number of array members is 200, you can assign a maximum of 50 user-tags to one resource. The remaining are reserved for AWS use
- The maximum length of a key is 128 characters
- The maximum length of a value is 256 characters
- Keys and values can only contain alphanumeric characters, spaces, and any of the following: `_.:/=+@-`

- Keys and values are case sensitive
- Keys and values are trimmed for any leading or trailing whitespaces
- Don't use `aws:` as a prefix for your keys. This prefix is reserved for AWS use

Type: Array of ResourceTag objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: No

Response Syntax

```
{
   "SubscriptionArn": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

SubscriptionArn

The unique identifier of your newly created cost anomaly subscription.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see Common Errors.

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

UnknownMonitorException

The cost anomaly monitor does not exist for the account.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

CreateCostCategoryDefinition

Service: AWS Cost Explorer

Creates a new cost category with the requested name and rules.

Request Syntax

```
{
   "DefaultValue": "string",
   "EffectiveStart": "string",
   "Name": "string",
   "ResourceTags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ],
   "Rules": [
      {
         "InheritedValue": {
            "DimensionKey": "string",
            "DimensionName": "string"
         },
         "Rule": {
            "And": [
               "Expression"
            ],
            "CostCategories": {
               "Key": "string",
               "MatchOptions": [ "string" ],
               "Values": [ "string" ]
            },
            "Dimensions": {
               "Key": "string",
               "MatchOptions": [ "string" ],
               "Values": [ "string" ]
            },
            "Not": "Expression",
            "Or": [
               "Expression"
            ],
            "Tags": {
               "Key": "string",
```

```
                "MatchOptions": [ "string" ],
                "Values": [ "string" ]
            }
         },
         "Type": "string",
         "Value": "string"
      }
   ],
   "RuleVersion": "string",
   "SplitChargeRules": [
      {
         "Method": "string",
         "Parameters": [
            {
               "Type": "string",
               "Values": [ "string" ]
            }
         ],
         "Source": "string",
         "Targets": [ "string" ]
      }
   ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

DefaultValue

The default value for the cost category.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `^(?! )[\p{L}\p{N}\p{Z}-_]*(?<! )$`

Required: No

EffectiveStart

The cost category's effective start date. It can only be a billing start date (first day of the month). If the date isn't provided, it's the first day of the current month. Dates can't be before the previous twelve months, or in the future.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([+-]\d\d:\d\d)|Z)$`

Required: No

Name

The unique name of the cost category.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `^(?! )[\p{L}\p{N}\p{Z}-_]*(?<! )$`

Required: Yes

ResourceTags

An optional list of tags to associate with the specified `CostCategory`. You can use resource tags to control access to your `cost category` using IAM policies.

Each tag consists of a key and a value, and each key must be unique for the resource. The following restrictions apply to resource tags:

- Although the maximum number of array members is 200, you can assign a maximum of 50 user-tags to one resource. The remaining are reserved for AWS use
- The maximum length of a key is 128 characters
- The maximum length of a value is 256 characters
- Keys and values can only contain alphanumeric characters, spaces, and any of the following: `_.:/=+@-`
- Keys and values are case sensitive
- Keys and values are trimmed for any leading or trailing whitespaces

- Don't use `aws:` as a prefix for your keys. This prefix is reserved for AWS use

Type: Array of ResourceTag objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: No

Rules

The cost category rules used to categorize costs. For more information, see CostCategoryRule.

Type: Array of CostCategoryRule objects

Array Members: Minimum number of 1 item. Maximum number of 500 items.

Required: Yes

RuleVersion

The rule schema version in this particular cost category.

Type: String

Valid Values: `CostCategoryExpression.v1`

Required: Yes

SplitChargeRules

The split charge rules used to allocate your charges between your cost category values.

Type: Array of CostCategorySplitChargeRule objects

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Required: No

Response Syntax

```
{
   "CostCategoryArn": "string",
   "EffectiveStart": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

CostCategoryArn

The unique identifier for your newly created cost category.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

EffectiveStart

The cost category's effective start date. It can only be a billing start date (first day of the month).

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([+-]\d\d:\d\d)|Z)$`

Errors

For information about the errors that are common to all actions, see Common Errors.

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

ServiceQuotaExceededException

You've reached the limit on the number of resources you can create, or exceeded the size of an individual resource.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DeleteAnomalyMonitor

Service: AWS Cost Explorer

Deletes a cost anomaly monitor.

Request Syntax

```
{
   "MonitorArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

MonitorArn

The unique identifier of the cost anomaly monitor that you want to delete.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

UnknownMonitorException

The cost anomaly monitor does not exist for the account.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DeleteAnomalySubscription

Service: AWS Cost Explorer

Deletes a cost anomaly subscription.

Request Syntax

```
{
   "SubscriptionArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

SubscriptionArn

The unique identifier of the cost anomaly subscription that you want to delete.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

UnknownSubscriptionException

The cost anomaly subscription does not exist for the account.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DeleteCostCategoryDefinition

Service: AWS Cost Explorer

Deletes a cost category. Expenses from this month going forward will no longer be categorized with this cost category.

Request Syntax

```
{
   "CostCategoryArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

CostCategoryArn

The unique identifier for your cost category.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: Yes

Response Syntax

```
{
   "CostCategoryArn": "string",
   "EffectiveEnd": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

CostCategoryArn

The unique identifier for your cost category.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

EffectiveEnd

The effective end date of the cost category as a result of deleting it. No costs after this date is categorized by the deleted cost category.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([+-]\d\d:\d\d)|Z)$`

Errors

For information about the errors that are common to all actions, see Common Errors.

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

ResourceNotFoundException

The specified ARN in the request doesn't exist.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DescribeCostCategoryDefinition

Service: AWS Cost Explorer

Returns the name, Amazon Resource Name (ARN), rules, definition, and effective dates of a cost category that's defined in the account.

You have the option to use `EffectiveOn` to return a cost category that's active on a specific date. If there's no `EffectiveOn` specified, you see a Cost Category that's effective on the current date. If cost category is still effective, `EffectiveEnd` is omitted in the response.

Request Syntax

```
{
   "CostCategoryArn": "string",
   "EffectiveOn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

CostCategoryArn

The unique identifier for your cost category.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: Yes

EffectiveOn

The date when the cost category was effective.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: ^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([+-]\d\d:\d\d)|Z)$

Required: No

Response Syntax

```
{
   "CostCategory": {
      "CostCategoryArn": "string",
      "DefaultValue": "string",
      "EffectiveEnd": "string",
      "EffectiveStart": "string",
      "Name": "string",
      "ProcessingStatus": [
         {
            "Component": "string",
            "Status": "string"
         }
      ],
      "Rules": [
         {
            "InheritedValue": {
               "DimensionKey": "string",
               "DimensionName": "string"
            },
            "Rule": {
               "And": [
                  "Expression"
               ],
               "CostCategories": {
                  "Key": "string",
                  "MatchOptions": [ "string" ],
                  "Values": [ "string" ]
               },
               "Dimensions": {
                  "Key": "string",
                  "MatchOptions": [ "string" ],
                  "Values": [ "string" ]
               },
               "Not": "Expression",
               "Or": [
                  "Expression"
               ],
```

```
            "Tags": {
               "Key": "string",
               "MatchOptions": [ "string" ],
               "Values": [ "string" ]
            }
         },
         "Type": "string",
         "Value": "string"
      }
   ],
   "RuleVersion": "string",
   "SplitChargeRules": [
      {
         "Method": "string",
         "Parameters": [
            {
               "Type": "string",
               "Values": [ "string" ]
            }
         ],
         "Source": "string",
         "Targets": [ "string" ]
      }
   ]
 }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

CostCategory

The structure of Cost Categories. This includes detailed metadata and the set of rules for the `CostCategory` object.

Type: CostCategory object

Errors

For information about the errors that are common to all actions, see Common Errors.

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

ResourceNotFoundException

The specified ARN in the request doesn't exist.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetAnomalies

Service: AWS Cost Explorer

Retrieves all of the cost anomalies detected on your account during the time period that's specified by the `DateInterval` object. Anomalies are available for up to 90 days.

Request Syntax

```
{
   "DateInterval": {
      "EndDate": "string",
      "StartDate": "string"
   },
   "Feedback": "string",
   "MaxResults": number,
   "MonitorArn": "string",
   "NextPageToken": "string",
   "TotalImpact": {
      "EndValue": number,
      "NumericOperator": "string",
      "StartValue": number
   }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

DateInterval

Assigns the start and end dates for retrieving cost anomalies. The returned anomaly object will have an `AnomalyEndDate` in the specified time range.

Type: AnomalyDateInterval object

Required: Yes

Feedback

Filters anomaly results by the feedback field on the anomaly object.

Type: String

Valid Values: `YES | NO | PLANNED_ACTIVITY`

Required: No

MaxResults

The number of entries a paginated response contains.

Type: Integer

Required: No

MonitorArn

Retrieves all of the cost anomalies detected for a specific cost anomaly monitor Amazon Resource Name (ARN).

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

NextPageToken

The token to retrieve the next set of results. AWS provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

TotalImpact

Filters anomaly results by the total impact field on the anomaly object. For example, you can filter anomalies `GREATER_THAN 200.00` to retrieve anomalies, with an estimated dollar impact greater than 200.

Type: TotalImpactFilter object

Required: No

Response Syntax

```
{
   "Anomalies": [
      {
         "AnomalyEndDate": "string",
         "AnomalyId": "string",
         "AnomalyScore": {
            "CurrentScore": number,
            "MaxScore": number
         },
         "AnomalyStartDate": "string",
         "DimensionValue": "string",
         "Feedback": "string",
         "Impact": {
            "MaxImpact": number,
            "TotalActualSpend": number,
            "TotalExpectedSpend": number,
            "TotalImpact": number,
            "TotalImpactPercentage": number
         },
         "MonitorArn": "string",
         "RootCauses": [
            {
               "Impact": {
                  "Contribution": number
               },
               "LinkedAccount": "string",
               "LinkedAccountName": "string",
               "Region": "string",
               "Service": "string",
               "UsageType": "string"
            }
         ]
      }
   ],
   "NextPageToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Anomalies

A list of cost anomalies.

Type: Array of Anomaly objects

NextPageToken

The token to retrieve the next set of results. AWS provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see Common Errors.

InvalidNextTokenException

The pagination token is invalid. Try again without a pagination token.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetAnomalyMonitors

Service: AWS Cost Explorer

Retrieves the cost anomaly monitor definitions for your account. You can filter using a list of cost anomaly monitor Amazon Resource Names (ARNs).

Request Syntax

```
{
   "MaxResults": number,
   "MonitorArnList": [ "string" ],
   "NextPageToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

MaxResults

The number of entries that a paginated response contains.

Type: Integer

Required: No

MonitorArnList

A list of cost anomaly monitor ARNs.

Type: Array of strings

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

NextPageToken

The token to retrieve the next set of results. AWS provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

Response Syntax

```
{
   "AnomalyMonitors": [
      {
         "CreationDate": "string",
         "DimensionalValueCount": number,
         "LastEvaluatedDate": "string",
         "LastUpdatedDate": "string",
         "MonitorArn": "string",
         "MonitorDimension": "string",
         "MonitorName": "string",
         "MonitorSpecification": {
            "And": [
               "Expression"
            ],
            "CostCategories": {
               "Key": "string",
               "MatchOptions": [ "string" ],
               "Values": [ "string" ]
            },
            "Dimensions": {
               "Key": "string",
               "MatchOptions": [ "string" ],
               "Values": [ "string" ]
            },
            "Not": "Expression",
            "Or": [
               "Expression"
            ],
            "Tags": {
               "Key": "string",
               "MatchOptions": [ "string" ],
               "Values": [ "string" ]
            }
```

```
         },
         "MonitorType": "string"
      }
   ],
   "NextPageToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

AnomalyMonitors

A list of cost anomaly monitors that includes the detailed metadata for each monitor.

Type: Array of AnomalyMonitor objects

NextPageToken

The token to retrieve the next set of results. AWS provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see Common Errors.

InvalidNextTokenException

The pagination token is invalid. Try again without a pagination token.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

UnknownMonitorException

The cost anomaly monitor does not exist for the account.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetAnomalySubscriptions

Service: AWS Cost Explorer

Retrieves the cost anomaly subscription objects for your account. You can filter using a list of cost anomaly monitor Amazon Resource Names (ARNs).

Request Syntax

```
{
   "MaxResults": number,
   "MonitorArn": "string",
   "NextPageToken": "string",
   "SubscriptionArnList": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

MaxResults

The number of entries a paginated response contains.

Type: Integer

Required: No

MonitorArn

Cost anomaly monitor ARNs.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

NextPageToken

The token to retrieve the next set of results. AWS provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

SubscriptionArnList

A list of cost anomaly subscription ARNs.

Type: Array of strings

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Response Syntax

```
{
   "AnomalySubscriptions": [
      {
         "AccountId": "string",
         "Frequency": "string",
         "MonitorArnList": [ "string" ],
         "Subscribers": [
            {
               "Address": "string",
               "Status": "string",
               "Type": "string"
            }
         ],
         "SubscriptionArn": "string",
         "SubscriptionName": "string",
         "Threshold": number,
         "ThresholdExpression": {
            "And": [
               "Expression"
            ],
            "CostCategories": {
```

```
                "Key": "string",
                "MatchOptions": [ "string" ],
                "Values": [ "string" ]
            },
            "Dimensions": {
                "Key": "string",
                "MatchOptions": [ "string" ],
                "Values": [ "string" ]
            },
            "Not": "Expression",
            "Or": [
                "Expression"
            ],
            "Tags": {
                "Key": "string",
                "MatchOptions": [ "string" ],
                "Values": [ "string" ]
            }
        }
    }
  ],
  "NextPageToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

AnomalySubscriptions

A list of cost anomaly subscriptions that includes the detailed metadata for each one.

Type: Array of AnomalySubscription objects

NextPageToken

The token to retrieve the next set of results. AWS provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see Common Errors.

InvalidNextTokenException

The pagination token is invalid. Try again without a pagination token.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

UnknownSubscriptionException

The cost anomaly subscription does not exist for the account.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetApproximateUsageRecords

Service: AWS Cost Explorer

Retrieves estimated usage records for hourly granularity or resource-level data at daily granularity.

Request Syntax

```
{
   "ApproximationDimension": "string",
   "Granularity": "string",
   "Services": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

ApproximationDimension

The service to evaluate for the usage records. You can choose resource-level data at daily granularity, or hourly granularity with or without resource-level data.

Type: String

Valid Values: `SERVICE | RESOURCE`

Required: Yes

Granularity

How granular you want the data to be. You can enable data at hourly or daily granularity.

Type: String

Valid Values: `DAILY | MONTHLY | HOURLY`

Required: Yes

Services

The service metadata for the service or services you want to query. If not specified, all elements are returned.

Type: Array of strings

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: [\S\s]*

Required: No

Response Syntax

```
{
   "LookbackPeriod": {
      "End": "string",
      "Start": "string"
   },
   "Services": {
      "string" : number
   },
   "TotalRecords": number
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

LookbackPeriod

The lookback period that's used for the estimation.

Type: DateInterval object

Services

The service metadata for the service or services in the response.

Type: String to long map

Key Length Constraints: Minimum length of 0. Maximum length of 1024.

Key Pattern: [\S\s]*

Valid Range: Minimum value of 0.

TotalRecords

The total number of usage records for all services in the services list.

Type: Long

Valid Range: Minimum value of 0.

Errors

For information about the errors that are common to all actions, see Common Errors.

DataUnavailableException

The requested data is unavailable.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

Examples

The following is a sample request of the GetApproximateUsageRecords operation.

This example illustrates one usage of GetApproximateUsageRecords.

Sample Request

```
{
    "ApproximationDimension":"SERVICE",
    "Granularity": "HOURLY"
 }
```

The following is a sample response of the GetApproximateUsageRecords operation.

This example illustrates one usage of GetApproximateUsageRecords.

Sample Response

```
{
    "LookbackPeriod": {
        "End": "2023-12-31",
        "Start": "2023-12-01"
    },
    "Services": {
        "Amazon Virtual Private Cloud": 336,
        "Amazon Relational Database Service": 1344,
        "AmazonCloudWatch": 350,
        "Tax": 0,
        "Amazon DynamoDB": 672
    },
    "TotalRecords": 2702
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetCommitmentPurchaseAnalysis

Service: AWS Cost Explorer

Retrieves a commitment purchase analysis result based on the `AnalysisId`.

Request Syntax

```
{
   "AnalysisId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

AnalysisId

The analysis ID that's associated with the commitment purchase analysis.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `^[\S\s]{8}-[\S\s]{4}-[\S\s]{4}-[\S\s]{4}-[\S\s]{12}$`

Required: Yes

Response Syntax

```
{
   "AnalysisCompletionTime": "string",
   "AnalysisDetails": {
      "SavingsPlansPurchaseAnalysisDetails": {
         "AdditionalMetadata": "string",
         "CurrencyCode": "string",
         "CurrentAverageCoverage": "string",
         "CurrentAverageHourlyOnDemandSpend": "string",
         "CurrentMaximumHourlyOnDemandSpend": "string",
         "CurrentMinimumHourlyOnDemandSpend": "string",
         "CurrentOnDemandSpend": "string",
         "EstimatedAverageCoverage": "string",
```

```
        "EstimatedAverageUtilization": "string",
        "EstimatedCommitmentCost": "string",
        "EstimatedMonthlySavingsAmount": "string",
        "EstimatedOnDemandCost": "string",
        "EstimatedOnDemandCostWithCurrentCommitment": "string",
        "EstimatedROI": "string",
        "EstimatedSavingsAmount": "string",
        "EstimatedSavingsPercentage": "string",
        "ExistingHourlyCommitment": "string",
        "HourlyCommitmentToPurchase": "string",
        "LatestUsageTimestamp": "string",
        "LookbackPeriodInHours": "string",
        "MetricsOverLookbackPeriod": [
           {
              "CurrentCoverage": "string",
              "EstimatedCoverage": "string",
              "EstimatedNewCommitmentUtilization": "string",
              "EstimatedOnDemandCost": "string",
              "StartTime": "string"
           }
        ],
        "UpfrontCost": "string"
     }
  },
  "AnalysisId": "string",
  "AnalysisStartedTime": "string",
  "AnalysisStatus": "string",
  "CommitmentPurchaseAnalysisConfiguration": {
     "SavingsPlansPurchaseAnalysisConfiguration": {
        "AccountId": "string",
        "AccountScope": "string",
        "AnalysisType": "string",
        "LookBackTimePeriod": {
           "End": "string",
           "Start": "string"
        },
        "SavingsPlansToAdd": [
           {
              "InstanceFamily": "string",
              "OfferingId": "string",
              "PaymentOption": "string",
              "Region": "string",
              "SavingsPlansCommitment": number,
              "SavingsPlansType": "string",
```

```
                "TermInYears": "string"
            }
         ],
         "SavingsPlansToExclude": [ "string" ]
      }
   },
   "ErrorCode": "string",
   "EstimatedCompletionTime": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

AnalysisCompletionTime

The completion time of the analysis.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([+-]\d\d:\d\d)|Z)$`

AnalysisDetails

Details about the analysis.

Type: AnalysisDetails object

AnalysisId

The analysis ID that's associated with the commitment purchase analysis.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `^[\S\s]{8}-[\S\s]{4}-[\S\s]{4}-[\S\s]{4}-[\S\s]{12}$`

AnalysisStartedTime

The start time of the analysis.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([+-]\d\d:\d\d)|Z)$`

AnalysisStatus

The status of the analysis.

Type: String

Valid Values: `SUCCEEDED | PROCESSING | FAILED`

CommitmentPurchaseAnalysisConfiguration

The configuration for the commitment purchase analysis.

Type: CommitmentPurchaseAnalysisConfiguration object

ErrorCode

The error code used for the analysis.

Type: String

Valid Values: `NO_USAGE_FOUND | INTERNAL_FAILURE | INVALID_SAVINGS_PLANS_TO_ADD | INVALID_SAVINGS_PLANS_TO_EXCLUDE | INVALID_ACCOUNT_ID`

EstimatedCompletionTime

The estimated time for when the analysis will complete.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([+-]\d\d:\d\d)|Z)$`

Errors

For information about the errors that are common to all actions, see Common Errors.

AnalysisNotFoundException

The requested analysis can't be found.

HTTP Status Code: 400

DataUnavailableException

The requested data is unavailable.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetCostAndUsage

Service: AWS Cost Explorer

Retrieves cost and usage metrics for your account. You can specify which cost and usage-related metric that you want the request to return. For example, you can specify `BlendedCosts` or `UsageQuantity`. You can also filter and group your data by various dimensions, such as `SERVICE` or AZ, in a specific time range. For a complete list of valid dimensions, see the GetDimensionValues operation. Management account in an organization in AWS Organizations have access to all member accounts.

For information about filter limitations, see Quotas and restrictions in the *Billing and Cost Management User Guide*.

Request Syntax

```
{
   "BillingViewArn": "string",
   "Filter": {
      "And": [
         "Expression"
      ],
      "CostCategories": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      },
      "Dimensions": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      },
      "Not": "Expression",
      "Or": [
         "Expression"
      ],
      "Tags": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      }
   },
   "Granularity": "string",
```

```
   "GroupBy": [
      {
         "Key": "string",
         "Type": "string"
      }
   ],
   "Metrics": [ "string" ],
   "NextPageToken": "string",
   "TimePeriod": {
      "End": "string",
      "Start": "string"
   }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

BillingViewArn

The Amazon Resource Name (ARN) that uniquely identifies a specific billing view. The ARN is used to specify which particular billing view you want to interact with or retrieve information from when making API calls related to AWS Billing and Cost Management features. The BillingViewArn can be retrieved by calling the ListBillingViews API.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[-a-zA-Z0-9/:_+=.-@]{1,43}$`

Required: No

Filter

Filters AWS costs by different dimensions. For example, you can specify `SERVICE` and `LINKED_ACCOUNT` and get the costs that are associated with that account's usage of that service. You can nest `Expression` objects to define any combination of dimension filters. For more information, see Expression.

Valid values for `MatchOptions` for `Dimensions` are `EQUALS` and `CASE_SENSITIVE`.

Valid values for `MatchOptions` for `CostCategories` and `Tags` are `EQUALS`, `ABSENT`, and `CASE_SENSITIVE`. Default values are `EQUALS` and `CASE_SENSITIVE`.

Type: Expression object

Required: No

Granularity

Sets the AWS cost granularity to `MONTHLY` or `DAILY`, or `HOURLY`. If `Granularity` isn't set, the response object doesn't include the `Granularity`, either `MONTHLY` or `DAILY`, or `HOURLY`.

Type: String

Valid Values: `DAILY | MONTHLY | HOURLY`

Required: Yes

GroupBy

You can group AWS costs using up to two different groups, either dimensions, tag keys, cost categories, or any two group by types.

Valid values for the `DIMENSION` type are `AZ`, `INSTANCE_TYPE`, `LEGAL_ENTITY_NAME`, `INVOICING_ENTITY`, `LINKED_ACCOUNT`, `OPERATION`, `PLATFORM`, `PURCHASE_TYPE`, `SERVICE`, `TENANCY`, `RECORD_TYPE`, and `USAGE_TYPE`.

When you group by the `TAG` type and include a valid tag key, you get all tag values, including empty strings.

Type: Array of GroupDefinition objects

Required: No

Metrics

Which metrics are returned in the query. For more information about blended and unblended rates, see Why does the "blended" annotation appear on some line items in my bill?.

Valid values are `AmortizedCost`, `BlendedCost`, `NetAmortizedCost`, `NetUnblendedCost`, `NormalizedUsageAmount`, `UnblendedCost`, and `UsageQuantity`.

> **Note**
>
> If you return the `UsageQuantity` metric, the service aggregates all usage numbers without taking into account the units. For example, if you aggregate `usageQuantity` across all of Amazon EC2, the results aren't meaningful because Amazon EC2 compute hours and data transfer are measured in different units (for example, hours and GB). To get more meaningful `UsageQuantity` metrics, filter by `UsageType` or `UsageTypeGroups`.

`Metrics` is required for `GetCostAndUsage` requests.

Type: Array of strings

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

NextPageToken

The token to retrieve the next set of results. AWS provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

TimePeriod

Sets the start date and end date for retrieving AWS costs. The start date is inclusive, but the end date is exclusive. For example, if `start` is `2017-01-01` and end is `2017-05-01`, then the cost and usage data is retrieved from `2017-01-01` up to and including `2017-04-30` but not including `2017-05-01`.

Type: DateInterval object

Required: Yes

Response Syntax

```
{
   "DimensionValueAttributes": [
      {
         "Attributes": {
            "string" : "string"
         },
         "Value": "string"
      }
   ],
   "GroupDefinitions": [
      {
         "Key": "string",
         "Type": "string"
      }
   ],
   "NextPageToken": "string",
   "ResultsByTime": [
      {
         "Estimated": boolean,
         "Groups": [
            {
               "Keys": [ "string" ],
               "Metrics": {
                  "string" : {
                     "Amount": "string",
                     "Unit": "string"
                  }
               }
            }
         ],
         "TimePeriod": {
            "End": "string",
            "Start": "string"
         },
         "Total": {
            "string" : {
               "Amount": "string",
               "Unit": "string"
            }
```

```
            }
        }
    ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

DimensionValueAttributes

The attributes that apply to a specific dimension value. For example, if the value is a linked account, the attribute is that account name.

Type: Array of DimensionValuesWithAttributes objects

GroupDefinitions

The groups that are specified by the `Filter` or `GroupBy` parameters in the request.

Type: Array of GroupDefinition objects

NextPageToken

The token for the next set of retrievable results. AWS provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

ResultsByTime

The time period that's covered by the results in the response.

Type: Array of ResultByTime objects

Errors

For information about the errors that are common to all actions, see Common Errors.

BillExpirationException

The requested report expired. Update the date interval and try again.

HTTP Status Code: 400

BillingViewHealthStatusException

The billing view status must be HEALTHY to perform this action. Try again when the status is HEALTHY.

HTTP Status Code: 400

DataUnavailableException

The requested data is unavailable.

HTTP Status Code: 400

InvalidNextTokenException

The pagination token is invalid. Try again without a pagination token.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

RequestChangedException

Your request parameters changed between pages. Try again with the old parameters or without a pagination token.

HTTP Status Code: 400

ResourceNotFoundException

The specified ARN in the request doesn't exist.

HTTP Status Code: 400

Examples

Example

The following is a sample request and response of the `GetCostAndUsage` operation that you can use to retrieve your Amazon S3 costs. For more complex examples, such as multi-level groupings, see Expression.

Sample Request

```
POST / HTTP/1.1
Host: ce.us-east-1.amazonaws.com
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
 SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSInsightsIndexService.GetCostAndUsage
{
  "TimePeriod": {
    "Start":"2017-09-01",
    "End": "2017-10-01"
  },
  "Granularity": "MONTHLY",
  "Filter": {
    "Dimensions": {
      "Key": "SERVICE",
      "Values": [
        "Amazon Simple Storage Service"
      ]
    }
  },
  "GroupBy":[
    {
      "Type":"DIMENSION",
      "Key":"SERVICE"
    },
    {
      "Type":"TAG",
      "Key":"Environment"
```

```
    }
  ],
   "Metrics":["BlendedCost", "UnblendedCost", "UsageQuantity"]
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
  "GroupDefinitions": [
    {
      "Key": "SERVICE",
      "Type": "DIMENSION"
    },
    {
      "Key": "Environment",
      "Type": "TAG"
    }
  ],
  "ResultsByTime": [
    {
      "Estimated": false,
      "Groups": [
        {
          "Keys": [
            "Amazon Simple Storage Service",
            "Environment$Prod"
          ],
          "Metrics": {
            "BlendedCost": {
              "Amount": "39.1603300457",
              "Unit": "USD"
            },
            "UnblendedCost": {
              "Amount": "39.1603300457",
              "Unit": "USD"
            },
            "UsageQuantity": {
              "Amount": "173842.5440074444",
```

```
              "Unit": "N/A"
            }
          }
        },
        {
          "Keys": [
            "Amazon Simple Storage Service",
            "Environment$Test"
          ],
          "Metrics": {
            "BlendedCost": {
              "Amount": "0.1337464807",
              "Unit": "USD"
            },
            "UnblendedCost": {
             "Amount": "0.1337464807",
              "Unit": "USD"
            },
            "UsageQuantity": {
              "Amount": "15992.0786663399",
              "Unit": "N/A"
            }
          }
        }
      ],
      "TimePeriod": {
        "End": "2017-10-01",
        "Start": "2017-09-01"
      },
      "Total": {}
    }
  ]
}
```


See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++

- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetCostAndUsageComparisons

Service: AWS Cost Explorer

Retrieves cost and usage comparisons for your account between two periods within the last 13 months. If you have enabled multi-year data at monthly granularity, you can go back up to 38 months.

Request Syntax

```
{
   "BaselineTimePeriod": {
      "End": "string",
      "Start": "string"
   },
   "BillingViewArn": "string",
   "ComparisonTimePeriod": {
      "End": "string",
      "Start": "string"
   },
   "Filter": {
      "And": [
         "Expression"
      ],
      "CostCategories": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      },
      "Dimensions": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      },
      "Not": "Expression",
      "Or": [
         "Expression"
      ],
      "Tags": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      }
   },
```

```
   "GroupBy": [
      {
         "Key": "string",
         "Type": "string"
      }
   ],
   "MaxResults": number,
   "MetricForComparison": "string",
   "NextPageToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

BaselineTimePeriod

The reference time period for comparison. This time period serves as the baseline against which other cost and usage data will be compared. The interval must start and end on the first day of a month, with a duration of exactly one month.

Type: DateInterval object

Required: Yes

BillingViewArn

The Amazon Resource Name (ARN) that uniquely identifies a specific billing view. The ARN is used to specify which particular billing view you want to interact with or retrieve information from when making API calls related to AWS Billing and Cost Management features. The BillingViewArn can be retrieved by calling the ListBillingViews API.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[-a-zA-Z0-9/:_+=.-@]{1,43}$`

Required: No

ComparisonTimePeriod

The comparison time period for analysis. This time period's cost and usage data will be compared against the baseline time period. The interval must start and end on the first day of a month, with a duration of exactly one month.

Type: DateInterval object

Required: Yes

Filter

Use `Expression` to filter in various Cost Explorer APIs.

Not all `Expression` types are supported in each API. Refer to the documentation for each specific API to see what is supported.

There are two patterns:

- Simple dimension values.
  - There are three types of simple dimension values: `CostCategories`, `Tags`, and `Dimensions`.
    - Specify the `CostCategories` field to define a filter that acts on Cost Categories.
    - Specify the `Tags` field to define a filter that acts on Cost Allocation Tags.
    - Specify the `Dimensions` field to define a filter that acts on the `DimensionValues`.
  - For each filter type, you can set the dimension name and values for the filters that you plan to use.
    - For example, you can filter for `REGION==us-east-1 OR REGION==us-west-1`. For `GetRightsizingRecommendation`, the Region is a full name (for example, `REGION==US East (N. Virginia)`.
    - The corresponding `Expression` for this example is as follows: `{ "Dimensions": { "Key": "REGION", "Values": [ "us-east-1", "us-west-1" ] } }`
    - As shown in the previous example, lists of dimension values are combined with `OR` when applying the filter.
  - You can also set different match options to further control how the filter behaves. Not all APIs support match options. Refer to the documentation for each specific API to see what is supported.
    - For example, you can filter for linked account names that start with "a".

  - The corresponding `Expression` for this example is as follows: `{ "Dimensions": { "Key": "LINKED_ACCOUNT_NAME", "MatchOptions": [ "STARTS_WITH" ], "Values": [ "a" ] } }`

- Compound `Expression` types with logical operations.
  - You can use multiple `Expression` types and the logical operators `AND/OR/NOT` to create a list of one or more `Expression` objects. By doing this, you can filter by more advanced options.
  - For example, you can filter by `((REGION == us-east-1 OR REGION == us-west-1) OR (TAG.Type == Type1)) AND (USAGE_TYPE != DataTransfer)`.
  - The corresponding `Expression` for this example is as follows: `{ "And": [ {"Or": [ {"Dimensions": { "Key": "REGION", "Values": [ "us-east-1", "us-west-1" ] }}, {"Tags": { "Key": "TagName", "Values": ["Value1"] } } ]}, {"Not": {"Dimensions": { "Key": "USAGE_TYPE", "Values": ["DataTransfer"] }}} ] }`

> **Note**
>
> Because each `Expression` can have only one operator, the service returns an error if more than one is specified. The following example shows an `Expression` object that creates an error: `{ "And": [ ... ], "Dimensions": { "Key": "USAGE_TYPE", "Values": [ "DataTransfer" ] } }`
>
> The following is an example of the corresponding error message: `"Expression has more than one roots. Only one root operator is allowed for each expression: And, Or, Not, Dimensions, Tags, CostCategories"`

> **Note**
>
> For the `GetRightsizingRecommendation` action, a combination of OR and NOT isn't supported. OR isn't supported between different dimensions, or dimensions and tags. NOT operators aren't supported. Dimensions are also limited to `LINKED_ACCOUNT`, `REGION`, or `RIGHTSIZING_TYPE`.
>
> For the `GetReservationPurchaseRecommendation` action, only NOT is supported. AND and OR aren't supported. Dimensions are limited to `LINKED_ACCOUNT`.

Type: Expression object

Required: No

GroupBy

You can group results using the attributes DIMENSION, TAG, and COST_CATEGORY.

Type: Array of GroupDefinition objects

Required: No

MaxResults

The maximum number of results that are returned for the request.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 2000.

Required: No

MetricForComparison

The cost and usage metric to compare. Valid values are AmortizedCost, BlendedCost, NetAmortizedCost, NetUnblendedCost, NormalizedUsageAmount, UnblendedCost, and UsageQuantity.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: [\S\s]*

Required: Yes

NextPageToken

The token to retrieve the next set of paginated results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: [\S\s]*

Required: No

Response Syntax

```
{
   "CostAndUsageComparisons": [
      {
         "CostAndUsageSelector": {
            "And": [
               "Expression"
            ],
            "CostCategories": {
               "Key": "string",
               "MatchOptions": [ "string" ],
               "Values": [ "string" ]
            },
            "Dimensions": {
               "Key": "string",
               "MatchOptions": [ "string" ],
               "Values": [ "string" ]
            },
            "Not": "Expression",
            "Or": [
               "Expression"
            ],
            "Tags": {
               "Key": "string",
               "MatchOptions": [ "string" ],
               "Values": [ "string" ]
            }
         },
         "Metrics": {
            "string" : {
               "BaselineTimePeriodAmount": "string",
               "ComparisonTimePeriodAmount": "string",
               "Difference": "string",
               "Unit": "string"
            }
         }
      }
   ],
   "NextPageToken": "string",
   "TotalCostAndUsage": {
```

```
      "string" : {
         "BaselineTimePeriodAmount": "string",
         "ComparisonTimePeriodAmount": "string",
         "Difference": "string",
         "Unit": "string"
      }
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

CostAndUsageComparisons

An array of comparison results showing cost and usage metrics between `BaselineTimePeriod` and `ComparisonTimePeriod`.

Type: Array of CostAndUsageComparison objects

NextPageToken

The token to retrieve the next set of paginated results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

TotalCostAndUsage

A summary of the total cost and usage, comparing amounts between `BaselineTimePeriod` and `ComparisonTimePeriod` and their differences. This total represents the aggregate total across all paginated results, if the response spans multiple pages.

Type: String to ComparisonMetricValue object map

Key Length Constraints: Minimum length of 0. Maximum length of 1024.

Key Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see Common Errors.

BillingViewHealthStatusException

The billing view status must be HEALTHY to perform this action. Try again when the status is HEALTHY.

HTTP Status Code: 400

DataUnavailableException

The requested data is unavailable.

HTTP Status Code: 400

InvalidNextTokenException

The pagination token is invalid. Try again without a pagination token.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

ResourceNotFoundException

The specified ARN in the request doesn't exist.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2

- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetCostAndUsageWithResources

Service: AWS Cost Explorer

Retrieves cost and usage metrics with resources for your account. You can specify which cost and usage-related metric, such as `BlendedCosts` or `UsageQuantity`, that you want the request to return. You can also filter and group your data by various dimensions, such as `SERVICE` or `AZ`, in a specific time range. For a complete list of valid dimensions, see the GetDimensionValues operation. Management account in an organization in AWS Organizations have access to all member accounts.

Hourly granularity is only available for EC2-Instances (Elastic Compute Cloud) resource-level data. All other resource-level data is available at daily granularity.

> **Note**
>
> This is an opt-in only feature. You can enable this feature from the Cost Explorer Settings page. For information about how to access the Settings page, see Controlling Access for Cost Explorer in the *AWS Billing and Cost Management User Guide*.

Request Syntax

```
{
   "BillingViewArn": "string",
   "Filter": {
      "And": [
         "Expression"
      ],
      "CostCategories": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      },
      "Dimensions": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      },
      "Not": "Expression",
      "Or": [
         "Expression"
      ],
```

```
      "Tags": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      }
   },
   "Granularity": "string",
   "GroupBy": [
      {
         "Key": "string",
         "Type": "string"
      }
   ],
   "Metrics": [ "string" ],
   "NextPageToken": "string",
   "TimePeriod": {
      "End": "string",
      "Start": "string"
   }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

BillingViewArn

The Amazon Resource Name (ARN) that uniquely identifies a specific billing view. The ARN is used to specify which particular billing view you want to interact with or retrieve information from when making API calls related to AWS Billing and Cost Management features. The BillingViewArn can be retrieved by calling the ListBillingViews API.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[-a-zA-Z0-9/:_+=.-@]{1,43}$`

Required: No

Filter

Filters Amazon Web Services costs by different dimensions. For example, you can specify `SERVICE` and `LINKED_ACCOUNT` and get the costs that are associated with that account's usage of that service. You can nest `Expression` objects to define any combination of dimension filters. For more information, see Expression.

The `GetCostAndUsageWithResources` operation requires that you either group by or filter by a `ResourceId`. It requires the Expression `"SERVICE = Amazon Elastic Compute Cloud - Compute"` in the filter.

Valid values for `MatchOptions` for `Dimensions` are `EQUALS` and `CASE_SENSITIVE`.

Valid values for `MatchOptions` for `CostCategories` and `Tags` are `EQUALS`, `ABSENT`, and `CASE_SENSITIVE`. Default values are `EQUALS` and `CASE_SENSITIVE`.

Type: Expression object

Required: Yes

Granularity

Sets the AWS cost granularity to `MONTHLY`, `DAILY`, or `HOURLY`. If `Granularity` isn't set, the response object doesn't include the `Granularity`, `MONTHLY`, `DAILY`, or `HOURLY`.

Type: String

Valid Values: `DAILY | MONTHLY | HOURLY`

Required: Yes

GroupBy

You can group Amazon Web Services costs using up to two different groups: `DIMENSION`, `TAG`, `COST_CATEGORY`.

Type: Array of GroupDefinition objects

Required: No

Metrics

Which metrics are returned in the query. For more information about blended and unblended rates, see Why does the "blended" annotation appear on some line items in my bill?.

Valid values are `AmortizedCost`, `BlendedCost`, `NetAmortizedCost`, `NetUnblendedCost`, `NormalizedUsageAmount`, `UnblendedCost`, and `UsageQuantity`.

> **Note**
>
> If you return the `UsageQuantity` metric, the service aggregates all usage numbers without taking the units into account. For example, if you aggregate `usageQuantity` across all of Amazon EC2, the results aren't meaningful because Amazon EC2 compute hours and data transfer are measured in different units (for example, hour or GB). To get more meaningful `UsageQuantity` metrics, filter by `UsageType` or `UsageTypeGroups`.

`Metrics` is required for `GetCostAndUsageWithResources` requests.

Type: Array of strings

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

NextPageToken

The token to retrieve the next set of results. AWS provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

TimePeriod

Sets the start and end dates for retrieving Amazon Web Services costs. The range must be within the last 14 days (the start date cannot be earlier than 14 days ago). The start date is inclusive, but the end date is exclusive. For example, if `start` is `2017-01-01` and end is `2017-05-01`, then the cost and usage data is retrieved from `2017-01-01` up to and including `2017-04-30` but not including `2017-05-01`.

Type: DateInterval object

Required: Yes

Response Syntax

```
{
   "DimensionValueAttributes": [
      {
         "Attributes": {
            "string" : "string"
         },
         "Value": "string"
      }
   ],
   "GroupDefinitions": [
      {
         "Key": "string",
         "Type": "string"
      }
   ],
   "NextPageToken": "string",
   "ResultsByTime": [
      {
         "Estimated": boolean,
         "Groups": [
            {
               "Keys": [ "string" ],
               "Metrics": {
                  "string" : {
                     "Amount": "string",
                     "Unit": "string"
                  }
               }
            }
         ],
         "TimePeriod": {
            "End": "string",
            "Start": "string"
         },
         "Total": {
            "string" : {
               "Amount": "string",
               "Unit": "string"
            }
```

```
            }
        }
    ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

DimensionValueAttributes

The attributes that apply to a specific dimension value. For example, if the value is a linked account, the attribute is that account name.

Type: Array of DimensionValuesWithAttributes objects

GroupDefinitions

The groups that are specified by the `Filter` or `GroupBy` parameters in the request.

Type: Array of GroupDefinition objects

NextPageToken

The token for the next set of retrievable results. AWS provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

ResultsByTime

The time period that's covered by the results in the response.

Type: Array of ResultByTime objects

Errors

For information about the errors that are common to all actions, see Common Errors.

BillExpirationException

The requested report expired. Update the date interval and try again.

HTTP Status Code: 400

BillingViewHealthStatusException

The billing view status must be HEALTHY to perform this action. Try again when the status is HEALTHY.

HTTP Status Code: 400

DataUnavailableException

The requested data is unavailable.

HTTP Status Code: 400

InvalidNextTokenException

The pagination token is invalid. Try again without a pagination token.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

RequestChangedException

Your request parameters changed between pages. Try again with the old parameters or without a pagination token.

HTTP Status Code: 400

ResourceNotFoundException

The specified ARN in the request doesn't exist.

HTTP Status Code: 400

Examples

Example

The following is a sample request and response of the `GetCostAndUsageWithResources` operation that enables you to retrieve your Amazon EC2 costs. For more complex examples, such as multi-level groupings, see Expression.

Sample Request

```
POST / HTTP/1.1
Host: ce.us-east-1.amazonaws.com
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
 SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSInsightsIndexService.GetCostAndUsageWithResources
{
  "TimePeriod": {
    "Start":"2018-11-19",
    "End": "2018-11-20"
  },
  "Granularity": "DAILY",
  "Filter": {
    "Dimensions": {
      "Key": "SERVICE",
      "Values": [
        "Amazon Elastic Compute Cloud - Compute"
      ]
    }
  },
  "GroupBy":[
    {
      "Type":"DIMENSION",
      "Key":"RESOURCE_ID"
    }
  ],
   "Metrics":["BlendedCost", "UnblendedCost", "UsageQuantity"]
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
  "GroupDefinitions": [
    {
      "Key": "RESOURCE_ID",
      "Type": "DIMENSION"
    }
  ],
  "ResultsByTime": [
    {
      "Estimated": true,
      "Groups": [
        {
          "Keys": [
            "i-00cb32c5f3163"
          ],
          "Metrics": {
            "BlendedCost": {
              "Amount": "0.0927335232",
              "Unit": "USD"
            },
            "UnblendedCost": {
              "Amount": "0.1276",
              "Unit": "USD"
            },
            "UsageQuantity": {
              "Amount": "24.0010557602",
              "Unit": "N/A"
            }
          }
        },
        {
          "Keys": [
            "i-04a0089019f41"
          ],
          "Metrics": {
            "BlendedCost": {
              "Amount": "0.1656",
```

```
            "Unit": "USD"
          },
          "UnblendedCost": {
            "Amount": "0.1656",
            "Unit": "USD"
          },
          "UsageQuantity": {
            "Amount": "24.0018044403",
            "Unit": "N/A"
          }
        }
      },
      {
        "Keys": [
          "i-03b49bda9fdef"
        ],
        "Metrics": {
          "BlendedCost": {
            "Amount": "0.0927335232",
            "Unit": "USD"
          },
          "UnblendedCost": {
            "Amount": "0.0116",
            "Unit": "USD"
          },
          "UsageQuantity": {
            "Amount": "24.0009345564",
            "Unit": "N/A"
          }
        }
      },
      {
        "Keys": [
          "i-0e56e09d11711"
        ],
        "Metrics": {
          "BlendedCost": {
            "Amount": "0.0927335232",
            "Unit": "USD"
          },
          "UnblendedCost": {
            "Amount": "0.1392",
            "Unit": "USD"
          },
```

```
            "UsageQuantity": {
              "Amount": "24.0011066563",
              "Unit": "N/A"
            }
          }
        }
      ],
      "TimePeriod": {
        "End": "2018-11-20T00:00:00Z",
        "Start": "2018-11-19T00:00:00Z"
      },
      "Total": {}
    }
  ]
}
```


See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetCostCategories

Service: AWS Cost Explorer

Retrieves an array of cost category names and values incurred cost.

> **Note**
>
> If some cost category names and values are not associated with any cost, they will not be returned by this API.

Request Syntax

```
{
   "BillingViewArn": "string",
   "CostCategoryName": "string",
   "Filter": {
      "And": [
         "Expression"
      ],
      "CostCategories": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      },
      "Dimensions": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      },
      "Not": "Expression",
      "Or": [
         "Expression"
      ],
      "Tags": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      }
   },
   "MaxResults": number,
   "NextPageToken": "string",
```

```
   "SearchString": "string",
   "SortBy": [
      {
         "Key": "string",
         "SortOrder": "string"
      }
   ],
   "TimePeriod": {
      "End": "string",
      "Start": "string"
   }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

BillingViewArn

The Amazon Resource Name (ARN) that uniquely identifies a specific billing view. The ARN is used to specify which particular billing view you want to interact with or retrieve information from when making API calls related to AWS Billing and Cost Management features. The BillingViewArn can be retrieved by calling the ListBillingViews API.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[-a-zA-Z0-9/:_+=.-@]{1,43}$`

Required: No

CostCategoryName

The unique name of the cost category.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `^(?! )[\p{L}\p{N}\p{Z}-_]*(?<! )$`

Required: No

Filter

Use `Expression` to filter in various Cost Explorer APIs.

Not all `Expression` types are supported in each API. Refer to the documentation for each specific API to see what is supported.

There are two patterns:

- Simple dimension values.
  - There are three types of simple dimension values: `CostCategories`, `Tags`, and `Dimensions`.
    - Specify the `CostCategories` field to define a filter that acts on Cost Categories.
    - Specify the `Tags` field to define a filter that acts on Cost Allocation Tags.
    - Specify the `Dimensions` field to define a filter that acts on the `DimensionValues`.
  - For each filter type, you can set the dimension name and values for the filters that you plan to use.
    - For example, you can filter for `REGION==us-east-1 OR REGION==us-west-1`. For `GetRightsizingRecommendation`, the Region is a full name (for example, `REGION==US East (N. Virginia)`.
    - The corresponding `Expression` for this example is as follows: `{ "Dimensions": { "Key": "REGION", "Values": [ "us-east-1", "us-west-1" ] } }`
    - As shown in the previous example, lists of dimension values are combined with `OR` when applying the filter.
  - You can also set different match options to further control how the filter behaves. Not all APIs support match options. Refer to the documentation for each specific API to see what is supported.
    - For example, you can filter for linked account names that start with "a".
    - The corresponding `Expression` for this example is as follows: `{ "Dimensions": { "Key": "LINKED_ACCOUNT_NAME", "MatchOptions": [ "STARTS_WITH" ], "Values": [ "a" ] } }`
- Compound `Expression` types with logical operations.
  - You can use multiple `Expression` types and the logical operators `AND/OR/NOT` to create a list of one or more `Expression` objects. By doing this, you can filter by more advanced options.

- For example, you can filter by `((REGION == us-east-1 OR REGION == us-west-1) OR (TAG.Type == Type1)) AND (USAGE_TYPE != DataTransfer)`.
- The corresponding `Expression` for this example is as follows: `{ "And": [ {"Or": [ {"Dimensions": { "Key": "REGION", "Values": [ "us-east-1", "us-west-1" ] }}, {"Tags": { "Key": "TagName", "Values": ["Value1"] } } ]}, {"Not": {"Dimensions": { "Key": "USAGE_TYPE", "Values": ["DataTransfer"] }}} ] }`

> **Note**
>
> Because each `Expression` can have only one operator, the service returns an error if more than one is specified. The following example shows an `Expression` object that creates an error: `{ "And": [ ... ], "Dimensions": { "Key": "USAGE_TYPE", "Values": [ "DataTransfer" ] } }`
> The following is an example of the corresponding error message: `"Expression has more than one roots. Only one root operator is allowed for each expression: And, Or, Not, Dimensions, Tags, CostCategories"`

> **Note**
>
> For the `GetRightsizingRecommendation` action, a combination of OR and NOT isn't supported. OR isn't supported between different dimensions, or dimensions and tags. NOT operators aren't supported. Dimensions are also limited to `LINKED_ACCOUNT`, `REGION`, or `RIGHTSIZING_TYPE`.
> For the `GetReservationPurchaseRecommendation` action, only NOT is supported. AND and OR aren't supported. Dimensions are limited to `LINKED_ACCOUNT`.

Type: Expression object

Required: No

MaxResults

This field is only used when the `SortBy` value is provided in the request.

The maximum number of objects that are returned for this request. If `MaxResults` isn't specified with the `SortBy` value, the request returns 1000 results as the default value for this parameter.

For `GetCostCategories`, MaxResults has an upper quota of 1000.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

NextPageToken

If the number of objects that are still available for retrieval exceeds the quota, AWS returns a NextPageToken value in the response. To retrieve the next batch of objects, provide the NextPageToken from the previous call in your next request.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

SearchString

The value that you want to search the filter values for.

If you don't specify a `CostCategoryName`, `SearchString` is used to filter cost category names that match the `SearchString` pattern. If you specify a `CostCategoryName`, `SearchString` is used to filter cost category values that match the `SearchString` pattern.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

SortBy

The value that you sort the data by.

The key represents the cost and usage metrics. The following values are supported:

- `BlendedCost`
- `UnblendedCost`
- `AmortizedCost`
- `NetAmortizedCost`
- `NetUnblendedCost`
- `UsageQuantity`
- `NormalizedUsageAmount`

The supported key values for the `SortOrder` value are `ASCENDING` and `DESCENDING`.

When you use the `SortBy` value, the `NextPageToken` and `SearchString` key values aren't supported.

Type: Array of SortDefinition objects

Required: No

TimePeriod

The time period of the request.

Type: DateInterval object

Required: Yes

Response Syntax

```
{
   "CostCategoryNames": [ "string" ],
   "CostCategoryValues": [ "string" ],
   "NextPageToken": "string",
   "ReturnSize": number,
   "TotalSize": number
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

CostCategoryNames

The names of the cost categories.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `^(?! )[\p{L}\p{N}\p{Z}-_]*(?<! )$`

CostCategoryValues

The cost category values.

If the `CostCategoryName` key isn't specified in the request, the `CostCategoryValues` fields aren't returned.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `^(?! )[\p{L}\p{N}\p{Z}-_]*(?<! )$`

NextPageToken

If the number of objects that are still available for retrieval exceeds the quota, AWS returns a NextPageToken value in the response. To retrieve the next batch of objects, provide the marker from the prior call in your next request.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

ReturnSize

The number of objects that are returned.

Type: Integer

TotalSize

The total number of objects.

Type: Integer

Errors

For information about the errors that are common to all actions, see Common Errors.

BillExpirationException

The requested report expired. Update the date interval and try again.

HTTP Status Code: 400

BillingViewHealthStatusException

The billing view status must be HEALTHY to perform this action. Try again when the status is HEALTHY.

HTTP Status Code: 400

DataUnavailableException

The requested data is unavailable.

HTTP Status Code: 400

InvalidNextTokenException

The pagination token is invalid. Try again without a pagination token.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

RequestChangedException

Your request parameters changed between pages. Try again with the old parameters or without a pagination token.

HTTP Status Code: 400

ResourceNotFoundException

The specified ARN in the request doesn't exist.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetCostComparisonDrivers

Service: AWS Cost Explorer

Retrieves key factors driving cost changes between two time periods within the last 13 months, such as usage changes, discount changes, and commitment-based savings. If you have enabled multi-year data at monthly granularity, you can go back up to 38 months.

Request Syntax

```
{
   "BaselineTimePeriod": {
      "End": "string",
      "Start": "string"
   },
   "BillingViewArn": "string",
   "ComparisonTimePeriod": {
      "End": "string",
      "Start": "string"
   },
   "Filter": {
      "And": [
         "Expression"
      ],
      "CostCategories": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      },
      "Dimensions": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      },
      "Not": "Expression",
      "Or": [
         "Expression"
      ],
      "Tags": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      }
   },
```

```
   "GroupBy": [
      {
         "Key": "string",
         "Type": "string"
      }
   ],
   "MaxResults": number,
   "MetricForComparison": "string",
   "NextPageToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

BaselineTimePeriod

The reference time period for comparison. This time period serves as the baseline against which other cost and usage data will be compared. The interval must start and end on the first day of a month, with a duration of exactly one month.

Type: DateInterval object

Required: Yes

BillingViewArn

The Amazon Resource Name (ARN) that uniquely identifies a specific billing view. The ARN is used to specify which particular billing view you want to interact with or retrieve information from when making API calls related to AWS Billing and Cost Management features. The BillingViewArn can be retrieved by calling the ListBillingViews API.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[-a-zA-Z0-9/:_+=.-@]{1,43}$`

Required: No

ComparisonTimePeriod

The comparison time period for analysis. This time period's cost and usage data will be compared against the baseline time period. The interval must start and end on the first day of a month, with a duration of exactly one month.

Type: DateInterval object

Required: Yes

Filter

Use `Expression` to filter in various Cost Explorer APIs.

Not all `Expression` types are supported in each API. Refer to the documentation for each specific API to see what is supported.

There are two patterns:

- Simple dimension values.
  - There are three types of simple dimension values: `CostCategories`, `Tags`, and `Dimensions`.
    - Specify the `CostCategories` field to define a filter that acts on Cost Categories.
    - Specify the `Tags` field to define a filter that acts on Cost Allocation Tags.
    - Specify the `Dimensions` field to define a filter that acts on the `DimensionValues`.
  - For each filter type, you can set the dimension name and values for the filters that you plan to use.
    - For example, you can filter for `REGION==us-east-1 OR REGION==us-west-1`. For `GetRightsizingRecommendation`, the Region is a full name (for example, `REGION==US East (N. Virginia)`.
    - The corresponding `Expression` for this example is as follows: `{ "Dimensions": { "Key": "REGION", "Values": [ "us-east-1", "us-west-1" ] } }`
    - As shown in the previous example, lists of dimension values are combined with `OR` when applying the filter.
  - You can also set different match options to further control how the filter behaves. Not all APIs support match options. Refer to the documentation for each specific API to see what is supported.
    - For example, you can filter for linked account names that start with "a".

  - The corresponding `Expression` for this example is as follows: `{ "Dimensions": { "Key": "LINKED_ACCOUNT_NAME", "MatchOptions": [ "STARTS_WITH" ], "Values": [ "a" ] } }`

- Compound `Expression` types with logical operations.
  - You can use multiple `Expression` types and the logical operators `AND/OR/NOT` to create a list of one or more `Expression` objects. By doing this, you can filter by more advanced options.
  - For example, you can filter by `((REGION == us-east-1 OR REGION == us-west-1) OR (TAG.Type == Type1)) AND (USAGE_TYPE != DataTransfer)`.
  - The corresponding `Expression` for this example is as follows: `{ "And": [ {"Or": [ {"Dimensions": { "Key": "REGION", "Values": [ "us-east-1", "us-west-1" ] }}, {"Tags": { "Key": "TagName", "Values": ["Value1"] } } ]}, {"Not": {"Dimensions": { "Key": "USAGE_TYPE", "Values": ["DataTransfer"] }}} ] }`

> **Note**
>
> Because each `Expression` can have only one operator, the service returns an error if more than one is specified. The following example shows an `Expression` object that creates an error: `{ "And": [ ... ], "Dimensions": { "Key": "USAGE_TYPE", "Values": [ "DataTransfer" ] } }`
>
> The following is an example of the corresponding error message: `"Expression has more than one roots. Only one root operator is allowed for each expression: And, Or, Not, Dimensions, Tags, CostCategories"`

> **Note**
>
> For the `GetRightsizingRecommendation` action, a combination of OR and NOT isn't supported. OR isn't supported between different dimensions, or dimensions and tags. NOT operators aren't supported. Dimensions are also limited to `LINKED_ACCOUNT`, `REGION`, or `RIGHTSIZING_TYPE`.
>
> For the `GetReservationPurchaseRecommendation` action, only NOT is supported. AND and OR aren't supported. Dimensions are limited to `LINKED_ACCOUNT`.

Type: Expression object

Required: No

GroupBy

You can group results using the attributes DIMENSION, TAG, and COST_CATEGORY. Note that SERVICE and USAGE_TYPE dimensions are automatically included in the cost comparison drivers analysis.

Type: Array of GroupDefinition objects

Required: No

MaxResults

The maximum number of results that are returned for the request.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 10.

Required: No

MetricForComparison

The cost and usage metric to compare. Valid values are AmortizedCost, BlendedCost, NetAmortizedCost, NetUnblendedCost, NormalizedUsageAmount, UnblendedCost, and UsageQuantity.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: [\S\s]*

Required: Yes

NextPageToken

The token to retrieve the next set of paginated results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: [\S\s]*

Required: No

Response Syntax

```
{
   "CostComparisonDrivers": [
      {
         "CostDrivers": [
            {
               "Metrics": {
                  "string" : {
                     "BaselineTimePeriodAmount": "string",
                     "ComparisonTimePeriodAmount": "string",
                     "Difference": "string",
                     "Unit": "string"
                  }
               },
               "Name": "string",
               "Type": "string"
            }
         ],
         "CostSelector": {
            "And": [
               "Expression"
            ],
            "CostCategories": {
               "Key": "string",
               "MatchOptions": [ "string" ],
               "Values": [ "string" ]
            },
            "Dimensions": {
               "Key": "string",
               "MatchOptions": [ "string" ],
               "Values": [ "string" ]
            },
            "Not": "Expression",
            "Or": [
               "Expression"
            ],
            "Tags": {
               "Key": "string",
```

```
                "MatchOptions": [ "string" ],
                "Values": [ "string" ]
            }
         },
         "Metrics": {
            "string" : {
               "BaselineTimePeriodAmount": "string",
               "ComparisonTimePeriodAmount": "string",
               "Difference": "string",
               "Unit": "string"
            }
         }
      }
   ],
   "NextPageToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

CostComparisonDrivers

An array of comparison results showing factors that drive significant cost differences between `BaselineTimePeriod` and `ComparisonTimePeriod`.

Type: Array of CostComparisonDriver objects

NextPageToken

The token to retrieve the next set of paginated results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see Common Errors.

BillingViewHealthStatusException

The billing view status must be HEALTHY to perform this action. Try again when the status is HEALTHY.

HTTP Status Code: 400

DataUnavailableException

The requested data is unavailable.

HTTP Status Code: 400

InvalidNextTokenException

The pagination token is invalid. Try again without a pagination token.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

ResourceNotFoundException

The specified ARN in the request doesn't exist.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3

- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetCostForecast

Service: AWS Cost Explorer

Retrieves a forecast for how much Amazon Web Services predicts that you will spend over the forecast time period that you select, based on your past costs.

Request Syntax

```
{
   "BillingViewArn": "string",
   "Filter": {
      "And": [
         "Expression"
      ],
      "CostCategories": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      },
      "Dimensions": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      },
      "Not": "Expression",
      "Or": [
         "Expression"
      ],
      "Tags": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      }
   },
   "Granularity": "string",
   "Metric": "string",
   "PredictionIntervalLevel": number,
   "TimePeriod": {
      "End": "string",
      "Start": "string"
   }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

BillingViewArn

The Amazon Resource Name (ARN) that uniquely identifies a specific billing view. The ARN is used to specify which particular billing view you want to interact with or retrieve information from when making API calls related to AWS Billing and Cost Management features. The BillingViewArn can be retrieved by calling the ListBillingViews API.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[-a-zA-Z0-9/:_+=.-@]{1,43}$`

Required: No

Filter

The filters that you want to use to filter your forecast. The `GetCostForecast` API supports filtering by the following dimensions:

- `AZ`
- `INSTANCE_TYPE`
- `LINKED_ACCOUNT`
- `OPERATION`
- `PURCHASE_TYPE`
- `REGION`
- `SERVICE`
- `USAGE_TYPE`
- `USAGE_TYPE_GROUP`
- `RECORD_TYPE`
- `OPERATING_SYSTEM`
- `TENANCY`

- SCOPE
- PLATFORM
- SUBSCRIPTION_ID
- LEGAL_ENTITY_NAME
- DEPLOYMENT_OPTION
- DATABASE_ENGINE
- INSTANCE_TYPE_FAMILY
- BILLING_ENTITY
- RESERVATION_ID
- SAVINGS_PLAN_ARN

Type: Expression object

Required: No

Granularity

How granular you want the forecast to be. You can get 3 months of DAILY forecasts or 18 months of MONTHLY forecasts.

The GetCostForecast operation supports only DAILY and MONTHLY granularities.

Type: String

Valid Values: DAILY | MONTHLY | HOURLY

Required: Yes

Metric

Which metric Cost Explorer uses to create your forecast. For more information about blended and unblended rates, see Why does the "blended" annotation appear on some line items in my bill?.

Valid values for a GetCostForecast call are the following:

- AMORTIZED_COST
- BLENDED_COST
- NET_AMORTIZED_COST
- NET_UNBLENDED_COST

- UNBLENDED_COST

Type: String

Valid Values: `BLENDED_COST | UNBLENDED_COST | AMORTIZED_COST | NET_UNBLENDED_COST | NET_AMORTIZED_COST | USAGE_QUANTITY | NORMALIZED_USAGE_AMOUNT`

Required: Yes

PredictionIntervalLevel

Cost Explorer always returns the mean forecast as a single point. You can request a prediction interval around the mean by specifying a confidence level. The higher the confidence level, the more confident Cost Explorer is about the actual value falling in the prediction interval. Higher confidence levels result in wider prediction intervals.

Type: Integer

Valid Range: Minimum value of 51. Maximum value of 99.

Required: No

TimePeriod

The period of time that you want the forecast to cover. The start date must be equal to or no later than the current date to avoid a validation error.

Type: DateInterval object

Required: Yes

Response Syntax

```
{
   "ForecastResultsByTime": [
      {
         "MeanValue": "string",
         "PredictionIntervalLowerBound": "string",
         "PredictionIntervalUpperBound": "string",
         "TimePeriod": {
            "End": "string",
            "Start": "string"
```

```
            }
         }
      ],
      "Total": {
         "Amount": "string",
         "Unit": "string"
      }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

ForecastResultsByTime

The forecasts for your query, in order. For `DAILY` forecasts, this is a list of days. For `MONTHLY` forecasts, this is a list of months.

Type: Array of ForecastResult objects

Total

How much you are forecasted to spend over the forecast period, in `USD`.

Type: MetricValue object

Errors

For information about the errors that are common to all actions, see Common Errors.

BillingViewHealthStatusException

The billing view status must be `HEALTHY` to perform this action. Try again when the status is `HEALTHY`.

HTTP Status Code: 400

DataUnavailableException

The requested data is unavailable.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

ResourceNotFoundException

The specified ARN in the request doesn't exist.

HTTP Status Code: 400

Examples

Example

The following example shows how to retrieve a forecast using the `GetCostForecast` operation.

Sample Request

```
POST / HTTP/1.1
Host: ce.us-east-1.amazonaws.com
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
 SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSInsightsIndexService.GetCostForecast
{
  "TimePeriod": {
    "Start":"2017-10-25",
    "End": "2017-10-27"
  },
  "Granularity": "DAILY",
  "Filter": {
    "Dimensions": {
      "Key": "SERVICE",
      "Values": [
        "Amazon Simple Storage Service"
      ]
    }
```

```
  },
  "Metric":"BLENDED_COST",
  "PredictionIntervalLevel":85
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
  "ForecastResultsByTime": [
    {
      "MeanValue": "37.0786663399",
      "PredictionIntervalLowerBound": "34.9970026341",
      "PredictionIntervalUpperBound": "39.1603300457",
      "TimePeriod": {
        "End": "2018-10-26",
        "Start": "2018-10-25"
      }
    },
    {
      "MeanValue": "37.0786663399",
      "PredictionIntervalLowerBound": "34.9970026341",
      "PredictionIntervalUpperBound": "39.1603300457",
      "TimePeriod": {
        "End": "2018-10-27",
        "Start": "2018-10-26"
      }
    }
  ],
  "Total": {
      "Amount": "74.1573326798",
      "Unit": "USD"
  }
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetDimensionValues

Service: AWS Cost Explorer

Retrieves all available filter values for a specified filter over a period of time. You can search the dimension values for an arbitrary string.

Request Syntax

```
{
   "BillingViewArn": "string",
   "Context": "string",
   "Dimension": "string",
   "Filter": {
      "And": [
         "Expression"
      ],
      "CostCategories": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      },
      "Dimensions": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      },
      "Not": "Expression",
      "Or": [
         "Expression"
      ],
      "Tags": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      }
   },
   "MaxResults": number,
   "NextPageToken": "string",
   "SearchString": "string",
   "SortBy": [
      {
         "Key": "string",
         "SortOrder": "string"
```

```
      }
   ],
   "TimePeriod": {
      "End": "string",
      "Start": "string"
   }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

BillingViewArn

The Amazon Resource Name (ARN) that uniquely identifies a specific billing view. The ARN is used to specify which particular billing view you want to interact with or retrieve information from when making API calls related to AWS Billing and Cost Management features. The BillingViewArn can be retrieved by calling the ListBillingViews API.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[-a-zA-Z0-9/:_+=.-@]{1,43}$`

Required: No

Context

The context for the call to `GetDimensionValues`. This can be `RESERVATIONS` or `COST_AND_USAGE`. The default value is `COST_AND_USAGE`. If the context is set to `RESERVATIONS`, the resulting dimension values can be used in the `GetReservationUtilization` operation. If the context is set to `COST_AND_USAGE`, the resulting dimension values can be used in the `GetCostAndUsage` operation.

If you set the context to `COST_AND_USAGE`, you can use the following dimensions for searching:

- AZ - The Availability Zone. An example is `us-east-1a`.
- BILLING_ENTITY - The AWS seller that your account is with. Possible values are the following:

- AWS(Amazon Web Services): The entity that sells AWS services.

- AISPL (Amazon Internet Services Pvt. Ltd.): The local Indian entity that's an acting reseller for AWS services in India.

- AWS Marketplace: The entity that supports the sale of solutions that are built on AWS by third-party software providers.

- CACHE_ENGINE - The Amazon ElastiCache operating system. Examples are Windows or Linux.
- DEPLOYMENT_OPTION - The scope of Amazon Relational Database Service deployments. Valid values are `SingleAZ` and `MultiAZ`.
- DATABASE_ENGINE - The Amazon Relational Database Service database. Examples are Aurora or MySQL.
- INSTANCE_TYPE - The type of Amazon EC2 instance. An example is `m4.xlarge`.
- INSTANCE_TYPE_FAMILY - A family of instance types optimized to fit different use cases. Examples are `Compute Optimized` (for example, `C4`, `C5`, `C6g`, and `C7g`), `Memory Optimization` (for example, `R4`, `R5n`, `R5b`, and `R6g`).
- INVOICING_ENTITY - The name of the entity that issues the AWS invoice.
- LEGAL_ENTITY_NAME - The name of the organization that sells you AWS services, such as Amazon Web Services.
- LINKED_ACCOUNT - The description in the attribute map that includes the full name of the member account. The value field contains the AWS ID of the member account.
- OPERATING_SYSTEM - The operating system. Examples are Windows or Linux.
- OPERATION - The action performed. Examples include `RunInstance` and `CreateBucket`.
- PLATFORM - The Amazon EC2 operating system. Examples are Windows or Linux.
- PURCHASE_TYPE - The reservation type of the purchase that this usage is related to. Examples include On-Demand Instances and Standard Reserved Instances.
- RESERVATION_ID - The unique identifier for an AWS Reservation Instance.
- SAVINGS_PLAN_ARN - The unique identifier for your Savings Plans.
- SAVINGS_PLANS_TYPE - Type of Savings Plans (EC2 Instance or Compute).
- SERVICE - The AWS service such as Amazon DynamoDB.
- TENANCY - The tenancy of a resource. Examples are shared or dedicated.
- USAGE_TYPE - The type of usage. An example is DataTransfer-In-Bytes. The response for the `GetDimensionValues` operation includes a unit attribute. Examples include GB and Hrs.

- USAGE_TYPE_GROUP - The grouping of common usage types. An example is Amazon EC2: CloudWatch – Alarms. The response for this operation includes a unit attribute.
- REGION - The AWS Region.
- RECORD_TYPE - The different types of charges such as Reserved Instance (RI) fees, usage costs, tax refunds, and credits.
- RESOURCE_ID - The unique identifier of the resource. ResourceId is an opt-in feature only available for last 14 days for EC2-Compute Service.

If you set the context to `RESERVATIONS`, you can use the following dimensions for searching:

- AZ - The Availability Zone. An example is `us-east-1a`.
- CACHE_ENGINE - The Amazon ElastiCache operating system. Examples are Windows or Linux.
- DEPLOYMENT_OPTION - The scope of Amazon Relational Database Service deployments. Valid values are `SingleAZ` and `MultiAZ`.
- INSTANCE_TYPE - The type of Amazon EC2 instance. An example is `m4.xlarge`.
- LINKED_ACCOUNT - The description in the attribute map that includes the full name of the member account. The value field contains the AWS ID of the member account.
- PLATFORM - The Amazon EC2 operating system. Examples are Windows or Linux.
- REGION - The AWS Region.
- SCOPE (Utilization only) - The scope of a Reserved Instance (RI). Values are regional or a single Availability Zone.
- TAG (Coverage only) - The tags that are associated with a Reserved Instance (RI).
- TENANCY - The tenancy of a resource. Examples are shared or dedicated.

If you set the context to `SAVINGS_PLANS`, you can use the following dimensions for searching:

- SAVINGS_PLANS_TYPE - Type of Savings Plans (EC2 Instance or Compute)
- PAYMENT_OPTION - The payment option for the given Savings Plans (for example, All Upfront)
- REGION - The AWS Region.
- INSTANCE_TYPE_FAMILY - The family of instances (For example, `m5`)
- LINKED_ACCOUNT - The description in the attribute map that includes the full name of the member account. The value field contains the AWS ID of the member account.
- SAVINGS_PLAN_ARN - The unique identifier for your Savings Plans.

Type: String

Valid Values: `COST_AND_USAGE | RESERVATIONS | SAVINGS_PLANS`

Required: No

Dimension

The name of the dimension. Each `Dimension` is available for a different `Context`. For more information, see `Context`. `LINK_ACCOUNT_NAME` and `SERVICE_CODE` can only be used in CostCategoryRule.

Type: String

Valid Values: `AZ | INSTANCE_TYPE | LINKED_ACCOUNT | PAYER_ACCOUNT | LINKED_ACCOUNT_NAME | OPERATION | PURCHASE_TYPE | REGION | SERVICE | SERVICE_CODE | USAGE_TYPE | USAGE_TYPE_GROUP | RECORD_TYPE | OPERATING_SYSTEM | TENANCY | SCOPE | PLATFORM | SUBSCRIPTION_ID | LEGAL_ENTITY_NAME | DEPLOYMENT_OPTION | DATABASE_ENGINE | CACHE_ENGINE | INSTANCE_TYPE_FAMILY | BILLING_ENTITY | RESERVATION_ID | RESOURCE_ID | RIGHTSIZING_TYPE | SAVINGS_PLANS_TYPE | SAVINGS_PLAN_ARN | PAYMENT_OPTION | AGREEMENT_END_DATE_TIME_AFTER | AGREEMENT_END_DATE_TIME_BEFORE | INVOICING_ENTITY | ANOMALY_TOTAL_IMPACT_ABSOLUTE | ANOMALY_TOTAL_IMPACT_PERCENTAGE`

Required: Yes

Filter

Use `Expression` to filter in various Cost Explorer APIs.

Not all `Expression` types are supported in each API. Refer to the documentation for each specific API to see what is supported.

There are two patterns:

- Simple dimension values.
  - There are three types of simple dimension values: `CostCategories`, `Tags`, and `Dimensions`.
    - Specify the `CostCategories` field to define a filter that acts on Cost Categories.
    - Specify the `Tags` field to define a filter that acts on Cost Allocation Tags.
    - Specify the `Dimensions` field to define a filter that acts on the `DimensionValues`.

- For each filter type, you can set the dimension name and values for the filters that you plan to use.
  - For example, you can filter for `REGION==us-east-1 OR REGION==us-west-1`. For `GetRightsizingRecommendation`, the Region is a full name (for example, `REGION==US East (N. Virginia)`.
  - The corresponding `Expression` for this example is as follows: `{ "Dimensions": { "Key": "REGION", "Values": [ "us-east-1", "us-west-1" ] } }`
  - As shown in the previous example, lists of dimension values are combined with `OR` when applying the filter.
- You can also set different match options to further control how the filter behaves. Not all APIs support match options. Refer to the documentation for each specific API to see what is supported.
  - For example, you can filter for linked account names that start with "a".
  - The corresponding `Expression` for this example is as follows: `{ "Dimensions": { "Key": "LINKED_ACCOUNT_NAME", "MatchOptions": [ "STARTS_WITH" ], "Values": [ "a" ] } }`
- Compound `Expression` types with logical operations.
  - You can use multiple `Expression` types and the logical operators `AND/OR/NOT` to create a list of one or more `Expression` objects. By doing this, you can filter by more advanced options.
  - For example, you can filter by `((REGION == us-east-1 OR REGION == us-west-1) OR (TAG.Type == Type1)) AND (USAGE_TYPE != DataTransfer)`.
  - The corresponding `Expression` for this example is as follows: `{ "And": [ {"Or": [ {"Dimensions": { "Key": "REGION", "Values": [ "us-east-1", "us-west-1" ] }}, {"Tags": { "Key": "TagName", "Values": ["Value1"] } } ]}, {"Not": {"Dimensions": { "Key": "USAGE_TYPE", "Values": ["DataTransfer"] }}} ] }`

> **Note**
>
> Because each `Expression` can have only one operator, the service returns an error if more than one is specified. The following example shows an `Expression` object that creates an error: `{ "And": [ ... ], "Dimensions": { "Key": "USAGE_TYPE", "Values": [ "DataTransfer" ] } }`

The following is an example of the corresponding error message: "Expression has more than one roots. Only one root operator is allowed for each expression: And, Or, Not, Dimensions, Tags, CostCategories"

Note

For the GetRightsizingRecommendation action, a combination of OR and NOT isn't supported. OR isn't supported between different dimensions, or dimensions and tags. NOT operators aren't supported. Dimensions are also limited to LINKED_ACCOUNT, REGION, or RIGHTSIZING_TYPE.
For the GetReservationPurchaseRecommendation action, only NOT is supported. AND and OR aren't supported. Dimensions are limited to LINKED_ACCOUNT.

Type: Expression object

Required: No

MaxResults

This field is only used when SortBy is provided in the request. The maximum number of objects that are returned for this request. If MaxResults isn't specified with SortBy, the request returns 1000 results as the default value for this parameter.

For GetDimensionValues, MaxResults has an upper limit of 1000.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

NextPageToken

The token to retrieve the next set of results. AWS provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: [\S\s]*

Required: No

SearchString

The value that you want to search the filter values for.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

SortBy

The value that you want to sort the data by.

The key represents cost and usage metrics. The following values are supported:

- `BlendedCost`
- `UnblendedCost`
- `AmortizedCost`
- `NetAmortizedCost`
- `NetUnblendedCost`
- `UsageQuantity`
- `NormalizedUsageAmount`

The supported values for the `SortOrder` key are `ASCENDING` or `DESCENDING`.

When you specify a `SortBy` paramater, the context must be `COST_AND_USAGE`. Further, when using `SortBy`, `NextPageToken` and `SearchString` aren't supported.

Type: Array of SortDefinition objects

Required: No

TimePeriod

The start date and end date for retrieving the dimension values. The start date is inclusive, but the end date is exclusive. For example, if `start` is `2017-01-01` and end is `2017-05-01`, then the cost and usage data is retrieved from `2017-01-01` up to and including `2017-04-30` but not including `2017-05-01`.

Type: DateInterval object

Required: Yes

Response Syntax

```
{
   "DimensionValues": [
      {
         "Attributes": {
            "string" : "string"
         },
         "Value": "string"
      }
   ],
   "NextPageToken": "string",
   "ReturnSize": number,
   "TotalSize": number
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

DimensionValues

The filters that you used to filter your request. Some dimensions are available only for a specific context.

If you set the context to `COST_AND_USAGE`, you can use the following dimensions for searching:

- AZ - The Availability Zone. An example is `us-east-1a`.
- DATABASE_ENGINE - The Amazon Relational Database Service database. Examples are Aurora or MySQL.
- INSTANCE_TYPE - The type of Amazon EC2 instance. An example is `m4.xlarge`.
- LEGAL_ENTITY_NAME - The name of the organization that sells you AWS services, such as Amazon Web Services.
- LINKED_ACCOUNT - The description in the attribute map that includes the full name of the member account. The value field contains the AWS ID of the member account.

- OPERATING_SYSTEM - The operating system. Examples are Windows or Linux.
- OPERATION - The action performed. Examples include `RunInstance` and `CreateBucket`.
- PLATFORM - The Amazon EC2 operating system. Examples are Windows or Linux.
- PURCHASE_TYPE - The reservation type of the purchase to which this usage is related. Examples include On-Demand Instances and Standard Reserved Instances.
- SERVICE - The AWS service such as Amazon DynamoDB.
- USAGE_TYPE - The type of usage. An example is DataTransfer-In-Bytes. The response for the `GetDimensionValues` operation includes a unit attribute. Examples include GB and Hrs.
- USAGE_TYPE_GROUP - The grouping of common usage types. An example is Amazon EC2: CloudWatch – Alarms. The response for this operation includes a unit attribute.
- RECORD_TYPE - The different types of charges such as RI fees, usage costs, tax refunds, and credits.
- RESOURCE_ID - The unique identifier of the resource. ResourceId is an opt-in feature only available for last 14 days for EC2-Compute Service. You can opt-in by enabling `Hourly` and `Resource Level Data` in AWS Cost Management Console preferences.

If you set the context to `RESERVATIONS`, you can use the following dimensions for searching:

- AZ - The Availability Zone. An example is `us-east-1a`.
- CACHE_ENGINE - The Amazon ElastiCache operating system. Examples are Windows or Linux.
- DEPLOYMENT_OPTION - The scope of Amazon Relational Database Service deployments. Valid values are `SingleAZ` and `MultiAZ`.
- INSTANCE_TYPE - The type of Amazon EC2 instance. An example is `m4.xlarge`.
- LINKED_ACCOUNT - The description in the attribute map that includes the full name of the member account. The value field contains the AWS ID of the member account.
- PLATFORM - The Amazon EC2 operating system. Examples are Windows or Linux.
- REGION - The AWS Region.
- SCOPE (Utilization only) - The scope of a Reserved Instance (RI). Values are regional or a single Availability Zone.
- TAG (Coverage only) - The tags that are associated with a Reserved Instance (RI).
- TENANCY - The tenancy of a resource. Examples are shared or dedicated.

If you set the context to `SAVINGS_PLANS`, you can use the following dimensions for searching:

- SAVINGS_PLANS_TYPE - Type of Savings Plans (EC2 Instance or Compute)

- PAYMENT_OPTION - Payment option for the given Savings Plans (for example, All Upfront)
- REGION - The AWS Region.
- INSTANCE_TYPE_FAMILY - The family of instances (For example, `m5`)
- LINKED_ACCOUNT - The description in the attribute map that includes the full name of the member account. The value field contains the AWS ID of the member account.
- SAVINGS_PLAN_ARN - The unique identifier for your Savings Plan

Type: Array of DimensionValuesWithAttributes objects

NextPageToken

The token for the next set of retrievable results. AWS provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

ReturnSize

The number of results that AWS returned at one time.

Type: Integer

TotalSize

The total number of search results.

Type: Integer

Errors

For information about the errors that are common to all actions, see Common Errors.

BillExpirationException

The requested report expired. Update the date interval and try again.

HTTP Status Code: 400

BillingViewHealthStatusException

The billing view status must be HEALTHY to perform this action. Try again when the status is HEALTHY.

HTTP Status Code: 400

DataUnavailableException

The requested data is unavailable.

HTTP Status Code: 400

InvalidNextTokenException

The pagination token is invalid. Try again without a pagination token.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

RequestChangedException

Your request parameters changed between pages. Try again with the old parameters or without a pagination token.

HTTP Status Code: 400

ResourceNotFoundException

The specified ARN in the request doesn't exist.

HTTP Status Code: 400

Examples

Example

The following is a sample request and response of the `GetDimensionValues` operation that enables you to search for all the member accounts in an organization in AWS Organizations that have "Elastic" in their name.

Sample Request

```
POST / HTTP/1.1
Host: ce.us-east-1.amazonaws.com
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
 SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSInsightsIndexService.GetDimensionValues
{
  "TimePeriod": {
    "Start": "2017-01-01",
    "End": "2017-05-18"
  },
  "SearchString": "Elastic",
  "Dimension": "Service"
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
//Attributes are optional metadata that are returned depending on the dimension that
 you select.
{
  "DimensionValues": [
    {
      "Attributes": {},
      "Value": "Amazon ElastiCache"
    },
    {
      "Attributes": {},
      "Value": "EC2 - Other"
    },
    {
      "Attributes": {},
```

```
      "Value": "Amazon Elastic Compute Cloud - Compute"
    },
    {
      "Attributes": {},
      "Value": "Amazon Elasticsearch Service"
    }
  ],
  "ReturnSize": 4,
  "TotalSize": 4
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetReservationCoverage

Service: AWS Cost Explorer

Retrieves the reservation coverage for your account, which you can use to see how much of your Amazon Elastic Compute Cloud, Amazon ElastiCache, Amazon Relational Database Service, or Amazon Redshift usage is covered by a reservation. An organization's management account can see the coverage of the associated member accounts. This supports dimensions, cost categories, and nested expressions. For any time period, you can filter data about reservation usage by the following dimensions:

- AZ
- CACHE_ENGINE
- DATABASE_ENGINE
- DEPLOYMENT_OPTION
- INSTANCE_TYPE
- LINKED_ACCOUNT
- OPERATING_SYSTEM
- PLATFORM
- REGION
- SERVICE
- TAG
- TENANCY

To determine valid values for a dimension, use the `GetDimensionValues` operation.

Request Syntax

```
{
   "Filter": {
      "And": [
         "Expression"
      ],
      "CostCategories": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
```

```
      },
      "Dimensions": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      },
      "Not": "Expression",
      "Or": [
         "Expression"
      ],
      "Tags": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      }
   },
   "Granularity": "string",
   "GroupBy": [
      {
         "Key": "string",
         "Type": "string"
      }
   ],
   "MaxResults": number,
   "Metrics": [ "string" ],
   "NextPageToken": "string",
   "SortBy": {
      "Key": "string",
      "SortOrder": "string"
   },
   "TimePeriod": {
      "End": "string",
      "Start": "string"
   }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

Filter

Filters utilization data by dimensions. You can filter by the following dimensions:

- AZ
- CACHE_ENGINE
- DATABASE_ENGINE
- DEPLOYMENT_OPTION
- INSTANCE_TYPE
- LINKED_ACCOUNT
- OPERATING_SYSTEM
- PLATFORM
- REGION
- SERVICE
- TAG
- TENANCY

`GetReservationCoverage` uses the same Expression object as the other operations, but only `AND` is supported among each dimension. You can nest only one level deep. If there are multiple values for a dimension, they are OR'd together.

If you don't provide a `SERVICE` filter, Cost Explorer defaults to EC2.

Cost category is also supported.

Type: Expression object

Required: No

Granularity

The granularity of the AWS cost data for the reservation. Valid values are `MONTHLY` and `DAILY`.

If `GroupBy` is set, `Granularity` can't be set. If `Granularity` isn't set, the response object doesn't include `Granularity`, either `MONTHLY` or `DAILY`.

The `GetReservationCoverage` operation supports only `DAILY` and `MONTHLY` granularities.

Type: String

Valid Values: `DAILY | MONTHLY | HOURLY`

Required: No

GroupBy

You can group the data by the following attributes:

- AZ
- CACHE_ENGINE
- DATABASE_ENGINE
- DEPLOYMENT_OPTION
- INSTANCE_TYPE
- INVOICING_ENTITY
- LINKED_ACCOUNT
- OPERATING_SYSTEM
- PLATFORM
- REGION
- TENANCY

Type: Array of GroupDefinition objects

Required: No

MaxResults

The maximum number of objects that you returned for this request. If more objects are available, in the response, AWS provides a NextPageToken value that you can use in a subsequent call to get the next batch of objects.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

Metrics

The measurement that you want your reservation coverage reported in.

Valid values are `Hour`, `Unit`, and `Cost`. You can use multiple values in a request.

Type: Array of strings

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

NextPageToken

The token to retrieve the next set of results. AWS provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

SortBy

The value by which you want to sort the data.

The following values are supported for `Key`:

- `OnDemandCost`
- `CoverageHoursPercentage`
- `OnDemandHours`
- `ReservedHours`
- `TotalRunningHours`
- `CoverageNormalizedUnitsPercentage`
- `OnDemandNormalizedUnits`
- `ReservedNormalizedUnits`
- `TotalRunningNormalizedUnits`
- `Time`

Supported values for `SortOrder` are `ASCENDING` or `DESCENDING`.

Type: SortDefinition object

Required: No

TimePeriod

The start and end dates of the period that you want to retrieve data about reservation coverage for. You can retrieve data for a maximum of 13 months: the last 12 months and the current month. The start date is inclusive, but the end date is exclusive. For example, if `start` is `2017-01-01` and end is `2017-05-01`, then the cost and usage data is retrieved from `2017-01-01` up to and including `2017-04-30` but not including `2017-05-01`.

Type: DateInterval object

Required: Yes

Response Syntax

```
{
   "CoveragesByTime": [
      {
         "Groups": [
            {
               "Attributes": {
                  "string" : "string"
               },
               "Coverage": {
                  "CoverageCost": {
                     "OnDemandCost": "string"
                  },
                  "CoverageHours": {
                     "CoverageHoursPercentage": "string",
                     "OnDemandHours": "string",
                     "ReservedHours": "string",
                     "TotalRunningHours": "string"
                  },
                  "CoverageNormalizedUnits": {
                     "CoverageNormalizedUnitsPercentage": "string",
                     "OnDemandNormalizedUnits": "string",
                     "ReservedNormalizedUnits": "string",
                     "TotalRunningNormalizedUnits": "string"
                  }
               }
            }
         ],
         "TimePeriod": {
```

```
            "End": "string",
            "Start": "string"
         },
         "Total": {
            "CoverageCost": {
               "OnDemandCost": "string"
            },
            "CoverageHours": {
               "CoverageHoursPercentage": "string",
               "OnDemandHours": "string",
               "ReservedHours": "string",
               "TotalRunningHours": "string"
            },
            "CoverageNormalizedUnits": {
               "CoverageNormalizedUnitsPercentage": "string",
               "OnDemandNormalizedUnits": "string",
               "ReservedNormalizedUnits": "string",
               "TotalRunningNormalizedUnits": "string"
            }
         }
      }
   ],
   "NextPageToken": "string",
   "Total": {
      "CoverageCost": {
         "OnDemandCost": "string"
      },
      "CoverageHours": {
         "CoverageHoursPercentage": "string",
         "OnDemandHours": "string",
         "ReservedHours": "string",
         "TotalRunningHours": "string"
      },
      "CoverageNormalizedUnits": {
         "CoverageNormalizedUnitsPercentage": "string",
         "OnDemandNormalizedUnits": "string",
         "ReservedNormalizedUnits": "string",
         "TotalRunningNormalizedUnits": "string"
      }
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

CoveragesByTime

The amount of time that your reservations covered.

Type: Array of CoverageByTime objects

NextPageToken

The token for the next set of retrievable results. AWS provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Total

The total amount of instance usage that a reservation covered.

Type: Coverage object

Errors

For information about the errors that are common to all actions, see Common Errors.

DataUnavailableException

The requested data is unavailable.

HTTP Status Code: 400

InvalidNextTokenException

The pagination token is invalid. Try again without a pagination token.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

Examples

Example

The following example request for the `GetReservationCoverage` operation retrieves reservation coverage for all `t2.nano` instance types from 2017-07-01 to 2017-10-01.

Sample Request

```
POST / HTTP/1.1
Host: ce.us-east-1.amazonaws.com
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
 SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSInsightsIndexService.GetReservationCoverage
{
  "TimePeriod": {
    "Start":"2017-07-01",
    "End": "2017-10-01"
  },
  "Filter": {
    "And": [
      {"Dimensions": {
        "Key": "INSTANCE_TYPE",
        "Values": [
          "t2.nano"
        ]
      },
      {"Dimensions": {
        "Key": "REGION",
        "Values": [
          "us-east-1"
```

```
        ]
      }}
    ]
  },
  "GroupBy":[
    {
      "Type":"Dimension",
      "Key":"REGION"
    }
  ]
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
  "CoveragesByTime": [{
    "Groups": [{
      "Attributes": {
        "region": "us-east-1"
      },
      "Coverage": {
        "CoverageHours": {
          "CoverageHoursPercentage": "40%",
          "OnDemandHours": "40",
          "ReservedHours": "40",
          "TotalRunningHours": "80"
        }
        "CoverageNormalizedUnits": {
          "CoverageNormalizedUnitsPercentage": "10",
          "OnDemandNormalizedUnits": "10",
          "ReservedNormalizedUnits": "10",
          "TotalRunningNormalizedUnits": "20"
        }
      }
    }],
    "TimePeriod": {
      "End": "2017-07-01",
      "Start": "2017-10-01"
```

```
    },
    "Total": {
      "CoverageHours": {
        "CoverageHoursPercentage": "40%",
        "OnDemandHours": "40",
        "ReservedHours": "40",
        "TotalRunningHours": "80"
      }
      "CoverageNormalizedUnits": {
        "CoverageNormalizedUnitsPercentage": "10",
        "OnDemandNormalizedUnits": "10",
        "ReservedNormalizedUnits": "10",
        "TotalRunningNormalizedUnits": "20"
      }
    }
  }],
  "Total": {
    "CoverageHours": {
      "CoverageHoursPercentage": "40%",
      "OnDemandHours": "40",
      "ReservedHours": "40",
      "TotalRunningHours": "80"
    }
  }
}
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3

- AWS SDK for Python
- AWS SDK for Ruby V3

GetReservationPurchaseRecommendation

Service: AWS Cost Explorer

Gets recommendations for reservation purchases. These recommendations might help you to reduce your costs. Reservations provide a discounted hourly rate (up to 75%) compared to On-Demand pricing.

AWS generates your recommendations by identifying your On-Demand usage during a specific time period and collecting your usage into categories that are eligible for a reservation. After AWS has these categories, it simulates every combination of reservations in each category of usage to identify the best number of each type of Reserved Instance (RI) to purchase to maximize your estimated savings.

For example, AWS automatically aggregates your Amazon EC2 Linux, shared tenancy, and c4 family usage in the US West (Oregon) Region and recommends that you buy size-flexible regional reservations to apply to the c4 family usage. AWS recommends the smallest size instance in an instance family. This makes it easier to purchase a size-flexible Reserved Instance (RI). AWS also shows the equal number of normalized units. This way, you can purchase any instance size that you want. For this example, your RI recommendation is for `c4.large` because that is the smallest size instance in the c4 instance family.

Request Syntax

```
{
   "AccountId": "string",
   "AccountScope": "string",
   "Filter": {
      "And": [
         "Expression"
      ],
      "CostCategories": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      },
      "Dimensions": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      },
      "Not": "Expression",
```

```
      "Or": [
         "Expression"
      ],
      "Tags": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      }
   },
   "LookbackPeriodInDays": "string",
   "NextPageToken": "string",
   "PageSize": number,
   "PaymentOption": "string",
   "Service": "string",
   "ServiceSpecification": {
      "EC2Specification": {
         "OfferingClass": "string"
      }
   },
   "TermInYears": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

AccountId

The account ID that's associated with the recommendation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

AccountScope

The account scope that you want your recommendations for. Amazon Web Services calculates recommendations including the management account and member accounts if the value is

set to PAYER. If the value is LINKED, recommendations are calculated for individual member accounts only.

Type: String

Valid Values: PAYER | LINKED

Required: No

Filter

Use Expression to filter in various Cost Explorer APIs.

Not all Expression types are supported in each API. Refer to the documentation for each specific API to see what is supported.

There are two patterns:

- Simple dimension values.
  - There are three types of simple dimension values: CostCategories, Tags, and Dimensions.
    - Specify the CostCategories field to define a filter that acts on Cost Categories.
    - Specify the Tags field to define a filter that acts on Cost Allocation Tags.
    - Specify the Dimensions field to define a filter that acts on the DimensionValues.
  - For each filter type, you can set the dimension name and values for the filters that you plan to use.
    - For example, you can filter for REGION==us-east-1 OR REGION==us-west-1. For GetRightsizingRecommendation, the Region is a full name (for example, REGION==US East (N. Virginia).
    - The corresponding Expression for this example is as follows: { "Dimensions": { "Key": "REGION", "Values": ["us-east-1", "us-west-1"] } }
    - As shown in the previous example, lists of dimension values are combined with OR when applying the filter.
  - You can also set different match options to further control how the filter behaves. Not all APIs support match options. Refer to the documentation for each specific API to see what is supported.
    - For example, you can filter for linked account names that start with "a".

  - The corresponding `Expression` for this example is as follows: `{ "Dimensions": { "Key": "LINKED_ACCOUNT_NAME", "MatchOptions": [ "STARTS_WITH" ], "Values": [ "a" ] } }`

- Compound `Expression` types with logical operations.
  - You can use multiple `Expression` types and the logical operators `AND/OR/NOT` to create a list of one or more `Expression` objects. By doing this, you can filter by more advanced options.
  - For example, you can filter by `((REGION == us-east-1 OR REGION == us-west-1) OR (TAG.Type == Type1)) AND (USAGE_TYPE != DataTransfer)`.
  - The corresponding `Expression` for this example is as follows: `{ "And": [ {"Or": [ {"Dimensions": { "Key": "REGION", "Values": [ "us-east-1", "us-west-1" ] }}, {"Tags": { "Key": "TagName", "Values": ["Value1"] } } ]}, {"Not": {"Dimensions": { "Key": "USAGE_TYPE", "Values": ["DataTransfer"] }}} ] }`

> **Note**
>
> Because each `Expression` can have only one operator, the service returns an error if more than one is specified. The following example shows an `Expression` object that creates an error: `{ "And": [ ... ], "Dimensions": { "Key": "USAGE_TYPE", "Values": [ "DataTransfer" ] } }`
>
> The following is an example of the corresponding error message: `"Expression has more than one roots. Only one root operator is allowed for each expression: And, Or, Not, Dimensions, Tags, CostCategories"`

> **Note**
>
> For the `GetRightsizingRecommendation` action, a combination of OR and NOT isn't supported. OR isn't supported between different dimensions, or dimensions and tags. NOT operators aren't supported. Dimensions are also limited to `LINKED_ACCOUNT`, `REGION`, or `RIGHTSIZING_TYPE`.
>
> For the `GetReservationPurchaseRecommendation` action, only NOT is supported. AND and OR aren't supported. Dimensions are limited to `LINKED_ACCOUNT`.

Type: Expression object

Required: No

LookbackPeriodInDays

The number of previous days that you want AWS to consider when it calculates your recommendations.

Type: String

Valid Values: `SEVEN_DAYS | THIRTY_DAYS | SIXTY_DAYS`

Required: No

NextPageToken

The pagination token that indicates the next set of results that you want to retrieve.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

PageSize

The number of recommendations that you want returned in a single response object.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 6000.

Required: No

PaymentOption

The reservation purchase option that you want recommendations for.

Type: String

Valid Values: `NO_UPFRONT | PARTIAL_UPFRONT | ALL_UPFRONT | LIGHT_UTILIZATION | MEDIUM_UTILIZATION | HEAVY_UTILIZATION`

Required: No

Service

The specific service that you want recommendations for.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

ServiceSpecification

The hardware specifications for the service instances that you want recommendations for, such as standard or convertible Amazon EC2 instances.

Type: ServiceSpecification object

Required: No

TermInYears

The reservation term that you want recommendations for.

Type: String

Valid Values: `ONE_YEAR | THREE_YEARS`

Required: No

Response Syntax

```
{
   "Metadata": {
      "AdditionalMetadata": "string",
      "GenerationTimestamp": "string",
      "RecommendationId": "string"
   },
   "NextPageToken": "string",
   "Recommendations": [
      {
         "AccountScope": "string",
         "LookbackPeriodInDays": "string",
         "PaymentOption": "string",
```

```
      "RecommendationDetails": [
         {
            "AccountId": "string",
            "AverageNormalizedUnitsUsedPerHour": "string",
            "AverageNumberOfCapacityUnitsUsedPerHour": "string",
            "AverageNumberOfInstancesUsedPerHour": "string",
            "AverageUtilization": "string",
            "CurrencyCode": "string",
            "EstimatedBreakEvenInMonths": "string",
            "EstimatedMonthlyOnDemandCost": "string",
            "EstimatedMonthlySavingsAmount": "string",
            "EstimatedMonthlySavingsPercentage": "string",
            "EstimatedReservationCostForLookbackPeriod": "string",
            "InstanceDetails": {
               "EC2InstanceDetails": {
                  "AvailabilityZone": "string",
                  "CurrentGeneration": boolean,
                  "Family": "string",
                  "InstanceType": "string",
                  "Platform": "string",
                  "Region": "string",
                  "SizeFlexEligible": boolean,
                  "Tenancy": "string"
               },
               "ElastiCacheInstanceDetails": {
                  "CurrentGeneration": boolean,
                  "Family": "string",
                  "NodeType": "string",
                  "ProductDescription": "string",
                  "Region": "string",
                  "SizeFlexEligible": boolean
               },
               "ESInstanceDetails": {
                  "CurrentGeneration": boolean,
                  "InstanceClass": "string",
                  "InstanceSize": "string",
                  "Region": "string",
                  "SizeFlexEligible": boolean
               },
               "MemoryDBInstanceDetails": {
                  "CurrentGeneration": boolean,
                  "Family": "string",
                  "NodeType": "string",
                  "Region": "string",
```

```
                  "SizeFlexEligible": boolean
               },
               "RDSInstanceDetails": {
                  "CurrentGeneration": boolean,
                  "DatabaseEdition": "string",
                  "DatabaseEngine": "string",
                  "DeploymentModel": "string",
                  "DeploymentOption": "string",
                  "Family": "string",
                  "InstanceType": "string",
                  "LicenseModel": "string",
                  "Region": "string",
                  "SizeFlexEligible": boolean
               },
               "RedshiftInstanceDetails": {
                  "CurrentGeneration": boolean,
                  "Family": "string",
                  "NodeType": "string",
                  "Region": "string",
                  "SizeFlexEligible": boolean
               }
            },
            "MaximumNormalizedUnitsUsedPerHour": "string",
            "MaximumNumberOfCapacityUnitsUsedPerHour": "string",
            "MaximumNumberOfInstancesUsedPerHour": "string",
            "MinimumNormalizedUnitsUsedPerHour": "string",
            "MinimumNumberOfCapacityUnitsUsedPerHour": "string",
            "MinimumNumberOfInstancesUsedPerHour": "string",
            "RecommendedNormalizedUnitsToPurchase": "string",
            "RecommendedNumberOfCapacityUnitsToPurchase": "string",
            "RecommendedNumberOfInstancesToPurchase": "string",
            "RecurringStandardMonthlyCost": "string",
            "ReservedCapacityDetails": {
               "DynamoDBCapacityDetails": {
                  "CapacityUnits": "string",
                  "Region": "string"
               }
            },
            "UpfrontCost": "string"
         }
      ],
      "RecommendationSummary": {
         "CurrencyCode": "string",
         "TotalEstimatedMonthlySavingsAmount": "string",
```

```
            "TotalEstimatedMonthlySavingsPercentage": "string"
         },
         "ServiceSpecification": {
            "EC2Specification": {
               "OfferingClass": "string"
            }
         },
         "TermInYears": "string"
      }
   ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Metadata

Information about this specific recommendation call, such as the time stamp for when Cost Explorer generated this recommendation.

Type: ReservationPurchaseRecommendationMetadata object

NextPageToken

The pagination token for the next set of retrievable results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Recommendations

Recommendations for reservations to purchase.

Type: Array of ReservationPurchaseRecommendation objects

Errors

For information about the errors that are common to all actions, see Common Errors.

DataUnavailableException

The requested data is unavailable.

HTTP Status Code: 400

InvalidNextTokenException

The pagination token is invalid. Try again without a pagination token.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetReservationUtilization

Service: AWS Cost Explorer

Retrieves the reservation utilization for your account. Management account in an organization have access to member accounts. You can filter data by dimensions in a time period. You can use `GetDimensionValues` to determine the possible dimension values. Currently, you can group only by `SUBSCRIPTION_ID`.

Request Syntax

```
{
   "Filter": {
      "And": [
         "Expression"
      ],
      "CostCategories": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      },
      "Dimensions": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      },
      "Not": "Expression",
      "Or": [
         "Expression"
      ],
      "Tags": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      }
   },
   "Granularity": "string",
   "GroupBy": [
      {
         "Key": "string",
         "Type": "string"
      }
   ],
```

```
    "MaxResults": number,
    "NextPageToken": "string",
    "SortBy": {
       "Key": "string",
       "SortOrder": "string"
    },
    "TimePeriod": {
       "End": "string",
       "Start": "string"
    }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

Filter

Filters utilization data by dimensions. You can filter by the following dimensions:

- AZ
- CACHE_ENGINE
- DEPLOYMENT_OPTION
- INSTANCE_TYPE
- LINKED_ACCOUNT
- OPERATING_SYSTEM
- PLATFORM
- REGION
- SERVICE

> **Note**
>
> If not specified, the SERVICE filter defaults to Amazon Elastic Compute Cloud - Compute. Supported values for SERVICE are Amazon Elastic Compute Cloud - Compute, Amazon Relational Database Service, Amazon ElastiCache, Amazon Redshift, and Amazon Elasticsearch Service. The value for the SERVICE filter should not exceed "1".

- SCOPE
- TENANCY

`GetReservationUtilization` uses the same Expression object as the other operations, but only `AND` is supported among each dimension, and nesting is supported up to only one level deep. If there are multiple values for a dimension, they are OR'd together.

Type: Expression object

Required: No

Granularity

If `GroupBy` is set, `Granularity` can't be set. If `Granularity` isn't set, the response object doesn't include `Granularity`, either `MONTHLY` or `DAILY`. If both `GroupBy` and `Granularity` aren't set, `GetReservationUtilization` defaults to `DAILY`.

The `GetReservationUtilization` operation supports only `DAILY` and `MONTHLY` granularities.

Type: String

Valid Values: `DAILY | MONTHLY | HOURLY`

Required: No

GroupBy

Groups only by `SUBSCRIPTION_ID`. Metadata is included.

Type: Array of GroupDefinition objects

Required: No

MaxResults

The maximum number of objects that you returned for this request. If more objects are available, in the response, AWS provides a NextPageToken value that you can use in a subsequent call to get the next batch of objects.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

NextPageToken

The token to retrieve the next set of results. AWS provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

SortBy

The value that you want to sort the data by.

The following values are supported for `Key`:

- `UtilizationPercentage`
- `UtilizationPercentageInUnits`
- `PurchasedHours`
- `PurchasedUnits`
- `TotalActualHours`
- `TotalActualUnits`
- `UnusedHours`
- `UnusedUnits`
- `OnDemandCostOfRIHoursUsed`
- `NetRISavings`
- `TotalPotentialRISavings`
- `AmortizedUpfrontFee`
- `AmortizedRecurringFee`
- `TotalAmortizedFee`
- `RICostForUnusedHours`
- `RealizedSavings`
- `UnrealizedSavings`

The supported values for `SortOrder` are `ASCENDING` and `DESCENDING`.

Type: SortDefinition object

Required: No

TimePeriod

Sets the start and end dates for retrieving Reserved Instance (RI) utilization. The start date is inclusive, but the end date is exclusive. For example, if `start` is `2017-01-01` and end is `2017-05-01`, then the cost and usage data is retrieved from `2017-01-01` up to and including `2017-04-30` but not including `2017-05-01`.

Type: DateInterval object

Required: Yes

Response Syntax

```
{
   "NextPageToken": "string",
   "Total": {
      "AmortizedRecurringFee": "string",
      "AmortizedUpfrontFee": "string",
      "NetRISavings": "string",
      "OnDemandCostOfRIHoursUsed": "string",
      "PurchasedHours": "string",
      "PurchasedUnits": "string",
      "RealizedSavings": "string",
      "RICostForUnusedHours": "string",
      "TotalActualHours": "string",
      "TotalActualUnits": "string",
      "TotalAmortizedFee": "string",
      "TotalPotentialRISavings": "string",
      "UnrealizedSavings": "string",
      "UnusedHours": "string",
      "UnusedUnits": "string",
      "UtilizationPercentage": "string",
      "UtilizationPercentageInUnits": "string"
   },
   "UtilizationsByTime": [
      {
         "Groups": [
            {
               "Attributes": {
```

```
            "string" : "string"
         },
         "Key": "string",
         "Utilization": {
            "AmortizedRecurringFee": "string",
            "AmortizedUpfrontFee": "string",
            "NetRISavings": "string",
            "OnDemandCostOfRIHoursUsed": "string",
            "PurchasedHours": "string",
            "PurchasedUnits": "string",
            "RealizedSavings": "string",
            "RICostForUnusedHours": "string",
            "TotalActualHours": "string",
            "TotalActualUnits": "string",
            "TotalAmortizedFee": "string",
            "TotalPotentialRISavings": "string",
            "UnrealizedSavings": "string",
            "UnusedHours": "string",
            "UnusedUnits": "string",
            "UtilizationPercentage": "string",
            "UtilizationPercentageInUnits": "string"
         },
         "Value": "string"
      }
   ],
   "TimePeriod": {
      "End": "string",
      "Start": "string"
   },
   "Total": {
      "AmortizedRecurringFee": "string",
      "AmortizedUpfrontFee": "string",
      "NetRISavings": "string",
      "OnDemandCostOfRIHoursUsed": "string",
      "PurchasedHours": "string",
      "PurchasedUnits": "string",
      "RealizedSavings": "string",
      "RICostForUnusedHours": "string",
      "TotalActualHours": "string",
      "TotalActualUnits": "string",
      "TotalAmortizedFee": "string",
      "TotalPotentialRISavings": "string",
      "UnrealizedSavings": "string",
      "UnusedHours": "string",
```

```
            "UnusedUnits": "string",
            "UtilizationPercentage": "string",
            "UtilizationPercentageInUnits": "string"
         }
      }
   ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

NextPageToken

The token for the next set of retrievable results. AWS provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Total

The total amount of time that you used your Reserved Instances (RIs).

Type: ReservationAggregates object

UtilizationsByTime

The amount of time that you used your Reserved Instances (RIs).

Type: Array of UtilizationByTime objects

Errors

For information about the errors that are common to all actions, see Common Errors.

DataUnavailableException

The requested data is unavailable.

HTTP Status Code: 400

InvalidNextTokenException

The pagination token is invalid. Try again without a pagination token.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

Examples

Example

The following is a sample request and response of the `GetReservationUtilization` operation that enables you to retrieve your RI utilization for all `t2.nano` instance types from 2017-01-01 to 2017-05-01.

Sample Request

```
POST / HTTP/1.1
Host: ce.us-east-1.amazonaws.com
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
 SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSInsightsIndexService.GetReservationUtilization
{
  "TimePeriod": {
    "Start":"2017-07-01",
    "End": "2017-10-01"
  },
  "Filter": {
    "Dimensions": {
      "Key": "INSTANCE_TYPE",
      "Values": [
```

```
        "t2.nano"
      ]
    }
  },
  "GroupBy":[
    {
      "Type":"Dimension",
      "Key":"SUBSCRIPTION_ID"
    }
  ]
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
  "UtilizationsByTime": [{
    "Groups": [{
      "Attributes": {
        "AccountId": "0123456789",
        "AccountName": null,
        "AvailabilityZone": "",
        "CancellationDateTime": "2019-09-28T15:22:31.000Z",
        "EndDateTime": "2019-09-28T15:22:31.000Z",
        "InstanceType": "t2.nano",
        "LeaseId": null,
        "NumberOfInstances": "1",
        "OfferingType": "convertible",
        "Platform": "Linux/UNIX",
        "Region": "us-east-1",
        "Scope": "Region",
        "StartDateTime": "2016-09-28T15:22:32.000Z",
        "SubscriptionId": "359809062",
        "SubscriptionStatus": "Active",
        "SubscriptionType": "All Upfront",
        "Tenancy": "Shared"
      },
      "Key": "SUBSCRIPTION_ID",
      "Utilization": {
```

```
        "PurchasedHours": 2208,
        "TotalActualHours": 2208,
        "UnusedHours": 0,
        "UtilizationPercentage": 100
      },
      "Value": "359809062"
    },
    {
      "Attributes": {
        "": "0123456789",
        "AccountName": null,
        "AvailabilityZone": "us-east-1d",
        "CancellationDateTime": "2017-09-28T15:22:31.000Z",
        "EndDateTime": "2017-09-28T15:22:31.000Z",
        "InstanceType": "t2.nano",
        "LeaseId": null,
        "NumberOfInstances": "1",
        "OfferingType": "Standard",
        "Platform": "Linux/UNIX",
        "Region": "us-east-1",
        "Scope": "Availability Zone",
        "StartDateTime": "2016-09-28T15:22:32.000Z",
        "SubscriptionId": "359809070",
        "SubscriptionStatus": "Active",
        "SubscriptionType": "All Upfront",
        "Tenancy": "Shared"
      },
      "Key": "SUBSCRIPTION_ID",
      "Utilization": {
        "PurchasedHours": 2151,
        "TotalActualHours": 2151,
        "UnusedHours": 0,
        "UtilizationPercentage": 100
      },
      "Value": "359809070"
    },
    {
      "Attributes": {
        "AccountId": "0123456789",
        "AccountName": null,
        "AvailabilityZone": "us-west-2a",
        "CancellationDateTime": "2017-09-20T04:06:02.000Z",
        "EndDateTime": "2017-09-20T04:06:02.000Z",
        "InstanceType": "t2.nano",
```

```
        "LeaseId": null,
        "NumberOfInstances": "1",
        "OfferingType": "Standard",
        "Platform": "Linux/UNIX",
        "Region": "us-west-2",
        "Scope": "Availability Zone",
        "StartDateTime": "2016-09-20T04:06:03.000Z",
        "SubscriptionId": "353571154",
        "SubscriptionStatus": "Active",
        "SubscriptionType": "Partial Upfront",
        "Tenancy": "Shared"
      },
      "Key": "SUBSCRIPTION_ID",
      "Utilization": {
        "PurchasedHours": 1948,
        "TotalActualHours": 0,
        "UnusedHours": 1948,
        "UtilizationPercentage": 0
      },
      "Value": "353571154"
    }
  ],
  "TimePeriod": {
    "End": "2017-10-01",
    "Start": "2017-07-01"
  },
  "Total": {
    "PurchasedHours": 6307,
    "TotalActualHours": 4359,
    "UnusedHours": 1948,
    "UtilizationPercentage": 69.11368320913270968764864436340574
  }
  }]
}
```


See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET

- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetRightsizingRecommendation

Service: AWS Cost Explorer

Creates recommendations that help you save cost by identifying idle and underutilized Amazon EC2 instances.

Recommendations are generated to either downsize or terminate instances, along with providing savings detail and metrics. For more information about calculation and function, see Optimizing Your Cost with Rightsizing Recommendations in the *AWS Billing and Cost Management User Guide*.

Request Syntax

```
{
   "Configuration": {
      "BenefitsConsidered": boolean,
      "RecommendationTarget": "string"
   },
   "Filter": {
      "And": [
         "Expression"
      ],
      "CostCategories": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      },
      "Dimensions": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      },
      "Not": "Expression",
      "Or": [
         "Expression"
      ],
      "Tags": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      }
   },
   "NextPageToken": "string",
   "PageSize": number,
```

```
   "Service": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

Configuration

You can use Configuration to customize recommendations across two attributes. You can choose to view recommendations for instances within the same instance families or across different instance families. You can also choose to view your estimated savings that are associated with recommendations with consideration of existing Savings Plans or RI benefits, or neither.

Type: RightsizingRecommendationConfiguration object

Required: No

Filter

Use `Expression` to filter in various Cost Explorer APIs.

Not all `Expression` types are supported in each API. Refer to the documentation for each specific API to see what is supported.

There are two patterns:

- Simple dimension values.
  - There are three types of simple dimension values: `CostCategories`, `Tags`, and `Dimensions`.
    - Specify the `CostCategories` field to define a filter that acts on Cost Categories.
    - Specify the `Tags` field to define a filter that acts on Cost Allocation Tags.
    - Specify the `Dimensions` field to define a filter that acts on the `DimensionValues`.
  - For each filter type, you can set the dimension name and values for the filters that you plan to use.
    - For example, you can filter for `REGION==us-east-1 OR REGION==us-west-1`. For `GetRightsizingRecommendation`, the Region is a full name (for example, `REGION==US East (N. Virginia)`.

    - The corresponding `Expression` for this example is as follows: `{ "Dimensions": { "Key": "REGION", "Values": [ "us-east-1", "us-west-1" ] } }`
    - As shown in the previous example, lists of dimension values are combined with `OR` when applying the filter.
  - You can also set different match options to further control how the filter behaves. Not all APIs support match options. Refer to the documentation for each specific API to see what is supported.
    - For example, you can filter for linked account names that start with "a".
    - The corresponding `Expression` for this example is as follows: `{ "Dimensions": { "Key": "LINKED_ACCOUNT_NAME", "MatchOptions": [ "STARTS_WITH" ], "Values": [ "a" ] } }`
- Compound `Expression` types with logical operations.
  - You can use multiple `Expression` types and the logical operators `AND/OR/NOT` to create a list of one or more `Expression` objects. By doing this, you can filter by more advanced options.
  - For example, you can filter by `((REGION == us-east-1 OR REGION == us-west-1) OR (TAG.Type == Type1)) AND (USAGE_TYPE != DataTransfer)`.
  - The corresponding `Expression` for this example is as follows: `{ "And": [ {"Or": [ {"Dimensions": { "Key": "REGION", "Values": [ "us-east-1", "us-west-1" ] }}, {"Tags": { "Key": "TagName", "Values": ["Value1"] } } ]}, {"Not": {"Dimensions": { "Key": "USAGE_TYPE", "Values": ["DataTransfer"] }}} ] }`

> **Note**
>
> Because each `Expression` can have only one operator, the service returns an error if more than one is specified. The following example shows an `Expression` object that creates an error: `{ "And": [ ... ], "Dimensions": { "Key": "USAGE_TYPE", "Values": [ "DataTransfer" ] } }`
>
> The following is an example of the corresponding error message: `"Expression has more than one roots. Only one root operator is allowed for each expression: And, Or, Not, Dimensions, Tags, CostCategories"`

> **Note**
>
> For the `GetRightsizingRecommendation` action, a combination of OR and NOT isn't supported. OR isn't supported between different dimensions, or dimensions and tags. NOT operators aren't supported. Dimensions are also limited to `LINKED_ACCOUNT`, `REGION`, or `RIGHTSIZING_TYPE`.
> For the `GetReservationPurchaseRecommendation` action, only NOT is supported. AND and OR aren't supported. Dimensions are limited to `LINKED_ACCOUNT`.

Type: Expression object

Required: No

NextPageToken

The pagination token that indicates the next set of results that you want to retrieve.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

PageSize

The number of recommendations that you want returned in a single response object.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 6000.

Required: No

Service

The specific service that you want recommendations for. The only valid value for `GetRightsizingRecommendation` is "`AmazonEC2`".

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: [\S\s]*

Required: Yes

Response Syntax

```
{
   "Configuration": {
      "BenefitsConsidered": boolean,
      "RecommendationTarget": "string"
   },
   "Metadata": {
      "AdditionalMetadata": "string",
      "GenerationTimestamp": "string",
      "LookbackPeriodInDays": "string",
      "RecommendationId": "string"
   },
   "NextPageToken": "string",
   "RightsizingRecommendations": [
      {
         "AccountId": "string",
         "CurrentInstance": {
            "CurrencyCode": "string",
            "InstanceName": "string",
            "MonthlyCost": "string",
            "OnDemandHoursInLookbackPeriod": "string",
            "ReservationCoveredHoursInLookbackPeriod": "string",
            "ResourceDetails": {
               "EC2ResourceDetails": {
                  "HourlyOnDemandRate": "string",
                  "InstanceType": "string",
                  "Memory": "string",
                  "NetworkPerformance": "string",
                  "Platform": "string",
                  "Region": "string",
                  "Sku": "string",
                  "Storage": "string",
                  "Vcpu": "string"
               }
            },
            "ResourceId": "string",
            "ResourceUtilization": {
               "EC2ResourceUtilization": {
```

```
                "DiskResourceUtilization": {
                   "DiskReadBytesPerSecond": "string",
                   "DiskReadOpsPerSecond": "string",
                   "DiskWriteBytesPerSecond": "string",
                   "DiskWriteOpsPerSecond": "string"
                },
                "EBSResourceUtilization": {
                   "EbsReadBytesPerSecond": "string",
                   "EbsReadOpsPerSecond": "string",
                   "EbsWriteBytesPerSecond": "string",
                   "EbsWriteOpsPerSecond": "string"
                },
                "MaxCpuUtilizationPercentage": "string",
                "MaxMemoryUtilizationPercentage": "string",
                "MaxStorageUtilizationPercentage": "string",
                "NetworkResourceUtilization": {
                   "NetworkInBytesPerSecond": "string",
                   "NetworkOutBytesPerSecond": "string",
                   "NetworkPacketsInPerSecond": "string",
                   "NetworkPacketsOutPerSecond": "string"
                }
             }
          },
          "SavingsPlansCoveredHoursInLookbackPeriod": "string",
          "Tags": [
             {
                "Key": "string",
                "MatchOptions": [ "string" ],
                "Values": [ "string" ]
             }
          ],
          "TotalRunningHoursInLookbackPeriod": "string"
       },
       "FindingReasonCodes": [ "string" ],
       "ModifyRecommendationDetail": {
          "TargetInstances": [
             {
                "CurrencyCode": "string",
                "DefaultTargetInstance": boolean,
                "EstimatedMonthlyCost": "string",
                "EstimatedMonthlySavings": "string",
                "ExpectedResourceUtilization": {
                   "EC2ResourceUtilization": {
                      "DiskResourceUtilization": {
```

```
                        "DiskReadBytesPerSecond": "string",
                        "DiskReadOpsPerSecond": "string",
                        "DiskWriteBytesPerSecond": "string",
                        "DiskWriteOpsPerSecond": "string"
                     },
                     "EBSResourceUtilization": {
                        "EbsReadBytesPerSecond": "string",
                        "EbsReadOpsPerSecond": "string",
                        "EbsWriteBytesPerSecond": "string",
                        "EbsWriteOpsPerSecond": "string"
                     },
                     "MaxCpuUtilizationPercentage": "string",
                     "MaxMemoryUtilizationPercentage": "string",
                     "MaxStorageUtilizationPercentage": "string",
                     "NetworkResourceUtilization": {
                        "NetworkInBytesPerSecond": "string",
                        "NetworkOutBytesPerSecond": "string",
                        "NetworkPacketsInPerSecond": "string",
                        "NetworkPacketsOutPerSecond": "string"
                     }
                  }
               },
               "PlatformDifferences": [ "string" ],
               "ResourceDetails": {
                  "EC2ResourceDetails": {
                     "HourlyOnDemandRate": "string",
                     "InstanceType": "string",
                     "Memory": "string",
                     "NetworkPerformance": "string",
                     "Platform": "string",
                     "Region": "string",
                     "Sku": "string",
                     "Storage": "string",
                     "Vcpu": "string"
                  }
               }
            }
         ]
      },
      "RightsizingType": "string",
      "TerminateRecommendationDetail": {
         "CurrencyCode": "string",
         "EstimatedMonthlySavings": "string"
      }
```

```
        }
    ],
    "Summary": {
        "EstimatedTotalMonthlySavingsAmount": "string",
        "SavingsCurrencyCode": "string",
        "SavingsPercentage": "string",
        "TotalRecommendationCount": "string"
    }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Configuration

You can use Configuration to customize recommendations across two attributes. You can choose to view recommendations for instances within the same instance families or across different instance families. You can also choose to view your estimated savings that are associated with recommendations with consideration of existing Savings Plans or RI benefits, or neither.

Type: RightsizingRecommendationConfiguration object

Metadata

Information regarding this specific recommendation set.

Type: RightsizingRecommendationMetadata object

NextPageToken

The token to retrieve the next set of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

RightsizingRecommendations

Recommendations to rightsize resources.

Type: Array of RightsizingRecommendation objects

Summary

Summary of this recommendation set.

Type: RightsizingRecommendationSummary object

Errors

For information about the errors that are common to all actions, see Common Errors.

InvalidNextTokenException

The pagination token is invalid. Try again without a pagination token.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetSavingsPlanPurchaseRecommendationDetails

Service: AWS Cost Explorer

Retrieves the details for a Savings Plan recommendation. These details include the hourly data-points that construct the cost, coverage, and utilization charts.

Request Syntax

```
{
   "RecommendationDetailId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

RecommendationDetailId

The ID that is associated with the Savings Plan recommendation.

Type: String

Length Constraints: Fixed length of 36.

Pattern: ^[\S\s]{8}-[\S\s]{4}-[\S\s]{4}-[\S\s]{4}-[\S\s]{12}$

Required: Yes

Response Syntax

```
{
   "RecommendationDetailData": {
      "AccountId": "string",
      "AccountScope": "string",
      "CurrencyCode": "string",
      "CurrentAverageCoverage": "string",
      "CurrentAverageHourlyOnDemandSpend": "string",
      "CurrentMaximumHourlyOnDemandSpend": "string",
      "CurrentMinimumHourlyOnDemandSpend": "string",
      "EstimatedAverageCoverage": "string",
```

```
      "EstimatedAverageUtilization": "string",
      "EstimatedMonthlySavingsAmount": "string",
      "EstimatedOnDemandCost": "string",
      "EstimatedOnDemandCostWithCurrentCommitment": "string",
      "EstimatedROI": "string",
      "EstimatedSavingsAmount": "string",
      "EstimatedSavingsPercentage": "string",
      "EstimatedSPCost": "string",
      "ExistingHourlyCommitment": "string",
      "GenerationTimestamp": "string",
      "HourlyCommitmentToPurchase": "string",
      "InstanceFamily": "string",
      "LatestUsageTimestamp": "string",
      "LookbackPeriodInDays": "string",
      "MetricsOverLookbackPeriod": [
         {
            "CurrentCoverage": "string",
            "EstimatedCoverage": "string",
            "EstimatedNewCommitmentUtilization": "string",
            "EstimatedOnDemandCost": "string",
            "StartTime": "string"
         }
      ],
      "OfferingId": "string",
      "PaymentOption": "string",
      "Region": "string",
      "SavingsPlansType": "string",
      "TermInYears": "string",
      "UpfrontCost": "string"
   },
   "RecommendationDetailId": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

RecommendationDetailData

Contains detailed information about a specific Savings Plan recommendation.

Type: RecommendationDetailData object

RecommendationDetailId

The ID that is associated with the Savings Plan recommendation.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `^[\S\s]{8}-[\S\s]{4}-[\S\s]{4}-[\S\s]{4}-[\S\s]{12}$`

Errors

For information about the errors that are common to all actions, see Common Errors.

DataUnavailableException

The requested data is unavailable.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3

- AWS SDK for Python
- AWS SDK for Ruby V3

GetSavingsPlansCoverage

Service: AWS Cost Explorer

Retrieves the Savings Plans covered for your account. This enables you to see how much of your cost is covered by a Savings Plan. An organization's management account can see the coverage of the associated member accounts. This supports dimensions, cost categories, and nested expressions. For any time period, you can filter data for Savings Plans usage with the following dimensions:

- `LINKED_ACCOUNT`
- `REGION`
- `SERVICE`
- `INSTANCE_FAMILY`

To determine valid values for a dimension, use the `GetDimensionValues` operation.

Request Syntax

```
{
   "Filter": {
      "And": [
         "Expression"
      ],
      "CostCategories": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      },
      "Dimensions": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      },
      "Not": "Expression",
      "Or": [
         "Expression"
      ],
      "Tags": {
         "Key": "string",
         "MatchOptions": [ "string" ],
```

```
            "Values": [ "string" ]
         }
      },
      "Granularity": "string",
      "GroupBy": [
         {
            "Key": "string",
            "Type": "string"
         }
      ],
      "MaxResults": number,
      "Metrics": [ "string" ],
      "NextToken": "string",
      "SortBy": {
         "Key": "string",
         "SortOrder": "string"
      },
      "TimePeriod": {
         "End": "string",
         "Start": "string"
      }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

Filter

Filters Savings Plans coverage data by dimensions. You can filter data for Savings Plans usage with the following dimensions:

- `LINKED_ACCOUNT`
- `REGION`
- `SERVICE`
- `INSTANCE_FAMILY`

`GetSavingsPlansCoverage` uses the same Expression object as the other operations, but only `AND` is supported among each dimension. If there are multiple values for a dimension, they are OR'd together.

Cost category is also supported.

Type: Expression object

Required: No

Granularity

The granularity of the Amazon Web Services cost data for your Savings Plans. `Granularity` can't be set if `GroupBy` is set.

The `GetSavingsPlansCoverage` operation supports only `DAILY` and `MONTHLY` granularities.

Type: String

Valid Values: `DAILY | MONTHLY | HOURLY`

Required: No

GroupBy

You can group the data using the attributes `INSTANCE_FAMILY`, `REGION`, or `SERVICE`.

Type: Array of GroupDefinition objects

Required: No

MaxResults

The number of items to be returned in a response. The default is `20`, with a minimum value of 1.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

Metrics

The measurement that you want your Savings Plans coverage reported in. The only valid value is `SpendCoveredBySavingsPlans`.

Type: Array of strings

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

NextToken

The token to retrieve the next set of results. Amazon Web Services provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

SortBy

The value that you want to sort the data by.

The following values are supported for `Key`:

- `SpendCoveredBySavingsPlan`
- `OnDemandCost`
- `CoveragePercentage`
- `TotalCost`
- `InstanceFamily`
- `Region`
- `Service`

The supported values for `SortOrder` are `ASCENDING` and `DESCENDING`.

Type: SortDefinition object

Required: No

TimePeriod

The time period that you want the usage and costs for. The `Start` date must be within 13 months. The End date must be after the `Start` date, and before the current date. Future dates can't be used as an End date.

Type: DateInterval object

Required: Yes

Response Syntax

```
{
   "NextToken": "string",
   "SavingsPlansCoverages": [
      {
         "Attributes": {
            "string" : "string"
         },
         "Coverage": {
            "CoveragePercentage": "string",
            "OnDemandCost": "string",
            "SpendCoveredBySavingsPlans": "string",
            "TotalCost": "string"
         },
         "TimePeriod": {
            "End": "string",
            "Start": "string"
         }
      }
   ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

NextToken

The token to retrieve the next set of results. Amazon Web Services provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

SavingsPlansCoverages

The amount of spend that your Savings Plans covered.

Type: Array of SavingsPlansCoverage objects

Errors

For information about the errors that are common to all actions, see Common Errors.

DataUnavailableException

The requested data is unavailable.

HTTP Status Code: 400

InvalidNextTokenException

The pagination token is invalid. Try again without a pagination token.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin

- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetSavingsPlansPurchaseRecommendation

Service: AWS Cost Explorer

Retrieves the Savings Plans recommendations for your account. First use `StartSavingsPlansPurchaseRecommendationGeneration` to generate a new set of recommendations, and then use `GetSavingsPlansPurchaseRecommendation` to retrieve them.

Request Syntax

```
{
   "AccountScope": "string",
   "Filter": {
      "And": [
         "Expression"
      ],
      "CostCategories": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      },
      "Dimensions": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      },
      "Not": "Expression",
      "Or": [
         "Expression"
      ],
      "Tags": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      }
   },
   "LookbackPeriodInDays": "string",
   "NextPageToken": "string",
   "PageSize": number,
   "PaymentOption": "string",
   "SavingsPlansType": "string",
   "TermInYears": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

AccountScope

The account scope that you want your recommendations for. Amazon Web Services calculates recommendations including the management account and member accounts if the value is set to `PAYER`. If the value is `LINKED`, recommendations are calculated for individual member accounts only.

Type: String

Valid Values: `PAYER | LINKED`

Required: No

Filter

You can filter your recommendations by Account ID with the `LINKED_ACCOUNT` dimension. To filter your recommendations by Account ID, specify `Key` as `LINKED_ACCOUNT` and `Value` as the comma-separated Acount ID(s) that you want to see Savings Plans purchase recommendations for.

For GetSavingsPlansPurchaseRecommendation, the `Filter` doesn't include `CostCategories` or `Tags`. It only includes `Dimensions`. With `Dimensions`, `Key` must be `LINKED_ACCOUNT` and `Value` can be a single Account ID or multiple comma-separated Account IDs that you want to see Savings Plans Purchase Recommendations for. `AND` and `OR` operators are not supported.

Type: Expression object

Required: No

LookbackPeriodInDays

The lookback period that's used to generate the recommendation.

Type: String

Valid Values: `SEVEN_DAYS | THIRTY_DAYS | SIXTY_DAYS`

Required: Yes

NextPageToken

The token to retrieve the next set of results. Amazon Web Services provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

PageSize

The number of recommendations that you want returned in a single response object.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 6000.

Required: No

PaymentOption

The payment option that's used to generate these recommendations.

Type: String

Valid Values: `NO_UPFRONT | PARTIAL_UPFRONT | ALL_UPFRONT | LIGHT_UTILIZATION | MEDIUM_UTILIZATION | HEAVY_UTILIZATION`

Required: Yes

SavingsPlansType

The Savings Plans recommendation type that's requested.

Type: String

Valid Values: `COMPUTE_SP | EC2_INSTANCE_SP | SAGEMAKER_SP | DATABASE_SP`

Required: Yes

TermInYears

The savings plan recommendation term that's used to generate these recommendations.

Type: String

Valid Values: ONE_YEAR | THREE_YEARS

Required: Yes

Response Syntax

```
{
   "Metadata": {
      "AdditionalMetadata": "string",
      "GenerationTimestamp": "string",
      "RecommendationId": "string"
   },
   "NextPageToken": "string",
   "SavingsPlansPurchaseRecommendation": {
      "AccountScope": "string",
      "LookbackPeriodInDays": "string",
      "PaymentOption": "string",
      "SavingsPlansPurchaseRecommendationDetails": [
         {
            "AccountId": "string",
            "CurrencyCode": "string",
            "CurrentAverageHourlyOnDemandSpend": "string",
            "CurrentMaximumHourlyOnDemandSpend": "string",
            "CurrentMinimumHourlyOnDemandSpend": "string",
            "EstimatedAverageUtilization": "string",
            "EstimatedMonthlySavingsAmount": "string",
            "EstimatedOnDemandCost": "string",
            "EstimatedOnDemandCostWithCurrentCommitment": "string",
            "EstimatedROI": "string",
            "EstimatedSavingsAmount": "string",
            "EstimatedSavingsPercentage": "string",
            "EstimatedSPCost": "string",
            "HourlyCommitmentToPurchase": "string",
            "RecommendationDetailId": "string",
            "SavingsPlansDetails": {
               "InstanceFamily": "string",
               "OfferingId": "string",
               "Region": "string"
            },
            "UpfrontCost": "string"
         }
```

```
      ],
      "SavingsPlansPurchaseRecommendationSummary": {
         "CurrencyCode": "string",
         "CurrentOnDemandSpend": "string",
         "DailyCommitmentToPurchase": "string",
         "EstimatedMonthlySavingsAmount": "string",
         "EstimatedOnDemandCostWithCurrentCommitment": "string",
         "EstimatedROI": "string",
         "EstimatedSavingsAmount": "string",
         "EstimatedSavingsPercentage": "string",
         "EstimatedTotalCost": "string",
         "HourlyCommitmentToPurchase": "string",
         "TotalRecommendationCount": "string"
      },
      "SavingsPlansType": "string",
      "TermInYears": "string"
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Metadata

Information that regards this specific recommendation set.

Type: SavingsPlansPurchaseRecommendationMetadata object

NextPageToken

The token for the next set of retrievable results. AWS provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

SavingsPlansPurchaseRecommendation

Contains your request parameters, Savings Plan Recommendations Summary, and Details.

Type: SavingsPlansPurchaseRecommendation object

Errors

For information about the errors that are common to all actions, see Common Errors.

InvalidNextTokenException

The pagination token is invalid. Try again without a pagination token.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetSavingsPlansUtilization

Service: AWS Cost Explorer

Retrieves the Savings Plans utilization for your account across date ranges with daily or monthly granularity. Management account in an organization have access to member accounts. You can use `GetDimensionValues` in `SAVINGS_PLANS` to determine the possible dimension values.

> **Note**
>
> You can't group by any dimension values for `GetSavingsPlansUtilization`.

Request Syntax

```
{
   "Filter": {
      "And": [
         "Expression"
      ],
      "CostCategories": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      },
      "Dimensions": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      },
      "Not": "Expression",
      "Or": [
         "Expression"
      ],
      "Tags": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      }
   },
   "Granularity": "string",
   "SortBy": {
      "Key": "string",
```

```
      "SortOrder": "string"
   },
   "TimePeriod": {
      "End": "string",
      "Start": "string"
   }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

Filter

Filters Savings Plans utilization coverage data for active Savings Plans dimensions. You can filter data with the following dimensions:

- LINKED_ACCOUNT
- SAVINGS_PLAN_ARN
- SAVINGS_PLANS_TYPE
- REGION
- PAYMENT_OPTION
- INSTANCE_TYPE_FAMILY

GetSavingsPlansUtilization uses the same Expression object as the other operations, but only AND is supported among each dimension.

Type: Expression object

Required: No

Granularity

The granularity of the Amazon Web Services utillization data for your Savings Plans.

The GetSavingsPlansUtilization operation supports only DAILY and MONTHLY granularities.

Type: String

Valid Values: DAILY | MONTHLY | HOURLY

Required: No

SortBy

The value that you want to sort the data by.

The following values are supported for `Key`:

- `UtilizationPercentage`
- `TotalCommitment`
- `UsedCommitment`
- `UnusedCommitment`
- `NetSavings`

The supported values for `SortOrder` are `ASCENDING` and `DESCENDING`.

Type: SortDefinition object

Required: No

TimePeriod

The time period that you want the usage and costs for. The `Start` date must be within 13 months. The End date must be after the `Start` date, and before the current date. Future dates can't be used as an End date.

Type: DateInterval object

Required: Yes

Response Syntax

```
{
   "SavingsPlansUtilizationsByTime": [
      {
         "AmortizedCommitment": {
            "AmortizedRecurringCommitment": "string",
            "AmortizedUpfrontCommitment": "string",
            "TotalAmortizedCommitment": "string"
         },
         "Savings": {
            "NetSavings": "string",
```

```
            "OnDemandCostEquivalent": "string"
         },
         "TimePeriod": {
            "End": "string",
            "Start": "string"
         },
         "Utilization": {
            "TotalCommitment": "string",
            "UnusedCommitment": "string",
            "UsedCommitment": "string",
            "UtilizationPercentage": "string"
         }
      }
   ],
   "Total": {
      "AmortizedCommitment": {
         "AmortizedRecurringCommitment": "string",
         "AmortizedUpfrontCommitment": "string",
         "TotalAmortizedCommitment": "string"
      },
      "Savings": {
         "NetSavings": "string",
         "OnDemandCostEquivalent": "string"
      },
      "Utilization": {
         "TotalCommitment": "string",
         "UnusedCommitment": "string",
         "UsedCommitment": "string",
         "UtilizationPercentage": "string"
      }
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

SavingsPlansUtilizationsByTime

The amount of cost/commitment that you used your Savings Plans. You can use it to specify date ranges.

Type: Array of SavingsPlansUtilizationByTime objects

Total

The total amount of cost/commitment that you used your Savings Plans, regardless of date ranges.

Type: SavingsPlansUtilizationAggregates object

Errors

For information about the errors that are common to all actions, see Common Errors.

DataUnavailableException

The requested data is unavailable.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python

- AWS SDK for Ruby V3

GetSavingsPlansUtilizationDetails

Service: AWS Cost Explorer

Retrieves attribute data along with aggregate utilization and savings data for a given time period. This doesn't support granular or grouped data (daily/monthly) in response. You can't retrieve data by dates in a single response similar to `GetSavingsPlanUtilization`, but you have the option to make multiple calls to `GetSavingsPlanUtilizationDetails` by providing individual dates. You can use `GetDimensionValues` in `SAVINGS_PLANS` to determine the possible dimension values.

> **Note**
>
> `GetSavingsPlanUtilizationDetails` internally groups data by `SavingsPlansArn`.

Request Syntax

```
{
   "DataType": [ "string" ],
   "Filter": {
      "And": [
         "Expression"
      ],
      "CostCategories": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      },
      "Dimensions": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      },
      "Not": "Expression",
      "Or": [
         "Expression"
      ],
      "Tags": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
```

```
      }
   },
   "MaxResults": number,
   "NextToken": "string",
   "SortBy": {
      "Key": "string",
      "SortOrder": "string"
   },
   "TimePeriod": {
      "End": "string",
      "Start": "string"
   }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

DataType

The data type.

Type: Array of strings

Valid Values: `ATTRIBUTES | UTILIZATION | AMORTIZED_COMMITMENT | SAVINGS`

Required: No

Filter

Filters Savings Plans utilization coverage data for active Savings Plans dimensions. You can filter data with the following dimensions:

- `LINKED_ACCOUNT`
- `SAVINGS_PLAN_ARN`
- `REGION`
- `PAYMENT_OPTION`
- `INSTANCE_TYPE_FAMILY`

`GetSavingsPlansUtilizationDetails` uses the same Expression object as the other operations, but only `AND` is supported among each dimension.

Type: Expression object

Required: No

MaxResults

The number of items to be returned in a response. The default is 20, with a minimum value of 1.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

NextToken

The token to retrieve the next set of results. Amazon Web Services provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: [\S\s]*

Required: No

SortBy

The value that you want to sort the data by.

The following values are supported for Key:

- UtilizationPercentage
- TotalCommitment
- UsedCommitment
- UnusedCommitment
- NetSavings
- AmortizedRecurringCommitment
- AmortizedUpfrontCommitment

The supported values for SortOrder are ASCENDING and DESCENDING.

Type: SortDefinition object

Required: No

TimePeriod

The time period that you want the usage and costs for. The `Start` date must be within 13 months. The End date must be after the `Start` date, and before the current date. Future dates can't be used as an End date.

Type: DateInterval object

Required: Yes

Response Syntax

```
{
   "NextToken": "string",
   "SavingsPlansUtilizationDetails": [
      {
         "AmortizedCommitment": {
            "AmortizedRecurringCommitment": "string",
            "AmortizedUpfrontCommitment": "string",
            "TotalAmortizedCommitment": "string"
         },
         "Attributes": {
            "string" : "string"
         },
         "Savings": {
            "NetSavings": "string",
            "OnDemandCostEquivalent": "string"
         },
         "SavingsPlanArn": "string",
         "Utilization": {
            "TotalCommitment": "string",
            "UnusedCommitment": "string",
            "UsedCommitment": "string",
            "UtilizationPercentage": "string"
         }
      }
   ],
   "TimePeriod": {
      "End": "string",
```

```
      "Start": "string"
   },
   "Total": {
      "AmortizedCommitment": {
         "AmortizedRecurringCommitment": "string",
         "AmortizedUpfrontCommitment": "string",
         "TotalAmortizedCommitment": "string"
      },
      "Savings": {
         "NetSavings": "string",
         "OnDemandCostEquivalent": "string"
      },
      "Utilization": {
         "TotalCommitment": "string",
         "UnusedCommitment": "string",
         "UsedCommitment": "string",
         "UtilizationPercentage": "string"
      }
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

NextToken

The token to retrieve the next set of results. Amazon Web Services provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

SavingsPlansUtilizationDetails

Retrieves a single daily or monthly Savings Plans utilization rate and details for your account.

Type: Array of SavingsPlansUtilizationDetail objects

TimePeriod

The time period of the request.

Type: DateInterval object

Total

The total Savings Plans utilization, regardless of time period.

Type: SavingsPlansUtilizationAggregates object

Errors

For information about the errors that are common to all actions, see Common Errors.

DataUnavailableException

The requested data is unavailable.

HTTP Status Code: 400

InvalidNextTokenException

The pagination token is invalid. Try again without a pagination token.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++

- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetTags

Service: AWS Cost Explorer

Queries for available tag keys and tag values for a specified period. You can search the tag values for an arbitrary string.

Request Syntax

```
{
   "BillingViewArn": "string",
   "Filter": {
      "And": [
         "Expression"
      ],
      "CostCategories": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      },
      "Dimensions": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      },
      "Not": "Expression",
      "Or": [
         "Expression"
      ],
      "Tags": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      }
   },
   "MaxResults": number,
   "NextPageToken": "string",
   "SearchString": "string",
   "SortBy": [
      {
         "Key": "string",
         "SortOrder": "string"
      }
   ],
```

```
   "TagKey": "string",
   "TimePeriod": {
      "End": "string",
      "Start": "string"
   }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

BillingViewArn

The Amazon Resource Name (ARN) that uniquely identifies a specific billing view. The ARN is used to specify which particular billing view you want to interact with or retrieve information from when making API calls related to AWS Billing and Cost Management features. The BillingViewArn can be retrieved by calling the ListBillingViews API.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[-a-zA-Z0-9/:_+=.-@]{1,43}$`

Required: No

Filter

Use `Expression` to filter in various Cost Explorer APIs.

Not all `Expression` types are supported in each API. Refer to the documentation for each specific API to see what is supported.

There are two patterns:

- Simple dimension values.
  - There are three types of simple dimension values: `CostCategories`, `Tags`, and `Dimensions`.
    - Specify the `CostCategories` field to define a filter that acts on Cost Categories.

- Specify the `Tags` field to define a filter that acts on Cost Allocation Tags.
- Specify the `Dimensions` field to define a filter that acts on the `DimensionValues`.

- For each filter type, you can set the dimension name and values for the filters that you plan to use.
  - For example, you can filter for `REGION==us-east-1 OR REGION==us-west-1`. For `GetRightsizingRecommendation`, the Region is a full name (for example, `REGION==US East (N. Virginia)`.
  - The corresponding `Expression` for this example is as follows: `{ "Dimensions": { "Key": "REGION", "Values": [ "us-east-1", "us-west-1" ] } }`
  - As shown in the previous example, lists of dimension values are combined with `OR` when applying the filter.
- You can also set different match options to further control how the filter behaves. Not all APIs support match options. Refer to the documentation for each specific API to see what is supported.
  - For example, you can filter for linked account names that start with "a".
  - The corresponding `Expression` for this example is as follows: `{ "Dimensions": { "Key": "LINKED_ACCOUNT_NAME", "MatchOptions": [ "STARTS_WITH" ], "Values": [ "a" ] } }`

- Compound `Expression` types with logical operations.
  - You can use multiple `Expression` types and the logical operators `AND/OR/NOT` to create a list of one or more `Expression` objects. By doing this, you can filter by more advanced options.
  - For example, you can filter by `((REGION == us-east-1 OR REGION == us-west-1) OR (TAG.Type == Type1)) AND (USAGE_TYPE != DataTransfer)`.
  - The corresponding `Expression` for this example is as follows: `{ "And": [ {"Or": [ {"Dimensions": { "Key": "REGION", "Values": [ "us-east-1", "us-west-1" ] }}, {"Tags": { "Key": "TagName", "Values": ["Value1"] } } ]}, {"Not": {"Dimensions": { "Key": "USAGE_TYPE", "Values": ["DataTransfer"] }}} ] }`

> **Note**
>
> Because each `Expression` can have only one operator, the service returns an error if more than one is specified. The following example shows an `Expression`

object that creates an error: `{ "And": [ ... ], "Dimensions": { "Key": "USAGE_TYPE", "Values": [ "DataTransfer" ] } }`
The following is an example of the corresponding error message: `"Expression has more than one roots. Only one root operator is allowed for each expression: And, Or, Not, Dimensions, Tags, CostCategories"`

Note

For the `GetRightsizingRecommendation` action, a combination of OR and NOT isn't supported. OR isn't supported between different dimensions, or dimensions and tags. NOT operators aren't supported. Dimensions are also limited to `LINKED_ACCOUNT`, `REGION`, or `RIGHTSIZING_TYPE`.
For the `GetReservationPurchaseRecommendation` action, only NOT is supported. AND and OR aren't supported. Dimensions are limited to `LINKED_ACCOUNT`.

Type: Expression object

Required: No

MaxResults

This field is only used when SortBy is provided in the request. The maximum number of objects that are returned for this request. If MaxResults isn't specified with SortBy, the request returns 1000 results as the default value for this parameter.

For `GetTags`, MaxResults has an upper quota of 1000.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

NextPageToken

The token to retrieve the next set of results. AWS provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

SearchString

The value that you want to search for.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

SortBy

The value that you want to sort the data by.

The key represents cost and usage metrics. The following values are supported:

- `BlendedCost`
- `UnblendedCost`
- `AmortizedCost`
- `NetAmortizedCost`
- `NetUnblendedCost`
- `UsageQuantity`
- `NormalizedUsageAmount`

The supported values for `SortOrder` are `ASCENDING` and `DESCENDING`.

When you use `SortBy`, `NextPageToken` and `SearchString` aren't supported.

Type: Array of SortDefinition objects

Required: No

TagKey

The key of the tag that you want to return values for.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

TimePeriod

The start and end dates for retrieving the dimension values. The start date is inclusive, but the end date is exclusive. For example, if `start` is `2017-01-01` and end is `2017-05-01`, then the cost and usage data is retrieved from `2017-01-01` up to and including `2017-04-30` but not including `2017-05-01`.

Type: DateInterval object

Required: Yes

Response Syntax

```
{
   "NextPageToken": "string",
   "ReturnSize": number,
   "Tags": [ "string" ],
   "TotalSize": number
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

NextPageToken

The token for the next set of retrievable results. AWS provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

ReturnSize

The number of query results that AWS returns at a time.

Type: Integer

Tags

The tags that match your request.

Type: Array of strings

TotalSize

The total number of query results.

Type: Integer

Errors

For information about the errors that are common to all actions, see Common Errors.

BillExpirationException

The requested report expired. Update the date interval and try again.

HTTP Status Code: 400

BillingViewHealthStatusException

The billing view status must be `HEALTHY` to perform this action. Try again when the status is `HEALTHY`.

HTTP Status Code: 400

DataUnavailableException

The requested data is unavailable.

HTTP Status Code: 400

InvalidNextTokenException

The pagination token is invalid. Try again without a pagination token.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

RequestChangedException

Your request parameters changed between pages. Try again with the old parameters or without a pagination token.

HTTP Status Code: 400

ResourceNotFoundException

The specified ARN in the request doesn't exist.

HTTP Status Code: 400

Examples

Example

The following example shows how to retrieve the list of tag keys using the `GetTags` operation.

Sample Request

```
POST / HTTP/1.1
Host: ce.us-east-1.amazonaws.com
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
 SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSInsightsIndexService.GetTags
{
  "TimePeriod": {
    "Start": "2017-01-01",
    "End": "2017-05-18"
```

```
  },
  "TagKey": "Project",
  "SearchString": "secretProject"
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
  "ReturnSize": 2,
  "Tags": [
    secretProject1",
    "secretProject2"
    ],
  "TotalSize": 2
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetUsageForecast

Service: AWS Cost Explorer

Retrieves a forecast for how much Amazon Web Services predicts that you will use over the forecast time period that you select, based on your past usage.

Request Syntax

```
{
   "BillingViewArn": "string",
   "Filter": {
      "And": [
         "Expression"
      ],
      "CostCategories": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      },
      "Dimensions": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      },
      "Not": "Expression",
      "Or": [
         "Expression"
      ],
      "Tags": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      }
   },
   "Granularity": "string",
   "Metric": "string",
   "PredictionIntervalLevel": number,
   "TimePeriod": {
      "End": "string",
      "Start": "string"
   }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

BillingViewArn

The Amazon Resource Name (ARN) that uniquely identifies a specific billing view. The ARN is used to specify which particular billing view you want to interact with or retrieve information from when making API calls related to AWS Billing and Cost Management features. The BillingViewArn can be retrieved by calling the ListBillingViews API.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[-a-zA-Z0-9/:_+=.-@]{1,43}$`

Required: No

Filter

The filters that you want to use to filter your forecast. The `GetUsageForecast` API supports filtering by the following dimensions:

- `AZ`
- `INSTANCE_TYPE`
- `LINKED_ACCOUNT`
- `LINKED_ACCOUNT_NAME`
- `OPERATION`
- `PURCHASE_TYPE`
- `REGION`
- `SERVICE`
- `USAGE_TYPE`
- `USAGE_TYPE_GROUP`
- `RECORD_TYPE`
- `OPERATING_SYSTEM`

- TENANCY
- SCOPE
- PLATFORM
- SUBSCRIPTION_ID
- LEGAL_ENTITY_NAME
- DEPLOYMENT_OPTION
- DATABASE_ENGINE
- INSTANCE_TYPE_FAMILY
- BILLING_ENTITY
- RESERVATION_ID
- SAVINGS_PLAN_ARN

Type: Expression object

Required: No

Granularity

How granular you want the forecast to be. You can get 3 months of DAILY forecasts or 18 months of MONTHLY forecasts.

The GetUsageForecast operation supports only DAILY and MONTHLY granularities.

Type: String

Valid Values: DAILY | MONTHLY | HOURLY

Required: Yes

Metric

Which metric Cost Explorer uses to create your forecast.

Valid values for a GetUsageForecast call are the following:

- USAGE_QUANTITY
- NORMALIZED_USAGE_AMOUNT

Type: String

Valid Values: `BLENDED_COST | UNBLENDED_COST | AMORTIZED_COST | NET_UNBLENDED_COST | NET_AMORTIZED_COST | USAGE_QUANTITY | NORMALIZED_USAGE_AMOUNT`

Required: Yes

PredictionIntervalLevel

AWS Cost Explorer always returns the mean forecast as a single point. You can request a prediction interval around the mean by specifying a confidence level. The higher the confidence level, the more confident Cost Explorer is about the actual value falling in the prediction interval. Higher confidence levels result in wider prediction intervals.

Type: Integer

Valid Range: Minimum value of 51. Maximum value of 99.

Required: No

TimePeriod

The start and end dates of the period that you want to retrieve usage forecast for. The start date is included in the period, but the end date isn't included in the period. For example, if `start` is `2017-01-01` and end is `2017-05-01`, then the cost and usage data is retrieved from `2017-01-01` up to and including `2017-04-30` but not including `2017-05-01`. The start date must be equal to or later than the current date to avoid a validation error.

Type: DateInterval object

Required: Yes

Response Syntax

```
{
   "ForecastResultsByTime": [
      {
         "MeanValue": "string",
         "PredictionIntervalLowerBound": "string",
         "PredictionIntervalUpperBound": "string",
         "TimePeriod": {
            "End": "string",
            "Start": "string"
```

```
            }
         }
      ],
      "Total": {
         "Amount": "string",
         "Unit": "string"
      }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

ForecastResultsByTime

The forecasts for your query, in order. For `DAILY` forecasts, this is a list of days. For `MONTHLY` forecasts, this is a list of months.

Type: Array of ForecastResult objects

Total

How much you're forecasted to use over the forecast period.

Type: MetricValue object

Errors

For information about the errors that are common to all actions, see Common Errors.

BillingViewHealthStatusException

The billing view status must be `HEALTHY` to perform this action. Try again when the status is `HEALTHY`.

HTTP Status Code: 400

DataUnavailableException

The requested data is unavailable.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

ResourceNotFoundException

The specified ARN in the request doesn't exist.

HTTP Status Code: 400

UnresolvableUsageUnitException

Cost Explorer was unable to identify the usage unit. Provide `UsageType/UsageTypeGroup` filter selections that contain matching units, for example: `hours`.

HTTP Status Code: 400

Examples

Example

The following example shows how to retrieve a forecast using the `GetUsageForecast` operation.

Sample Request

```
POST / HTTP/1.1
Host: ce.us-east-1.amazonaws.com
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
 SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSInsightsIndexService.GetUsageForecast
{
  "TimePeriod": {
    "Start":"2018-10-25",
    "End": "2018-10-27"
  },
  "Granularity": "DAILY",
```

```
  "Filter": {
    "Dimensions": {
      "Key": "SERVICE",
      "Values": [
        "Amazon Simple Storage Service"
      ]
    }
  },
  "Metric":"USAGE_QUANTITY",
  "PredictionIntervalLevel":85
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
  "ForecastResultsByTime": [
    {
      "MeanValue": "37.0786663399",
      "PredictionIntervalLowerBound": "34.9970026341",
      "PredictionIntervalUpperBound": "39.1603300457",
      "TimePeriod": {
        "End": "2019-10-26",
        "Start": "2019-10-25"
      }
    },
    {
      "MeanValue": "37.0786663399",
      "PredictionIntervalLowerBound": "34.9970026341",
      "PredictionIntervalUpperBound": "39.1603300457",
      "TimePeriod": {
        "End": "2019-10-27",
        "Start": "2019-10-26"
      }
    }
  ],
  "Total": {
      "Amount": "74.1573326798",
      "Unit": "Hrs"
```

```
    }
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListCommitmentPurchaseAnalyses

Service: AWS Cost Explorer

Lists the commitment purchase analyses for your account.

Request Syntax

```
{
   "AnalysisIds": [ "string" ],
   "AnalysisStatus": "string",
   "NextPageToken": "string",
   "PageSize": number
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

AnalysisIds

The analysis IDs associated with the commitment purchase analyses.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 600 items.

Length Constraints: Fixed length of 36.

Pattern: `^[\S\s]{8}-[\S\s]{4}-[\S\s]{4}-[\S\s]{4}-[\S\s]{12}$`

Required: No

AnalysisStatus

The status of the analysis.

Type: String

Valid Values: `SUCCEEDED | PROCESSING | FAILED`

Required: No

NextPageToken

The token to retrieve the next set of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

PageSize

The number of analyses that you want returned in a single response object.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 600.

Required: No

Response Syntax

```
{
   "AnalysisSummaryList": [
      {
         "AnalysisCompletionTime": "string",
         "AnalysisId": "string",
         "AnalysisStartedTime": "string",
         "AnalysisStatus": "string",
         "CommitmentPurchaseAnalysisConfiguration": {
            "SavingsPlansPurchaseAnalysisConfiguration": {
               "AccountId": "string",
               "AccountScope": "string",
               "AnalysisType": "string",
               "LookBackTimePeriod": {
                  "End": "string",
                  "Start": "string"
               },
               "SavingsPlansToAdd": [
                  {
                     "InstanceFamily": "string",
```

```
                    "OfferingId": "string",
                    "PaymentOption": "string",
                    "Region": "string",
                    "SavingsPlansCommitment": number,
                    "SavingsPlansType": "string",
                    "TermInYears": "string"
                }
            ],
            "SavingsPlansToExclude": [ "string" ]
        }
    },
    "ErrorCode": "string",
    "EstimatedCompletionTime": "string"
  }
 ],
 "NextPageToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

AnalysisSummaryList

The list of analyses.

Type: Array of AnalysisSummary objects

NextPageToken

The token to retrieve the next set of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see Common Errors.

DataUnavailableException

The requested data is unavailable.

HTTP Status Code: 400

InvalidNextTokenException

The pagination token is invalid. Try again without a pagination token.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListCostAllocationTagBackfillHistory

Service: AWS Cost Explorer

Retrieves a list of your historical cost allocation tag backfill requests.

Request Syntax

```
{
   "MaxResults": number,
   "NextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

MaxResults

The maximum number of objects that are returned for this request.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

NextToken

The token to retrieve the next set of results. AWS provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

Response Syntax

```
{
```

```
   "BackfillRequests": [
      {
         "BackfillFrom": "string",
         "BackfillStatus": "string",
         "CompletedAt": "string",
         "LastUpdatedAt": "string",
         "RequestedAt": "string"
      }
   ],
   "NextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

BackfillRequests

The list of historical cost allocation tag backfill requests.

Type: Array of CostAllocationTagBackfillRequest objects

Array Members: Minimum number of 0 items. Maximum number of 1000 items.

NextToken

The token to retrieve the next set of results. AWS provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see Common Errors.

InvalidNextTokenException

The pagination token is invalid. Try again without a pagination token.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

Examples

The following are sample requests and responses of the `ListCostAllocationTagBackfillHistory` operations.

Example 1: List the latest cost allocation tag backfill request

This example illustrates one usage of ListCostAllocationTagBackfillHistory.

Sample Request

```
{
    "MaxResults": 1
}
```

Sample Response

```
{
    "BackfillRequests": [
        {
            "BackfillFrom":"2024-02-01T00:00:00Z",
            "BackfillStatus":"PROCESSING",
            "RequestedAt":"2024-03-01T09:16:23Z",
            "LastUpdatedAt":"2024-03-01T09:16:23Z"
        }
    ],
    "NextToken": null
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListCostAllocationTags

Service: AWS Cost Explorer

Get a list of cost allocation tags. All inputs in the API are optional and serve as filters. By default, all cost allocation tags are returned.

Request Syntax

```
{
   "MaxResults": number,
   "NextToken": "string",
   "Status": "string",
   "TagKeys": [ "string" ],
   "Type": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

MaxResults

The maximum number of objects that are returned for this request. By default, the request returns 100 results.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

NextToken

The token to retrieve the next set of results. AWS provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

Status

The status of cost allocation tag keys that are returned for this request.

Type: String

Valid Values: `Active | Inactive`

Required: No

TagKeys

The list of cost allocation tag keys that are returned for this request.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Type

The type of `CostAllocationTag` object that are returned for this request. The `AWSGenerated` type tags are tags that AWS defines and applies to support AWS resources for cost allocation purposes. The `UserDefined` type tags are tags that you define, create, and apply to resources.

Type: String

Valid Values: `AWSGenerated | UserDefined`

Required: No

Response Syntax

```
{
   "CostAllocationTags": [
      {
         "LastUpdatedDate": "string",
```

```
            "LastUsedDate": "string",
            "Status": "string",
            "TagKey": "string",
            "Type": "string"
        }
    ],
    "NextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

CostAllocationTags

A list of cost allocation tags that includes the detailed metadata for each one.

Type: Array of CostAllocationTag objects

Array Members: Minimum number of 0 items. Maximum number of 100 items.

NextToken

The token to retrieve the next set of results. AWS provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see Common Errors.

InvalidNextTokenException

The pagination token is invalid. Try again without a pagination token.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

Examples

The following are sample requests and responses of the `ListCostAllocationTags` operations.

Example 1: List all user defined active tags

This example illustrates one usage of ListCostAllocationTags.

Sample Request

```
{
    "Type": "UserDefined",
    "Status": "Active"
}
```

Sample Response

```
{
    "CostAllocationTags": [
        {
            "TagKey": "tagA",
            "Type": "UserDefined",
            "Status": "Active"
        }
    ],
    "NextToken": null
}
```

Example 2: List all tags by tag keys

This example illustrates one usage of ListCostAllocationTags.

Sample Request

```
{
```

```
    "TagKeys": ["tagA", "tagB"]
}
```

Sample Response

```
{
    "CostAllocationTags": [
        {
            "TagKey": "tagA",
            "Type": "UserDefined",
            "Status": "Active"
        },
        {
            "TagKey": "tagB",
            "Type": "UserDefined",
            "Status": "Inactive"
        }
    ],
    "NextToken": null
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListCostCategoryDefinitions

Service: AWS Cost Explorer

Returns the name, Amazon Resource Name (ARN), `NumberOfRules` and effective dates of all cost categories defined in the account. You have the option to use `EffectiveOn` and `SupportedResourceTypes` to return a list of cost categories that were active on a specific date. If there is no `EffectiveOn` specified, you'll see cost categories that are effective on the current date. If cost category is still effective, `EffectiveEnd` is omitted in the response. `ListCostCategoryDefinitions` supports pagination. The request can have a `MaxResults` range up to 100.

Request Syntax

```
{
   "EffectiveOn": "string",
   "MaxResults": number,
   "NextToken": "string",
   "SupportedResourceTypes": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

EffectiveOn

The date when the cost category was effective.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([+-]\d\d:\d\d)|Z)$`

Required: No

MaxResults

The number of entries a paginated response contains.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

NextToken

The token to retrieve the next set of results. Amazon Web Services provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

SupportedResourceTypes

Filter cost category definitions that are supported by given resource types based on the latest version. If the filter is present, the result only includes Cost Categories that supports input resource type. If the filter isn't provided, no filtering is applied. The valid values are `billing:rispgroupsharing` and `billing:billingview`.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 5 items.

Pattern: `^[-a-zA-Z0-9/_]+:[-a-zA-Z0-9/_]+`

Required: No

Response Syntax

```
{
   "CostCategoryReferences": [
      {
         "CostCategoryArn": "string",
         "DefaultValue": "string",
         "EffectiveEnd": "string",
```

```
         "EffectiveStart": "string",
         "Name": "string",
         "NumberOfRules": number,
         "ProcessingStatus": [
            {
               "Component": "string",
               "Status": "string"
            }
         ],
         "SupportedResourceTypes": [ "string" ],
         "Values": [ "string" ]
      }
   ],
   "NextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

CostCategoryReferences

A reference to a cost category that contains enough information to identify the Cost Category.

Type: Array of CostCategoryReference objects

NextToken

The token to retrieve the next set of results. AWS provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see Common Errors.

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListCostCategoryResourceAssociations

Service: AWS Cost Explorer

Returns resource associations of all cost categories defined in the account. You have the option to use `CostCategoryArn` to get the association for a specific cost category. `ListCostCategoryResourceAssociations` supports pagination. The request can have a `MaxResults` range up to 100.

Request Syntax

```
{
   "CostCategoryArn": "string",
   "MaxResults": number,
   "NextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

CostCategoryArn

The unique identifier for your cost category.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: No

MaxResults

The number of entries a paginated response contains.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

NextToken

The token to retrieve the next set of results. Amazon Web Services provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

Response Syntax

```
{
   "CostCategoryResourceAssociations": [
      {
         "CostCategoryArn": "string",
         "CostCategoryName": "string",
         "ResourceArn": "string"
      }
   ],
   "NextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

CostCategoryResourceAssociations

A reference to a cost category association that contains information on an associated resource.

Type: Array of CostCategoryResourceAssociation objects

NextToken

The token to retrieve the next set of results. Amazon Web Services provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see Common Errors.

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

ResourceNotFoundException

The specified ARN in the request doesn't exist.

HTTP Status Code: 400

Examples

The following is a sample response of the `ListCostCategoryResourceAssociations` operation that you can use to retrieve all associated cost categories and corresponding associated resources.

Example

This example illustrates one usage of ListCostCategoryResourceAssociations.

Sample Response

```
{
  "CostCategoryResourceAssociations": [
    {
      "CostCategoryArn": "arn:aws:ce::111122223333:costcategory/f595cb52-91ec-4575-
b99f-15829f405ba3",
      "CostCategoryName": "MyCostCategory",
      "ResourceArn": "arn:aws:billing::111122223333:rispgroupsharing/111122223333"
    }
```

```
  ]
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListSavingsPlansPurchaseRecommendationGeneration

Service: AWS Cost Explorer

Retrieves a list of your historical recommendation generations within the past 30 days.

Request Syntax

```
{
   "GenerationStatus": "string",
   "NextPageToken": "string",
   "PageSize": number,
   "RecommendationIds": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

GenerationStatus

The status of the recommendation generation.

Type: String

Valid Values: `SUCCEEDED | PROCESSING | FAILED`

Required: No

NextPageToken

The token to retrieve the next set of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

PageSize

The number of recommendations that you want returned in a single response object.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 6000.

Required: No

RecommendationIds

The IDs for each specific recommendation.

Type: Array of strings

Length Constraints: Fixed length of 36.

Pattern: `^[\S\s]{8}-[\S\s]{4}-[\S\s]{4}-[\S\s]{4}-[\S\s]{12}$`

Required: No

Response Syntax

```
{
   "GenerationSummaryList": [
      {
         "EstimatedCompletionTime": "string",
         "GenerationCompletionTime": "string",
         "GenerationStartedTime": "string",
         "GenerationStatus": "string",
         "RecommendationId": "string"
      }
   ],
   "NextPageToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

GenerationSummaryList

The list of historical recommendation generations.

Type: Array of GenerationSummary objects

NextPageToken

The token to retrieve the next set of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see Common Errors.

DataUnavailableException

The requested data is unavailable.

HTTP Status Code: 400

InvalidNextTokenException

The pagination token is invalid. Try again without a pagination token.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++

- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListTagsForResource

Service: AWS Cost Explorer

Returns a list of resource tags associated with the resource specified by the Amazon Resource Name (ARN).

Request Syntax

```
{
   "ResourceArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

ResourceArn

The Amazon Resource Name (ARN) of the resource. For a list of supported resources, see ResourceTag.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: Yes

Response Syntax

```
{
   "ResourceTags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ]
```

```
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

ResourceTags

A list of tag key value pairs that are associated with the resource.

Type: Array of ResourceTag objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Errors

For information about the errors that are common to all actions, see Common Errors.

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

ResourceNotFoundException

The specified ARN in the request doesn't exist.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2

- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ProvideAnomalyFeedback

Service: AWS Cost Explorer

Modifies the feedback property of a given cost anomaly.

Request Syntax

```
{
   "AnomalyId": "string",
   "Feedback": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

AnomalyId

A cost anomaly ID.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

Feedback

Describes whether the cost anomaly was a planned activity or you considered it an anomaly.

Type: String

Valid Values: `YES | NO | PLANNED_ACTIVITY`

Required: Yes

Response Syntax

```
{
```

```
   "AnomalyId": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

AnomalyId

The ID of the modified cost anomaly.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see Common Errors.

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2

- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

StartCommitmentPurchaseAnalysis

Service: AWS Cost Explorer

Specifies the parameters of a planned commitment purchase and starts the generation of the analysis. This enables you to estimate the cost, coverage, and utilization impact of your planned commitment purchases.

Request Syntax

```
{
   "CommitmentPurchaseAnalysisConfiguration": {
      "SavingsPlansPurchaseAnalysisConfiguration": {
         "AccountId": "string",
         "AccountScope": "string",
         "AnalysisType": "string",
         "LookBackTimePeriod": {
            "End": "string",
            "Start": "string"
         },
         "SavingsPlansToAdd": [
            {
               "InstanceFamily": "string",
               "OfferingId": "string",
               "PaymentOption": "string",
               "Region": "string",
               "SavingsPlansCommitment": number,
               "SavingsPlansType": "string",
               "TermInYears": "string"
            }
         ],
         "SavingsPlansToExclude": [ "string" ]
      }
   }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

CommitmentPurchaseAnalysisConfiguration

The configuration for the commitment purchase analysis.

Type: CommitmentPurchaseAnalysisConfiguration object

Required: Yes

Response Syntax

```
{
   "AnalysisId": "string",
   "AnalysisStartedTime": "string",
   "EstimatedCompletionTime": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

AnalysisId

The analysis ID that's associated with the commitment purchase analysis.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `^[\S\s]{8}-[\S\s]{4}-[\S\s]{4}-[\S\s]{4}-[\S\s]{12}$`

AnalysisStartedTime

The start time of the analysis.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([+-]\d\d:\d\d)|Z)$`

EstimatedCompletionTime

The estimated time for when the analysis will complete.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([+-]\d\d:\d\d)|Z)$`

Errors

For information about the errors that are common to all actions, see Common Errors.

DataUnavailableException

The requested data is unavailable.

HTTP Status Code: 400

GenerationExistsException

A request to generate a recommendation or analysis is already in progress.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

ServiceQuotaExceededException

You've reached the limit on the number of resources you can create, or exceeded the size of an individual resource.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

StartCostAllocationTagBackfill

Service: AWS Cost Explorer

Request a cost allocation tag backfill. This will backfill the activation status (either `active` or `inactive`) for all tag keys from `para:BackfillFrom` up to the time this request is made.

You can request a backfill once every 24 hours.

Request Syntax

```
{
   "BackfillFrom": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

BackfillFrom

The date you want the backfill to start from. The date can only be a first day of the month (a billing start date). Dates can't precede the previous twelve months, or in the future.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([+-]\d\d:\d\d)|Z)$`

Required: Yes

Response Syntax

```
{
   "BackfillRequest": {
      "BackfillFrom": "string",
      "BackfillStatus": "string",
      "CompletedAt": "string",
      "LastUpdatedAt": "string",
```

```
        "RequestedAt": "string"
    }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

BackfillRequest

An object containing detailed metadata of your new backfill request.

Type: CostAllocationTagBackfillRequest object

Errors

For information about the errors that are common to all actions, see Common Errors.

BackfillLimitExceededException

A request to backfill is already in progress. Once the previous request is complete, you can create another request.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

Examples

The following are sample requests and responses of the `StartCostAllocationTagBackfill` operations.

Example 1: Successfully request a cost allocation tag backfill

This example illustrates one usage of StartCostAllocationTagBackfill.

Sample Request

```
{
    "BackfillFrom": "2024-02-01T00:00:00Z"
}
```

Sample Response

```
{
    "BackfillRequest": {
        "BackfillFrom":"2024-02-01T00:00:00Z",
        "BackfillStatus":"PROCESSING",
        "RequestedAt":"2024-03-01T09:16:23Z",
        "LastUpdatedAt":"2024-03-01T09:16:23Z"
    }
}
```

Example 2: The backfill is skipped because there is no tag status change since the last backfill

The latest successful backfill request is returned instead.

Sample Request

```
{
    "BackfillFrom": "2024-02-01T00:00:00Z"
}
```

Sample Response

```
{
    "BackfillRequest": {
        "BackfillFrom":"2024-02-01T00:00:00Z",
        "BackfillStatus":"SUCCEEDED",
        "RequestedAt":"2024-03-01T09:16:23Z",
        "LastUpdatedAt":"2024-03-02T06:45:00Z",
        "CompletedAt":"2024-03-02T06:45:00Z"
    }
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

StartSavingsPlansPurchaseRecommendationGeneration

Service: AWS Cost Explorer

Requests a Savings Plans recommendation generation. This enables you to calculate a fresh set of Savings Plans recommendations that takes your latest usage data and current Savings Plans inventory into account. You can refresh Savings Plans recommendations up to three times daily for a consolidated billing family.

> **Note**
>
> `StartSavingsPlansPurchaseRecommendationGeneration` has no request syntax because no input parameters are needed to support this operation.

Response Syntax

```
{
   "EstimatedCompletionTime": "string",
   "GenerationStartedTime": "string",
   "RecommendationId": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

EstimatedCompletionTime

The estimated time for when the recommendation generation will complete.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([+-]\d\d:\d\d)|Z)$`

GenerationStartedTime

The start time of the recommendation generation.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([+-]\d\d:\d\d)|Z)$`

RecommendationId

The ID for this specific recommendation.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `^[\S\s]{8}-[\S\s]{4}-[\S\s]{4}-[\S\s]{4}-[\S\s]{12}$`

Errors

For information about the errors that are common to all actions, see Common Errors.

DataUnavailableException

The requested data is unavailable.

HTTP Status Code: 400

GenerationExistsException

A request to generate a recommendation or analysis is already in progress.

HTTP Status Code: 400

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

ServiceQuotaExceededException

You've reached the limit on the number of resources you can create, or exceeded the size of an individual resource.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

TagResource

Service: AWS Cost Explorer

An API operation for adding one or more tags (key-value pairs) to a resource.

You can use the `TagResource` operation with a resource that already has tags. If you specify a new tag key for the resource, this tag is appended to the list of tags associated with the resource. If you specify a tag key that is already associated with the resource, the new tag value you specify replaces the previous value for that tag.

Although the maximum number of array members is 200, user-tag maximum is 50. The remaining are reserved for AWS use.

Request Syntax

```
{
   "ResourceArn": "string",
   "ResourceTags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

ResourceArn

The Amazon Resource Name (ARN) of the resource. For a list of supported resources, see ResourceTag.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: Yes

ResourceTags

A list of tag key-value pairs to be added to the resource.

Each tag consists of a key and a value, and each key must be unique for the resource. The following restrictions apply to resource tags:

- Although the maximum number of array members is 200, you can assign a maximum of 50 user-tags to one resource. The remaining are reserved for AWS use
- The maximum length of a key is 128 characters
- The maximum length of a value is 256 characters
- Keys and values can only contain alphanumeric characters, spaces, and any of the following: `_.:/=+@-`
- Keys and values are case sensitive
- Keys and values are trimmed for any leading or trailing whitespaces
- Don't use `aws:` as a prefix for your keys. This prefix is reserved for AWS use

Type: Array of ResourceTag objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

ResourceNotFoundException

The specified ARN in the request doesn't exist.

HTTP Status Code: 400

TooManyTagsException

Can occur if you specify a number of tags for a resource greater than the maximum 50 user tags per resource.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

UntagResource

Service: AWS Cost Explorer

Removes one or more tags from a resource. Specify only tag keys in your request. Don't specify the value.

Request Syntax

```
{
   "ResourceArn": "string",
   "ResourceTagKeys": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

ResourceArn

The Amazon Resource Name (ARN) of the resource. For a list of supported resources, see ResourceTag.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: Yes

ResourceTagKeys

A list of tag keys associated with tags that need to be removed from the resource. If you specify a tag key that doesn't exist, it's ignored. Although the maximum number of array members is 200, user-tag maximum is 50. The remaining are reserved for AWS use.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^([\p{L}\p{Z}\p{N}_.:/=+\-@]*)$`

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

ResourceNotFoundException

The specified ARN in the request doesn't exist.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python

- AWS SDK for Ruby V3

UpdateAnomalyMonitor

Service: AWS Cost Explorer

Updates an existing cost anomaly monitor. The changes made are applied going forward, and doesn't change anomalies detected in the past.

Request Syntax

```
{
   "MonitorArn": "string",
   "MonitorName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

MonitorArn

Cost anomaly monitor Amazon Resource Names (ARNs).

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

MonitorName

The new name for the cost anomaly monitor.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Response Syntax

```
{
   "MonitorArn": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

MonitorArn

A cost anomaly monitor ARN.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see Common Errors.

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

UnknownMonitorException

The cost anomaly monitor does not exist for the account.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

UpdateAnomalySubscription

Service: AWS Cost Explorer

Updates an existing cost anomaly subscription. Specify the fields that you want to update. Omitted fields are unchanged.

> **Note**
>
> The JSON below describes the generic construct for each type. See Request Parameters for possible values as they apply to `AnomalySubscription`.

Request Syntax

```
{
   "Frequency": "string",
   "MonitorArnList": [ "string" ],
   "Subscribers": [
      {
         "Address": "string",
         "Status": "string",
         "Type": "string"
      }
   ],
   "SubscriptionArn": "string",
   "SubscriptionName": "string",
   "Threshold": number,
   "ThresholdExpression": {
      "And": [
         "Expression"
      ],
      "CostCategories": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      },
      "Dimensions": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      },
      "Not": "Expression",
```

```
      "Or": [
         "Expression"
      ],
      "Tags": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      }
   }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

Frequency

The update to the frequency value that subscribers receive notifications.

Type: String

Valid Values: `DAILY | IMMEDIATE | WEEKLY`

Required: No

MonitorArnList

A list of cost anomaly monitor ARNs.

Type: Array of strings

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: No

Subscribers

The update to the subscriber list.

Type: Array of Subscriber objects

Required: No

SubscriptionArn

A cost anomaly subscription Amazon Resource Name (ARN).

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

SubscriptionName

The new name of the subscription.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Threshold

(deprecated)

The update to the threshold value for receiving notifications.

This field has been deprecated. To update a threshold, use ThresholdExpression. Continued use of Threshold will be treated as shorthand syntax for a ThresholdExpression.

You can specify either Threshold or ThresholdExpression, but not both.

Type: Double

Valid Range: Minimum value of 0.0.

Required: No

ThresholdExpression

The update to the Expression object used to specify the anomalies that you want to generate alerts for. This supports dimensions and nested expressions. The supported dimensions are `ANOMALY_TOTAL_IMPACT_ABSOLUTE` and `ANOMALY_TOTAL_IMPACT_PERCENTAGE`, corresponding to an anomaly's TotalImpact and TotalImpactPercentage, respectively (see

Impact for more details). The supported nested expression types are AND and OR. The match option GREATER_THAN_OR_EQUAL is required. Values must be numbers between 0 and 10,000,000,000 in string format.

You can specify either Threshold or ThresholdExpression, but not both.

The following are examples of valid ThresholdExpressions:

- Absolute threshold: `{ "Dimensions": { "Key": "ANOMALY_TOTAL_IMPACT_ABSOLUTE", "MatchOptions": [ "GREATER_THAN_OR_EQUAL" ], "Values": [ "100" ] } }`
- Percentage threshold: `{ "Dimensions": { "Key": "ANOMALY_TOTAL_IMPACT_PERCENTAGE", "MatchOptions": [ "GREATER_THAN_OR_EQUAL" ], "Values": [ "100" ] } }`
- AND two thresholds together: `{ "And": [ { "Dimensions": { "Key": "ANOMALY_TOTAL_IMPACT_ABSOLUTE", "MatchOptions": [ "GREATER_THAN_OR_EQUAL" ], "Values": [ "100" ] } }, { "Dimensions": { "Key": "ANOMALY_TOTAL_IMPACT_PERCENTAGE", "MatchOptions": [ "GREATER_THAN_OR_EQUAL" ], "Values": [ "100" ] } } ] }`
- OR two thresholds together: `{ "Or": [ { "Dimensions": { "Key": "ANOMALY_TOTAL_IMPACT_ABSOLUTE", "MatchOptions": [ "GREATER_THAN_OR_EQUAL" ], "Values": [ "100" ] } }, { "Dimensions": { "Key": "ANOMALY_TOTAL_IMPACT_PERCENTAGE", "MatchOptions": [ "GREATER_THAN_OR_EQUAL" ], "Values": [ "100" ] } } ] }`

Type: Expression object

Required: No

Response Syntax

```
{
   "SubscriptionArn": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

SubscriptionArn

A cost anomaly subscription ARN.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see Common Errors.

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

UnknownMonitorException

The cost anomaly monitor does not exist for the account.

HTTP Status Code: 400

UnknownSubscriptionException

The cost anomaly subscription does not exist for the account.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++

- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

UpdateCostAllocationTagsStatus

Service: AWS Cost Explorer

Updates status for cost allocation tags in bulk, with maximum batch size of 20. If the tag status that's updated is the same as the existing tag status, the request doesn't fail. Instead, it doesn't have any effect on the tag status (for example, activating the active tag).

Request Syntax

```
{
   "CostAllocationTagsStatus": [
      {
         "Status": "string",
         "TagKey": "string"
      }
   ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

CostAllocationTagsStatus

The list of `CostAllocationTagStatusEntry` objects that are used to update cost allocation tags status for this request.

Type: Array of CostAllocationTagStatusEntry objects

Array Members: Minimum number of 1 item. Maximum number of 20 items.

Required: Yes

Response Syntax

```
{
   "Errors": [
      {
         "Code": "string",
         "Message": "string",
```

```
            "TagKey": "string"
        }
    ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Errors

A list of `UpdateCostAllocationTagsStatusError` objects with error details about each cost allocation tag that can't be updated. If there's no failure, an empty array returns.

Type: Array of UpdateCostAllocationTagsStatusError objects

Array Members: Minimum number of 0 items. Maximum number of 20 items.

Errors

For information about the errors that are common to all actions, see Common Errors.

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

Examples

The following are sample requests and responses of the `UpdateCostAllocationTagsStatus` operations.

Example 1: Successfully updated all tag status

This example illustrates one usage of UpdateCostAllocationTagsStatus.

Sample Request

```
{
```

```
    "CostAllocationTagsStatus": [
       {
           "TagKey": "tagA",
           "Status": "Active"
       },
       {
           "TagKey": "tagB",
           "Status": "Inactive"
       }
    ]
}
```

Sample Response

```
{
    "Errors": []
}
```

Example 2: Failed to update one of the tag statuses

This example illustrates one usage of UpdateCostAllocationTagsStatus.

Sample Request

```
{
    "CostAllocationTagsStatus": [
       {
           "TagKey": "tagC",
           "Status": "Active"
       },
       {
           "TagKey": "tagD",
           "Status": "Inactive"
       }
    ]
}
```

Sample Response

```
{
    "Errors": [
        {
```

```
            "TagKey": "tagC",
            "Code": "TagKeysNotFoundException",
            "Message": "Failed to update Cost Allocation Tag: tagC"
        }
    ]
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

UpdateCostCategoryDefinition

Service: AWS Cost Explorer

Updates an existing cost category. Changes made to the cost category rules will be used to categorize the current month's expenses and future expenses. This won't change categorization for the previous months.

Request Syntax

```
{
   "CostCategoryArn": "string",
   "DefaultValue": "string",
   "EffectiveStart": "string",
   "Rules": [
      {
         "InheritedValue": {
            "DimensionKey": "string",
            "DimensionName": "string"
         },
         "Rule": {
            "And": [
               "Expression"
            ],
            "CostCategories": {
               "Key": "string",
               "MatchOptions": [ "string" ],
               "Values": [ "string" ]
            },
            "Dimensions": {
               "Key": "string",
               "MatchOptions": [ "string" ],
               "Values": [ "string" ]
            },
            "Not": "Expression",
            "Or": [
               "Expression"
            ],
            "Tags": {
               "Key": "string",
               "MatchOptions": [ "string" ],
               "Values": [ "string" ]
            }
         },
```

```
            "Type": "string",
            "Value": "string"
         }
      ],
      "RuleVersion": "string",
      "SplitChargeRules": [
         {
            "Method": "string",
            "Parameters": [
               {
                  "Type": "string",
                  "Values": [ "string" ]
               }
            ],
            "Source": "string",
            "Targets": [ "string" ]
         }
      ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

CostCategoryArn

The unique identifier for your cost category.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: Yes

DefaultValue

The default value for the cost category.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `^(?! )[\p{L}\p{N}\p{Z}-_]*(?<! )$`

Required: No

EffectiveStart

The cost category's effective start date. It can only be a billing start date (first day of the month). If the date isn't provided, it's the first day of the current month. Dates can't be before the previous twelve months, or in the future.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([+-]\d\d:\d\d)|Z)$`

Required: No

Rules

The `Expression` object used to categorize costs. For more information, see CostCategoryRule .

Type: Array of CostCategoryRule objects

Array Members: Minimum number of 1 item. Maximum number of 500 items.

Required: Yes

RuleVersion

The rule schema version in this particular cost category.

Type: String

Valid Values: `CostCategoryExpression.v1`

Required: Yes

SplitChargeRules

The split charge rules used to allocate your charges between your cost category values.

Type: Array of CostCategorySplitChargeRule objects

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Required: No

Response Syntax

```
{
   "CostCategoryArn": "string",
   "EffectiveStart": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

CostCategoryArn

The unique identifier for your cost category.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

EffectiveStart

The cost category's effective start date. It can only be a billing start date (first day of the month).

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([+-]\d\d:\d\d)|Z)$`

Errors

For information about the errors that are common to all actions, see Common Errors.

LimitExceededException

You made too many calls in a short period of time. Try again later.

HTTP Status Code: 400

ResourceNotFoundException

The specified ARN in the request doesn't exist.

HTTP Status Code: 400

ServiceQuotaExceededException

You've reached the limit on the number of resources you can create, or exceeded the size of an individual resource.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

AWS Billing and Cost Management Dashboards

The following actions are supported by AWS Billing and Cost Management Dashboards:

- CreateDashboard
- DeleteDashboard
- GetDashboard

- GetResourcePolicy
- ListDashboards
- ListTagsForResource
- TagResource
- UntagResource
- UpdateDashboard

CreateDashboard

Service: AWS Billing and Cost Management Dashboards

Creates a new dashboard that can contain multiple widgets displaying cost and usage data. You can add custom widgets or use predefined widgets, arranging them in your preferred layout.

Request Syntax

```
{
   "description": "string",
   "name": "string",
   "resourceTags": [
      {
         "key": "string",
         "value": "string"
      }
   ],
   "widgets": [
      {
         "configs": [
            {
               "displayConfig": { ... },
               "queryParameters": { ... }
            }
         ],
         "description": "string",
         "height": number,
         "horizontalOffset": number,
         "title": "string",
         "width": number
      }
   ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

description

A description of the dashboard's purpose or contents.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: `(?!.* {2})[ a-zA-Z0-9.,!?;:@#$%&\-_/\\]*`

Required: No

name

The name of the dashboard. The name must be unique within your account.

Type: String

Length Constraints: Minimum length of 2. Maximum length of 50.

Pattern: `(?!.* {2})[a-zA-Z][a-zA-Z0-9 _-]{0,48}[a-zA-Z0-9_-]`

Required: Yes

resourceTags

The tags to apply to the dashboard resource for organization and management.

Type: Array of ResourceTag objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: No

widgets

An array of widget configurations that define the visualizations to be displayed in the dashboard. Each dashboard can contain up to 20 widgets.

Type: Array of Widget objects

Array Members: Minimum number of 0 items. Maximum number of 20 items.

Required: Yes

Response Syntax

```
{
   "arn": "string"
```

```
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

arn

The ARN of the newly created dashboard.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:bcm-dashboards::[0-9]{12}:dashboard/(\*|[-a-z0-9]+)`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You do not have sufficient permissions to perform this action. Verify your IAM permissions and any resource policies.

HTTP Status Code: 400

InternalServerException

An internal error occurred while processing the request. Retry your request. If the problem persists, contact AWS Support.

HTTP Status Code: 500

ServiceQuotaExceededException

The request would exceed service quotas. For example, attempting to create more than 20 widgets in a dashboard or exceeding the maximum number of dashboards per account.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling. Reduce the frequency of requests and use exponential backoff.

HTTP Status Code: 400

ValidationException

The input parameters do not satisfy the requirements. Check the error message for specific validation details.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DeleteDashboard

Service: AWS Billing and Cost Management Dashboards

Deletes a specified dashboard. This action cannot be undone.

Request Syntax

```
{
   "arn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

arn

The ARN of the dashboard to be deleted.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:bcm-dashboards::[0-9]{12}:dashboard/(\*|[-a-z0-9]+)`

Required: Yes

Response Syntax

```
{
   "arn": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

arn

The ARN of the dashboard that was deleted.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:bcm-dashboards::[0-9]{12}:dashboard/(\*|[-a-z0-9]+)`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You do not have sufficient permissions to perform this action. Verify your IAM permissions and any resource policies.

HTTP Status Code: 400

InternalServerException

An internal error occurred while processing the request. Retry your request. If the problem persists, contact AWS Support.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling. Reduce the frequency of requests and use exponential backoff.

HTTP Status Code: 400

ValidationException

The input parameters do not satisfy the requirements. Check the error message for specific validation details.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetDashboard

Service: AWS Billing and Cost Management Dashboards

Retrieves the configuration and metadata of a specified dashboard, including its widgets and layout settings.

Request Syntax

```
{
   "arn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

arn

The ARN of the dashboard to retrieve. This is required to uniquely identify the dashboard.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:bcm-dashboards::[0-9]{12}:dashboard/(\*|[-a-z0-9]+)`

Required: Yes

Response Syntax

```
{
   "arn": "string",
   "createdAt": number,
   "description": "string",
   "name": "string",
   "type": "string",
   "updatedAt": number,
   "widgets": [
```

```
      {
         "configs": [
            {
               "displayConfig": { ... },
               "queryParameters": { ... }
            }
         ],
         "description": "string",
         "height": number,
         "horizontalOffset": number,
         "title": "string",
         "width": number
      }
   ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

arn

The ARN of the retrieved dashboard.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:bcm-dashboards::[0-9]{12}:dashboard/(\*|[-a-z0-9]+)`

createdAt

The timestamp when the dashboard was created.

Type: Timestamp

description

The description of the retrieved dashboard.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: `(?!.* {2})[ a-zA-Z0-9.,!?;:@#$%&\-_/\\]*`

name

The name of the retrieved dashboard.

Type: String

Length Constraints: Minimum length of 2. Maximum length of 50.

Pattern: `(?!.* {2})[a-zA-Z][a-zA-Z0-9 _-]{0,48}[a-zA-Z0-9_-]`

type

Indicates the dashboard type.

Type: String

Valid Values: `CUSTOM`

updatedAt

The timestamp when the dashboard was last modified.

Type: Timestamp

widgets

An array of widget configurations that make up the dashboard.

Type: Array of Widget objects

Array Members: Minimum number of 0 items. Maximum number of 20 items.

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You do not have sufficient permissions to perform this action. Verify your IAM permissions and any resource policies.

HTTP Status Code: 400

InternalServerException

An internal error occurred while processing the request. Retry your request. If the problem persists, contact AWS Support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource (dashboard, policy, or widget) was not found. Verify the ARN and try again.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling. Reduce the frequency of requests and use exponential backoff.

HTTP Status Code: 400

ValidationException

The input parameters do not satisfy the requirements. Check the error message for specific validation details.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3

- AWS SDK for Python
- AWS SDK for Ruby V3

GetResourcePolicy

Service: AWS Billing and Cost Management Dashboards

Retrieves the resource-based policy attached to a dashboard, showing sharing configurations and permissions.

Request Syntax

```
{
   "resourceArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

resourceArn

The ARN of the dashboard whose resource-based policy you want to retrieve.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:bcm-dashboards::[0-9]{12}:dashboard/(\*|[-a-z0-9]+)`

Required: Yes

Response Syntax

```
{
   "policyDocument": "string",
   "resourceArn": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

policyDocument

The JSON policy document that represents the dashboard's resource-based policy.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

resourceArn

The ARN of the dashboard for which the resource-based policy was retrieved.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:bcm-dashboards::[0-9]{12}:dashboard/(\*|[-a-z0-9]+)`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You do not have sufficient permissions to perform this action. Verify your IAM permissions and any resource policies.

HTTP Status Code: 400

InternalServerException

An internal error occurred while processing the request. Retry your request. If the problem persists, contact AWS Support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource (dashboard, policy, or widget) was not found. Verify the ARN and try again.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling. Reduce the frequency of requests and use exponential backoff.

HTTP Status Code: 400

ValidationException

The input parameters do not satisfy the requirements. Check the error message for specific validation details.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListDashboards

Service: AWS Billing and Cost Management Dashboards

Returns a list of all dashboards in your account.

Request Syntax

```
{
   "maxResults": number,
   "nextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

maxResults

The maximum number of results to return in a single call. The default value is 20.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

nextToken

The token for the next page of results. Use the value returned in the previous response.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

Response Syntax

```
{
```

```
   "dashboards": [
      {
         "arn": "string",
         "createdAt": number,
         "description": "string",
         "name": "string",
         "type": "string",
         "updatedAt": number
      }
   ],
   "nextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

dashboards

An array of dashboard references, containing basic information about each dashboard.

Type: Array of DashboardReference objects

nextToken

The token to use to retrieve the next page of results. Not returned if there are no more results to retrieve.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 8192.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You do not have sufficient permissions to perform this action. Verify your IAM permissions and any resource policies.

HTTP Status Code: 400

InternalServerException

An internal error occurred while processing the request. Retry your request. If the problem persists, contact AWS Support.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling. Reduce the frequency of requests and use exponential backoff.

HTTP Status Code: 400

ValidationException

The input parameters do not satisfy the requirements. Check the error message for specific validation details.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListTagsForResource

Service: AWS Billing and Cost Management Dashboards

Returns a list of all tags associated with a specified dashboard resource.

Request Syntax

```
{
   "resourceArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

resourceArn

The unique identifier for the resource.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:bcm-dashboards::[0-9]{12}:dashboard/(\*|[-a-z0-9]+)`

Required: Yes

Response Syntax

```
{
   "resourceTags": [
      {
         "key": "string",
         "value": "string"
      }
   ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

resourceTags

The list of tags associated with the specified dashboard resource.

Type: Array of ResourceTag objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServerException

An internal error occurred while processing the request. Retry your request. If the problem persists, contact AWS Support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource (dashboard, policy, or widget) was not found. Verify the ARN and try again.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling. Reduce the frequency of requests and use exponential backoff.

HTTP Status Code: 400

ValidationException

The input parameters do not satisfy the requirements. Check the error message for specific validation details.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

TagResource

Service: AWS Billing and Cost Management Dashboards

Adds or updates tags for a specified dashboard resource.

Request Syntax

```
{
   "resourceArn": "string",
   "resourceTags": [
      {
         "key": "string",
         "value": "string"
      }
   ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

resourceArn

The unique identifier for the resource.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:bcm-dashboards::[0-9]{12}:dashboard/(\*|[-a-z0-9]+)`

Required: Yes

resourceTags

The tags to add to the dashboard resource.

Type: Array of ResourceTag objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServerException

An internal error occurred while processing the request. Retry your request. If the problem persists, contact AWS Support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource (dashboard, policy, or widget) was not found. Verify the ARN and try again.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling. Reduce the frequency of requests and use exponential backoff.

HTTP Status Code: 400

ValidationException

The input parameters do not satisfy the requirements. Check the error message for specific validation details.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

UntagResource

Service: AWS Billing and Cost Management Dashboards

Removes specified tags from a dashboard resource.

Request Syntax

```
{
   "resourceArn": "string",
   "resourceTagKeys": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

resourceArn

The unique identifier for the resource.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:bcm-dashboards::[0-9]{12}:dashboard/(\*|[-a-z0-9]+)`

Required: Yes

resourceTagKeys

The keys of the tags to remove from the dashboard resource.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\S\s]*`

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServerException

An internal error occurred while processing the request. Retry your request. If the problem persists, contact AWS Support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource (dashboard, policy, or widget) was not found. Verify the ARN and try again.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling. Reduce the frequency of requests and use exponential backoff.

HTTP Status Code: 400

ValidationException

The input parameters do not satisfy the requirements. Check the error message for specific validation details.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

UpdateDashboard

Service: AWS Billing and Cost Management Dashboards

Updates an existing dashboard's properties, including its name, description, and widget configurations.

Request Syntax

```
{
   "arn": "string",
   "description": "string",
   "name": "string",
   "widgets": [
      {
         "configs": [
            {
               "displayConfig": { ... },
               "queryParameters": { ... }
            }
         ],
         "description": "string",
         "height": number,
         "horizontalOffset": number,
         "title": "string",
         "width": number
      }
   ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

arn

The ARN of the dashboard to update.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:bcm-dashboards::[0-9]{12}:dashboard/(\*|[-a-z0-9]+)`

Required: Yes

description

The new description for the dashboard. If not specified, the existing description is retained.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: `(?!.* {2})[ a-zA-Z0-9.,!?;:@#$%&\-_/\\]*`

Required: No

name

The new name for the dashboard. If not specified, the existing name is retained.

Type: String

Length Constraints: Minimum length of 2. Maximum length of 50.

Pattern: `(?!.* {2})[a-zA-Z][a-zA-Z0-9 _-]{0,48}[a-zA-Z0-9_-]`

Required: No

widgets

The updated array of widget configurations for the dashboard. Replaces all existing widgets.

Type: Array of Widget objects

Array Members: Minimum number of 0 items. Maximum number of 20 items.

Required: No

Response Syntax

```
{
   "arn": "string"
```

```
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

arn

The ARN of the updated dashboard.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:bcm-dashboards::[0-9]{12}:dashboard/(\*|[-a-z0-9]+)`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You do not have sufficient permissions to perform this action. Verify your IAM permissions and any resource policies.

HTTP Status Code: 400

InternalServerException

An internal error occurred while processing the request. Retry your request. If the problem persists, contact AWS Support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource (dashboard, policy, or widget) was not found. Verify the ARN and try again.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling. Reduce the frequency of requests and use exponential backoff.

HTTP Status Code: 400

ValidationException

The input parameters do not satisfy the requirements. Check the error message for specific validation details.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

AWS Data Exports

The following actions are supported by AWS Data Exports:

- CreateExport
- DeleteExport
- GetExecution

- GetExport
- GetTable
- ListExecutions
- ListExports
- ListTables
- ListTagsForResource
- TagResource
- UntagResource
- UpdateExport

CreateExport

Service: AWS Data Exports

Creates a data export and specifies the data query, the delivery preference, and any optional resource tags.

A `DataQuery` consists of both a `QueryStatement` and `TableConfigurations`.

The `QueryStatement` is an SQL statement. Data Exports only supports a limited subset of the SQL syntax. For more information on the SQL syntax that is supported, see Data query. To view the available tables and columns, see the Data Exports table dictionary.

The `TableConfigurations` is a collection of specified `TableProperties` for the table being queried in the `QueryStatement`. TableProperties are additional configurations you can provide to change the data and schema of a table. Each table can have different TableProperties. However, tables are not required to have any TableProperties. Each table property has a default value that it assumes if not specified. For more information on table configurations, see Data query. To view the table properties available for each table, see the Data Exports table dictionary or use the `ListTables` API to get a response of all tables and their available properties.

Request Syntax

```
{
   "Export": {
      "DataQuery": {
         "QueryStatement": "string",
         "TableConfigurations": {
            "string" : {
               "string" : "string"
            }
         }
      },
      "Description": "string",
      "DestinationConfigurations": {
         "S3Destination": {
            "S3Bucket": "string",
            "S3OutputConfigurations": {
               "Compression": "string",
               "Format": "string",
               "OutputType": "string",
               "Overwrite": "string"
```

```
            },
            "S3Prefix": "string",
            "S3Region": "string"
         }
      },
      "ExportArn": "string",
      "Name": "string",
      "RefreshCadence": {
         "Frequency": "string"
      }
   },
   "ResourceTags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

Export

The details of the export, including data query, name, description, and destination configuration.

Type: Export object

Required: Yes

ResourceTags

An optional list of tags to associate with the specified export. Each tag consists of a key and a value, and each key must be unique for the resource.

Type: Array of ResourceTag objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: No

Response Syntax

```
{
   "ExportArn": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

ExportArn

The Amazon Resource Name (ARN) for this export.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[-a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServerException

An error on the server occurred during the processing of your request. Try again later.

HTTP Status Code: 500

ServiceQuotaExceededException

You've reached the limit on the number of resources you can create, or exceeded the size of an individual resource.

QuotaCode

The quota code that was exceeded.

ResourceId

The identifier of the resource that exceeded quota.

ResourceType

The type of the resource that exceeded quota.

ServiceCode

The service code that exceeded quota. It will always be "AWSBillingAndCostManagementDataExports".

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

QuotaCode

The quota code that exceeded the throttling limit.

ServiceCode

The service code that exceeded the throttling limit. It will always be "AWSBillingAndCostManagementDataExports".

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

Fields

The list of fields that are invalid.

Reason

The reason for the validation exception.

HTTP Status Code: 400

Examples

The following is a sample request of the CreateExport operation.

This example illustrates one usage of CreateExport.

Sample Request

```
{
    "Export": {
        "Name": "ExampleExportName",
        "Description": "Example Description",
        "DataQuery": {
            "QueryStatement": "SELECT identity_line_item_id, identity_time_interval,
 line_item_product_code,line_item_unblended_cost FROM COST_AND_USAGE_REPORT",
            "TableConfigurations": {
                "COST_AND_USAGE_REPORT": {
                    "TIME_GRANULARITY": "DAILY",
                    "INCLUDE_RESOURCES": "FALSE",
                    "INCLUDE_MANUAL_DISCOUNT_COMPATIBILITY": "FALSE",
                    "INCLUDE_SPLIT_COST_ALLOCATION_DATA": "FALSE"
                }
            }
        },
        "DestinationConfigurations": {
            "S3Destination": {
                "S3Bucket": "ExampleS3Bucket",
                "S3Prefix": "ExampleS3Prefix",
                "S3Region": "us-east-1",
                "S3OutputConfigurations": {
                    "Overwrite": "OVERWRITE_REPORT",
                    "Format": "TEXT_OR_CSV",
                    "Compression": "GZIP",
                    "OutputType": "CUSTOM"
                }
            }
        },
        "RefreshCadence": {
            "Frequency": "SYNCHRONOUS"
        }
    },
    "ResourceTags": [
        {
            "Key": "YourTagKey",
            "Value": "YourTagValue"
        }
    ]
}
```

The following is a sample response of the CreateExport operation.

This example illustrates one usage of CreateExport.

Sample Response

```
{
    "ExportArn": "arn:aws:bcm-data-exports:::export/Example-b9ac8e7c-6a49-468f-
a43e-9ce6b5b051d1"
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DeleteExport

Service: AWS Data Exports

Deletes an existing data export.

Request Syntax

```
{
   "ExportArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

ExportArn

The Amazon Resource Name (ARN) for this export.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[-a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: Yes

Response Syntax

```
{
   "ExportArn": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

ExportArn

The Amazon Resource Name (ARN) for this export.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[-a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServerException

An error on the server occurred during the processing of your request. Try again later.

HTTP Status Code: 500

ResourceNotFoundException

The specified Amazon Resource Name (ARN) in the request doesn't exist.

ResourceId

The identifier of the resource that was not found.

ResourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

QuotaCode

The quota code that exceeded the throttling limit.

ServiceCode

The service code that exceeded the throttling limit. It will always be "AWSBillingAndCostManagementDataExports".

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

Fields

The list of fields that are invalid.

Reason

The reason for the validation exception.

HTTP Status Code: 400

Examples

The following is a sample request of the DeleteExport operation.

This example illustrates one usage of DeleteExport.

Sample Request

```
{
    "ExportArn": "arn:aws:bcm-data-exports:::export:Example/837fcfce-f85b-4600-b333-
b38a12c3a927"
}
```

The following is a sample response of the DeleteExport operation.

This example illustrates one usage of DeleteExport.

Sample Response

```
{
    "ExportArn": "arn:aws:bcm-data-exports:::export:Example/837fcfce-f85b-4600-b333-
b38a12c3a927"
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetExecution

Service: AWS Data Exports

Exports data based on the source data update.

Request Syntax

```
{
   "ExecutionId": "string",
   "ExportArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

ExecutionId

The ID for this specific execution.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

ExportArn

The Amazon Resource Name (ARN) of the Export object that generated this specific execution.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[-a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: Yes

Response Syntax

```
{
   "ExecutionId": "string",
   "ExecutionStatus": {
      "CompletedAt": "string",
      "CreatedAt": "string",
      "LastUpdatedAt": "string",
      "StatusCode": "string",
      "StatusReason": "string"
   },
   "Export": {
      "DataQuery": {
         "QueryStatement": "string",
         "TableConfigurations": {
            "string" : {
               "string" : "string"
            }
         }
      },
      "Description": "string",
      "DestinationConfigurations": {
         "S3Destination": {
            "S3Bucket": "string",
            "S3OutputConfigurations": {
               "Compression": "string",
               "Format": "string",
               "OutputType": "string",
               "Overwrite": "string"
            },
            "S3Prefix": "string",
            "S3Region": "string"
         }
      },
      "ExportArn": "string",
      "Name": "string",
      "RefreshCadence": {
         "Frequency": "string"
      }
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

ExecutionId

The ID for this specific execution.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

ExecutionStatus

The status of this specific execution.

Type: ExecutionStatus object

Export

The export data for this specific execution. This export data is a snapshot from when the execution was generated. The data could be different from the current export data if the export was updated since the execution was generated.

Type: Export object

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServerException

An error on the server occurred during the processing of your request. Try again later.

HTTP Status Code: 500

ResourceNotFoundException

The specified Amazon Resource Name (ARN) in the request doesn't exist.

ResourceId

The identifier of the resource that was not found.

ResourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

QuotaCode

The quota code that exceeded the throttling limit.

ServiceCode

The service code that exceeded the throttling limit. It will always be "AWSBillingAndCostManagementDataExports".

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

Fields

The list of fields that are invalid.

Reason

The reason for the validation exception.

HTTP Status Code: 400

Examples

The following is a sample request of the GetExecution operation.

This example illustrates one usage of GetExecution.

Sample Request

```
{
```

```
 "ExportArn": "arn:aws:bcm-data-exports:::export:Example/837fcfce-f85b-4600-b333-
b38a12c3a927",
 "ExecutionId": "8ae3fbeb-fbeb-4048-bb39-f7c6c7e80c21"
}
```

The following is a sample response of the GetExecution operation.

This example illustrates one usage of GetExecution.

Sample Response

```
{
    "ExecutionId": "f0cfeaf0-c552-47e7-82bc-0107fbfc7a8b",
    "ExecutionStatus": {
        "CreatedAt": "2023-11-14T18:14:12.813Z",
        "LastUpdatedAt": "2023-11-14T18:18:14.252556820Z",
        "StatusCode": "DELIVERY_SUCCESS"
    },
    "Export": {
        "Name": "ExampleExportName",
        "Description": "Example Description",
        "DataQuery": {
            "QueryStatement": "SELECT identity_line_item_id, identity_time_interval,
 line_item_product_code,line_item_unblended_cost FROM COST_AND_USAGE_REPORT",
            "TableConfigurations": {
                "COST_AND_USAGE_REPORT": {
                    "TIME_GRANULARITY": "DAILY",
                    "INCLUDE_RESOURCES": "FALSE",
                    "INCLUDE_MANUAL_DISCOUNT_COMPATIBILITY": "FALSE",
                    "INCLUDE_SPLIT_COST_ALLOCATION_DATA": "FALSE"
                }
            }
        },
        "DestinationConfigurations": {
            "S3Destination": {
                "S3Bucket": "ExampleS3Bucket",
                "S3Prefix": "ExampleS3Prefix",
                "S3Region": "us-east-1",
                "S3OutputConfigurations": {
                    "Overwrite": "OVERWRITE_REPORT",
                    "Format": "TEXT_OR_CSV",
                    "Compression": "GZIP",
                    "OutputType": "CUSTOM"
                }
```

```
            }
        },
        "RefreshCadence": {
            "Frequency": "SYNCHRONOUS"
        }
    }
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetExport

Service: AWS Data Exports

Views the definition of an existing data export.

Request Syntax

```
{
   "ExportArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

ExportArn

The Amazon Resource Name (ARN) for this export.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[-a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: Yes

Response Syntax

```
{
   "Export": {
      "DataQuery": {
         "QueryStatement": "string",
         "TableConfigurations": {
            "string" : {
               "string" : "string"
            }
         }
      },
```

```
      "Description": "string",
      "DestinationConfigurations": {
         "S3Destination": {
            "S3Bucket": "string",
            "S3OutputConfigurations": {
               "Compression": "string",
               "Format": "string",
               "OutputType": "string",
               "Overwrite": "string"
            },
            "S3Prefix": "string",
            "S3Region": "string"
         }
      },
      "ExportArn": "string",
      "Name": "string",
      "RefreshCadence": {
         "Frequency": "string"
      }
   },
   "ExportStatus": {
      "CreatedAt": "string",
      "LastRefreshedAt": "string",
      "LastUpdatedAt": "string",
      "StatusCode": "string",
      "StatusReason": "string"
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Export

The data for this specific export.

Type: Export object

ExportStatus

The status of this specific export.

Type: ExportStatus object

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServerException

An error on the server occurred during the processing of your request. Try again later.

HTTP Status Code: 500

ResourceNotFoundException

The specified Amazon Resource Name (ARN) in the request doesn't exist.

ResourceId

The identifier of the resource that was not found.

ResourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

QuotaCode

The quota code that exceeded the throttling limit.

ServiceCode

The service code that exceeded the throttling limit. It will always be "AWSBillingAndCostManagementDataExports".

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

Fields

The list of fields that are invalid.

Reason

The reason for the validation exception.

HTTP Status Code: 400

Examples

The following is a sample request of the GetExport operation.

This example illustrates one usage of GetExport.

Sample Request

```
{
    "ExportArn": "arn:aws:bcm-data-exports:::export:Example/837fcfce-f85b-4600-b333-
b38a12c3a927"
}
```

The following is a sample response of the GetExport operation.

This example illustrates one usage of GetExport.

Sample Response

```
{
    "Export": {
        "Name": "ExampleExportName",
        "Description": "Example Description",
        "DataQuery": {
            "QueryStatement": "SELECT identity_line_item_id, identity_time_interval,
 line_item_product_code,line_item_unblended_cost FROM COST_AND_USAGE_REPORT",
            "TableConfigurations": {
                "COST_AND_USAGE_REPORT": {
                    "TIME_GRANULARITY": "DAILY",
                    "INCLUDE_RESOURCES": "FALSE",
                    "INCLUDE_MANUAL_DISCOUNT_COMPATIBILITY": "FALSE",
                    "INCLUDE_SPLIT_COST_ALLOCATION_DATA": "FALSE"
                }
            }
        },
        "DestinationConfigurations": {
```

```
            "S3Destination": {
                "S3Bucket": "ExampleS3Bucket",
                "S3Prefix": "ExampleS3Prefix",
                "S3Region": "us-east-1",
                "S3OutputConfigurations": {
                    "Overwrite": "OVERWRITE_REPORT",
                    "Format": "TEXT_OR_CSV",
                    "Compression": "GZIP",
                    "OutputType": "CUSTOM"
                }
            }
        },
        "RefreshCadence": {
            "Frequency": "SYNCHRONOUS"
        }
    },
    "ExportStatus": {
        "CreatedAt": "2023-11-14T18:02:02.371Z",
        "LastRefreshedAt": "2023-11-14T18:18:12.592Z",
        "LastUpdatedAt": "2023-11-14T18:02:02.371Z",
        "StatusCode": "HEALTHY"
    }
}
```


See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetTable

Service: AWS Data Exports

Returns the metadata for the specified table and table properties. This includes the list of columns in the table schema, their data types, and column descriptions.

Request Syntax

```
{
   "TableName": "string",
   "TableProperties": {
      "string" : "string"
   }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

TableName

The name of the table.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

TableProperties

TableProperties are additional configurations you can provide to change the data and schema of a table. Each table can have different TableProperties. Tables are not required to have any TableProperties. Each table property has a default value that it assumes if not specified.

Type: String to string map

Key Length Constraints: Minimum length of 0. Maximum length of 1024.

Key Pattern: [\S\s]*

Value Length Constraints: Minimum length of 0. Maximum length of 1024.

Value Pattern: [\S\s]*

Required: No

Response Syntax

```
{
   "Description": "string",
   "Schema": [
      {
         "Description": "string",
         "Name": "string",
         "Type": "string"
      }
   ],
   "TableName": "string",
   "TableProperties": {
      "string" : "string"
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Description

The table description.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: [\S\s]*

Schema

The schema of the table.

Type: Array of Column objects

TableName

The name of the table.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

TableProperties

TableProperties are additional configurations you can provide to change the data and schema of a table. Each table can have different TableProperties. Tables are not required to have any TableProperties. Each table property has a default value that it assumes if not specified.

Type: String to string map

Key Length Constraints: Minimum length of 0. Maximum length of 1024.

Key Pattern: `[\S\s]*`

Value Length Constraints: Minimum length of 0. Maximum length of 1024.

Value Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServerException

An error on the server occurred during the processing of your request. Try again later.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

QuotaCode

The quota code that exceeded the throttling limit.

ServiceCode

The service code that exceeded the throttling limit. It will always be “AWSBillingAndCostManagementDataExports”.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

Fields

The list of fields that are invalid.

Reason

The reason for the validation exception.

HTTP Status Code: 400

Examples

The following is a sample request of the GetTable operation.

This example illustrates one usage of GetTable.

Sample Request

```
{
    "TableName": "COST_AND_USAGE_REPORT",
    "TableProperties": {
    }
}
```

The following is a sample response of the GetTable operation.

This example illustrates one usage of GetTable.

Sample Response

```
{
    "Description": "Cost and Usage Report",
```

```
    "Schema": [
        {
            "Description": "This field is generated for each line item and is unique
 in a given partition. This does not guarantee that the field will be unique across
 an entire delivery (that is, all partitions in an update) of the AWS CUR. The line
 item ID isn't consistent between different Cost and Usage Reports and can't be used to
 identify the same line item across different reports.",
            "Name": "identity_line_item_id",
            "Type": "String"
        },
        {
            "Description": "The time interval that this line item applies to, in the
 following format: YYYY-MM-DDTHH:mm:ssZ/YYYY-MM-DDTHH:mm:ssZ. The time interval is in
 UTC and can be either daily or hourly, depending on the granularity of the report.",
            "Name": "identity_time_interval",
            "Type": "String"
        },
        {
            "Description": "The ID associated with a specific line item. Until the
 report is final, the InvoiceId is blank.",
            "Name": "bill_invoice_id",
            "Type": "String"
        }
    ],
    "TableName": "COST_AND_USAGE_REPORT",
    "TableProperties": {
        "INCLUDE_MANUAL_DISCOUNT_COMPATIBILITY": "FALSE",
        "INCLUDE_RESOURCES": "FALSE",
        "INCLUDE_SPLIT_COST_ALLOCATION_DATA": "FALSE",
        "TIME_GRANULARITY": "HOURLY"
    }
}
```


See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2

- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListExecutions

Service: AWS Data Exports

Lists the historical executions for the export.

Request Syntax

```
{
   "ExportArn": "string",
   "MaxResults": number,
   "NextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

ExportArn

The Amazon Resource Name (ARN) for this export.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[-a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: Yes

MaxResults

The maximum number of objects that are returned for the request.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

NextToken

The token to retrieve the next set of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

Response Syntax

```
{
   "Executions": [
      {
         "ExecutionId": "string",
         "ExecutionStatus": {
            "CompletedAt": "string",
            "CreatedAt": "string",
            "LastUpdatedAt": "string",
            "StatusCode": "string",
            "StatusReason": "string"
         }
      }
   ],
   "NextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Executions

The list of executions.

Type: Array of ExecutionReference objects

NextToken

The token to retrieve the next set of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServerException

An error on the server occurred during the processing of your request. Try again later.

HTTP Status Code: 500

ResourceNotFoundException

The specified Amazon Resource Name (ARN) in the request doesn't exist.

ResourceId

The identifier of the resource that was not found.

ResourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

QuotaCode

The quota code that exceeded the throttling limit.

ServiceCode

The service code that exceeded the throttling limit. It will always be "AWSBillingAndCostManagementDataExports".

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

Fields

The list of fields that are invalid.

Reason

The reason for the validation exception.

HTTP Status Code: 400

Examples

The following is a sample request of the ListExecutions operation.

This example illustrates one usage of ListExecutions.

Sample Request

```
{
  "ExportArn": "arn:aws:bcm-data-exports:::export:Example/837fcfce-f85b-4600-b333-
b38a12c3a927",
  "MaxResults": 100,
  "NextToken": ""
}
```

The following is a sample response of the ListExecutions operation.

This example illustrates one usage of ListExecutions.

Sample Response

```
{
    "Executions": [
        {
            "ExecutionId": "f0cfeaf0-c552-47e7-82bc-0107fbfc7a8b",
            "ExecutionStatus": {
                "CreatedAt": "2023-11-14T18:14:12.813Z",
                "LastUpdatedAt": "2023-11-14T18:18:14.252556820Z",
                "StatusCode": "DELIVERY_SUCCESS"
            }
        },
        {
            "ExecutionId": "2c173333-4b14-4740-98a1-d52304eced2d",
```

```
            "ExecutionStatus": {
                "CreatedAt": "2023-11-14T09:20:47.137Z",
                "LastUpdatedAt": "2023-11-14T09:53:48.285265457Z",
                "StatusCode": "DELIVERY_SUCCESS"
            }
        }
    ]
}
```


See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListExports

Service: AWS Data Exports

Lists all data export definitions.

Request Syntax

```
{
   "MaxResults": number,
   "NextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

MaxResults

The maximum number of objects that are returned for the request.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

NextToken

The token to retrieve the next set of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

Response Syntax

```
{
   "Exports": [
```

```
      {
         "ExportArn": "string",
         "ExportName": "string",
         "ExportStatus": {
            "CreatedAt": "string",
            "LastRefreshedAt": "string",
            "LastUpdatedAt": "string",
            "StatusCode": "string",
            "StatusReason": "string"
         }
      }
   ],
   "NextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Exports

The details of the exports, including name and export status.

Type: Array of ExportReference objects

NextToken

The token to retrieve the next set of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServerException

An error on the server occurred during the processing of your request. Try again later.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

QuotaCode

The quota code that exceeded the throttling limit.

ServiceCode

The service code that exceeded the throttling limit. It will always be "AWSBillingAndCostManagementDataExports".

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

Fields

The list of fields that are invalid.

Reason

The reason for the validation exception.

HTTP Status Code: 400

Examples

The following is a sample request of the ListExports operation.

This example illustrates one usage of ListExports.

Sample Request

```
{
    "MaxResults": 100,
    "NextToken": ""
}
```

The following is a sample response of the ListExports operation.

This example illustrates one usage of ListExports.

Sample Response


```
{
    "Exports": [
        {
            "ExportArn": "arn:aws:bcm-data-exports:::export:Example/837fcfce-f85b-4600-
b333-b38a12c3a927",
            "ExportName": "ExampleExportName1",
            "ExportStatus": {
                "CreatedAt": "2023-11-14T18:02:02.371Z",
                "LastRefreshedAt": "2023-11-14T18:18:12.592Z",
                "LastUpdatedAt": "2023-11-14T18:02:02.371Z",
                "StatusCode": "HEALTHY"
            }
        },
        {
            "ExportArn": "arn:aws:bcm-data-exports:::export:Example/837fcfce-f85b-4600-
b333-b38a12c3a927",
            "ExportName": "ExampleExportName2",
            "ExportStatus": {
                "CreatedAt": "2023-11-14T18:03:02.038Z",
                "LastRefreshedAt": "2023-11-14T18:18:12.629Z",
                "LastUpdatedAt": "2023-11-14T18:03:02.038Z",
                "StatusCode": "UNHEALTHY"
            }
        }
    ]
}
```


See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3

- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListTables

Service: AWS Data Exports

Lists all available tables in data exports.

Request Syntax

```
{
   "MaxResults": number,
   "NextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

MaxResults

The maximum number of objects that are returned for the request.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

NextToken

The token to retrieve the next set of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

Response Syntax

```
{
```

```
   "NextToken": "string",
   "Tables": [
      {
         "Description": "string",
         "TableName": "string",
         "TableProperties": [
            {
               "DefaultValue": "string",
               "Description": "string",
               "Name": "string",
               "ValidValues": [ "string" ]
            }
         ]
      }
   ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

NextToken

The token to retrieve the next set of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Tables

The list of tables.

Type: Array of Table objects

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServerException

An error on the server occurred during the processing of your request. Try again later.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

QuotaCode

The quota code that exceeded the throttling limit.

ServiceCode

The service code that exceeded the throttling limit. It will always be "AWSBillingAndCostManagementDataExports".

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

Fields

The list of fields that are invalid.

Reason

The reason for the validation exception.

HTTP Status Code: 400

Examples

The following is a sample request of the ListTables operation.

This example illustrates one usage of ListTables.

Sample Request

```
{
    "MaxResults": 100,
    "NextToken": ""
}
```

The following is a sample response of the ListTables operation.

This example illustrates one usage of ListTables.

Sample Response


```
{
    "Tables": [
        {
            "Description": "A view over CUR for CostAndUsageDashboard",
            "TableName": "COST_AND_USAGE_DASHBOARD",
            "TableProperties": [
                {}
            ]
        },
        {
            "Description": "Cost and Usage Report",
            "TableName": "COST_AND_USAGE_REPORT",
            "TableProperties": [
                {
                    "DefaultValue": "HOURLY",
                    "Description": "The granularity of the line-items in the table.",
                    "Name": "TIME_GRANULARITY",
                    "ValidValues": [
                        "DAILY",
                        "MONTHLY",
                        "HOURLY"
                    ]
                },
                {
                    "DefaultValue": "FALSE",
                    "Description": "Whether to simulate manual discounts for automated
 discount data.",
                    "Name": "INCLUDE_MANUAL_DISCOUNT_COMPATIBILITY",
                    "ValidValues": [
                        "TRUE",
                        "FALSE"
                    ]
                },
                {
                    "DefaultValue": "FALSE",
                    "Description": "Whether to include fission columns.",
                    "Name": "INCLUDE_SPLIT_COST_ALLOCATION_DATA",
                    "ValidValues": [
```

```
                        "TRUE",
                        "FALSE"
                    ]
                },
                {
                    "DefaultValue": "FALSE",
                    "Description": "Whether to include resource IDs on line items.",
                    "Name": "INCLUDE_RESOURCES",
                    "ValidValues": [
                        "TRUE",
                        "FALSE"
                    ]
                }
            ]
        }
    ]
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListTagsForResource

Service: AWS Data Exports

List tags associated with an existing data export.

Request Syntax

```
{
   "MaxResults": number,
   "NextToken": "string",
   "ResourceArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

MaxResults

The maximum number of objects that are returned for the request.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

NextToken

The token to retrieve the next set of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

ResourceArn

The unique identifier for the resource.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[-a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: Yes

Response Syntax

```
{
   "NextToken": "string",
   "ResourceTags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

NextToken

The token to retrieve the next set of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Pattern: `[\S\s]*`

ResourceTags

An optional list of tags to associate with the specified export. Each tag consists of a key and a value, and each key must be unique for the resource.

Type: Array of ResourceTag objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServerException

An error on the server occurred during the processing of your request. Try again later.

HTTP Status Code: 500

ResourceNotFoundException

The specified Amazon Resource Name (ARN) in the request doesn't exist.

ResourceId

The identifier of the resource that was not found.

ResourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

QuotaCode

The quota code that exceeded the throttling limit.

ServiceCode

The service code that exceeded the throttling limit. It will always be "AWSBillingAndCostManagementDataExports".

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

Fields

The list of fields that are invalid.

Reason

The reason for the validation exception.

HTTP Status Code: 400

Examples

The following is a sample request of the ListTagsForResource operation.

This example illustrates one usage of ListTagsForResource.

Sample Request

```
{
  "ResourceArn": "arn:aws:bcm-data-exports:::export:Example/837fcfce-f85b-4600-b333-
b38a12c3a927"
}
```

The following is a sample response of the ListTagsForResource operation.

This example illustrates one usage of ListTagsForResource.

Sample Response

```
{
  "ResourceTags": [
    {
      "Key": "YourTagKey",
      "Value": "YourTagValue"
    }
  ]
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET

- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

TagResource

Service: AWS Data Exports

Adds tags for an existing data export definition.

Request Syntax

```
{
   "ResourceArn": "string",
   "ResourceTags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

ResourceArn

The unique identifier for the resource.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[-a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: Yes

ResourceTags

The tags to associate with the resource. Each tag consists of a key and a value, and each key must be unique for the resource.

Type: Array of ResourceTag objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServerException

An error on the server occurred during the processing of your request. Try again later.

HTTP Status Code: 500

ResourceNotFoundException

The specified Amazon Resource Name (ARN) in the request doesn't exist.

ResourceId

The identifier of the resource that was not found.

ResourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

QuotaCode

The quota code that exceeded the throttling limit.

ServiceCode

The service code that exceeded the throttling limit. It will always be "AWSBillingAndCostManagementDataExports".

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

Fields

The list of fields that are invalid.

Reason

The reason for the validation exception.

HTTP Status Code: 400

Examples

The following is a sample request of the TagResource operation.

This example illustrates one usage of TagResource.

Sample Request

```
{
  "ResourceArn": "arn:aws:bcm-data-exports:::export:Example/837fcfce-f85b-4600-b333-
b38a12c3a927",
  "ResourceTags": [
    {
      "Key": "YourTagKey",
      "Value": "YourTagValue"
    }
  ]
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3

- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

UntagResource

Service: AWS Data Exports

Deletes tags associated with an existing data export definition.

Request Syntax

```
{
   "ResourceArn": "string",
   "ResourceTagKeys": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

ResourceArn

The unique identifier for the resource.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[-a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: Yes

ResourceTagKeys

The tag keys that are associated with the resource ARN.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServerException

An error on the server occurred during the processing of your request. Try again later.

HTTP Status Code: 500

ResourceNotFoundException

The specified Amazon Resource Name (ARN) in the request doesn't exist.

ResourceId

The identifier of the resource that was not found.

ResourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

QuotaCode

The quota code that exceeded the throttling limit.

ServiceCode

The service code that exceeded the throttling limit. It will always be "AWSBillingAndCostManagementDataExports".

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

Fields

The list of fields that are invalid.

Reason

The reason for the validation exception.

HTTP Status Code: 400

Examples

The following is a sample request of the UntagResource operation.

This example illustrates one usage of UntagResource.

Sample Request

```
{
  "ResourceArn": "arn:aws:bcm-data-exports:::export:Example/837fcfce-f85b-4600-b333-
b38a12c3a927",
  "ResourceTagKeys": [
    "YourTagKey"
  ]
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3

- AWS SDK for Python
- AWS SDK for Ruby V3

UpdateExport

Service: AWS Data Exports

Updates an existing data export by overwriting all export parameters. All export parameters must be provided in the UpdateExport request.

Request Syntax

```
{
   "Export": {
      "DataQuery": {
         "QueryStatement": "string",
         "TableConfigurations": {
            "string" : {
               "string" : "string"
            }
         }
      },
      "Description": "string",
      "DestinationConfigurations": {
         "S3Destination": {
            "S3Bucket": "string",
            "S3OutputConfigurations": {
               "Compression": "string",
               "Format": "string",
               "OutputType": "string",
               "Overwrite": "string"
            },
            "S3Prefix": "string",
            "S3Region": "string"
         }
      },
      "ExportArn": "string",
      "Name": "string",
      "RefreshCadence": {
         "Frequency": "string"
      }
   },
   "ExportArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

Export

The name and query details for the export.

Type: Export object

Required: Yes

ExportArn

The Amazon Resource Name (ARN) for this export.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[-a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: Yes

Response Syntax

```
{
   "ExportArn": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

ExportArn

The Amazon Resource Name (ARN) for this export.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[-a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServerException

An error on the server occurred during the processing of your request. Try again later.

HTTP Status Code: 500

ResourceNotFoundException

The specified Amazon Resource Name (ARN) in the request doesn't exist.

ResourceId

The identifier of the resource that was not found.

ResourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

QuotaCode

The quota code that exceeded the throttling limit.

ServiceCode

The service code that exceeded the throttling limit. It will always be "AWSBillingAndCostManagementDataExports".

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

Fields

The list of fields that are invalid.

Reason

The reason for the validation exception.

HTTP Status Code: 400

Examples

The following is a sample request of the UpdateExport operation.

This example illustrates one usage of UpdateExport.

Sample Request

```
{
    "ExportArn": "arn:aws:bcm-data-exports:::export:Example/837fcfce-f85b-4600-b333-
b38a12c3a927",
    "Export": {
        "Name": "ExampleExportName",
        "Description": "Example Description",
        "DataQuery": {
            "QueryStatement": "SELECT identity_line_item_id, identity_time_interval,
 line_item_product_code,line_item_unblended_cost FROM COST_AND_USAGE_REPORT",
            "TableConfigurations": {
                "COST_AND_USAGE_REPORT": {
                    "TIME_GRANULARITY": "DAILY",
                    "INCLUDE_RESOURCES": "FALSE",
                    "INCLUDE_MANUAL_DISCOUNT_COMPATIBILITY": "FALSE",
                    "INCLUDE_SPLIT_COST_ALLOCATION_DATA": "FALSE"
                }
            }
        },
        "DestinationConfigurations": {
            "S3Destination": {
                "S3Bucket": "ExampleS3Bucket",
                "S3Prefix": "ExampleS3Prefix",
                "S3Region": "us-east-1",
                "S3OutputConfigurations": {
                    "Overwrite": "OVERWRITE_REPORT",
```

```
                    "Format": "TEXT_OR_CSV",
                    "Compression": "GZIP",
                    "OutputType": "CUSTOM"
                }
            }
        },
        "RefreshCadence": {
            "Frequency": "SYNCHRONOUS"
        }
    }
}
```

The following is a sample response of the UpdateExport operation.

This example illustrates one usage of UpdateExport.

Sample Response

```
{
    "ExportArn": "arn:aws:bcm-data-exports:::export:Example/837fcfce-f85b-4600-b333-
b38a12c3a927"
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

AWS Pricing Calculator

The following actions are supported by AWS Pricing Calculator:

- BatchCreateBillScenarioCommitmentModification
- BatchCreateBillScenarioUsageModification
- BatchCreateWorkloadEstimateUsage
- BatchDeleteBillScenarioCommitmentModification
- BatchDeleteBillScenarioUsageModification
- BatchDeleteWorkloadEstimateUsage
- BatchUpdateBillScenarioCommitmentModification
- BatchUpdateBillScenarioUsageModification
- BatchUpdateWorkloadEstimateUsage
- CreateBillEstimate
- CreateBillScenario
- CreateWorkloadEstimate
- DeleteBillEstimate
- DeleteBillScenario
- DeleteWorkloadEstimate
- GetBillEstimate
- GetBillScenario
- GetPreferences
- GetWorkloadEstimate
- ListBillEstimateCommitments
- ListBillEstimateInputCommitmentModifications
- ListBillEstimateInputUsageModifications
- ListBillEstimateLineItems
- ListBillEstimates
- ListBillScenarioCommitmentModifications
- ListBillScenarios
- ListBillScenarioUsageModifications

- ListTagsForResource
- ListWorkloadEstimates
- ListWorkloadEstimateUsage
- TagResource
- UntagResource
- UpdateBillEstimate
- UpdateBillScenario
- UpdatePreferences
- UpdateWorkloadEstimate

BatchCreateBillScenarioCommitmentModification

Service: AWS Pricing Calculator

Create Compute Savings Plans, EC2 Instance Savings Plans, or EC2 Reserved Instances commitments that you want to model in a Bill Scenario.

> **Note**
>
> The `BatchCreateBillScenarioCommitmentModification` operation doesn't have its own IAM permission. To authorize this operation for AWS principals, include the permission `bcm-pricing-calculator:CreateBillScenarioCommitmentModification` in your policies.

Request Syntax

```
{
   "billScenarioId": "string",
   "clientToken": "string",
   "commitmentModifications": [
      {
         "commitmentAction": { ... },
         "group": "string",
         "key": "string",
         "usageAccountId": "string"
      }
   ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

billScenarioId

The ID of the Bill Scenario for which you want to create the modeled commitment.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

clientToken

A unique, case-sensitive identifier that you provide to ensure the idempotency of the request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[\u0021-\u007E]+`

Required: No

commitmentModifications

List of commitments that you want to model in the Bill Scenario.

Type: Array of BatchCreateBillScenarioCommitmentModificationEntry objects

Array Members: Minimum number of 1 item. Maximum number of 25 items.

Required: Yes

Response Syntax

```
{
   "errors": [
      {
         "errorCode": "string",
         "errorMessage": "string",
         "key": "string"
      }
   ],
   "items": [
      {
         "commitmentAction": { ... },
         "group": "string",
         "id": "string",
         "key": "string",
```

```
            "usageAccountId": "string"
        }
    ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

errors

Returns the list of errors reason and the commitment item keys that cannot be created in the Bill Scenario.

Type: Array of BatchCreateBillScenarioCommitmentModificationError objects

items

Returns the list of successful commitment line items that were created for the Bill Scenario.

Type: Array of BatchCreateBillScenarioCommitmentModificationItem objects

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

ConflictException

The request could not be processed because of conflict in the current state of the resource.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerException

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact AWS support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an AWS service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

BatchCreateBillScenarioUsageModification

Service: AWS Pricing Calculator

Create AWS service usage that you want to model in a Bill Scenario.

> **Note**
>
> The `BatchCreateBillScenarioUsageModification` operation doesn't have its own IAM permission. To authorize this operation for AWS principals, include the permission `bcm-pricing-calculator:CreateBillScenarioUsageModification` in your policies.

Request Syntax

```
{
   "billScenarioId": "string",
   "clientToken": "string",
   "usageModifications": [
      {
         "amounts": [
            {
               "amount": number,
               "startHour": number
            }
         ],
         "availabilityZone": "string",
         "group": "string",
         "historicalUsage": {
            "billInterval": {
               "end": number,
               "start": number
            },
            "filterExpression": {
               "and": [
                  "Expression"
               ],
               "costCategories": {
                  "key": "string",
                  "matchOptions": [ "string" ],
                  "values": [ "string" ]
               },
```

```
                "dimensions": {
                   "key": "string",
                   "matchOptions": [ "string" ],
                   "values": [ "string" ]
                },
                "not": "Expression",
                "or": [
                   "Expression"
                ],
                "tags": {
                   "key": "string",
                   "matchOptions": [ "string" ],
                   "values": [ "string" ]
                }
             },
             "location": "string",
             "operation": "string",
             "serviceCode": "string",
             "usageAccountId": "string",
             "usageType": "string"
          },
          "key": "string",
          "operation": "string",
          "serviceCode": "string",
          "usageAccountId": "string",
          "usageType": "string"
       }
   ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

billScenarioId

The ID of the Bill Scenario for which you want to create the modeled usage.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

clientToken

A unique, case-sensitive identifier that you provide to ensure the idempotency of the request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[\u0021-\u007E]+`

Required: No

usageModifications

List of usage that you want to model in the Bill Scenario.

Type: Array of BatchCreateBillScenarioUsageModificationEntry objects

Array Members: Minimum number of 1 item. Maximum number of 25 items.

Required: Yes

Response Syntax

```
{
   "errors": [
      {
         "errorCode": "string",
         "errorMessage": "string",
         "key": "string"
      }
   ],
   "items": [
      {
         "availabilityZone": "string",
         "group": "string",
         "historicalUsage": {
            "billInterval": {
               "end": number,
               "start": number
            },
```

```
            "filterExpression": {
               "and": [
                  "Expression"
               ],
               "costCategories": {
                  "key": "string",
                  "matchOptions": [ "string" ],
                  "values": [ "string" ]
               },
               "dimensions": {
                  "key": "string",
                  "matchOptions": [ "string" ],
                  "values": [ "string" ]
               },
               "not": "Expression",
               "or": [
                  "Expression"
               ],
               "tags": {
                  "key": "string",
                  "matchOptions": [ "string" ],
                  "values": [ "string" ]
               }
            },
            "location": "string",
            "operation": "string",
            "serviceCode": "string",
            "usageAccountId": "string",
            "usageType": "string"
         },
         "id": "string",
         "key": "string",
         "location": "string",
         "operation": "string",
         "quantities": [
            {
               "amount": number,
               "startHour": number,
               "unit": "string"
            }
         ],
         "serviceCode": "string",
         "usageAccountId": "string",
         "usageType": "string"
```

```
        }
    ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

errors

Returns the list of errors reason and the usage item keys that cannot be created in the Bill Scenario.

Type: Array of BatchCreateBillScenarioUsageModificationError objects

items

Returns the list of successful usage line items that were created for the Bill Scenario.

Type: Array of BatchCreateBillScenarioUsageModificationItem objects

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

ConflictException

The request could not be processed because of conflict in the current state of the resource.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerException

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ServiceQuotaExceededException

The request would cause you to exceed your service quota.

quotaCode

The quota code that was exceeded.

resourceId

The identifier of the resource that exceeded quota.

resourceType

The type of the resource that exceeded quota.

serviceCode

The service code that exceeded quota.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact AWS support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an AWS service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET

- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

BatchCreateWorkloadEstimateUsage

Service: AWS Pricing Calculator

Create AWS service usage that you want to model in a Workload Estimate.

> **Note**
>
> The `BatchCreateWorkloadEstimateUsage` operation doesn't have its own IAM permission. To authorize this operation for AWS principals, include the permission `bcm-pricing-calculator:CreateWorkloadEstimateUsage` in your policies.

Request Syntax

```
{
   "clientToken": "string",
   "usage": [
      {
         "amount": number,
         "group": "string",
         "historicalUsage": {
            "billInterval": {
               "end": number,
               "start": number
            },
            "filterExpression": {
               "and": [
                  "Expression"
               ],
               "costCategories": {
                  "key": "string",
                  "matchOptions": [ "string" ],
                  "values": [ "string" ]
               },
               "dimensions": {
                  "key": "string",
                  "matchOptions": [ "string" ],
                  "values": [ "string" ]
               },
               "not": "Expression",
               "or": [
                  "Expression"
```

```
                ],
                "tags": {
                   "key": "string",
                   "matchOptions": [ "string" ],
                   "values": [ "string" ]
                }
             },
             "location": "string",
             "operation": "string",
             "serviceCode": "string",
             "usageAccountId": "string",
             "usageType": "string"
          },
          "key": "string",
          "operation": "string",
          "serviceCode": "string",
          "usageAccountId": "string",
          "usageType": "string"
       }
    ],
    "workloadEstimateId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

clientToken

A unique, case-sensitive identifier that you provide to ensure the idempotency of the request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[\u0021-\u007E]+`

Required: No

usage

List of usage that you want to model in the Workload estimate.

Type: Array of BatchCreateWorkloadEstimateUsageEntry objects

Array Members: Minimum number of 1 item. Maximum number of 25 items.

Required: Yes

workloadEstimateId

The ID of the Workload estimate for which you want to create the modeled usage.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

Response Syntax

```
{
   "errors": [
      {
         "errorCode": "string",
         "errorMessage": "string",
         "key": "string"
      }
   ],
   "items": [
      {
         "cost": number,
         "currency": "string",
         "group": "string",
         "historicalUsage": {
            "billInterval": {
               "end": number,
               "start": number
            },
            "filterExpression": {
               "and": [
                  "Expression"
               ],
               "costCategories": {
                  "key": "string",
```

```
                "matchOptions": [ "string" ],
                "values": [ "string" ]
             },
             "dimensions": {
                "key": "string",
                "matchOptions": [ "string" ],
                "values": [ "string" ]
             },
             "not": "Expression",
             "or": [
                "Expression"
             ],
             "tags": {
                "key": "string",
                "matchOptions": [ "string" ],
                "values": [ "string" ]
             }
          },
          "location": "string",
          "operation": "string",
          "serviceCode": "string",
          "usageAccountId": "string",
          "usageType": "string"
       },
       "id": "string",
       "key": "string",
       "location": "string",
       "operation": "string",
       "quantity": {
          "amount": number,
          "unit": "string"
       },
       "serviceCode": "string",
       "status": "string",
       "usageAccountId": "string",
       "usageType": "string"
    }
 ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

errors

Returns the list of errors reason and the usage item keys that cannot be created in the Workload estimate.

Type: Array of BatchCreateWorkloadEstimateUsageError objects

items

Returns the list of successful usage line items that were created for the Workload estimate.

Type: Array of BatchCreateWorkloadEstimateUsageItem objects

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

ConflictException

The request could not be processed because of conflict in the current state of the resource.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerException

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ServiceQuotaExceededException

The request would cause you to exceed your service quota.

quotaCode

The quota code that was exceeded.

resourceId

The identifier of the resource that exceeded quota.

resourceType

The type of the resource that exceeded quota.

serviceCode

The service code that exceeded quota.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact AWS support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an AWS service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3

- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

BatchDeleteBillScenarioCommitmentModification

Service: AWS Pricing Calculator

Delete commitment that you have created in a Bill Scenario. You can only delete a commitment that you had added and cannot model deletion (or removal) of a existing commitment. If you want model deletion of an existing commitment, see the negate BillScenarioCommitmentModificationAction of BatchCreateBillScenarioCommitmentModification operation.

> **Note**
>
> The `BatchDeleteBillScenarioCommitmentModification` operation doesn't have its own IAM permission. To authorize this operation for AWS principals, include the permission `bcm-pricing-calculator:DeleteBillScenarioCommitmentModification` in your policies.

Request Syntax

```
{
   "billScenarioId": "string",
   "ids": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

billScenarioId

The ID of the Bill Scenario for which you want to delete the modeled commitment.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

ids

List of commitments that you want to delete from the Bill Scenario.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 25 items.

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

Response Syntax

```
{
   "errors": [
      {
         "errorCode": "string",
         "errorMessage": "string",
         "id": "string"
      }
   ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

errors

Returns the list of errors reason and the commitment item keys that cannot be deleted from the Bill Scenario.

Type: Array of BatchDeleteBillScenarioCommitmentModificationError objects

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

ConflictException

The request could not be processed because of conflict in the current state of the resource.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerException

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact AWS support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an AWS service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2

- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

BatchDeleteBillScenarioUsageModification

Service: AWS Pricing Calculator

Delete usage that you have created in a Bill Scenario. You can only delete usage that you had added and cannot model deletion (or removal) of a existing usage. If you want model removal of an existing usage, see BatchUpdateBillScenarioUsageModification.

> **Note**
>
> The `BatchDeleteBillScenarioUsageModification` operation doesn't have its own IAM permission. To authorize this operation for AWS principals, include the permission `bcm-pricing-calculator:DeleteBillScenarioUsageModification` in your policies.

Request Syntax

```
{
   "billScenarioId": "string",
   "ids": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

billScenarioId

The ID of the Bill Scenario for which you want to delete the modeled usage.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

ids

List of usage that you want to delete from the Bill Scenario.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 25 items.

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

Response Syntax

```
{
   "errors": [
      {
         "errorCode": "string",
         "errorMessage": "string",
         "id": "string"
      }
   ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

errors

Returns the list of errors reason and the usage item keys that cannot be deleted from the Bill Scenario.

Type: Array of BatchDeleteBillScenarioUsageModificationError objects

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

ConflictException

The request could not be processed because of conflict in the current state of the resource.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerException

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ServiceQuotaExceededException

The request would cause you to exceed your service quota.

quotaCode

The quota code that was exceeded.

resourceId

The identifier of the resource that exceeded quota.

resourceType

The type of the resource that exceeded quota.

serviceCode

The service code that exceeded quota.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact AWS support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an AWS service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

BatchDeleteWorkloadEstimateUsage

Service: AWS Pricing Calculator

Delete usage that you have created in a Workload estimate. You can only delete usage that you had added and cannot model deletion (or removal) of a existing usage. If you want model removal of an existing usage, see BatchUpdateWorkloadEstimateUsage.

> **Note**
>
> The `BatchDeleteWorkloadEstimateUsage` operation doesn't have its own IAM permission. To authorize this operation for AWS principals, include the permission `bcm-pricing-calculator:DeleteWorkloadEstimateUsage` in your policies.

Request Syntax

```
{
   "ids": [ "string" ],
   "workloadEstimateId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

ids

List of usage that you want to delete from the Workload estimate.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 25 items.

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

workloadEstimateId

The ID of the Workload estimate for which you want to delete the modeled usage.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

Response Syntax

```
{
   "errors": [
      {
         "errorCode": "string",
         "errorMessage": "string",
         "id": "string"
      }
   ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

errors

Returns the list of errors reason and the usage item keys that cannot be deleted from the Workload estimate.

Type: Array of BatchDeleteWorkloadEstimateUsageError objects

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerException

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ServiceQuotaExceededException

The request would cause you to exceed your service quota.

quotaCode

The quota code that was exceeded.

resourceId

The identifier of the resource that exceeded quota.

resourceType

The type of the resource that exceeded quota.

serviceCode

The service code that exceeded quota.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact AWS support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an AWS service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

BatchUpdateBillScenarioCommitmentModification

Service: AWS Pricing Calculator

Update a newly added or existing commitment. You can update the commitment group based on a commitment ID and a Bill scenario ID.

> **Note**
>
> The `BatchUpdateBillScenarioCommitmentModification` operation doesn't have its own IAM permission. To authorize this operation for AWS principals, include the permission `bcm-pricing-calculator:UpdateBillScenarioCommitmentModification` in your policies.

Request Syntax

```
{
   "billScenarioId": "string",
   "commitmentModifications": [
      {
         "group": "string",
         "id": "string"
      }
   ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

billScenarioId

The ID of the Bill Scenario for which you want to modify the commitment group of a modeled commitment.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

commitmentModifications

List of commitments that you want to update in a Bill Scenario.

Type: Array of BatchUpdateBillScenarioCommitmentModificationEntry objects

Array Members: Minimum number of 1 item. Maximum number of 25 items.

Required: Yes

Response Syntax

```
{
   "errors": [
      {
         "errorCode": "string",
         "errorMessage": "string",
         "id": "string"
      }
   ],
   "items": [
      {
         "commitmentAction": { ... },
         "group": "string",
         "id": "string",
         "usageAccountId": "string"
      }
   ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

errors

Returns the list of error reasons and commitment line item IDs that could not be updated for the Bill Scenario.

Type: Array of BatchUpdateBillScenarioCommitmentModificationError objects

items

Returns the list of successful commitment line items that were updated for a Bill Scenario.

Type: Array of BillScenarioCommitmentModificationItem objects

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

ConflictException

The request could not be processed because of conflict in the current state of the resource.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerException

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact AWS support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an AWS service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

BatchUpdateBillScenarioUsageModification

Service: AWS Pricing Calculator

Update a newly added or existing usage lines. You can update the usage amounts, usage hour, and usage group based on a usage ID and a Bill scenario ID.

> **Note**
>
> The `BatchUpdateBillScenarioUsageModification` operation doesn't have its own IAM permission. To authorize this operation for AWS principals, include the permission `bcm-pricing-calculator:UpdateBillScenarioUsageModification` in your policies.

Request Syntax

```
{
   "billScenarioId": "string",
   "usageModifications": [
      {
         "amounts": [
            {
               "amount": number,
               "startHour": number
            }
         ],
         "group": "string",
         "id": "string"
      }
   ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

billScenarioId

The ID of the Bill Scenario for which you want to modify the usage lines.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

usageModifications

List of usage lines that you want to update in a Bill Scenario identified by the usage ID.

Type: Array of BatchUpdateBillScenarioUsageModificationEntry objects

Array Members: Minimum number of 1 item. Maximum number of 25 items.

Required: Yes

Response Syntax

```
{
   "errors": [
      {
         "errorCode": "string",
         "errorMessage": "string",
         "id": "string"
      }
   ],
   "items": [
      {
         "availabilityZone": "string",
         "group": "string",
         "historicalUsage": {
            "billInterval": {
               "end": number,
               "start": number
            },
            "filterExpression": {
               "and": [
                  "Expression"
               ],
               "costCategories": {
                  "key": "string",
                  "matchOptions": [ "string" ],
```

```
                  "values": [ "string" ]
               },
               "dimensions": {
                  "key": "string",
                  "matchOptions": [ "string" ],
                  "values": [ "string" ]
               },
               "not": "Expression",
               "or": [
                  "Expression"
               ],
               "tags": {
                  "key": "string",
                  "matchOptions": [ "string" ],
                  "values": [ "string" ]
               }
            },
            "location": "string",
            "operation": "string",
            "serviceCode": "string",
            "usageAccountId": "string",
            "usageType": "string"
         },
         "id": "string",
         "location": "string",
         "operation": "string",
         "quantities": [
            {
               "amount": number,
               "startHour": number,
               "unit": "string"
            }
         ],
         "serviceCode": "string",
         "usageAccountId": "string",
         "usageType": "string"
      }
   ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

errors

Returns the list of error reasons and usage line item IDs that could not be updated for the Bill Scenario.

Type: Array of BatchUpdateBillScenarioUsageModificationError objects

items

Returns the list of successful usage line items that were updated for a Bill Scenario.

Type: Array of BillScenarioUsageModificationItem objects

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

ConflictException

The request could not be processed because of conflict in the current state of the resource.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerException

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ServiceQuotaExceededException

The request would cause you to exceed your service quota.

quotaCode

The quota code that was exceeded.

resourceId

The identifier of the resource that exceeded quota.

resourceType

The type of the resource that exceeded quota.

serviceCode

The service code that exceeded quota.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact AWS support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an AWS service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3

- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

BatchUpdateWorkloadEstimateUsage

Service: AWS Pricing Calculator

Update a newly added or existing usage lines. You can update the usage amounts and usage group based on a usage ID and a Workload estimate ID.

> **Note**
>
> The `BatchUpdateWorkloadEstimateUsage` operation doesn't have its own IAM permission. To authorize this operation for AWS principals, include the permission `bcm-pricing-calculator:UpdateWorkloadEstimateUsage` in your policies.

Request Syntax

```
{
   "usage": [
      {
         "amount": number,
         "group": "string",
         "id": "string"
      }
   ],
   "workloadEstimateId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

usage

List of usage line amounts and usage group that you want to update in a Workload estimate identified by the usage ID.

Type: Array of BatchUpdateWorkloadEstimateUsageEntry objects

Array Members: Minimum number of 1 item. Maximum number of 25 items.

Required: Yes

workloadEstimateId

The ID of the Workload estimate for which you want to modify the usage lines.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

Response Syntax

```
{
   "errors": [
      {
         "errorCode": "string",
         "errorMessage": "string",
         "id": "string"
      }
   ],
   "items": [
      {
         "cost": number,
         "currency": "string",
         "group": "string",
         "historicalUsage": {
            "billInterval": {
               "end": number,
               "start": number
            },
            "filterExpression": {
               "and": [
                  "Expression"
               ],
               "costCategories": {
                  "key": "string",
                  "matchOptions": [ "string" ],
                  "values": [ "string" ]
               },
               "dimensions": {
                  "key": "string",
```

```
                "matchOptions": [ "string" ],
                "values": [ "string" ]
             },
             "not": "Expression",
             "or": [
                "Expression"
             ],
             "tags": {
                "key": "string",
                "matchOptions": [ "string" ],
                "values": [ "string" ]
             }
          },
          "location": "string",
          "operation": "string",
          "serviceCode": "string",
          "usageAccountId": "string",
          "usageType": "string"
       },
       "id": "string",
       "location": "string",
       "operation": "string",
       "quantity": {
          "amount": number,
          "unit": "string"
       },
       "serviceCode": "string",
       "status": "string",
       "usageAccountId": "string",
       "usageType": "string"
    }
 ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

errors

Returns the list of error reasons and usage line item IDs that could not be updated for the Workload estimate.

Type: Array of BatchUpdateWorkloadEstimateUsageError objects

items

Returns the list of successful usage line items that were updated for a Workload estimate.

Type: Array of WorkloadEstimateUsageItem objects

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerException

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ServiceQuotaExceededException

The request would cause you to exceed your service quota.

quotaCode

The quota code that was exceeded.

resourceId

The identifier of the resource that exceeded quota.

resourceType

The type of the resource that exceeded quota.

serviceCode

The service code that exceeded quota.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact AWS support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an AWS service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

CreateBillEstimate

Service: AWS Pricing Calculator

Create a Bill estimate from a Bill scenario. In the Bill scenario you can model usage addition, usage changes, and usage removal. You can also model commitment addition and commitment removal. After all changes in a Bill scenario is made satisfactorily, you can call this API with a Bill scenario ID to generate the Bill estimate. Bill estimate calculates the pre-tax cost for your consolidated billing family, incorporating all modeled usage and commitments alongside existing usage and commitments from your most recent completed anniversary bill, with any applicable discounts applied.

Request Syntax

```
{
   "billScenarioId": "string",
   "clientToken": "string",
   "name": "string",
   "tags": {
      "string" : "string"
   }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

billScenarioId

The ID of the Bill Scenario for which you want to create a Bill estimate.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

clientToken

A unique, case-sensitive identifier that you provide to ensure the idempotency of the request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[\u0021-\u007E]+`

Required: No

name

The name of the Bill estimate that will be created. Names must be unique for an account.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 64.

Pattern: `[a-zA-Z0-9-]+`

Required: Yes

tags

An optional list of tags to associate with the specified BillEstimate. You can use resource tags to control access to your BillEstimate using IAM policies. Each tag consists of a key and a value, and each key must be unique for the resource. The following restrictions apply to resource tags:

- Although the maximum number of array members is 200, you can assign a maximum of 50 user-tags to one resource. The remaining are reserved for AWS.
- The maximum length of a key is 128 characters.
- The maximum length of a value is 256 characters.
- Keys and values can only contain alphanumeric characters, spaces, and any of the following: `_.:/=+@-`.
- Keys and values are case sensitive.
- Keys and values are trimmed for any leading or trailing whitespaces.
- Don't use `aws:` as a prefix for your keys. This prefix is reserved for AWS.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 200 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Key Pattern: `[\w\s:+=@/-]+`

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Value Pattern: `[\w\s:+=@/-]*`

Required: No

Response Syntax

```
{
   "billInterval": {
      "end": number,
      "start": number
   },
   "costCategoryGroupSharingPreferenceArn": "string",
   "costCategoryGroupSharingPreferenceEffectiveDate": number,
   "costSummary": {
      "serviceCostDifferences": {
         "string" : {
            "estimatedCost": {
               "amount": number,
               "currency": "string"
            },
            "historicalCost": {
               "amount": number,
               "currency": "string"
            }
         }
      },
      "totalCostDifference": {
         "estimatedCost": {
            "amount": number,
            "currency": "string"
         },
         "historicalCost": {
            "amount": number,
            "currency": "string"
         }
      }
   },
   "createdAt": number,
   "expiresAt": number,
```

```
    "failureMessage": "string",
    "groupSharingPreference": "string",
    "id": "string",
    "name": "string",
    "status": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

billInterval

The bill month start and end timestamp that was used to create the Bill estimate. This is set to the last complete anniversary bill month start and end timestamp.

Type: BillInterval object

costCategoryGroupSharingPreferenceArn

The arn of the cost category used in the reserved and prioritized group sharing.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:ce::[0-9]{12}:costcategory/[a-f0-9-]{36}`

costCategoryGroupSharingPreferenceEffectiveDate

Timestamp of the effective date of the cost category used in the group sharing settings.

Type: Timestamp

costSummary

Returns summary-level cost information once a Bill estimate is successfully generated. This summary includes: 1) the total cost difference, showing the pre-tax cost change for the consolidated billing family between the completed anniversary bill and the estimated bill, and 2) total cost differences per service, detailing the pre-tax cost of each service, comparing the completed anniversary bill to the estimated bill on a per-service basis.

Type: BillEstimateCostSummary object

createdAt

The timestamp of when the Bill estimate create process was started (not when it successfully completed or failed).

Type: Timestamp

expiresAt

The timestamp of when the Bill estimate will expire. A Bill estimate becomes inaccessible after expiration.

Type: Timestamp

failureMessage

This attribute provides the reason if a Bill estimate result generation fails.

Type: String

groupSharingPreference

The setting for the reserved instance and savings plans group sharing used in this estimate.

Type: String

Valid Values: `OPEN | PRIORITIZED | RESTRICTED`

id

The unique identifier of your newly created Bill estimate.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

name

The name of your newly created Bill estimate.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 64.

Pattern: `[a-zA-Z0-9-]+`

status

The status of your newly created Bill estimate. Bill estimate creation can take anywhere between 8 to 12 hours. The status will allow you to identify when the Bill estimate is complete or has failed.

Type: String

Valid Values: `IN_PROGRESS | COMPLETE | FAILED`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

ConflictException

The request could not be processed because of conflict in the current state of the resource.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerException

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact AWS support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an AWS service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

CreateBillScenario

Service: AWS Pricing Calculator

Creates a new bill scenario to model potential changes to AWS usage and costs.

Request Syntax

```
{
   "clientToken": "string",
   "costCategoryGroupSharingPreferenceArn": "string",
   "groupSharingPreference": "string",
   "name": "string",
   "tags": {
      "string" : "string"
   }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

clientToken

A unique, case-sensitive identifier to ensure idempotency of the request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[\u0021-\u007E]+`

Required: No

costCategoryGroupSharingPreferenceArn

The arn of the cost category used in the reserved and prioritized group sharing.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:ce::[0-9]{12}:costcategory/[a-f0-9-]{36}`

Required: No

groupSharingPreference

The setting for the reserved instance and savings plans group sharing used in this estimate.

Type: String

Valid Values: `OPEN | PRIORITIZED | RESTRICTED`

Required: No

name

A descriptive name for the bill scenario.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 64.

Pattern: `[a-zA-Z0-9-]+`

Required: Yes

tags

The tags to apply to the bill scenario.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 200 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Key Pattern: `[\w\s:+=@/-]+`

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Value Pattern: `[\w\s:+=@/-]*`

Required: No

Response Syntax

```
{
```

```
   "billInterval": {
      "end": number,
      "start": number
   },
   "costCategoryGroupSharingPreferenceArn": "string",
   "createdAt": number,
   "expiresAt": number,
   "failureMessage": "string",
   "groupSharingPreference": "string",
   "id": "string",
   "name": "string",
   "status": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

billInterval

The time period covered by the bill scenario.

Type: BillInterval object

costCategoryGroupSharingPreferenceArn

The arn of the cost category used in the reserved and prioritized group sharing.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:ce::[0-9]{12}:costcategory/[a-f0-9-]{36}`

createdAt

The timestamp when the bill scenario was created.

Type: Timestamp

expiresAt

The timestamp when the bill scenario will expire.

Type: Timestamp

failureMessage

An error message if the bill scenario creation failed.

Type: String

groupSharingPreference

The setting for the reserved instance and savings plans group sharing used in this estimate.

Type: String

Valid Values: `OPEN | PRIORITIZED | RESTRICTED`

id

The unique identifier for the created bill scenario.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

name

The name of the created bill scenario.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 64.

Pattern: `[a-zA-Z0-9-]+`

status

The current status of the bill scenario.

Type: String

Valid Values: `READY | LOCKED | FAILED | STALE`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

ConflictException

The request could not be processed because of conflict in the current state of the resource.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerException

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

HTTP Status Code: 500

ServiceQuotaExceededException

The request would cause you to exceed your service quota.

quotaCode

The quota code that was exceeded.

resourceId

The identifier of the resource that exceeded quota.

resourceType

The type of the resource that exceeded quota.

serviceCode

The service code that exceeded quota.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact AWS support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an AWS service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

CreateWorkloadEstimate

Service: AWS Pricing Calculator

Creates a new workload estimate to model costs for a specific workload.

Request Syntax

```
{
   "clientToken": "string",
   "name": "string",
   "rateType": "string",
   "tags": {
      "string" : "string"
   }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

clientToken

A unique, case-sensitive identifier to ensure idempotency of the request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[\u0021-\u007E]+`

Required: No

name

A descriptive name for the workload estimate.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 64.

Pattern: `[a-zA-Z0-9-]+`

Required: Yes

rateType

The type of pricing rates to use for the estimate.

Type: String

Valid Values: `BEFORE_DISCOUNTS | AFTER_DISCOUNTS | AFTER_DISCOUNTS_AND_COMMITMENTS`

Required: No

tags

The tags to apply to the workload estimate.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 200 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Key Pattern: `[\w\s:+=@/-]+`

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Value Pattern: `[\w\s:+=@/-]*`

Required: No

Response Syntax

```
{
   "costCurrency": "string",
   "createdAt": number,
   "expiresAt": number,
   "failureMessage": "string",
   "id": "string",
   "name": "string",
   "rateTimestamp": number,
   "rateType": "string",
   "status": "string",
   "totalCost": number
```

```
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

costCurrency

The currency of the estimated cost.

Type: String

Valid Values: USD

createdAt

The timestamp when the workload estimate was created.

Type: Timestamp

expiresAt

The timestamp when the workload estimate will expire.

Type: Timestamp

failureMessage

An error message if the workload estimate creation failed.

Type: String

id

The unique identifier for the created workload estimate.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

name

The name of the created workload estimate.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 64.

Pattern: `[a-zA-Z0-9-]+`

rateTimestamp

The timestamp of the pricing rates used for the estimate.

Type: Timestamp

rateType

The type of pricing rates used for the estimate.

Type: String

Valid Values: `BEFORE_DISCOUNTS | AFTER_DISCOUNTS | AFTER_DISCOUNTS_AND_COMMITMENTS`

status

The current status of the workload estimate.

Type: String

Valid Values: `UPDATING | VALID | INVALID | ACTION_NEEDED`

totalCost

The total estimated cost for the workload.

Type: Double

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

ConflictException

The request could not be processed because of conflict in the current state of the resource.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerException

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

HTTP Status Code: 500

ServiceQuotaExceededException

The request would cause you to exceed your service quota.

quotaCode

The quota code that was exceeded.

resourceId

The identifier of the resource that exceeded quota.

resourceType

The type of the resource that exceeded quota.

serviceCode

The service code that exceeded quota.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact AWS support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an AWS service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET

- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DeleteBillEstimate

Service: AWS Pricing Calculator

Deletes an existing bill estimate.

Request Syntax

```
{
   "identifier": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

identifier

The unique identifier of the bill estimate to delete.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

ConflictException

The request could not be processed because of conflict in the current state of the resource.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerException

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact AWS support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an AWS service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DeleteBillScenario

Service: AWS Pricing Calculator

Deletes an existing bill scenario.

Request Syntax

```
{
   "identifier": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

identifier

The unique identifier of the bill scenario to delete.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

ConflictException

The request could not be processed because of conflict in the current state of the resource.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerException

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact AWS support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an AWS service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DeleteWorkloadEstimate

Service: AWS Pricing Calculator

Deletes an existing workload estimate.

Request Syntax

```
{
   "identifier": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

identifier

The unique identifier of the workload estimate to delete.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerException

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact AWS support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an AWS service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetBillEstimate

Service: AWS Pricing Calculator

Retrieves details of a specific bill estimate.

Request Syntax

```
{
   "identifier": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

identifier

The unique identifier of the bill estimate to retrieve.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

Response Syntax

```
{
   "billInterval": {
      "end": number,
      "start": number
   },
   "costCategoryGroupSharingPreferenceArn": "string",
   "costCategoryGroupSharingPreferenceEffectiveDate": number,
   "costSummary": {
      "serviceCostDifferences": {
         "string" : {
            "estimatedCost": {
```

```
                "amount": number,
                "currency": "string"
            },
            "historicalCost": {
                "amount": number,
                "currency": "string"
            }
        }
    },
    "totalCostDifference": {
        "estimatedCost": {
            "amount": number,
            "currency": "string"
        },
        "historicalCost": {
            "amount": number,
            "currency": "string"
        }
    }
},
"createdAt": number,
"expiresAt": number,
"failureMessage": "string",
"groupSharingPreference": "string",
"id": "string",
"name": "string",
"status": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

billInterval

The time period covered by the bill estimate.

Type: BillInterval object

costCategoryGroupSharingPreferenceArn

The arn of the cost category used in the reserved and prioritized group sharing.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:ce::[0-9]{12}:costcategory/[a-f0-9-]{36}`

costCategoryGroupSharingPreferenceEffectiveDate

Timestamp of the effective date of the cost category used in the group sharing settings.

Type: Timestamp

costSummary

A summary of the estimated costs.

Type: BillEstimateCostSummary object

createdAt

The timestamp when the bill estimate was created.

Type: Timestamp

expiresAt

The timestamp when the bill estimate will expire.

Type: Timestamp

failureMessage

An error message if the bill estimate retrieval failed.

Type: String

groupSharingPreference

The setting for the reserved instance and savings plans group sharing used in this estimate.

Type: String

Valid Values: `OPEN | PRIORITIZED | RESTRICTED`

id

The unique identifier of the retrieved bill estimate.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

name

The name of the retrieved bill estimate.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 64.

Pattern: `[a-zA-Z0-9-]+`

status

The current status of the bill estimate.

Type: String

Valid Values: `IN_PROGRESS | COMPLETE | FAILED`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerException

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact AWS support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an AWS service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetBillScenario

Service: AWS Pricing Calculator

Retrieves details of a specific bill scenario.

Request Syntax

```
{
   "identifier": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

identifier

The unique identifier of the bill scenario to retrieve.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

Response Syntax

```
{
   "billInterval": {
      "end": number,
      "start": number
   },
   "costCategoryGroupSharingPreferenceArn": "string",
   "createdAt": number,
   "expiresAt": number,
   "failureMessage": "string",
   "groupSharingPreference": "string",
   "id": "string",
```

```
   "name": "string",
   "status": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

billInterval

The time period covered by the bill scenario.

Type: BillInterval object

costCategoryGroupSharingPreferenceArn

The arn of the cost category used in the reserved and prioritized group sharing.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:ce::[0-9]{12}:costcategory/[a-f0-9-]{36}`

createdAt

The timestamp when the bill scenario was created.

Type: Timestamp

expiresAt

The timestamp when the bill scenario will expire.

Type: Timestamp

failureMessage

An error message if the bill scenario retrieval failed.

Type: String

groupSharingPreference

The setting for the reserved instance and savings plans group sharing used in this estimate.

Type: String

Valid Values: `OPEN | PRIORITIZED | RESTRICTED`

id

The unique identifier of the retrieved bill scenario.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

name

The name of the retrieved bill scenario.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 64.

Pattern: `[a-zA-Z0-9-]+`

status

The current status of the bill scenario.

Type: String

Valid Values: `READY | LOCKED | FAILED | STALE`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerException

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact AWS support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an AWS service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetPreferences

Service: AWS Pricing Calculator

Retrieves the current preferences for AWS Pricing Calculator.

Response Syntax

```
{
   "managementAccountRateTypeSelections": [ "string" ],
   "memberAccountRateTypeSelections": [ "string" ],
   "standaloneAccountRateTypeSelections": [ "string" ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

managementAccountRateTypeSelections

The preferred rate types for the management account.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 3 items.

Valid Values: `BEFORE_DISCOUNTS | AFTER_DISCOUNTS | AFTER_DISCOUNTS_AND_COMMITMENTS`

memberAccountRateTypeSelections

The preferred rate types for member accounts.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 3 items.

Valid Values: `BEFORE_DISCOUNTS | AFTER_DISCOUNTS | AFTER_DISCOUNTS_AND_COMMITMENTS`

standaloneAccountRateTypeSelections

The preferred rate types for a standalone account.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 3 items.

Valid Values: `BEFORE_DISCOUNTS | AFTER_DISCOUNTS | AFTER_DISCOUNTS_AND_COMMITMENTS`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerException

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact AWS support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an AWS service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetWorkloadEstimate

Service: AWS Pricing Calculator

Retrieves details of a specific workload estimate.

Request Syntax

```
{
   "identifier": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

identifier

The unique identifier of the workload estimate to retrieve.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

Response Syntax

```
{
   "costCurrency": "string",
   "createdAt": number,
   "expiresAt": number,
   "failureMessage": "string",
   "id": "string",
   "name": "string",
   "rateTimestamp": number,
   "rateType": "string",
   "status": "string",
   "totalCost": number
```

```
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

costCurrency

The currency of the estimated cost.

Type: String

Valid Values: USD

createdAt

The timestamp when the workload estimate was created.

Type: Timestamp

expiresAt

The timestamp when the workload estimate will expire.

Type: Timestamp

failureMessage

An error message if the workload estimate retrieval failed.

Type: String

id

The unique identifier of the retrieved workload estimate.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

name

The name of the retrieved workload estimate.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 64.

Pattern: `[a-zA-Z0-9-]+`

rateTimestamp

The timestamp of the pricing rates used for the estimate.

Type: Timestamp

rateType

The type of pricing rates used for the estimate.

Type: String

Valid Values: `BEFORE_DISCOUNTS | AFTER_DISCOUNTS | AFTER_DISCOUNTS_AND_COMMITMENTS`

status

The current status of the workload estimate.

Type: String

Valid Values: `UPDATING | VALID | INVALID | ACTION_NEEDED`

totalCost

The total estimated cost for the workload.

Type: Double

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerException

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact AWS support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an AWS service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListBillEstimateCommitments

Service: AWS Pricing Calculator

Lists the commitments associated with a bill estimate.

Request Syntax

```
{
   "billEstimateId": "string",
   "maxResults": number,
   "nextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

billEstimateId

The unique identifier of the bill estimate to list commitments for.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

maxResults

The maximum number of results to return per page.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 25.

Required: No

nextToken

A token to retrieve the next page of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\S\s]*`

Required: No

Response Syntax

```
{
   "items": [
      {
         "id": "string",
         "monthlyPayment": {
            "amount": number,
            "currency": "string"
         },
         "offeringId": "string",
         "paymentOption": "string",
         "purchaseAgreementType": "string",
         "region": "string",
         "termLength": "string",
         "upfrontPayment": {
            "amount": number,
            "currency": "string"
         },
         "usageAccountId": "string"
      }
   ],
   "nextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

items

The list of commitments associated with the bill estimate.

Type: Array of BillEstimateCommitmentSummary objects

nextToken

A token to retrieve the next page of results, if any.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerException

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact AWS support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an AWS service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET

- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListBillEstimateInputCommitmentModifications

Service: AWS Pricing Calculator

Lists the input commitment modifications associated with a bill estimate.

Request Syntax

```
{
   "billEstimateId": "string",
   "maxResults": number,
   "nextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

billEstimateId

The unique identifier of the bill estimate to list input commitment modifications for.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

maxResults

The maximum number of results to return per page.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 25.

Required: No

nextToken

A token to retrieve the next page of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\S\s]*`

Required: No

Response Syntax

```
{
   "items": [
      {
         "commitmentAction": { ... },
         "group": "string",
         "id": "string",
         "usageAccountId": "string"
      }
   ],
   "nextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

items

The list of input commitment modifications associated with the bill estimate.

Type: Array of BillEstimateInputCommitmentModificationSummary objects

nextToken

A token to retrieve the next page of results, if any.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerException

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact AWS support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an AWS service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListBillEstimateInputUsageModifications

Service: AWS Pricing Calculator

Lists the input usage modifications associated with a bill estimate.

Request Syntax

```
{
   "billEstimateId": "string",
   "filters": [
      {
         "matchOption": "string",
         "name": "string",
         "values": [ "string" ]
      }
   ],
   "maxResults": number,
   "nextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

billEstimateId

The unique identifier of the bill estimate to list input usage modifications for.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

filters

Filters to apply to the list of input usage modifications.

Type: Array of ListUsageFilter objects

Required: No

maxResults

The maximum number of results to return per page.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 25.

Required: No

nextToken

A token to retrieve the next page of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\S\s]*`

Required: No

Response Syntax

```
{
   "items": [
      {
         "availabilityZone": "string",
         "group": "string",
         "historicalUsage": {
            "billInterval": {
               "end": number,
               "start": number
            },
            "filterExpression": {
               "and": [
                  "Expression"
               ],
               "costCategories": {
                  "key": "string",
                  "matchOptions": [ "string" ],
                  "values": [ "string" ]
               },
```

```
                "dimensions": {
                   "key": "string",
                   "matchOptions": [ "string" ],
                   "values": [ "string" ]
                },
                "not": "Expression",
                "or": [
                   "Expression"
                ],
                "tags": {
                   "key": "string",
                   "matchOptions": [ "string" ],
                   "values": [ "string" ]
                }
             },
             "location": "string",
             "operation": "string",
             "serviceCode": "string",
             "usageAccountId": "string",
             "usageType": "string"
          },
          "id": "string",
          "location": "string",
          "operation": "string",
          "quantities": [
             {
                "amount": number,
                "startHour": number,
                "unit": "string"
             }
          ],
          "serviceCode": "string",
          "usageAccountId": "string",
          "usageType": "string"
       }
    ],
    "nextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

items

The list of input usage modifications associated with the bill estimate.

Type: Array of BillEstimateInputUsageModificationSummary objects

nextToken

A token to retrieve the next page of results, if any.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerException

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact AWS support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an AWS service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListBillEstimateLineItems

Service: AWS Pricing Calculator

Lists the line items associated with a bill estimate.

Request Syntax

```
{
   "billEstimateId": "string",
   "filters": [
      {
         "matchOption": "string",
         "name": "string",
         "values": [ "string" ]
      }
   ],
   "maxResults": number,
   "nextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

billEstimateId

The unique identifier of the bill estimate to list line items for.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

filters

Filters to apply to the list of line items.

Type: Array of ListBillEstimateLineItemsFilter objects

Required: No

maxResults

The maximum number of results to return per page.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 25.

Required: No

nextToken

A token to retrieve the next page of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\S\s]*`

Required: No

Response Syntax

```
{
   "items": [
      {
         "availabilityZone": "string",
         "estimatedCost": {
            "amount": number,
            "currency": "string"
         },
         "estimatedUsageQuantity": {
            "amount": number,
            "unit": "string"
         },
         "historicalCost": {
            "amount": number,
            "currency": "string"
         },
         "historicalUsageQuantity": {
```

```
            "amount": number,
            "unit": "string"
         },
         "id": "string",
         "lineItemId": "string",
         "lineItemType": "string",
         "location": "string",
         "operation": "string",
         "payerAccountId": "string",
         "savingsPlanArns": [ "string" ],
         "serviceCode": "string",
         "usageAccountId": "string",
         "usageType": "string"
      }
   ],
   "nextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

items

The list of line items associated with the bill estimate.

Type: Array of BillEstimateLineItemSummary objects

nextToken

A token to retrieve the next page of results, if any.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerException

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact AWS support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an AWS service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListBillEstimates

Service: AWS Pricing Calculator

Lists all bill estimates for the account.

Request Syntax

```
{
   "createdAtFilter": {
      "afterTimestamp": number,
      "beforeTimestamp": number
   },
   "expiresAtFilter": {
      "afterTimestamp": number,
      "beforeTimestamp": number
   },
   "filters": [
      {
         "matchOption": "string",
         "name": "string",
         "values": [ "string" ]
      }
   ],
   "maxResults": number,
   "nextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

createdAtFilter

Filter bill estimates based on the creation date.

Type: FilterTimestamp object

Required: No

expiresAtFilter

Filter bill estimates based on the expiration date.

Type: FilterTimestamp object

Required: No

filters

Filters to apply to the list of bill estimates.

Type: Array of ListBillEstimatesFilter objects

Required: No

maxResults

The maximum number of results to return per page.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 25.

Required: No

nextToken

A token to retrieve the next page of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\S\s]*`

Required: No

Response Syntax

```
{
   "items": [
      {
         "billInterval": {
            "end": number,
            "start": number
         },
         "createdAt": number,
```

```
            "expiresAt": number,
            "id": "string",
            "name": "string",
            "status": "string"
        }
    ],
    "nextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

items

The list of bill estimates for the account.

Type: Array of BillEstimateSummary objects

nextToken

A token to retrieve the next page of results, if any.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerException

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact AWS support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an AWS service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListBillScenarioCommitmentModifications

Service: AWS Pricing Calculator

Lists the commitment modifications associated with a bill scenario.

Request Syntax

```
{
   "billScenarioId": "string",
   "maxResults": number,
   "nextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

billScenarioId

The unique identifier of the bill scenario to list commitment modifications for.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

maxResults

The maximum number of results to return per page.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 25.

Required: No

nextToken

A token to retrieve the next page of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\S\s]*`

Required: No

Response Syntax

```
{
   "items": [
      {
         "commitmentAction": { ... },
         "group": "string",
         "id": "string",
         "usageAccountId": "string"
      }
   ],
   "nextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

items

The list of commitment modifications associated with the bill scenario.

Type: Array of BillScenarioCommitmentModificationItem objects

nextToken

A token to retrieve the next page of results, if any.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerException

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact AWS support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an AWS service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListBillScenarios

Service: AWS Pricing Calculator

Lists all bill scenarios for the account.

Request Syntax

```
{
   "createdAtFilter": {
      "afterTimestamp": number,
      "beforeTimestamp": number
   },
   "expiresAtFilter": {
      "afterTimestamp": number,
      "beforeTimestamp": number
   },
   "filters": [
      {
         "matchOption": "string",
         "name": "string",
         "values": [ "string" ]
      }
   ],
   "maxResults": number,
   "nextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

createdAtFilter

Filter bill scenarios based on the creation date.

Type: FilterTimestamp object

Required: No

expiresAtFilter

Filter bill scenarios based on the expiration date.

Type: FilterTimestamp object

Required: No

filters

Filters to apply to the list of bill scenarios.

Type: Array of ListBillScenariosFilter objects

Required: No

maxResults

The maximum number of results to return per page.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 25.

Required: No

nextToken

A token to retrieve the next page of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\S\s]*`

Required: No

Response Syntax

```
{
   "items": [
      {
         "billInterval": {
            "end": number,
            "start": number
         },
         "costCategoryGroupSharingPreferenceArn": "string",
```

```
            "createdAt": number,
            "expiresAt": number,
            "failureMessage": "string",
            "groupSharingPreference": "string",
            "id": "string",
            "name": "string",
            "status": "string"
        }
    ],
    "nextToken": "string"
}
```


Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

items

The list of bill scenarios for the account.

Type: Array of BillScenarioSummary objects

nextToken

A token to retrieve the next page of results, if any.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerException

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact AWS support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an AWS service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListBillScenarioUsageModifications

Service: AWS Pricing Calculator

Lists the usage modifications associated with a bill scenario.

Request Syntax

```
{
   "billScenarioId": "string",
   "filters": [
      {
         "matchOption": "string",
         "name": "string",
         "values": [ "string" ]
      }
   ],
   "maxResults": number,
   "nextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

billScenarioId

The unique identifier of the bill scenario to list usage modifications for.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

filters

Filters to apply to the list of usage modifications.

Type: Array of ListUsageFilter objects

Required: No

maxResults

The maximum number of results to return per page.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 25.

Required: No

nextToken

A token to retrieve the next page of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\S\s]*`

Required: No

Response Syntax

```
{
   "items": [
      {
         "availabilityZone": "string",
         "group": "string",
         "historicalUsage": {
            "billInterval": {
               "end": number,
               "start": number
            },
            "filterExpression": {
               "and": [
                  "Expression"
               ],
               "costCategories": {
                  "key": "string",
                  "matchOptions": [ "string" ],
                  "values": [ "string" ]
               },
```

```
                "dimensions": {
                   "key": "string",
                   "matchOptions": [ "string" ],
                   "values": [ "string" ]
                },
                "not": "Expression",
                "or": [
                   "Expression"
                ],
                "tags": {
                   "key": "string",
                   "matchOptions": [ "string" ],
                   "values": [ "string" ]
                }
             },
             "location": "string",
             "operation": "string",
             "serviceCode": "string",
             "usageAccountId": "string",
             "usageType": "string"
          },
          "id": "string",
          "location": "string",
          "operation": "string",
          "quantities": [
             {
                "amount": number,
                "startHour": number,
                "unit": "string"
             }
          ],
          "serviceCode": "string",
          "usageAccountId": "string",
          "usageType": "string"
       }
    ],
    "nextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

items

The list of usage modifications associated with the bill scenario.

Type: Array of BillScenarioUsageModificationItem objects

nextToken

A token to retrieve the next page of results, if any.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerException

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact AWS support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an AWS service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListTagsForResource

Service: AWS Pricing Calculator

Lists all tags associated with a specified resource.

Request Syntax

```
{
   "arn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

arn

The Amazon Resource Name (ARN) of the resource to list tags for.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:bcm-pricing-calculator:[-a-z0-9]*:[0-9]{12}:[-a-z0-9/:_]+`

Required: Yes

Response Syntax

```
{
   "tags": {
      "string" : "string"
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

tags

The list of tags associated with the specified resource.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 200 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Key Pattern: `[\w\s:+=@/-]+`

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Value Pattern: `[\w\s:+=@/-]*`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

InternalServerException

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact AWS support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an AWS service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListWorkloadEstimates

Service: AWS Pricing Calculator

Lists all workload estimates for the account.

Request Syntax

```
{
   "createdAtFilter": {
      "afterTimestamp": number,
      "beforeTimestamp": number
   },
   "expiresAtFilter": {
      "afterTimestamp": number,
      "beforeTimestamp": number
   },
   "filters": [
      {
         "matchOption": "string",
         "name": "string",
         "values": [ "string" ]
      }
   ],
   "maxResults": number,
   "nextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

createdAtFilter

Filter workload estimates based on the creation date.

Type: FilterTimestamp object

Required: No

expiresAtFilter

Filter workload estimates based on the expiration date.

Type: FilterTimestamp object

Required: No

filters

Filters to apply to the list of workload estimates.

Type: Array of ListWorkloadEstimatesFilter objects

Required: No

maxResults

The maximum number of results to return per page.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 25.

Required: No

nextToken

A token to retrieve the next page of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\S\s]*`

Required: No

Response Syntax

```
{
   "items": [
      {
         "costCurrency": "string",
         "createdAt": number,
         "expiresAt": number,
         "failureMessage": "string",
```

```
            "id": "string",
            "name": "string",
            "rateTimestamp": number,
            "rateType": "string",
            "status": "string",
            "totalCost": number
        }
    ],
    "nextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

items

The list of workload estimates for the account.

Type: Array of WorkloadEstimateSummary objects

nextToken

A token to retrieve the next page of results, if any.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerException

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact AWS support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an AWS service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListWorkloadEstimateUsage

Service: AWS Pricing Calculator

Lists the usage associated with a workload estimate.

Request Syntax

```
{
   "filters": [
      {
         "matchOption": "string",
         "name": "string",
         "values": [ "string" ]
      }
   ],
   "maxResults": number,
   "nextToken": "string",
   "workloadEstimateId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

filters

Filters to apply to the list of usage items.

Type: Array of ListUsageFilter objects

Required: No

maxResults

The maximum number of results to return per page.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 300.

Required: No

nextToken

A token to retrieve the next page of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\S\s]*`

Required: No

workloadEstimateId

The unique identifier of the workload estimate to list usage for.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

Response Syntax

```
{
   "items": [
      {
         "cost": number,
         "currency": "string",
         "group": "string",
         "historicalUsage": {
            "billInterval": {
               "end": number,
               "start": number
            },
            "filterExpression": {
               "and": [
                  "Expression"
               ],
               "costCategories": {
                  "key": "string",
                  "matchOptions": [ "string" ],
```

```
                  "values": [ "string" ]
               },
               "dimensions": {
                  "key": "string",
                  "matchOptions": [ "string" ],
                  "values": [ "string" ]
               },
               "not": "Expression",
               "or": [
                  "Expression"
               ],
               "tags": {
                  "key": "string",
                  "matchOptions": [ "string" ],
                  "values": [ "string" ]
               }
            },
            "location": "string",
            "operation": "string",
            "serviceCode": "string",
            "usageAccountId": "string",
            "usageType": "string"
         },
         "id": "string",
         "location": "string",
         "operation": "string",
         "quantity": {
            "amount": number,
            "unit": "string"
         },
         "serviceCode": "string",
         "status": "string",
         "usageAccountId": "string",
         "usageType": "string"
      }
   ],
   "nextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

items

The list of usage items associated with the workload estimate.

Type: Array of WorkloadEstimateUsageItem objects

nextToken

A token to retrieve the next page of results, if any.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerException

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact AWS support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an AWS service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

TagResource

Service: AWS Pricing Calculator

Adds one or more tags to a specified resource.

Request Syntax

```
{
   "arn": "string",
   "tags": {
      "string" : "string"
   }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

arn

The Amazon Resource Name (ARN) of the resource to add tags to.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:bcm-pricing-calculator:[-a-z0-9]*:[0-9]{12}:[-a-z0-9/:_]+`

Required: Yes

tags

The tags to add to the resource.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 200 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Key Pattern: `[\w\s:+=@/-]+`

Value Length Constraints: Minimum length of 0. Maximum length of 256.

Value Pattern: `[\w\s:+=@/-]*`

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

InternalServerException

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ServiceQuotaExceededException

The request would cause you to exceed your service quota.

quotaCode

The quota code that was exceeded.

resourceId

The identifier of the resource that exceeded quota.

resourceType

The type of the resource that exceeded quota.

serviceCode

The service code that exceeded quota.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact AWS support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an AWS service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

UntagResource

Service: AWS Pricing Calculator

Removes one or more tags from a specified resource.

Request Syntax

```
{
   "arn": "string",
   "tagKeys": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

arn

The Amazon Resource Name (ARN) of the resource to remove tags from.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:bcm-pricing-calculator:[-a-z0-9]*:[0-9]{12}:[-a-z0-9/:_]+`

Required: Yes

tagKeys

The keys of the tags to remove from the resource.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\w\s:+=@/-]+`

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

InternalServerException

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact AWS support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an AWS service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3

- AWS SDK for Python
- AWS SDK for Ruby V3

UpdateBillEstimate

Service: AWS Pricing Calculator

Updates an existing bill estimate.

Request Syntax

```
{
   "expiresAt": number,
   "identifier": "string",
   "name": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

expiresAt

The new expiration date for the bill estimate.

Type: Timestamp

Required: No

identifier

The unique identifier of the bill estimate to update.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

name

The new name for the bill estimate.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 64.

Pattern: `[a-zA-Z0-9-]+`

Required: No

Response Syntax

```
{
   "billInterval": {
      "end": number,
      "start": number
   },
   "costCategoryGroupSharingPreferenceArn": "string",
   "costCategoryGroupSharingPreferenceEffectiveDate": number,
   "costSummary": {
      "serviceCostDifferences": {
         "string" : {
            "estimatedCost": {
               "amount": number,
               "currency": "string"
            },
            "historicalCost": {
               "amount": number,
               "currency": "string"
            }
         }
      },
      "totalCostDifference": {
         "estimatedCost": {
            "amount": number,
            "currency": "string"
         },
         "historicalCost": {
            "amount": number,
            "currency": "string"
         }
      }
   },
   "createdAt": number,
   "expiresAt": number,
```

```
    "failureMessage": "string",
    "groupSharingPreference": "string",
    "id": "string",
    "name": "string",
    "status": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

billInterval

The time period covered by the updated bill estimate.

Type: BillInterval object

costCategoryGroupSharingPreferenceArn

The arn of the cost category used in the reserved and prioritized group sharing.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:ce::[0-9]{12}:costcategory/[a-f0-9-]{36}`

costCategoryGroupSharingPreferenceEffectiveDate

Timestamp of the effective date of the cost category used in the group sharing settings.

Type: Timestamp

costSummary

A summary of the updated estimated costs.

Type: BillEstimateCostSummary object

createdAt

The timestamp when the bill estimate was originally created.

Type: Timestamp

expiresAt

The updated expiration timestamp for the bill estimate.

Type: Timestamp

failureMessage

An error message if the bill estimate update failed.

Type: String

groupSharingPreference

The setting for the reserved instance and savings plans group sharing used in this estimate.

Type: String

Valid Values: `OPEN | PRIORITIZED | RESTRICTED`

id

The unique identifier of the updated bill estimate.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

name

The updated name of the bill estimate.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 64.

Pattern: `[a-zA-Z0-9-]+`

status

The current status of the updated bill estimate.

Type: String

Valid Values: `IN_PROGRESS | COMPLETE | FAILED`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

ConflictException

The request could not be processed because of conflict in the current state of the resource.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerException

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact AWS support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an AWS service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET

- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

UpdateBillScenario

Service: AWS Pricing Calculator

Updates an existing bill scenario.

Request Syntax

```
{
   "costCategoryGroupSharingPreferenceArn": "string",
   "expiresAt": number,
   "groupSharingPreference": "string",
   "identifier": "string",
   "name": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

costCategoryGroupSharingPreferenceArn

The arn of the cost category used in the reserved and prioritized group sharing.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:ce::[0-9]{12}:costcategory/[a-f0-9-]{36}`

Required: No

expiresAt

The new expiration date for the bill scenario.

Type: Timestamp

Required: No

groupSharingPreference

The setting for the reserved instance and savings plans group sharing used in this estimate.

Type: String

Valid Values: `OPEN | PRIORITIZED | RESTRICTED`

Required: No

identifier

The unique identifier of the bill scenario to update.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

name

The new name for the bill scenario.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 64.

Pattern: `[a-zA-Z0-9-]+`

Required: No

Response Syntax

```
{
   "billInterval": {
      "end": number,
      "start": number
   },
   "costCategoryGroupSharingPreferenceArn": "string",
   "createdAt": number,
   "expiresAt": number,
   "failureMessage": "string",
   "groupSharingPreference": "string",
   "id": "string",
   "name": "string",
```

```
   "status": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

billInterval

The time period covered by the updated bill scenario.

Type: BillInterval object

costCategoryGroupSharingPreferenceArn

The arn of the cost category used in the reserved and prioritized group sharing.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:ce::[0-9]{12}:costcategory/[a-f0-9-]{36}`

createdAt

The timestamp when the bill scenario was originally created.

Type: Timestamp

expiresAt

The updated expiration timestamp for the bill scenario.

Type: Timestamp

failureMessage

An error message if the bill scenario update failed.

Type: String

groupSharingPreference

The setting for the reserved instance and savings plans group sharing used in this estimate.

Type: String

Valid Values: `OPEN | PRIORITIZED | RESTRICTED`

id

The unique identifier of the updated bill scenario.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

name

The updated name of the bill scenario.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 64.

Pattern: `[a-zA-Z0-9-]+`

status

The current status of the updated bill scenario.

Type: String

Valid Values: `READY | LOCKED | FAILED | STALE`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

ConflictException

The request could not be processed because of conflict in the current state of the resource.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerException

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact AWS support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an AWS service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

UpdatePreferences

Service: AWS Pricing Calculator

Updates the preferences for AWS Pricing Calculator.

Request Syntax

```
{
   "managementAccountRateTypeSelections": [ "string" ],
   "memberAccountRateTypeSelections": [ "string" ],
   "standaloneAccountRateTypeSelections": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

managementAccountRateTypeSelections

The updated preferred rate types for the management account.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 3 items.

Valid Values: `BEFORE_DISCOUNTS | AFTER_DISCOUNTS | AFTER_DISCOUNTS_AND_COMMITMENTS`

Required: No

memberAccountRateTypeSelections

The updated preferred rate types for member accounts.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 3 items.

Valid Values: `BEFORE_DISCOUNTS | AFTER_DISCOUNTS | AFTER_DISCOUNTS_AND_COMMITMENTS`

Required: No

standaloneAccountRateTypeSelections

The updated preferred rate types for a standalone account.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 3 items.

Valid Values: `BEFORE_DISCOUNTS | AFTER_DISCOUNTS | AFTER_DISCOUNTS_AND_COMMITMENTS`

Required: No

Response Syntax

```
{
   "managementAccountRateTypeSelections": [ "string" ],
   "memberAccountRateTypeSelections": [ "string" ],
   "standaloneAccountRateTypeSelections": [ "string" ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

managementAccountRateTypeSelections

The updated preferred rate types for the management account.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 3 items.

Valid Values: `BEFORE_DISCOUNTS | AFTER_DISCOUNTS | AFTER_DISCOUNTS_AND_COMMITMENTS`

memberAccountRateTypeSelections

The updated preferred rate types for member accounts.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 3 items.

Valid Values: `BEFORE_DISCOUNTS | AFTER_DISCOUNTS | AFTER_DISCOUNTS_AND_COMMITMENTS`

standaloneAccountRateTypeSelections

The updated preferred rate types for a standalone account.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 3 items.

Valid Values: `BEFORE_DISCOUNTS | AFTER_DISCOUNTS | AFTER_DISCOUNTS_AND_COMMITMENTS`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerException

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

HTTP Status Code: 500

ServiceQuotaExceededException

The request would cause you to exceed your service quota.

quotaCode

The quota code that was exceeded.

resourceId

The identifier of the resource that exceeded quota.

resourceType

The type of the resource that exceeded quota.

serviceCode

The service code that exceeded quota.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact AWS support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an AWS service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

UpdateWorkloadEstimate

Service: AWS Pricing Calculator

Updates an existing workload estimate.

Request Syntax

```
{
   "expiresAt": number,
   "identifier": "string",
   "name": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

expiresAt

The new expiration date for the workload estimate.

Type: Timestamp

Required: No

identifier

The unique identifier of the workload estimate to update.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

name

The new name for the workload estimate.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 64.

Pattern: `[a-zA-Z0-9-]+`

Required: No

Response Syntax

```
{
   "costCurrency": "string",
   "createdAt": number,
   "expiresAt": number,
   "failureMessage": "string",
   "id": "string",
   "name": "string",
   "rateTimestamp": number,
   "rateType": "string",
   "status": "string",
   "totalCost": number
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

costCurrency

The currency of the updated estimated cost.

Type: String

Valid Values: USD

createdAt

The timestamp when the workload estimate was originally created.

Type: Timestamp

expiresAt

The updated expiration timestamp for the workload estimate.

Type: Timestamp

failureMessage

An error message if the workload estimate update failed.

Type: String

id

The unique identifier of the updated workload estimate.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

name

The updated name of the workload estimate.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 64.

Pattern: `[a-zA-Z0-9-]+`

rateTimestamp

The timestamp of the pricing rates used for the updated estimate.

Type: Timestamp

rateType

The type of pricing rates used for the updated estimate.

Type: String

Valid Values: `BEFORE_DISCOUNTS | AFTER_DISCOUNTS | AFTER_DISCOUNTS_AND_COMMITMENTS`

status

The current status of the updated workload estimate.

Type: String

Valid Values: `UPDATING | VALID | INVALID | ACTION_NEEDED`

totalCost

The updated total estimated cost for the workload.

Type: Double

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

ConflictException

The request could not be processed because of conflict in the current state of the resource.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

DataUnavailableException

The requested data is currently unavailable.

HTTP Status Code: 400

InternalServerException

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

retryAfterSeconds

An internal error has occurred. Retry your request, but if the problem persists, contact AWS support.

HTTP Status Code: 500

ResourceNotFoundException

The specified resource was not found.

resourceId

The identifier of the resource that was not found.

resourceType

The type of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

quotaCode

The quota code that exceeded the throttling limit.

retryAfterSeconds

The service code that exceeded the throttling limit. Retry your request, but if the problem persists, contact AWS support.

serviceCode

The service code that exceeded the throttling limit.

HTTP Status Code: 400

ValidationException

The input provided fails to satisfy the constraints specified by an AWS service.

fieldList

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

AWS Billing and Cost Management Recommended Actions

The following actions are supported by AWS Billing and Cost Management Recommended Actions:

- ListRecommendedActions

ListRecommendedActions

Service: AWS Billing and Cost Management Recommended Actions

Returns a list of recommended actions that match the filter criteria.

Request Syntax

```
{
   "filter": {
      "actions": [
         {
            "key": "string",
            "matchOption": "string",
            "values": [ "string" ]
         }
      ]
   },
   "maxResults": number,
   "nextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

filter

The criteria that you want all returned recommended actions to match.

Type: RequestFilter object

Required: No

maxResults

The maximum number of results to return in the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

nextToken

The pagination token that indicates the next set of results that you want to retrieve.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

Response Syntax

```
{
   "nextToken": "string",
   "recommendedActions": [
      {
         "accountId": "string",
         "context": {
            "string" : "string"
         },
         "feature": "string",
         "id": "string",
         "lastUpdatedTimeStamp": "string",
         "nextSteps": [ "string" ],
         "severity": "string",
         "type": "string"
      }
   ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

nextToken

The pagination token that indicates the next set of results that you want to retrieve.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 8192.

Pattern: `[\S\s]*`

recommendedActions

The list of recommended actions that satisfy the filter criteria.

Type: Array of RecommendedAction objects

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

InternalServerException

An unexpected error occurred during the processing of your request.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

fieldList

Lists each problematic field and why it failed validation.

reason

Provides a single, overarching explanation for the validation failure.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

AWS Billing

The following actions are supported by AWS Billing:

- AssociateSourceViews
- CreateBillingView
- DeleteBillingView
- DisassociateSourceViews
- GetBillingView
- GetResourcePolicy
- ListBillingViews
- ListSourceViewsForBillingView
- ListTagsForResource
- TagResource
- UntagResource
- UpdateBillingView

AssociateSourceViews

Service: AWS Billing

Associates one or more source billing views with an existing billing view. This allows creating aggregate billing views that combine data from multiple sources.

Request Syntax

```
{
   "arn": "string",
   "sourceViews": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

arn

The Amazon Resource Name (ARN) of the billing view to associate source views with.

Type: String

Pattern: `arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[a-zA-Z0-9/:_\+=\.\-@]{0,75}[a-zA-Z0-9]`

Required: Yes

sourceViews

A list of ARNs of the source billing views to associate.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Pattern: `arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[a-zA-Z0-9/:_\+=\.\-@]{0,75}[a-zA-Z0-9]`

Required: Yes

Response Syntax

```
{
   "arn": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

arn

The ARN of the billing view that the source views were associated with.

Type: String

Pattern: `arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[a-zA-Z0-9/:_\+=\.\-@]{0,75}[a-zA-Z0-9]`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 400

BillingViewHealthStatusException

Exception thrown when a billing view's health status prevents an operation from being performed. This may occur if the billing view is in a state other than HEALTHY.

HTTP Status Code: 400

ConflictException

The requested operation would cause a conflict with the current state of a service resource associated with the request. Resolve the conflict before retrying this request.

resourceId

The identifier for the service resource associated with the request.

resourceType

The type of resource associated with the request.

HTTP Status Code: 400

InternalServerException

The request processing failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ResourceNotFoundException

The specified ARN in the request doesn't exist.

resourceId

Value is a list of resource IDs that were not found.

resourceType

Value is the type of resource that was not found.

HTTP Status Code: 400

ServiceQuotaExceededException

You've reached the limit of resources you can create, or exceeded the size of an individual resource.

quotaCode

The container for the `quotaCode`.

resourceId

The ID of the resource.

resourceType

The type of AWS resource.

serviceCode

The container for the `serviceCode`.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

fieldList

The input fails to satisfy the constraints specified by an AWS service.

reason

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

CreateBillingView

Service: AWS Billing

Creates a billing view with the specified billing view attributes.

Request Syntax

```
{
   "clientToken": "string",
   "dataFilterExpression": {
      "costCategories": {
         "key": "string",
         "values": [ "string" ]
      },
      "dimensions": {
         "key": "string",
         "values": [ "string" ]
      },
      "tags": {
         "key": "string",
         "values": [ "string" ]
      },
      "timeRange": {
         "beginDateInclusive": number,
         "endDateInclusive": number
      }
   },
   "description": "string",
   "name": "string",
   "resourceTags": [
      {
         "key": "string",
         "value": "string"
      }
   ],
   "sourceViews": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

clientToken

A unique, case-sensitive identifier you specify to ensure idempotency of the request. Idempotency ensures that an API request completes no more than one time. If the original request completes successfully, any subsequent retries complete successfully without performing any further actions with an idempotent request.

Type: String

Pattern: `[a-zA-Z0-9-]+`

Required: No

dataFilterExpression

See Expression. Billing view only supports `LINKED_ACCOUNT`, `Tags`, and `CostCategories`.

Type: Expression object

Required: No

description

The description of the billing view.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `([ a-zA-Z0-9_\+=\.\-@]+)?`

Required: No

name

The name of the billing view.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[ a-zA-Z0-9_\+=\.\-@]+`

Required: Yes

resourceTags

A list of key value map specifying tags associated to the billing view being created.

Type: Array of ResourceTag objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: No

sourceViews

A list of billing views used as the data source for the custom billing view.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Pattern: `arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[a-zA-Z0-9/:_\+=\.\-@]{0,75}[a-zA-Z0-9]`

Required: Yes

Response Syntax

```
{
   "arn": "string",
   "createdAt": number
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

arn

The Amazon Resource Name (ARN) that can be used to uniquely identify the billing view.

Type: String

Pattern: `arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[a-zA-Z0-9/:_\+=\.\-@]{0,75}[a-zA-Z0-9]`

createdAt

The time when the billing view was created.

Type: Timestamp

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 400

BillingViewHealthStatusException

Exception thrown when a billing view's health status prevents an operation from being performed. This may occur if the billing view is in a state other than HEALTHY.

HTTP Status Code: 400

ConflictException

The requested operation would cause a conflict with the current state of a service resource associated with the request. Resolve the conflict before retrying this request.

resourceId

The identifier for the service resource associated with the request.

resourceType

The type of resource associated with the request.

HTTP Status Code: 400

InternalServerException

The request processing failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ResourceNotFoundException

The specified ARN in the request doesn't exist.

resourceId

Value is a list of resource IDs that were not found.

resourceType

Value is the type of resource that was not found.

HTTP Status Code: 400

ServiceQuotaExceededException

You've reached the limit of resources you can create, or exceeded the size of an individual resource.

quotaCode

The container for the `quotaCode`.

resourceId

The ID of the resource.

resourceType

The type of AWS resource.

serviceCode

The container for the `serviceCode`.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

fieldList

The input fails to satisfy the constraints specified by an AWS service.

reason

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DeleteBillingView

Service: AWS Billing

Deletes the specified billing view.

Request Syntax

```
{
   "arn": "string",
   "force": boolean
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

arn

The Amazon Resource Name (ARN) that can be used to uniquely identify the billing view.

Type: String

Pattern: `arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[a-zA-Z0-9/:_\+=\.\-@]{0,75}[a-zA-Z0-9]`

Required: Yes

force

If set to true, forces deletion of the billing view even if it has derived resources (e.g. other billing views or budgets). Use with caution as this may break dependent resources.

Type: Boolean

Required: No

Response Syntax

```
{
   "arn": "string"
```

```
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

arn

The Amazon Resource Name (ARN) that can be used to uniquely identify the billing view.

Type: String

Pattern: `arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[a-zA-Z0-9/:_\+=\.\-@]{0,75}[a-zA-Z0-9]`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 400

ConflictException

The requested operation would cause a conflict with the current state of a service resource associated with the request. Resolve the conflict before retrying this request.

resourceId

The identifier for the service resource associated with the request.

resourceType

The type of resource associated with the request.

HTTP Status Code: 400

InternalServerException

The request processing failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

fieldList

The input fails to satisfy the constraints specified by an AWS service.

reason

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DisassociateSourceViews

Service: AWS Billing

Removes the association between one or more source billing views and an existing billing view. This allows modifying the composition of aggregate billing views.

Request Syntax

```
{
   "arn": "string",
   "sourceViews": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

arn

The Amazon Resource Name (ARN) of the billing view to disassociate source views from.

Type: String

Pattern: `arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[a-zA-Z0-9/:_\+=\.\-@]{0,75}[a-zA-Z0-9]`

Required: Yes

sourceViews

A list of ARNs of the source billing views to disassociate.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Pattern: `arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[a-zA-Z0-9/:_\+=\.\-@]{0,75}[a-zA-Z0-9]`

Required: Yes

Response Syntax

```
{
   "arn": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

arn

The ARN of the billing view that the source views were disassociated from.

Type: String

Pattern: `arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[a-zA-Z0-9/:_\+=\.\-@]{0,75}[a-zA-Z0-9]`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 400

BillingViewHealthStatusException

Exception thrown when a billing view's health status prevents an operation from being performed. This may occur if the billing view is in a state other than HEALTHY.

HTTP Status Code: 400

ConflictException

The requested operation would cause a conflict with the current state of a service resource associated with the request. Resolve the conflict before retrying this request.

resourceId

The identifier for the service resource associated with the request.

resourceType

The type of resource associated with the request.

HTTP Status Code: 400

InternalServerException

The request processing failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ResourceNotFoundException

The specified ARN in the request doesn't exist.

resourceId

Value is a list of resource IDs that were not found.

resourceType

Value is the type of resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

fieldList

The input fails to satisfy the constraints specified by an AWS service.

reason

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetBillingView

Service: AWS Billing

Returns the metadata associated to the specified billing view ARN.

Request Syntax

```
{
   "arn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

arn

The Amazon Resource Name (ARN) that can be used to uniquely identify the billing view.

Type: String

Pattern: `arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[a-zA-Z0-9/:_\+=\.\-@]{0,75}[a-zA-Z0-9]`

Required: Yes

Response Syntax

```
{
   "billingView": {
      "arn": "string",
      "billingViewType": "string",
      "createdAt": number,
      "dataFilterExpression": {
         "costCategories": {
            "key": "string",
            "values": [ "string" ]
         },
```

```
         "dimensions": {
            "key": "string",
            "values": [ "string" ]
         },
         "tags": {
            "key": "string",
            "values": [ "string" ]
         },
         "timeRange": {
            "beginDateInclusive": number,
            "endDateInclusive": number
         }
      },
      "derivedViewCount": number,
      "description": "string",
      "healthStatus": {
         "statusCode": "string",
         "statusReasons": [ "string" ]
      },
      "name": "string",
      "ownerAccountId": "string",
      "sourceAccountId": "string",
      "sourceViewCount": number,
      "updatedAt": number,
      "viewDefinitionLastUpdatedAt": number
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

billingView

The billing view element associated with the specified ARN.

Type: BillingViewElement object

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 400

InternalServerException

The request processing failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ResourceNotFoundException

The specified ARN in the request doesn't exist.

resourceId

Value is a list of resource IDs that were not found.

resourceType

Value is the type of resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

fieldList

The input fails to satisfy the constraints specified by an AWS service.

reason

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetResourcePolicy

Service: AWS Billing

Returns the resource-based policy document attached to the resource in JSON format.

Request Syntax

```
{
   "resourceArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

resourceArn

The Amazon Resource Name (ARN) of the billing view resource to which the policy is attached to.

Type: String

Pattern: `arn:aws[a-z-]*:(billing)::[0-9]{12}:[a-zA-Z0-9/:_\+=\.\@-]{0,70}[a-zA-Z0-9]`

Required: Yes

Response Syntax

```
{
   "policy": "string",
   "resourceArn": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

policy

The resource-based policy document attached to the resource in JSON format.

Type: String

resourceArn

The Amazon Resource Name (ARN) of the billing view resource to which the policy is attached to.

Type: String

Pattern: `arn:aws[a-z-]*:(billing)::[0-9]{12}:[a-zA-Z0-9/:_\+=\.\@-]{0,70}[a-zA-Z0-9]`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 400

InternalServerException

The request processing failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ResourceNotFoundException

The specified ARN in the request doesn't exist.

resourceId

Value is a list of resource IDs that were not found.

resourceType

Value is the type of resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

fieldList

The input fails to satisfy the constraints specified by an AWS service.

reason

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListBillingViews

Service: AWS Billing

Lists the billing views available for a given time period.

Every AWS account has a unique PRIMARY billing view that represents the billing data available by default. Accounts that use AWS Billing Conductor also have BILLING_GROUP billing views representing pro forma costs associated with each created billing group.

Request Syntax

```
{
   "activeTimeRange": {
      "activeAfterInclusive": number,
      "activeBeforeInclusive": number
   },
   "arns": [ "string" ],
   "billingViewTypes": [ "string" ],
   "maxResults": number,
   "names": [
      {
         "searchOption": "string",
         "searchValue": "string"
      }
   ],
   "nextToken": "string",
   "ownerAccountId": "string",
   "sourceAccountId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

activeTimeRange

The time range for the billing views listed. PRIMARY billing view is always listed. BILLING_GROUP billing views are listed for time ranges when the associated billing group resource in AWS Billing Conductor is active. The time range must be within one calendar month.

Type: ActiveTimeRange object

Required: No

arns

The Amazon Resource Name (ARN) that can be used to uniquely identify the billing view.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 10 items.

Pattern: `arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[a-zA-Z0-9/:_\+=\.\-@]{0,75}[a-zA-Z0-9]`

Required: No

billingViewTypes

The type of billing view.

Type: Array of strings

Valid Values: `PRIMARY | BILLING_GROUP | CUSTOM | BILLING_TRANSFER | BILLING_TRANSFER_SHOWBACK`

Required: No

maxResults

The maximum number of billing views to retrieve. Default is 100.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

names

Filters the list of billing views by name. You can specify search criteria to match billing view names based on the search option provided.

Type: Array of StringSearch objects

Array Members: Fixed number of 1 item.

Required: No

nextToken

The pagination token that is used on subsequent calls to list billing views.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2047.

Required: No

ownerAccountId

The list of owners of the billing view.

Type: String

Pattern: `[0-9]{12}`

Required: No

sourceAccountId

Filters the results to include only billing views that use the specified account as a source.

Type: String

Pattern: `[0-9]{12}`

Required: No

Response Syntax

```
{
   "billingViews": [
      {
         "arn": "string",
         "billingViewType": "string",
         "description": "string",
         "healthStatus": {
            "statusCode": "string",
            "statusReasons": [ "string" ]
         },
```

```
            "name": "string",
            "ownerAccountId": "string",
            "sourceAccountId": "string"
        }
    ],
    "nextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

billingViews

A list of `BillingViewListElement` retrieved.

Type: Array of BillingViewListElement objects

nextToken

The pagination token to use on subsequent calls to list billing views.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2047.

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 400

InternalServerException

The request processing failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

fieldList

The input fails to satisfy the constraints specified by an AWS service.

reason

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListSourceViewsForBillingView

Service: AWS Billing

Lists the source views (managed AWS billing views) associated with the billing view.

Request Syntax

```
{
   "arn": "string",
   "maxResults": number,
   "nextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

arn

The Amazon Resource Name (ARN) that can be used to uniquely identify the billing view.

Type: String

Pattern: `arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[a-zA-Z0-9/:_\+=\.\-@]{0,75}[a-zA-Z0-9]`

Required: Yes

maxResults

The number of entries a paginated response contains.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

nextToken

The pagination token that is used on subsequent calls to list billing views.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2047.

Required: No

Response Syntax

```
{
   "nextToken": "string",
   "sourceViews": [ "string" ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

nextToken

The pagination token that is used on subsequent calls to list billing views.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2047.

sourceViews

A list of billing views used as the data source for the custom billing view.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Pattern: `arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[a-zA-Z0-9/:_\+=\.\-@]{0,75}[a-zA-Z0-9]`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 400

InternalServerException

The request processing failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ResourceNotFoundException

The specified ARN in the request doesn't exist.

resourceId

Value is a list of resource IDs that were not found.

resourceType

Value is the type of resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

fieldList

The input fails to satisfy the constraints specified by an AWS service.

reason

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2

- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListTagsForResource

Service: AWS Billing

Lists tags associated with the billing view resource.

Request Syntax

```
{
   "resourceArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

resourceArn

The Amazon Resource Name (ARN) of the resource.

Type: String

Pattern: `arn:aws[a-z-]*:(billing)::[0-9]{12}:[a-zA-Z0-9/:_\+=\.\@-]{0,70}[a-zA-Z0-9]`

Required: Yes

Response Syntax

```
{
   "resourceTags": [
      {
         "key": "string",
         "value": "string"
      }
   ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

resourceTags

A list of tag key value pairs that are associated with the resource.

Type: Array of ResourceTag objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 400

InternalServerException

The request processing failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ResourceNotFoundException

The specified ARN in the request doesn't exist.

resourceId

Value is a list of resource IDs that were not found.

resourceType

Value is the type of resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

fieldList

The input fails to satisfy the constraints specified by an AWS service.

reason

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

TagResource

Service: AWS Billing

An API operation for adding one or more tags (key-value pairs) to a resource.

Request Syntax

```
{
   "resourceArn": "string",
   "resourceTags": [
      {
         "key": "string",
         "value": "string"
      }
   ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

resourceArn

The Amazon Resource Name (ARN) of the resource.

Type: String

Pattern: `arn:aws[a-z-]*:(billing)::[0-9]{12}:[a-zA-Z0-9/:_\+=\.\@-]{0,70}[a-zA-Z0-9]`

Required: Yes

resourceTags

A list of tag key value pairs that are associated with the resource.

Type: Array of ResourceTag objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 400

InternalServerException

The request processing failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ResourceNotFoundException

The specified ARN in the request doesn't exist.

resourceId

Value is a list of resource IDs that were not found.

resourceType

Value is the type of resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

fieldList

The input fails to satisfy the constraints specified by an AWS service.

reason

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

UntagResource

Service: AWS Billing

Removes one or more tags from a resource. Specify only tag keys in your request. Don't specify the value.

Request Syntax

```
{
   "resourceArn": "string",
   "resourceTagKeys": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

resourceArn

The Amazon Resource Name (ARN) of the resource.

Type: String

Pattern: `arn:aws[a-z-]*:(billing)::[0-9]{12}:[a-zA-Z0-9/:_\+=\.\@-]{0,70}[a-zA-Z0-9]`

Required: Yes

resourceTagKeys

A list of tag key value pairs that are associated with the resource.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 400

InternalServerException

The request processing failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ResourceNotFoundException

The specified ARN in the request doesn't exist.

resourceId

Value is a list of resource IDs that were not found.

resourceType

Value is the type of resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

fieldList

The input fails to satisfy the constraints specified by an AWS service.

reason

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

UpdateBillingView

Service: AWS Billing

An API to update the attributes of the billing view.

Request Syntax

```
{
   "arn": "string",
   "dataFilterExpression": {
      "costCategories": {
         "key": "string",
         "values": [ "string" ]
      },
      "dimensions": {
         "key": "string",
         "values": [ "string" ]
      },
      "tags": {
         "key": "string",
         "values": [ "string" ]
      },
      "timeRange": {
         "beginDateInclusive": number,
         "endDateInclusive": number
      }
   },
   "description": "string",
   "name": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

arn

The Amazon Resource Name (ARN) that can be used to uniquely identify the billing view.

Type: String

Pattern: `arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[a-zA-Z0-9/:_\+=\.\-@]{0,75}[a-zA-Z0-9]`

Required: Yes

dataFilterExpression

See Expression. Billing view only supports `LINKED_ACCOUNT`, `Tags`, and `CostCategories`.

Type: Expression object

Required: No

description

The description of the billing view.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `([ a-zA-Z0-9_\+=\.\-@]+)?`

Required: No

name

The name of the billing view.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[ a-zA-Z0-9_\+=\.\-@]+`

Required: No

Response Syntax

```
{
   "arn": "string",
   "updatedAt": number
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

arn

The Amazon Resource Name (ARN) that can be used to uniquely identify the billing view.

Type: String

Pattern: `arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[a-zA-Z0-9/:_\+=\.\-@]{0,75}[a-zA-Z0-9]`

updatedAt

The time when the billing view was last updated.

Type: Timestamp

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 400

BillingViewHealthStatusException

Exception thrown when a billing view's health status prevents an operation from being performed. This may occur if the billing view is in a state other than `HEALTHY`.

HTTP Status Code: 400

ConflictException

The requested operation would cause a conflict with the current state of a service resource associated with the request. Resolve the conflict before retrying this request.

resourceId

The identifier for the service resource associated with the request.

resourceType

The type of resource associated with the request.

HTTP Status Code: 400

InternalServerException

The request processing failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ResourceNotFoundException

The specified ARN in the request doesn't exist.

resourceId

Value is a list of resource IDs that were not found.

resourceType

Value is the type of resource that was not found.

HTTP Status Code: 400

ServiceQuotaExceededException

You've reached the limit of resources you can create, or exceeded the size of an individual resource.

quotaCode

The container for the `quotaCode`.

resourceId

The ID of the resource.

resourceType

The type of AWS resource.

serviceCode

The container for the `serviceCode`.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

fieldList

The input fails to satisfy the constraints specified by an AWS service.

reason

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

AWS Budgets

The following actions are supported by AWS Budgets:

- CreateBudget
- CreateBudgetAction
- CreateNotification
- CreateSubscriber
- DeleteBudget
- DeleteBudgetAction
- DeleteNotification
- DeleteSubscriber
- DescribeBudget
- DescribeBudgetAction
- DescribeBudgetActionHistories
- DescribeBudgetActionsForAccount
- DescribeBudgetActionsForBudget
- DescribeBudgetNotificationsForAccount
- DescribeBudgetPerformanceHistory
- DescribeBudgets
- DescribeNotificationsForBudget
- DescribeSubscribersForNotification
- ExecuteBudgetAction
- ListTagsForResource
- TagResource
- UntagResource
- UpdateBudget
- UpdateBudgetAction
- UpdateNotification
- UpdateSubscriber

CreateBudget

Service: AWS Budgets

Creates a budget and, if included, notifications and subscribers.

> **Important**
>
> Only one of `BudgetLimit` or `PlannedBudgetLimits` can be present in the syntax at one time. Use the syntax that matches your use case. The Request Syntax section shows the `BudgetLimit` syntax. For `PlannedBudgetLimits`, see the Examples section.
> Similarly, only one set of filter and metric selections can be present in the syntax at one time. Either `FilterExpression` and `Metrics` or `CostFilters` and `CostTypes`, not both or a different combination. We recommend using `FilterExpression` and `Metrics` as they provide more flexible and powerful filtering capabilities. The Request Syntax section shows the `FilterExpression`/`Metrics` syntax.

Request Syntax

```
{
   "AccountId": "string",
   "Budget": {
      "AutoAdjustData": {
         "AutoAdjustType": "string",
         "HistoricalOptions": {
            "BudgetAdjustmentPeriod": number,
            "LookBackAvailablePeriods": number
         },
         "LastAutoAdjustTime": number
      },
      "BillingViewArn": "string",
      "BudgetLimit": {
         "Amount": "string",
         "Unit": "string"
      },
      "BudgetName": "string",
      "BudgetType": "string",
      "CalculatedSpend": {
         "ActualSpend": {
            "Amount": "string",
            "Unit": "string"
```

```
        },
        "ForecastedSpend": {
           "Amount": "string",
           "Unit": "string"
        }
     },
     "CostFilters": {
        "string" : [ "string" ]
     },
     "CostTypes": {
        "IncludeCredit": boolean,
        "IncludeDiscount": boolean,
        "IncludeOtherSubscription": boolean,
        "IncludeRecurring": boolean,
        "IncludeRefund": boolean,
        "IncludeSubscription": boolean,
        "IncludeSupport": boolean,
        "IncludeTax": boolean,
        "IncludeUpfront": boolean,
        "UseAmortized": boolean,
        "UseBlended": boolean
     },
     "FilterExpression": {
        "And": [
           "Expression"
        ],
        "CostCategories": {
           "Key": "string",
           "MatchOptions": [ "string" ],
           "Values": [ "string" ]
        },
        "Dimensions": {
           "Key": "string",
           "MatchOptions": [ "string" ],
           "Values": [ "string" ]
        },
        "Not": "Expression",
        "Or": [
           "Expression"
        ],
        "Tags": {
           "Key": "string",
           "MatchOptions": [ "string" ],
           "Values": [ "string" ]
```

```
            }
         },
         "HealthStatus": {
            "LastUpdatedTime": number,
            "Status": "string",
            "StatusReason": "string"
         },
         "LastUpdatedTime": number,
         "Metrics": [ "string" ],
         "PlannedBudgetLimits": {
            "string" : {
               "Amount": "string",
               "Unit": "string"
            }
         },
         "TimePeriod": {
            "End": number,
            "Start": number
         },
         "TimeUnit": "string"
      },
      "NotificationsWithSubscribers": [
         {
            "Notification": {
               "ComparisonOperator": "string",
               "NotificationState": "string",
               "NotificationType": "string",
               "Threshold": number,
               "ThresholdType": "string"
            },
            "Subscribers": [
               {
                  "Address": "string",
                  "SubscriptionType": "string"
               }
            ]
         }
      ],
      "ResourceTags": [
         {
            "Key": "string",
            "Value": "string"
         }
      ]
```

```
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

AccountId

The `accountId` that is associated with the budget.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: Yes

Budget

The budget object that you want to create.

Type: Budget object

Required: Yes

NotificationsWithSubscribers

A notification that you want to associate with a budget. A budget can have up to five notifications, and each notification can have one SNS subscriber and up to 10 email subscribers. If you include notifications and subscribers in your `CreateBudget` call, AWS creates the notifications and subscribers for you.

Type: Array of NotificationWithSubscribers objects

Array Members: Maximum number of 10 items.

Required: No

ResourceTags

An optional list of tags to associate with the specified budget. Each tag consists of a key and a value, and each key must be unique for the resource.

Type: Array of ResourceTag objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: No

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

BillingViewHealthStatusException

The billing view status must be HEALTHY to perform this action. Try again when the status is HEALTHY.

Message

The error message the exception carries.

HTTP Status Code: 400

CreationLimitExceededException

You've exceeded the notification or subscriber limit.

Message

The error message the exception carries.

HTTP Status Code: 400

DuplicateRecordException

The budget name already exists. Budget names must be unique within an account.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

NotFoundException

We can’t locate the resource that you specified.

Message

The error message the exception carries.

HTTP Status Code: 400

ServiceQuotaExceededException

You've reached a Service Quota limit on this resource.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

Examples

Example

The following is the `PlannedBudgetLimits` syntax

```
{
   "AccountId": "string",
   "Budget": {
      "PlannedBudgetLimits": {
         "string": {
            "Amount": "string",
            "Unit": "string"
         }
      },
      "BudgetName": "string",
      "BudgetType": "string",
      "CalculatedSpend": {
         "ActualSpend": {
            "Amount": "string",
            "Unit": "string"
         },
         "ForecastedSpend": {
            "Amount": "string",
            "Unit": "string"
         }
      },
      "FilterExpression": {
         "And": [
            "Expression"
         ],
         "Dimensions": {
```

```
            "Key": "string",
            "MatchOptions": [ "string" ],
            "Values": [ "string" ]
         },
         "Not": "Expression",
         "Or": [
            "Expression"
         ],
         "Tags": {
            "Key": "string",
            "MatchOptions": [ "string" ],
            "Values": [ "string" ]
         }
      },
      "Metrics": [ "string" ],
      "LastUpdatedTime": number,
      "TimePeriod": {
         "End": number,
         "Start": number
      },
      "TimeUnit": "string"
   },
   "NotificationsWithSubscribers": [
      {
         "Notification": {
            "ComparisonOperator": "string",
            "NotificationState": "string",
            "NotificationType": "string",
            "Threshold": number,
            "ThresholdType": "string"
         },
         "Subscribers": [
            {
               "Address": "string",
               "SubscriptionType": "string"
            }
         ]
      }
   ]
}
```

Example

The following is a sample request of the `CreateBudget` operation using `BudgetLimit`

Sample Request

```
POST / HTTP/1.1
Host: awsbudgets.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
 SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSBudgetServiceGateway.CreateBudget

{
   "AccountId": "111122223333",
   "Budget": {
      "BudgetLimit": {
         "Amount": "100",
         "Unit": "USD"
      },
      "BudgetName": "Example Budget",
      "BudgetType": "COST",
      "FilterExpression": {
         "Dimensions": {
            "Key": "AZ",
            "Values": ["us-east-1"]
         }
      },
      "Metrics": ["UNBLENDED_COST"],
      "TimePeriod": {
         "Start": 1712019600,
         "End": 1714611600
      },
      "TimeUnit": "MONTHLY"
   },
   "NotificationsWithSubscribers": [
      {
         "Notification": {
            "ComparisonOperator": "GREATER_THAN",
            "NotificationType": "ACTUAL",
            "Threshold": 80,
            "ThresholdType": "PERCENTAGE"
         },
```

```
         "Subscribers": [
            {
               "Address": "budget-alerts@example.com",
               "SubscriptionType": "EMAIL"
            }
         ]
      },
      {
         "Notification": {
            "ComparisonOperator": "GREATER_THAN",
            "NotificationType": "FORECASTED",
            "Threshold": 90,
            "ThresholdType": "PERCENTAGE"
         },
         "Subscribers": [
            {
               "Address": "budget-forecasts@example.com",
               "SubscriptionType": "EMAIL"
            }
         ]
      }
   ]
}
```

Example

The following is a sample request of the `CreateBudget` operation using `PlannedBudgetLimits` and using FilterExpression to include multiple dimensions (Service and Region) on net unblended costs

Sample Request

```
POST / HTTP/1.1
Host: awsbudgets.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
 SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSBudgetServiceGateway.CreateBudget
```

```
{
   "AccountId": "111122223333",
   "Budget": {
      "PlannedBudgetLimits": {
         "1712019600": {
            "Amount": "100",
            "Unit": "USD"
         },
         "1714611600": {
            "Amount": "200",
            "Unit": "USD"
         },
         "1717203600": {
            "Amount": "300",
            "Unit": "USD"
         }
      },
      "BudgetName": "Example Planned Budget",
      "BudgetType": "COST",
      "FilterExpression": {
         "Dimensions": {
            "Key": "SERVICE",
            "Values": ["Amazon Simple Storage Service", "Amazon FSx"]
         },
         "And": [{
            "Dimensions": {
               "Key": "REGION",
               "Values": ["us-east-1", "us-west-2"]
            }
         }]
      },
      "Metrics": ["NET_UNBLENDED_COST"],
      "TimePeriod": {
         "Start": 1712019600,
         "End": 1717203600
      },
      "TimeUnit": "MONTHLY"
   },
   "NotificationsWithSubscribers": [
      {
         "Notification": {
            "ComparisonOperator": "GREATER_THAN",
            "NotificationType": "ACTUAL",
```

```
            "Threshold": 50,
            "ThresholdType": "PERCENTAGE"
         },
         "Subscribers": [
            {
               "Address": "planned-budget-alerts-1@example.com",
               "SubscriptionType": "EMAIL"
            }
         ]
      }
   ]
}
```

Example

The following is a sample request of the `CreateBudget` operation using `BudgetLimit` and filtering for a specific tag.

Sample Request

```
POST / HTTP/1.1
Host: awsbudgets.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
 SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSBudgetServiceGateway.CreateBudget

{
   "AccountId": "111122223333",
   "Budget": {
      "BudgetLimit": {
         "Amount": "100",
         "Unit": "USD"
      },
      "BudgetName": "Example Tag Budget",
      "BudgetType": "COST",
      "FilterExpression": {
         "Tags": {
```

```
            "Key": "user:Key",
            "Values": ["value1", "value2"]
         }
      },
      "Metrics": ["NET_UNBLENDED_COST"],
      "TimePeriod": {
         "Start": 1712019600,
         "End": 1717203600
      },
      "TimeUnit": "MONTHLY"
   },
   "NotificationsWithSubscribers": [
      {
         "Notification": {
            "ComparisonOperator": "GREATER_THAN",
            "NotificationType": "ACTUAL",
            "Threshold": 80,
            "ThresholdType": "PERCENTAGE"
         },
         "Subscribers": [
            {
               "Address": "example@example.com",
               "SubscriptionType": "EMAIL"
            }
         ]
      }
   ]
}
```

Example

The following is a sample request of the `CreateBudget` operation using `ResourceTags` and filtering for a specific tag.

Sample Request

```
POST / HTTP/1.1
Host: awsbudgets.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
 SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
```

```
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSBudgetServiceGateway.CreateBudget

{
  "AccountId": "111122223333",
  "Budget": {
    "BudgetLimit": {
      "Amount": "1000",
      "Unit": "USD"
    },
    "BudgetName": "Tag-Based Budget Example",
    "BudgetType": "COST",
    "FilterExpression": {
      "Tags": {
        "Key": "CostCenter",
        "Values": ["IT-1234", "Marketing-5678"]
      }
    },
    "Metrics": ["NET_UNBLENDED_COST"],
    "TimePeriod": {
      "Start": 1712019600,
      "End": 1714611600
    },
    "TimeUnit": "MONTHLY"
  },
  "NotificationsWithSubscribers": [
    {
      "Notification": {
        "ComparisonOperator": "GREATER_THAN",
        "NotificationType": "ACTUAL",
        "Threshold": 80,
        "ThresholdType": "PERCENTAGE"
      },
      "Subscribers": [
        {
          "Address": "tag-budget-alerts@example.com",
          "SubscriptionType": "EMAIL"
        }
      ]
    }
  ],
  "ResourceTags": [
```

```
    {
      "Key": "Project",
      "Value": "CloudMigration"
    },
    {
      "Key": "Owner",
      "Value": "FinanceTeam"
    }
  ]
}
```

Example

The following is a sample request of the `CreateBudget` operation using `FilterExpression` to exclude specific services.

Sample Request

```
POST / HTTP/1.1
Host: awsbudgets.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
 SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSBudgetServiceGateway.CreateBudget

{
   "AccountId": "111122223333",
   "Budget": {
      "BudgetLimit": {
         "Amount": "1000",
         "Unit": "USD"
      },
      "BudgetName": "Example Exclusion Budget",
      "BudgetType": "COST",
      "FilterExpression": {
         "Not": {
            "Dimensions": {
               "Key": "SERVICE",
```

```
                "Values": ["AWS Shield", "AWS Support (Enterprise)"]
            }
         }
      },
      "Metrics": ["NET_UNBLENDED_COST"],
      "TimePeriod": {
         "Start": 1712019600,
         "End": 1714611600
      },
      "TimeUnit": "MONTHLY"
   },
   "NotificationsWithSubscribers": [
      {
         "Notification": {
            "ComparisonOperator": "GREATER_THAN",
            "NotificationType": "ACTUAL",
            "Threshold": 70,
            "ThresholdType": "PERCENTAGE"
         },
         "Subscribers": [
            {
               "Address": "exclusion-alerts@example.com",
               "SubscriptionType": "EMAIL"
            }
         ]
      },
      {
         "Notification": {
            "ComparisonOperator": "GREATER_THAN",
            "NotificationType": "FORECASTED",
            "Threshold": 100,
            "ThresholdType": "PERCENTAGE"
         },
         "Subscribers": [
            {
               "Address": "exclusion-forecasts@example.com",
               "SubscriptionType": "EMAIL"
            }
         ]
      }
   ]
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

CreateBudgetAction

Service: AWS Budgets

Creates a budget action.

Request Syntax

```
{
   "AccountId": "string",
   "ActionThreshold": {
      "ActionThresholdType": "string",
      "ActionThresholdValue": number
   },
   "ActionType": "string",
   "ApprovalModel": "string",
   "BudgetName": "string",
   "Definition": {
      "IamActionDefinition": {
         "Groups": [ "string" ],
         "PolicyArn": "string",
         "Roles": [ "string" ],
         "Users": [ "string" ]
      },
      "ScpActionDefinition": {
         "PolicyId": "string",
         "TargetIds": [ "string" ]
      },
      "SsmActionDefinition": {
         "ActionSubType": "string",
         "InstanceIds": [ "string" ],
         "Region": "string"
      }
   },
   "ExecutionRoleArn": "string",
   "NotificationType": "string",
   "ResourceTags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ],
   "Subscribers": [
      {
```

```
            "Address": "string",
            "SubscriptionType": "string"
        }
    ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

AccountId

The account ID of the user. It's a 12-digit number.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: Yes

ActionThreshold

The trigger threshold of the action.

Type: ActionThreshold object

Required: Yes

ActionType

The type of action. This defines the type of tasks that can be carried out by this action. This field also determines the format for definition.

Type: String

Valid Values: `APPLY_IAM_POLICY | APPLY_SCP_POLICY | RUN_SSM_DOCUMENTS`

Required: Yes

ApprovalModel

This specifies if the action needs manual or automatic approval.

Type: String

Valid Values: `AUTOMATIC | MANUAL`

Required: Yes

BudgetName

A string that represents the budget name. The ":" and "\" characters, and the "/action/" substring, aren't allowed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(?![^:\\]*/action/|(?i).*<script>.*</script>.*)[^:\\]+$`

Required: Yes

Definition

Specifies all of the type-specific parameters.

Type: Definition object

Required: Yes

ExecutionRoleArn

The role passed for action execution and reversion. Roles and actions must be in the same account.

Type: String

Length Constraints: Minimum length of 32. Maximum length of 618.

Pattern: `^arn:aws(-cn|-us-gov|-iso|-iso-[a-z]{1})?:iam::\d{12}:role(\u002F[\u0021-\u007F]+\u002F|\u002F)[\w+=,.@-]+$`

Required: Yes

NotificationType

The type of a notification. It must be ACTUAL or FORECASTED.

Type: String

Valid Values: `ACTUAL | FORECASTED`

Required: Yes

ResourceTags

An optional list of tags to associate with the specified budget action. Each tag consists of a key and a value, and each key must be unique for the resource.

Type: Array of ResourceTag objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: No

Subscribers

A list of subscribers.

Type: Array of Subscriber objects

Array Members: Minimum number of 1 item. Maximum number of 11 items.

Required: Yes

Response Syntax

```
{
   "AccountId": "string",
   "ActionId": "string",
   "BudgetName": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

AccountId

The account ID of the user. It's a 12-digit number.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

ActionId

A system-generated universally unique identifier (UUID) for the action.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{12}$`

BudgetName

A string that represents the budget name. The ":" and "\" characters, and the "/action/" substring, aren't allowed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(?![^:\\]*/action/|(?i).*<script>.*</script>.*)[^:\\]+$`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

CreationLimitExceededException

You've exceeded the notification or subscriber limit.

Message

The error message the exception carries.

HTTP Status Code: 400

DuplicateRecordException

The budget name already exists. Budget names must be unique within an account.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

NotFoundException

We can’t locate the resource that you specified.

Message

The error message the exception carries.

HTTP Status Code: 400

ServiceQuotaExceededException

You've reached a Service Quota limit on this resource.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

CreateNotification

Service: AWS Budgets

Creates a notification. You must create the budget before you create the associated notification.

Request Syntax

```
{
   "AccountId": "string",
   "BudgetName": "string",
   "Notification": {
      "ComparisonOperator": "string",
      "NotificationState": "string",
      "NotificationType": "string",
      "Threshold": number,
      "ThresholdType": "string"
   },
   "Subscribers": [
      {
         "Address": "string",
         "SubscriptionType": "string"
      }
   ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

AccountId

The `accountId` that is associated with the budget that you want to create a notification for.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: Yes

BudgetName

The name of the budget that you want AWS to notify you about. Budget names must be unique within an account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(?![^:\\]*/action/|(?i).*<script>.*</script>.*)[^:\\]+$`

Required: Yes

Notification

The notification that you want to create.

Type: Notification object

Required: Yes

Subscribers

A list of subscribers that you want to associate with the notification. Each notification can have one SNS subscriber and up to 10 email subscribers.

Type: Array of Subscriber objects

Array Members: Minimum number of 1 item. Maximum number of 11 items.

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

CreationLimitExceededException

You've exceeded the notification or subscriber limit.

Message

The error message the exception carries.

HTTP Status Code: 400

DuplicateRecordException

The budget name already exists. Budget names must be unique within an account.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

NotFoundException

We can’t locate the resource that you specified.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

Examples

Example

The following is a sample request of the `CreateNotification` operation.

Sample Request

```
POST / HTTP/1.1
Host: awsbudgets.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
 SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSBudgetServiceGateway.CreateNotification
{
   "AccountId": "111122223333",
   "BudgetName": "Example Budget",
   "Notification": {
      "ComparisonOperator": "GREATER_THAN",
      "NotificationType": "ACTUAL",
      "Threshold": 80,
      "ThresholdType": "PERCENTAGE"
```

```
   },
   "Subscribers": [
      {
         "Address": "example@example.com",
         "SubscriptionType": "EMAIL"
      }
    ]
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

CreateSubscriber

Service: AWS Budgets

Creates a subscriber. You must create the associated budget and notification before you create the subscriber.

Request Syntax

```
{
   "AccountId": "string",
   "BudgetName": "string",
   "Notification": {
      "ComparisonOperator": "string",
      "NotificationState": "string",
      "NotificationType": "string",
      "Threshold": number,
      "ThresholdType": "string"
   },
   "Subscriber": {
      "Address": "string",
      "SubscriptionType": "string"
   }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

AccountId

The `accountId` that is associated with the budget that you want to create a subscriber for.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: Yes

BudgetName

The name of the budget that you want to subscribe to. Budget names must be unique within an account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(?![^:\\]*/action/|(?i).*<script>.*</script>.*)[^:\\]+$`

Required: Yes

Notification

The notification that you want to create a subscriber for.

Type: Notification object

Required: Yes

Subscriber

The subscriber that you want to associate with a budget notification.

Type: Subscriber object

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

CreationLimitExceededException

You've exceeded the notification or subscriber limit.

Message

The error message the exception carries.

HTTP Status Code: 400

DuplicateRecordException

The budget name already exists. Budget names must be unique within an account.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

NotFoundException

We can’t locate the resource that you specified.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

Examples

Example

The following is a sample request of the `CreateSubscriber` operation.

Sample Request

```
POST / HTTP/1.1
Host: awsbudgets.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
 SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSBudgetServiceGateway.CreateSubscriber
{
   "AccountId": "111122223333",
   "BudgetName": "Example Budget",
     "Notification": {
        "ComparisonOperator": "GREATER_THAN",
        "NotificationType": "ACTUAL",
        "Threshold": 80,
        "ThresholdType": "PERCENTAGE"
     },
     "Subscribers": [
        {
           "Address": "example@example.com",
```

```
            "SubscriptionType": "EMAIL"
        }
    ]
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DeleteBudget

Service: AWS Budgets

Deletes a budget. You can delete your budget at any time.

> **Important**
>
> Deleting a budget also deletes the notifications and subscribers that are associated with that budget.

Request Syntax

```
{
   "AccountId": "string",
   "BudgetName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

AccountId

The `accountId` that is associated with the budget that you want to delete.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: Yes

BudgetName

The name of the budget that you want to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(?![^:\\]*/action/|(?i).*<script>.*</script>.*)[^:\\]+$`

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

NotFoundException

We can't locate the resource that you specified.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

Examples

Example

The following is a sample request of the `DeleteBudget` operation.

Sample Request

```
POST / HTTP/1.1
Host: awsbudgets.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
 SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSBudgetServiceGateway.DeleteBudget
{
   "AccountId": "111122223333",
   "BudgetName": "Example Budget"
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2

- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DeleteBudgetAction

Service: AWS Budgets

Deletes a budget action.

Request Syntax

```
{
   "AccountId": "string",
   "ActionId": "string",
   "BudgetName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

AccountId

The account ID of the user. It's a 12-digit number.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: Yes

ActionId

A system-generated universally unique identifier (UUID) for the action.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{12}$`

Required: Yes

BudgetName

A string that represents the budget name. The ":" and "\" characters, and the "/action/" substring, aren't allowed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(?![^:\\]*/action/|(?i).*<script>.*</script>.*)[^:\\]+$`

Required: Yes

Response Syntax

```
{
   "AccountId": "string",
   "Action": {
      "ActionId": "string",
      "ActionThreshold": {
         "ActionThresholdType": "string",
         "ActionThresholdValue": number
      },
      "ActionType": "string",
      "ApprovalModel": "string",
      "BudgetName": "string",
      "Definition": {
         "IamActionDefinition": {
            "Groups": [ "string" ],
            "PolicyArn": "string",
            "Roles": [ "string" ],
            "Users": [ "string" ]
         },
         "ScpActionDefinition": {
            "PolicyId": "string",
            "TargetIds": [ "string" ]
         },
         "SsmActionDefinition": {
            "ActionSubType": "string",
            "InstanceIds": [ "string" ],
            "Region": "string"
         }
      },
```

```
      "ExecutionRoleArn": "string",
      "NotificationType": "string",
      "Status": "string",
      "Subscribers": [
         {
            "Address": "string",
            "SubscriptionType": "string"
         }
      ]
   },
   "BudgetName": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

AccountId

The account ID of the user. It's a 12-digit number.

Type: String

Length Constraints: Fixed length of 12.

Pattern: \d{12}

Action

A budget action resource.

Type: Action object

BudgetName

A string that represents the budget name. The ":" and "\" characters, and the "/action/" substring, aren't allowed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: ^(?![^:\\]*/action/|(?i).*<script>.*</script>.*)[^:\\]+$

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

NotFoundException

We can't locate the resource that you specified.

Message

The error message the exception carries.

HTTP Status Code: 400

ResourceLockedException

The request was received and recognized by the server, but the server rejected that particular method for the requested resource.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DeleteNotification

Service: AWS Budgets

Deletes a notification.

> **Important**
>
> Deleting a notification also deletes the subscribers that are associated with the notification.

Request Syntax

```
{
   "AccountId": "string",
   "BudgetName": "string",
   "Notification": {
      "ComparisonOperator": "string",
      "NotificationState": "string",
      "NotificationType": "string",
      "Threshold": number,
      "ThresholdType": "string"
   }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

AccountId

The `accountId` that is associated with the budget whose notification you want to delete.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: Yes

BudgetName

The name of the budget whose notification you want to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(?![^:\\]*/action/|(?i).*<script>.*</script>.*)[^:\\]+$`

Required: Yes

Notification

The notification that you want to delete.

Type: Notification object

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

NotFoundException

We can't locate the resource that you specified.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

Examples

Example

The following is a sample request of the `DeleteNotification` operation.

Sample Request

```
POST / HTTP/1.1
Host: awsbudgets.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
 SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
```

```
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSBudgetServiceGateway.DeleteNotification
{
   "AccountId": "111122223333",
   "BudgetName": "Example Budget",
   "Notification": {
      "ComparisonOperator": "GREATER_THAN",
      "NotificationType": "ACTUAL",
      "Threshold": 80,
      "ThresholdType": "PERCENTAGE"
   }
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DeleteSubscriber

Service: AWS Budgets

Deletes a subscriber.

> **Important**
>
> Deleting the last subscriber to a notification also deletes the notification.

Request Syntax

```
{
   "AccountId": "string",
   "BudgetName": "string",
   "Notification": {
      "ComparisonOperator": "string",
      "NotificationState": "string",
      "NotificationType": "string",
      "Threshold": number,
      "ThresholdType": "string"
   },
   "Subscriber": {
      "Address": "string",
      "SubscriptionType": "string"
   }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

AccountId

The `accountId` that is associated with the budget whose subscriber you want to delete.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: Yes

BudgetName

The name of the budget whose subscriber you want to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(?![^:\\]*/action/|(?i).*<script>.*</script>.*)[^:\\]+$`

Required: Yes

Notification

The notification whose subscriber you want to delete.

Type: Notification object

Required: Yes

Subscriber

The subscriber that you want to delete.

Type: Subscriber object

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

NotFoundException

We can't locate the resource that you specified.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

Examples

Example

The following is a sample request of the `DeleteSubscriber` operation.

Sample Request

```
POST / HTTP/1.1
Host: awsbudgets.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
 SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSBudgetServiceGateway.DeleteSubscriber
{
   "AccountId": "111122223333",
   "BudgetName": "Example Budget",
   "Notification": {
       "ComparisonOperator": "GREATER_THAN",
       "NotificationType": "ACTUAL",
       "Threshold": 80,
       "ThresholdType": "PERCENTAGE"
   },
   "Subscribers": [
       {
           "Address": "example@example.com",
           "SubscriptionType": "EMAIL"
       }
   ]
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3

- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DescribeBudget

Service: AWS Budgets

Describes a budget.

> **Important**
>
> The Request Syntax section shows the `BudgetLimit` syntax. For `PlannedBudgetLimits`, see the Examples section.

Request Syntax

```
{
   "AccountId": "string",
   "BudgetName": "string",
   "ShowFilterExpression": boolean
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

AccountId

The `accountId` that is associated with the budget that you want a description of.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: Yes

BudgetName

The name of the budget that you want a description of.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(?![^:\\]*/action/|(?i).*<script>.*</script>.*)[^:\\]+$`

Required: Yes

ShowFilterExpression

Specifies whether the response includes the filter expression associated with the budget. By showing the filter expression, you can see detailed filtering logic applied to the budget, such as AWS services or tags that are being tracked.

Type: Boolean

Required: No

Response Syntax

```
{
   "Budget": {
      "AutoAdjustData": {
         "AutoAdjustType": "string",
         "HistoricalOptions": {
            "BudgetAdjustmentPeriod": number,
            "LookBackAvailablePeriods": number
         },
         "LastAutoAdjustTime": number
      },
      "BillingViewArn": "string",
      "BudgetLimit": {
         "Amount": "string",
         "Unit": "string"
      },
      "BudgetName": "string",
      "BudgetType": "string",
      "CalculatedSpend": {
         "ActualSpend": {
            "Amount": "string",
            "Unit": "string"
         },
         "ForecastedSpend": {
            "Amount": "string",
            "Unit": "string"
         }
      },
```

```
      "CostFilters": {
         "string" : [ "string" ]
      },
      "CostTypes": {
         "IncludeCredit": boolean,
         "IncludeDiscount": boolean,
         "IncludeOtherSubscription": boolean,
         "IncludeRecurring": boolean,
         "IncludeRefund": boolean,
         "IncludeSubscription": boolean,
         "IncludeSupport": boolean,
         "IncludeTax": boolean,
         "IncludeUpfront": boolean,
         "UseAmortized": boolean,
         "UseBlended": boolean
      },
      "FilterExpression": {
         "And": [
            "Expression"
         ],
         "CostCategories": {
            "Key": "string",
            "MatchOptions": [ "string" ],
            "Values": [ "string" ]
         },
         "Dimensions": {
            "Key": "string",
            "MatchOptions": [ "string" ],
            "Values": [ "string" ]
         },
         "Not": "Expression",
         "Or": [
            "Expression"
         ],
         "Tags": {
            "Key": "string",
            "MatchOptions": [ "string" ],
            "Values": [ "string" ]
         }
      },
      "HealthStatus": {
         "LastUpdatedTime": number,
         "Status": "string",
         "StatusReason": "string"
```

```
      },
      "LastUpdatedTime": number,
      "Metrics": [ "string" ],
      "PlannedBudgetLimits": {
         "string" : {
            "Amount": "string",
            "Unit": "string"
         }
      },
      "TimePeriod": {
         "End": number,
         "Start": number
      },
      "TimeUnit": "string"
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Budget

The description of the budget.

Type: Budget object

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

NotFoundException

We can't locate the resource that you specified.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

Examples

Example

The following is the `PlannedBudgetLimits` syntax.

```
{
   "Budget": {
```

```
   "BudgetLimit": {
      "Amount": "string",
      "Unit": "string"
   },
   "PlannedBudgetLimits": {
      "string": {
         "Amount": "string",
         "Unit": "string"
      }
   },
   "BudgetName": "string",
   "BudgetType": "string",
   "CalculatedSpend": {
      "ActualSpend": {
         "Amount": "string",
         "Unit": "string"
      },
      "ForecastedSpend": {
         "Amount": "string",
         "Unit": "string"
      }
   },
   "FilterExpression": {
      "And": [
         "Expression"
      ],
      "Dimensions": {
         "Key": "string",
         "Values": ["string"]
      },
      "Not": "Expression",
      "Or": [
         "Expression"
      ],
      "Tags": {
         "Key": "string",
         "Values": ["string"]
      }
   },
   "Metrics": ["string"],
   "LastUpdatedTime": number,
   "TimePeriod": {
      "End": number,
      "Start": number
```

```
      },
      "TimeUnit": "string"
   }
}
```

Example

The following is a sample request and response of the `DescribeBudget` operation using `BudgetLimit`

Sample Request

```
POST / HTTP/1.1
Host: awsbudgets.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
 SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSBudgetServiceGateway.DescribeBudget

{
   "AccountId": "111122223333",
   "BudgetName": "Example Budget"
}
```

Sample Response

```
{
   "Budget": {
      "BudgetLimit": {
         "Amount": "100",
         "Unit": "USD"
      },
      "BudgetName": "Example Budget",
      "BudgetType": "COST",
      "CalculatedSpend": {
         "ActualSpend": {
            "Amount": "50",
            "Unit": "USD"
```

```
         },
         "ForecastedSpend": {
            "Amount": "100",
            "Unit": "USD"
         }
      },
      "FilterExpression": {
         "Dimensions": {
            "Key": "AZ",
            "Values": ["us-east-1"]
         }
      },
      "Metrics": ["UNBLENDED_COST"],
      "TimePeriod": {
         "Start": 1477353600,
         "End": 1477958399
      },
      "TimeUnit": "MONTHLY"
   }
}
```

Example

The following is a sample response of the `DescribeBudget` operation, using `PlannedBudgetLimits`.

Sample Response

```
{
   "Budget": {
      "PlannedBudgetLimits":{
         "1583020800": {
            "Amount": "100",
            "Unit": "USD"
         },
         "1564617600": {
            "Amount": "200",
            "Unit": "USD"
         },
         "1569888000": {
            "Amount": "300",
            "Unit": "USD"
         },
```

```
         "1556668800": {
            "Amount": "400",
            "Unit": "USD"
         },
         "1575158400": {
            "Amount": "500",
            "Unit": "USD"
         },
         "1580515200": {
            "Amount": "200",
            "Unit": "USD"
         }
      },
      "BudgetName": "Example Budget",
      "BudgetType": "COST",
      "CalculatedSpend": {
         "ActualSpend": {
            "Amount": "50",
            "Unit": "USD"
         },
         "ForecastedSpend": {
            "Amount": "100",
            "Unit": "USD"
         }
      },
      "FilterExpression": {
         "Dimensions": {
            "Key": "AZ",
            "Values": ["us-east-1"]
         }
      },
      "Metrics": ["UNBLENDED_COST"],
      "TimePeriod": {
         "Start": 1477353600,
         "End": 1477958399
      },
      "TimeUnit": "MONTHLY"
   }
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DescribeBudgetAction

Service: AWS Budgets

Describes a budget action detail.

Request Syntax

```
{
   "AccountId": "string",
   "ActionId": "string",
   "BudgetName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

AccountId

The account ID of the user. It's a 12-digit number.

Type: String

Length Constraints: Fixed length of 12.

Pattern: \d{12}

Required: Yes

ActionId

A system-generated universally unique identifier (UUID) for the action.

Type: String

Length Constraints: Fixed length of 36.

Pattern: ^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{12}$

Required: Yes

BudgetName

A string that represents the budget name. The ":" and "\" characters, and the "/action/" substring, aren't allowed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(?![^:\\]*/action/|(?i).*<script>.*</script>.*)[^:\\]+$`

Required: Yes

Response Syntax

```
{
   "AccountId": "string",
   "Action": {
      "ActionId": "string",
      "ActionThreshold": {
         "ActionThresholdType": "string",
         "ActionThresholdValue": number
      },
      "ActionType": "string",
      "ApprovalModel": "string",
      "BudgetName": "string",
      "Definition": {
         "IamActionDefinition": {
            "Groups": [ "string" ],
            "PolicyArn": "string",
            "Roles": [ "string" ],
            "Users": [ "string" ]
         },
         "ScpActionDefinition": {
            "PolicyId": "string",
            "TargetIds": [ "string" ]
         },
         "SsmActionDefinition": {
            "ActionSubType": "string",
            "InstanceIds": [ "string" ],
            "Region": "string"
         }
      },
```

```
      "ExecutionRoleArn": "string",
      "NotificationType": "string",
      "Status": "string",
      "Subscribers": [
         {
            "Address": "string",
            "SubscriptionType": "string"
         }
      ]
   },
   "BudgetName": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

AccountId

The account ID of the user. It's a 12-digit number.

Type: String

Length Constraints: Fixed length of 12.

Pattern: \d{12}

Action

A budget action resource.

Type: Action object

BudgetName

A string that represents the budget name. The ":" and "\" characters, and the "/action/" substring, aren't allowed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: ^(?![^:\\]*/action/|(?i).*<script>.*</script>.*)[^:\\]+$

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

NotFoundException

We can't locate the resource that you specified.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DescribeBudgetActionHistories

Service: AWS Budgets

Describes a budget action history detail.

Request Syntax

```
{
   "AccountId": "string",
   "ActionId": "string",
   "BudgetName": "string",
   "MaxResults": number,
   "NextToken": "string",
   "TimePeriod": {
      "End": number,
      "Start": number
   }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

AccountId

The account ID of the user. It's a 12-digit number.

Type: String

Length Constraints: Fixed length of 12.

Pattern: \d{12}

Required: Yes

ActionId

A system-generated universally unique identifier (UUID) for the action.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{12}$`

Required: Yes

BudgetName

A string that represents the budget name. The ":" and "\" characters, and the "/action/" substring, aren't allowed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(?![^:\\]*/action/|(?i).*<script>.*</script>.*)[^:\\]+$`

Required: Yes

MaxResults

An integer that represents how many entries a paginated response contains. The maximum is 100.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

NextToken

A generic string.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2147483647.

Pattern: `.*`

Required: No

TimePeriod

The period of time that's covered by a budget. The period has a start date and an end date. The start date must come before the end date. There are no restrictions on the end date.

Type: TimePeriod object

Required: No

Response Syntax

```
{
   "ActionHistories": [
      {
         "ActionHistoryDetails": {
            "Action": {
               "ActionId": "string",
               "ActionThreshold": {
                  "ActionThresholdType": "string",
                  "ActionThresholdValue": number
               },
               "ActionType": "string",
               "ApprovalModel": "string",
               "BudgetName": "string",
               "Definition": {
                  "IamActionDefinition": {
                     "Groups": [ "string" ],
                     "PolicyArn": "string",
                     "Roles": [ "string" ],
                     "Users": [ "string" ]
                  },
                  "ScpActionDefinition": {
                     "PolicyId": "string",
                     "TargetIds": [ "string" ]
                  },
                  "SsmActionDefinition": {
                     "ActionSubType": "string",
                     "InstanceIds": [ "string" ],
                     "Region": "string"
                  }
               },
               "ExecutionRoleArn": "string",
               "NotificationType": "string",
               "Status": "string",
               "Subscribers": [
                  {
                     "Address": "string",
                     "SubscriptionType": "string"
```

```
                    }
                ]
            },
            "Message": "string"
        },
        "EventType": "string",
        "Status": "string",
        "Timestamp": number
      }
   ],
   "NextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

ActionHistories

The historical record of the budget action resource.

Type: Array of ActionHistory objects

Array Members: Minimum number of 0 items. Maximum number of 100 items.

NextToken

A generic string.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2147483647.

Pattern: `.*`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidNextTokenException

The pagination token is invalid.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

NotFoundException

We can't locate the resource that you specified.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DescribeBudgetActionsForAccount

Service: AWS Budgets

Describes all of the budget actions for an account.

Request Syntax

```
{
   "AccountId": "string",
   "MaxResults": number,
   "NextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

AccountId

The account ID of the user. It's a 12-digit number.

Type: String

Length Constraints: Fixed length of 12.

Pattern: \d{12}

Required: Yes

MaxResults

An integer that represents how many entries a paginated response contains. The maximum is 100.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

NextToken

A generic string.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2147483647.

Pattern: `.*`

Required: No

Response Syntax

```
{
   "Actions": [
      {
         "ActionId": "string",
         "ActionThreshold": {
            "ActionThresholdType": "string",
            "ActionThresholdValue": number
         },
         "ActionType": "string",
         "ApprovalModel": "string",
         "BudgetName": "string",
         "Definition": {
            "IamActionDefinition": {
               "Groups": [ "string" ],
               "PolicyArn": "string",
               "Roles": [ "string" ],
               "Users": [ "string" ]
            },
            "ScpActionDefinition": {
               "PolicyId": "string",
               "TargetIds": [ "string" ]
            },
            "SsmActionDefinition": {
               "ActionSubType": "string",
               "InstanceIds": [ "string" ],
               "Region": "string"
            }
         },
         "ExecutionRoleArn": "string",
         "NotificationType": "string",
         "Status": "string",
         "Subscribers": [
            {
```

```
                "Address": "string",
                "SubscriptionType": "string"
            }
        ]
    }
  ],
  "NextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Actions

A list of the budget action resources information.

Type: Array of Action objects

Array Members: Minimum number of 0 items. Maximum number of 100 items.

NextToken

A generic string.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2147483647.

Pattern: `.*`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidNextTokenException

The pagination token is invalid.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DescribeBudgetActionsForBudget

Service: AWS Budgets

Describes all of the budget actions for a budget.

Request Syntax

```
{
   "AccountId": "string",
   "BudgetName": "string",
   "MaxResults": number,
   "NextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

AccountId

The account ID of the user. It's a 12-digit number.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: Yes

BudgetName

A string that represents the budget name. The ":" and "\" characters, and the "/action/" substring, aren't allowed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(?![^:\\]*/action/|(?i).*<script>.*</script>.*)[^:\\]+$`

Required: Yes

MaxResults

An integer that represents how many entries a paginated response contains. The maximum is 100.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

NextToken

A generic string.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2147483647.

Pattern: `.*`

Required: No

Response Syntax

```
{
   "Actions": [
      {
         "ActionId": "string",
         "ActionThreshold": {
            "ActionThresholdType": "string",
            "ActionThresholdValue": number
         },
         "ActionType": "string",
         "ApprovalModel": "string",
         "BudgetName": "string",
         "Definition": {
            "IamActionDefinition": {
               "Groups": [ "string" ],
               "PolicyArn": "string",
               "Roles": [ "string" ],
               "Users": [ "string" ]
```

```
            },
            "ScpActionDefinition": {
               "PolicyId": "string",
               "TargetIds": [ "string" ]
            },
            "SsmActionDefinition": {
               "ActionSubType": "string",
               "InstanceIds": [ "string" ],
               "Region": "string"
            }
         },
         "ExecutionRoleArn": "string",
         "NotificationType": "string",
         "Status": "string",
         "Subscribers": [
            {
               "Address": "string",
               "SubscriptionType": "string"
            }
         ]
      }
   ],
   "NextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Actions

A list of the budget action resources information.

Type: Array of Action objects

Array Members: Minimum number of 0 items. Maximum number of 100 items.

NextToken

A generic string.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2147483647.

Pattern: `.*`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidNextTokenException

The pagination token is invalid.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

NotFoundException

We can't locate the resource that you specified.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DescribeBudgetNotificationsForAccount

Service: AWS Budgets

Lists the budget names and notifications that are associated with an account.

Request Syntax

```
{
   "AccountId": "string",
   "MaxResults": number,
   "NextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

AccountId

The account ID of the user. It's a 12-digit number.

Type: String

Length Constraints: Fixed length of 12.

Pattern: \d{12}

Required: Yes

MaxResults

An integer that represents how many budgets a paginated response contains. The default is 50.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

NextToken

A generic string.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2147483647.

Pattern: `.*`

Required: No

Response Syntax

```
{
   "BudgetNotificationsForAccount": [
      {
         "BudgetName": "string",
         "Notifications": [
            {
               "ComparisonOperator": "string",
               "NotificationState": "string",
               "NotificationType": "string",
               "Threshold": number,
               "ThresholdType": "string"
            }
         ]
      }
   ],
   "NextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

BudgetNotificationsForAccount

A list of budget names and associated notifications for an account.

Type: Array of BudgetNotificationsForAccount objects

Array Members: Maximum number of 1000 items.

NextToken

A generic string.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2147483647.

Pattern: `.*`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

ExpiredNextTokenException

The pagination token expired.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidNextTokenException

The pagination token is invalid.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

NotFoundException

We can't locate the resource that you specified.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++

- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DescribeBudgetPerformanceHistory

Service: AWS Budgets

Describes the history for `DAILY`, `MONTHLY`, and `QUARTERLY` budgets. Budget history isn't available for `ANNUAL` budgets.

Request Syntax

```
{
   "AccountId": "string",
   "BudgetName": "string",
   "MaxResults": number,
   "NextToken": "string",
   "TimePeriod": {
      "End": number,
      "Start": number
   }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

AccountId

The account ID of the user. It's a 12-digit number.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: Yes

BudgetName

A string that represents the budget name. The ":" and "\" characters, and the "/action/" substring, aren't allowed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(?![^:\\]*/action/|(?i).*<script>.*</script>.*)[^:\\]+$`

Required: Yes

MaxResults

An integer that represents how many entries a paginated response contains. The maximum is 100.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

NextToken

A generic string.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2147483647.

Pattern: `.*`

Required: No

TimePeriod

Retrieves how often the budget went into an `ALARM` state for the specified time period.

Type: TimePeriod object

Required: No

Response Syntax

```
{
   "BudgetPerformanceHistory": {
      "BillingViewArn": "string",
      "BudgetedAndActualAmountsList": [
         {
            "ActualAmount": {
               "Amount": "string",
```

```
                "Unit": "string"
            },
            "BudgetedAmount": {
                "Amount": "string",
                "Unit": "string"
            },
            "TimePeriod": {
                "End": number,
                "Start": number
            }
        }
    ],
    "BudgetName": "string",
    "BudgetType": "string",
    "CostFilters": {
        "string" : [ "string" ]
    },
    "CostTypes": {
        "IncludeCredit": boolean,
        "IncludeDiscount": boolean,
        "IncludeOtherSubscription": boolean,
        "IncludeRecurring": boolean,
        "IncludeRefund": boolean,
        "IncludeSubscription": boolean,
        "IncludeSupport": boolean,
        "IncludeTax": boolean,
        "IncludeUpfront": boolean,
        "UseAmortized": boolean,
        "UseBlended": boolean
    },
    "TimeUnit": "string"
  },
  "NextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

BudgetPerformanceHistory

The history of how often the budget has gone into an ALARM state.

For DAILY budgets, the history saves the state of the budget for the last 60 days. For MONTHLY budgets, the history saves the state of the budget for the current month plus the last 12 months. For QUARTERLY budgets, the history saves the state of the budget for the last four quarters.

Type: BudgetPerformanceHistory object

NextToken

A generic string.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2147483647.

Pattern: .*

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

ExpiredNextTokenException

The pagination token expired.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidNextTokenException

The pagination token is invalid.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

NotFoundException

We can't locate the resource that you specified.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

Examples

Example

The following is a sample request of the `DescribeBudgetPerformanceHistory` operation.

Sample Request

```
GET HTTP/1.1
Host: awsbudgets.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
 SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSBudgetServiceGateway.DescribeBudgetPerformanceHistory
{
   "AccountId": "111122223333",
   "Budget": "ExampleBudget"
}
```

Sample Response

```
{
   "BudgetPerformanceHistory": {
      "BudgetedAndActualAmountsList": [
         {
            "ActualAmount": {
               "Amount": "50",
               "Unit": "USD"
            },
            "BudgetedAmount": {
               "Amount": "100",
               "Unit": "USD"
            },
            "TimePeriod": {
               "End": 1477958399,
               "Start": 1477353600
            }
         }
```

```
      ],
      "BudgetName": "ExampleBudget",
      "BudgetType": "COST",
      "CostFilters": {
          "AZ" : [ "us-east-1" ]
      },
      "CostTypes": {
         "IncludeCredit": true,
         "IncludeDiscount": true,
         "IncludeOtherSubscription": true,
         "IncludeRecurring": true,
         "IncludeRefund": true,
         "IncludeSubscription": true,
         "IncludeSupport": true,
         "IncludeTax": true,
         "IncludeUpfront": true,
         "UseBlended": false
      },
      "TimeUnit": "MONTHLY"
   }
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DescribeBudgets

Service: AWS Budgets

Lists the budgets that are associated with an account.

> **Important**
>
> The Request Syntax section shows the `BudgetLimit` syntax. For `PlannedBudgetLimits`, see the Examples section.

Request Syntax

```
{
   "AccountId": "string",
   "MaxResults": number,
   "NextToken": "string",
   "ShowFilterExpression": boolean
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

AccountId

The `accountId` that is associated with the budgets that you want to describe.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: Yes

MaxResults

An integer that represents how many budgets a paginated response contains. The default is 100.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

NextToken

The pagination token that you include in your request to indicate the next set of results that you want to retrieve.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2147483647.

Pattern: `.*`

Required: No

ShowFilterExpression

Specifies whether the response includes the filter expression associated with the budgets. By showing the filter expression, you can see detailed filtering logic applied to the budgets, such as AWS services or tags that are being tracked.

Type: Boolean

Required: No

Response Syntax

```
{
   "Budgets": [
      {
         "AutoAdjustData": {
            "AutoAdjustType": "string",
            "HistoricalOptions": {
               "BudgetAdjustmentPeriod": number,
               "LookBackAvailablePeriods": number
            },
            "LastAutoAdjustTime": number
         },
         "BillingViewArn": "string",
         "BudgetLimit": {
            "Amount": "string",
```

```
            "Unit": "string"
         },
         "BudgetName": "string",
         "BudgetType": "string",
         "CalculatedSpend": {
            "ActualSpend": {
               "Amount": "string",
               "Unit": "string"
            },
            "ForecastedSpend": {
               "Amount": "string",
               "Unit": "string"
            }
         },
         "CostFilters": {
            "string" : [ "string" ]
         },
         "CostTypes": {
            "IncludeCredit": boolean,
            "IncludeDiscount": boolean,
            "IncludeOtherSubscription": boolean,
            "IncludeRecurring": boolean,
            "IncludeRefund": boolean,
            "IncludeSubscription": boolean,
            "IncludeSupport": boolean,
            "IncludeTax": boolean,
            "IncludeUpfront": boolean,
            "UseAmortized": boolean,
            "UseBlended": boolean
         },
         "FilterExpression": {
            "And": [
               "Expression"
            ],
            "CostCategories": {
               "Key": "string",
               "MatchOptions": [ "string" ],
               "Values": [ "string" ]
            },
            "Dimensions": {
               "Key": "string",
               "MatchOptions": [ "string" ],
               "Values": [ "string" ]
            },
```

```
            "Not": "Expression",
            "Or": [
               "Expression"
            ],
            "Tags": {
               "Key": "string",
               "MatchOptions": [ "string" ],
               "Values": [ "string" ]
            }
         },
         "HealthStatus": {
            "LastUpdatedTime": number,
            "Status": "string",
            "StatusReason": "string"
         },
         "LastUpdatedTime": number,
         "Metrics": [ "string" ],
         "PlannedBudgetLimits": {
            "string" : {
               "Amount": "string",
               "Unit": "string"
            }
         },
         "TimePeriod": {
            "End": number,
            "Start": number
         },
         "TimeUnit": "string"
      }
   ],
   "NextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Budgets

A list of budgets.

Type: Array of Budget objects

NextToken

The pagination token in the service response that indicates the next set of results that you can retrieve.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2147483647.

Pattern: `.*`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

ExpiredNextTokenException

The pagination token expired.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidNextTokenException

The pagination token is invalid.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

NotFoundException

We can't locate the resource that you specified.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

Examples

Example

The following is the `PlannedBudgetLimits` syntax.

```
{
   "Budgets": [
      {
         "BudgetLimit": {
            "Amount": "string",
```

```
            "Unit": "string"
         },
         "PlannedBudgetLimits": {
             "string": {
                "Amount": "string",
                "Unit": "string"
             }
         },
         "BudgetName": "string",
         "BudgetType": "string",
         "CalculatedSpend": {
            "ActualSpend": {
               "Amount": "string",
               "Unit": "string"
            },
            "ForecastedSpend": {
               "Amount": "string",
               "Unit": "string"
            }
         },
         "FilterExpression": {
            "And": [
               "Expression"
            ],
            "Dimensions": {
               "Key": "string",
               "Values": ["string"]
            },
            "Not": "Expression",
            "Or": [
               "Expression"
            ],
            "Tags": {
               "Key": "string",
               "Values": ["string"]
            }
         },
         "Metrics": ["string"],
         "LastUpdatedTime": number,
         "TimePeriod": {
            "End": number,
            "Start": number
         },
         "TimeUnit": "string"
```

```
      }
   ],
   "NextToken": "string"
}
```

Example

This example illustrates one usage of DescribeBudgets.

Sample Request

```
POST / HTTP/1.1
Host: awsbudgets.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
 SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSBudgetServiceGateway.DescribeBudgets

{
   "AccountId": "111122223333",
   "MaxResults": 20
}
```

Sample Response

```
{
   "Budgets": [
      {
         "BudgetLimit": {
            "Amount": "100",
            "Unit": "USD"
         },
         "BudgetName": "Example Limit Fixed Budget",
         "BudgetType": "COST",
         "CalculatedSpend": {
            "ActualSpend": {
               "Amount": "50",
               "Unit": "USD"
```

```
            },
            "ForecastedSpend": {
               "Amount": "100",
               "Unit": "USD"
            }
         },
         "FilterExpression": {
            "Dimensions": {
               "Key": "AZ",
               "Values": ["us-east-1"]
            }
         },
         "Metrics": ["UNBLENDED_COST"],
         "TimePeriod": {
            "Start": 1477353600,
            "End": 1477958399
         },
         "TimeUnit": "MONTHLY"
      },
      {
         "BudgetLimit": {
            "Amount": "100",
            "Unit": "USD"
         },
         "PlannedBudgetLimits":{
            "1583020800": {
               "Amount": "100",
               "Unit": "USD"
            },
            "1564617600": {
               "Amount": "200",
               "Unit": "USD"
            },
            "1569888000": {
               "Amount": "300",
               "Unit": "USD"
            },
            "1556668800": {
               "Amount": "400",
               "Unit": "USD"
            },
            "1575158400": {
               "Amount": "500",
               "Unit": "USD"
```

```
            },
            "1580515200": {
               "Amount": "200",
               "Unit": "USD"
            }
         },
         "BudgetName": "Example Planned Limits Budget",
         "BudgetType": "COST",
         "CalculatedSpend": {
            "ActualSpend": {
               "Amount": "50",
               "Unit": "USD"
            },
            "ForecastedSpend": {
               "Amount": "100",
               "Unit": "USD"
            }
         },
         "FilterExpression": {
            "Dimensions": {
               "Key": "AZ",
               "Values": ["us-east-1"]
            }
         },
         "Metrics": ["UNBLENDED_COST"],
         "TimePeriod": {
            "Start": 1477353600,
            "End": 1477958399
         },
         "TimeUnit": "MONTHLY"
      }
   ],
   "NextToken": "exampleTokenString"
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET

- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DescribeNotificationsForBudget

Service: AWS Budgets

Lists the notifications that are associated with a budget.

Request Syntax

```
{
   "AccountId": "string",
   "BudgetName": "string",
   "MaxResults": number,
   "NextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

AccountId

The `accountId` that is associated with the budget whose notifications you want descriptions of.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: Yes

BudgetName

The name of the budget whose notifications you want descriptions of.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(?![^:\\]*/action/|(?i).*<script>.*</script>.*)[^:\\]+$`

Required: Yes

MaxResults

An optional integer that represents how many entries a paginated response contains.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

NextToken

The pagination token that you include in your request to indicate the next set of results that you want to retrieve.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2147483647.

Pattern: `.*`

Required: No

Response Syntax

```
{
   "NextToken": "string",
   "Notifications": [
      {
         "ComparisonOperator": "string",
         "NotificationState": "string",
         "NotificationType": "string",
         "Threshold": number,
         "ThresholdType": "string"
      }
   ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

NextToken

The pagination token in the service response that indicates the next set of results that you can retrieve.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2147483647.

Pattern: `.*`

Notifications

A list of notifications that are associated with a budget.

Type: Array of Notification objects

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

ExpiredNextTokenException

The pagination token expired.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidNextTokenException

The pagination token is invalid.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

NotFoundException

We can't locate the resource that you specified.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

Examples

Example

The following is a sample request and response of the `DescribeNotificationsForBudget` operation.

Sample Request

```
POST / HTTP/1.1
Host: awsbudgets.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
 SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSBudgetServiceGateway.DescribeNotificationsForBudget
{
   "AccountId": "111122223333",
   "BudgetName": "Example Budget",
   "MaxResults": 5
}
```

Sample Response

```
{
   "NextToken": "exampleTokenString",
   "Notifications": [
      {
      "ComparisonOperator": "GREATER_THAN",
      "NotificationType": "ACTUAL",
      "Threshold": 80,
      "ThresholdType": "PERCENTAGE"
      }
   ]
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++

- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DescribeSubscribersForNotification

Service: AWS Budgets

Lists the subscribers that are associated with a notification.

Request Syntax

```
{
   "AccountId": "string",
   "BudgetName": "string",
   "MaxResults": number,
   "NextToken": "string",
   "Notification": {
      "ComparisonOperator": "string",
      "NotificationState": "string",
      "NotificationType": "string",
      "Threshold": number,
      "ThresholdType": "string"
   }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

AccountId

The `accountId` that is associated with the budget whose subscribers you want descriptions of.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: Yes

BudgetName

The name of the budget whose subscribers you want descriptions of.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(?![^:\\]*/action/|(?i).*<script>.*</script>.*)[^:\\]+$`

Required: Yes

MaxResults

An optional integer that represents how many entries a paginated response contains.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

NextToken

The pagination token that you include in your request to indicate the next set of results that you want to retrieve.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2147483647.

Pattern: `.*`

Required: No

Notification

The notification whose subscribers you want to list.

Type: Notification object

Required: Yes

Response Syntax

```
{
   "NextToken": "string",
   "Subscribers": [
      {
```

```
            "Address": "string",
            "SubscriptionType": "string"
        }
    ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

NextToken

The pagination token in the service response that indicates the next set of results that you can retrieve.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2147483647.

Pattern: `.*`

Subscribers

A list of subscribers that are associated with a notification.

Type: Array of Subscriber objects

Array Members: Minimum number of 1 item. Maximum number of 11 items.

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

ExpiredNextTokenException

The pagination token expired.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidNextTokenException

The pagination token is invalid.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

NotFoundException

We can't locate the resource that you specified.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

Examples

Example

The following is a sample request and response of the `DescribeSubscribersForNotification` operation.

Sample Request

```
POST / HTTP/1.1
Host: awsbudgets.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
 SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSBudgetServiceGateway.DescribeSubscribersForNotification
{
   "AccountId": "111122223333",
   "BudgetName": "Example Budget",
   "MaxResults": 5,
   "Notification": {
      "ComparisonOperator": "GREATER_THAN",
      "NotificationType": "ACTUAL",
      "Threshold": 80,
      "ThresholdType": "PERCENTAGE"
    }
}
```

Sample Response

```
{
   "NextToken": "string",
   "Subscribers": [
      {
           "Address": "example@example.com",
           "SubscriptionType": "EMAIL"
      }
   ]
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ExecuteBudgetAction

Service: AWS Budgets

Executes a budget action.

Request Syntax

```
{
   "AccountId": "string",
   "ActionId": "string",
   "BudgetName": "string",
   "ExecutionType": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

AccountId

The account ID of the user. It's a 12-digit number.

Type: String

Length Constraints: Fixed length of 12.

Pattern: \d{12}

Required: Yes

ActionId

A system-generated universally unique identifier (UUID) for the action.

Type: String

Length Constraints: Fixed length of 36.

Pattern: ^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{12}$

Required: Yes

BudgetName

A string that represents the budget name. The ":" and "\" characters, and the "/action/" substring, aren't allowed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(?![^:\\]*/action/|(?i).*<script>.*</script>.*)[^:\\]+$`

Required: Yes

ExecutionType

The type of execution.

Type: String

Valid Values: `APPROVE_BUDGET_ACTION | RETRY_BUDGET_ACTION | REVERSE_BUDGET_ACTION | RESET_BUDGET_ACTION`

Required: Yes

Response Syntax

```
{
   "AccountId": "string",
   "ActionId": "string",
   "BudgetName": "string",
   "ExecutionType": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

AccountId

The account ID of the user. It's a 12-digit number.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

ActionId

A system-generated universally unique identifier (UUID) for the action.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{12}$`

BudgetName

A string that represents the budget name. The ":" and "\" characters, and the "/action/" substring, aren't allowed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(?![^:\\]*/action/|(?i).*<script>.*</script>.*)[^:\\]+$`

ExecutionType

The type of execution.

Type: String

Valid Values: `APPROVE_BUDGET_ACTION | RETRY_BUDGET_ACTION | REVERSE_BUDGET_ACTION | RESET_BUDGET_ACTION`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

NotFoundException

We can't locate the resource that you specified.

Message

The error message the exception carries.

HTTP Status Code: 400

ResourceLockedException

The request was received and recognized by the server, but the server rejected that particular method for the requested resource.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListTagsForResource

Service: AWS Budgets

Lists tags associated with a budget or budget action resource.

Request Syntax

```
{
   "ResourceARN": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

ResourceARN

The unique identifier for the resource.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1011.

Required: Yes

Response Syntax

```
{
   "ResourceTags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

ResourceTags

The tags associated with the resource.

Type: Array of ResourceTag objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

NotFoundException

We can't locate the resource that you specified.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

Examples

Example

The following is a sample request of the `ListTagsForResource` operation.

Sample Request

```
POST / HTTP/1.1
Host: awsbudgets.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
 SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSBudgetServiceGateway.ListTagsForResource
{
  "ResourceARN": "arn:aws:budgets::111122223333:budget/taggedBudgetName"
}
```

Example

The following is a sample response of the `ListTagsForResource` operation.

Sample Response

```
{
  "ResourceTags": [
    {
      "Key": "tagKey1",
      "Value": "value1"
    },
    {
      "Key": "tagKey2",
      "Value": "value1"
    }
  ]
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

TagResource

Service: AWS Budgets

Creates tags for a budget or budget action resource.

Request Syntax

```
{
   "ResourceARN": "string",
   "ResourceTags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

ResourceARN

The unique identifier for the resource.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1011.

Required: Yes

ResourceTags

The tags associated with the resource.

Type: Array of ResourceTag objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

NotFoundException

We can't locate the resource that you specified.

Message

The error message the exception carries.

HTTP Status Code: 400

ServiceQuotaExceededException

You've reached a Service Quota limit on this resource.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

Examples

Example

The following is a sample request of the `TagResource` operation.

Sample Request

```
POST / HTTP/1.1
Host: awsbudgets.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
 SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSBudgetServiceGateway.TagResource
{
  "ResourceARN": "arn:aws:budgets::111122223333:budget/taggedBudgetName",
  "ResourceTags": [
      {
```

```
            "Key": "tagKey1",
            "Value": "value1"
        },
        {
            "Key": "tagKey2",
            "Value": "value1"
        }
    ]
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

UntagResource

Service: AWS Budgets

Deletes tags associated with a budget or budget action resource.

Request Syntax

```
{
   "ResourceARN": "string",
   "ResourceTagKeys": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

ResourceARN

The unique identifier for the resource.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1011.

Required: Yes

ResourceTagKeys

The key that's associated with the tag.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

NotFoundException

We can't locate the resource that you specified.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

Examples

Example

The following is a sample request of the `UntagResource` operation.

Sample Request

```
POST / HTTP/1.1
Host: awsbudgets.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
 SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSBudgetServiceGateway.UntagResource
{
  "ResourceARN": "arn:aws:budgets::111122223333:budget/taggedBudgetName",
  "ResourceTagKeys": [ "tagKey1" ]
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2

- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

UpdateBudget

Service: AWS Budgets

Updates a budget. You can change every part of a budget except for the `budgetName` and the `calculatedSpend`. When you modify a budget, the `calculatedSpend` drops to zero until AWS has new usage data to use for forecasting.

> **Important**
>
> Only one of `BudgetLimit` or `PlannedBudgetLimits` can be present in the syntax at one time. Use the syntax that matches your case. The Request Syntax section shows the `BudgetLimit` syntax. For `PlannedBudgetLimits`, see the Examples section. Similarly, only one set of filter and metric selections can be present in the syntax at one time. Either `FilterExpression` and `Metrics` or `CostFilters` and `CostTypes`, not both or a different combination. We recommend using `FilterExpression` and `Metrics` as they provide more flexible and powerful filtering capabilities. The Request Syntax section shows the `FilterExpression`/`Metrics` syntax.

Request Syntax

```
{
   "AccountId": "string",
   "NewBudget": {
      "AutoAdjustData": {
         "AutoAdjustType": "string",
         "HistoricalOptions": {
            "BudgetAdjustmentPeriod": number,
            "LookBackAvailablePeriods": number
         },
         "LastAutoAdjustTime": number
      },
      "BillingViewArn": "string",
      "BudgetLimit": {
         "Amount": "string",
         "Unit": "string"
      },
      "BudgetName": "string",
      "BudgetType": "string",
      "CalculatedSpend": {
```

```
        "ActualSpend": {
           "Amount": "string",
           "Unit": "string"
        },
        "ForecastedSpend": {
           "Amount": "string",
           "Unit": "string"
        }
     },
     "CostFilters": {
        "string" : [ "string" ]
     },
     "CostTypes": {
        "IncludeCredit": boolean,
        "IncludeDiscount": boolean,
        "IncludeOtherSubscription": boolean,
        "IncludeRecurring": boolean,
        "IncludeRefund": boolean,
        "IncludeSubscription": boolean,
        "IncludeSupport": boolean,
        "IncludeTax": boolean,
        "IncludeUpfront": boolean,
        "UseAmortized": boolean,
        "UseBlended": boolean
     },
     "FilterExpression": {
        "And": [
           "Expression"
        ],
        "CostCategories": {
           "Key": "string",
           "MatchOptions": [ "string" ],
           "Values": [ "string" ]
        },
        "Dimensions": {
           "Key": "string",
           "MatchOptions": [ "string" ],
           "Values": [ "string" ]
        },
        "Not": "Expression",
        "Or": [
           "Expression"
        ],
        "Tags": {
```

```
            "Key": "string",
            "MatchOptions": [ "string" ],
            "Values": [ "string" ]
         }
      },
      "HealthStatus": {
         "LastUpdatedTime": number,
         "Status": "string",
         "StatusReason": "string"
      },
      "LastUpdatedTime": number,
      "Metrics": [ "string" ],
      "PlannedBudgetLimits": {
         "string" : {
            "Amount": "string",
            "Unit": "string"
         }
      },
      "TimePeriod": {
         "End": number,
         "Start": number
      },
      "TimeUnit": "string"
   }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

AccountId

The `accountId` that is associated with the budget that you want to update.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: Yes

NewBudget

The budget that you want to update your budget to.

Type: Budget object

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

BillingViewHealthStatusException

The billing view status must be HEALTHY to perform this action. Try again when the status is HEALTHY.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

NotFoundException

We can't locate the resource that you specified.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

Examples

Example

The following is the `PlannedBudgetLimits` syntax.

```
{
   "AccountId": "string",
   "NewBudget": {
      "PlannedBudgetLimits": {
         "string": {
            "Amount": "string",
            "Unit": "string"
         }
      },
```

```
      "BudgetName": "string",
      "BudgetType": "string",
      "CalculatedSpend": {
         "ActualSpend": {
            "Amount": "string",
            "Unit": "string"
         },
         "ForecastedSpend": {
            "Amount": "string",
            "Unit": "string"
         }
      },
      "FilterExpression": {
         "And": [
            "Expression"
         ],
         "Dimensions": {
            "Key": "string",
            "MatchOptions": [ "string" ],
            "Values": [ "string" ]
         },
         "Not": "Expression",
         "Or": [
            "Expression"
         ],
         "Tags": {
            "Key": "string",
            "MatchOptions": [ "string" ],
            "Values": [ "string" ]
         }
      },
      "Metrics": [ "string" ],
      "LastUpdatedTime": number,
      "TimePeriod": {
         "End": number,
         "Start": number
      },
      "TimeUnit": "string"
   }
}
```

Example

The following is a sample request of the `UpdateBudget` operation using `BudgetLimit`.

Sample Request

```
POST / HTTP/1.1
Host: awsbudgets.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
 SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSBudgetServiceGateway.UpdateBudget

{
   "AccountId": "111122223333",
   "NewBudget": {
      "BudgetLimit": {
         "Amount": "100",
         "Unit": "USD"
      },
      "BudgetName": "Example Budget",
      "BudgetType": "COST",
      "FilterExpression": {
         "Dimensions": {
            "Key": "AZ",
            "Values": ["us-east-1"]
         }
      },
      "Metrics": ["UNBLENDED_COST"],
      "TimePeriod": {
         "Start": 1477353600,
         "End": 1477958399
      },
      "TimeUnit": "MONTHLY",
      "NotificationsWithSubscribers": [
         {
            "Notification": {
               "ComparisonOperator": "GREATER_THAN",
               "NotificationType": "ACTUAL",
               "Threshold": 80,
               "ThresholdType": "PERCENTAGE"
            },
            "Subscribers": [
```

```
                {
                   "Address": "budget-alerts@example.com",
                   "SubscriptionType": "EMAIL"
                }
             ]
          },
          {
             "Notification": {
                "ComparisonOperator": "GREATER_THAN",
                "NotificationType": "FORECASTED",
                "Threshold": 90,
                "ThresholdType": "PERCENTAGE"
             },
             "Subscribers": [
                {
                   "Address": "budget-forecasts@example.com",
                   "SubscriptionType": "EMAIL"
                }
             ]
          }
       ]
   }
}
```

Example

The following is an example of transitioning from `CostFilters`/`CostTypes` to `FilterExpression`/`Metrics`.

```
POST / HTTP/1.1
Host: awsbudgets.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
 SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSBudgetServiceGateway.UpdateBudget

{
   "AccountId": "111122223333",
```

```
   "NewBudget": {
      "BudgetLimit": {
         "Amount": "100",
         "Unit": "USD"
      },
      "BudgetName": "Example Budget",
      "BudgetType": "COST",
      // Replacing these fields:
      /*
      "CostFilters": {
         "Service": ["Amazon Simple Storage Service"],
         "Region": ["us-east-1"]
      },
      "CostTypes": {
         "IncludeCredit": true,
         "IncludeDiscount": true,
         "UseBlended": false
      },
      */
      // With these new fields:
      "FilterExpression": {
         "Dimensions": {
            "Key": "SERVICE",
            "Values": ["Amazon Simple Storage Service"]
         },
         "And": [{
            "Dimensions": {
               "Key": "REGION",
               "Values": ["us-east-1"]
            }
         }]
      },
      "Metrics": ["UNBLENDED_COST"],
      "TimePeriod": {
         "Start": 1477353600,
         "End": 1477958399
      },
      "TimeUnit": "MONTHLY",
      "NotificationsWithSubscribers": [
         {
            "Notification": {
               "ComparisonOperator": "GREATER_THAN",
               "NotificationType": "ACTUAL",
               "Threshold": 85,
```

```
               "ThresholdType": "PERCENTAGE"
            },
            "Subscribers": [
               {
                  "Address": "migration-alerts@example.com",
                  "SubscriptionType": "EMAIL"
               }
            ]
         }
      ]
   }
}
```

Example

The following is an example of updating a budget to use exclusion capabilities.

```
POST / HTTP/1.1
Host: awsbudgets.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
 SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSBudgetServiceGateway.UpdateBudget

{
   "AccountId": "111122223333",
   "NewBudget": {
      "BudgetLimit": {
         "Amount": "1000",
         "Unit": "USD"
      },
      "BudgetName": "Example Budget",
      "BudgetType": "COST",
      "FilterExpression": {
         "Not": {
            "Dimensions": {
               "Key": "SERVICE",
               "Values": ["AWS Shield", "AWS Support (Enterprise)"]
            }
```

```
         }
      },
      "Metrics": ["NET_UNBLENDED_COST"],
      "TimePeriod": {
         "Start": 1477353600,
         "End": 1477958399
      },
      "TimeUnit": "MONTHLY",
      "NotificationsWithSubscribers": [
         {
            "Notification": {
               "ComparisonOperator": "GREATER_THAN",
               "NotificationType": "ACTUAL",
               "Threshold": 70,
               "ThresholdType": "PERCENTAGE"
            },
            "Subscribers": [
               {
                  "Address": "exclusion-alerts@example.com",
                  "SubscriptionType": "EMAIL"
               }
            ]
         },
         {
            "Notification": {
               "ComparisonOperator": "GREATER_THAN",
               "NotificationType": "FORECASTED",
               "Threshold": 100,
               "ThresholdType": "PERCENTAGE"
            },
            "Subscribers": [
               {
                  "Address": "exclusion-forecasts@example.com",
                  "SubscriptionType": "EMAIL"
               }
            ]
         }
      ]
   }
}
```

Example

The following is a sample request of the `UpdateBudget` operation using `PlannedBudgetLimits`.

Sample Request

```
POST / HTTP/1.1
Host: awsbudgets.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
 SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSBudgetServiceGateway.UpdateBudget

{
   "AccountId": "111122223333",
   "NewBudget": {
      "PlannedBudgetLimits":{
         "1712019600": {
            "Amount": "100",
            "Unit": "USD"
         },
         "1714611600": {
            "Amount": "200",
            "Unit": "USD"
         },
         "1717203600": {
            "Amount": "300",
            "Unit": "USD"
         }
      },
      "BudgetName": "Example Budget",
      "BudgetType": "COST",
      "FilterExpression": {
         "Dimensions": {
            "Key": "AZ",
            "Values": ["us-east-1"]
         },
         "And": [{
            "Dimensions": {
               "Key": "SERVICE",
               "Values": ["Amazon Simple Storage Service", "Amazon FSx"]
            }
         }]
```

```
      },
      "Metrics": ["NET_UNBLENDED_COST"],
      "TimePeriod": {
         "Start": 1712019600,
         "End": 1717203600
      },
      "TimeUnit": "MONTHLY",
      "NotificationsWithSubscribers": [
         {
            "Notification": {
               "ComparisonOperator": "GREATER_THAN",
               "NotificationType": "ACTUAL",
               "Threshold": 50,
               "ThresholdType": "PERCENTAGE"
            },
            "Subscribers": [
               {
                  "Address": "planned-budget-alerts-1@example.com",
                  "SubscriptionType": "EMAIL"
               }
            ]
         },
         {
            "Notification": {
               "ComparisonOperator": "GREATER_THAN",
               "NotificationType": "ACTUAL",
               "Threshold": 75,
               "ThresholdType": "PERCENTAGE"
            },
            "Subscribers": [
               {
                  "Address": "planned-budget-alerts-2@example.com",
                  "SubscriptionType": "EMAIL"
               }
            ]
         },
         {
            "Notification": {
               "ComparisonOperator": "GREATER_THAN",
               "NotificationType": "ACTUAL",
               "Threshold": 90,
               "ThresholdType": "PERCENTAGE"
            },
            "Subscribers": [
```

```
                {
                   "Address": "planned-budget-alerts-3@example.com",
                   "SubscriptionType": "EMAIL"
                }
             ]
          }
       ]
    }
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

UpdateBudgetAction

Service: AWS Budgets

Updates a budget action.

Request Syntax

```
{
   "AccountId": "string",
   "ActionId": "string",
   "ActionThreshold": {
      "ActionThresholdType": "string",
      "ActionThresholdValue": number
   },
   "ApprovalModel": "string",
   "BudgetName": "string",
   "Definition": {
      "IamActionDefinition": {
         "Groups": [ "string" ],
         "PolicyArn": "string",
         "Roles": [ "string" ],
         "Users": [ "string" ]
      },
      "ScpActionDefinition": {
         "PolicyId": "string",
         "TargetIds": [ "string" ]
      },
      "SsmActionDefinition": {
         "ActionSubType": "string",
         "InstanceIds": [ "string" ],
         "Region": "string"
      }
   },
   "ExecutionRoleArn": "string",
   "NotificationType": "string",
   "Subscribers": [
      {
         "Address": "string",
         "SubscriptionType": "string"
      }
   ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

AccountId

The account ID of the user. It's a 12-digit number.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: Yes

ActionId

A system-generated universally unique identifier (UUID) for the action.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{12}$`

Required: Yes

ActionThreshold

The trigger threshold of the action.

Type: ActionThreshold object

Required: No

ApprovalModel

This specifies if the action needs manual or automatic approval.

Type: String

Valid Values: `AUTOMATIC | MANUAL`

Required: No

BudgetName

A string that represents the budget name. The ":" and "\" characters, and the "/action/" substring, aren't allowed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(?![^:\\]*/action/|(?i).*<script>.*</script>.*)[^:\\]+$`

Required: Yes

Definition

Specifies all of the type-specific parameters.

Type: Definition object

Required: No

ExecutionRoleArn

The role passed for action execution and reversion. Roles and actions must be in the same account.

Type: String

Length Constraints: Minimum length of 32. Maximum length of 618.

Pattern: `^arn:aws(-cn|-us-gov|-iso|-iso-[a-z]{1})?:iam::\d{12}:role(\u002F[\u0021-\u007F]+\u002F|\u002F)[\w+=,.@-]+$`

Required: No

NotificationType

The type of a notification. It must be ACTUAL or FORECASTED.

Type: String

Valid Values: `ACTUAL | FORECASTED`

Required: No

Subscribers

A list of subscribers.

Type: Array of Subscriber objects

Array Members: Minimum number of 1 item. Maximum number of 11 items.

Required: No

Response Syntax

```
{
   "AccountId": "string",
   "BudgetName": "string",
   "NewAction": {
      "ActionId": "string",
      "ActionThreshold": {
         "ActionThresholdType": "string",
         "ActionThresholdValue": number
      },
      "ActionType": "string",
      "ApprovalModel": "string",
      "BudgetName": "string",
      "Definition": {
         "IamActionDefinition": {
            "Groups": [ "string" ],
            "PolicyArn": "string",
            "Roles": [ "string" ],
            "Users": [ "string" ]
         },
         "ScpActionDefinition": {
            "PolicyId": "string",
            "TargetIds": [ "string" ]
         },
         "SsmActionDefinition": {
            "ActionSubType": "string",
            "InstanceIds": [ "string" ],
            "Region": "string"
         }
      },
      "ExecutionRoleArn": "string",
      "NotificationType": "string",
      "Status": "string",
      "Subscribers": [
         {
            "Address": "string",
```

```
            "SubscriptionType": "string"
         }
      ]
   },
   "OldAction": {
      "ActionId": "string",
      "ActionThreshold": {
         "ActionThresholdType": "string",
         "ActionThresholdValue": number
      },
      "ActionType": "string",
      "ApprovalModel": "string",
      "BudgetName": "string",
      "Definition": {
         "IamActionDefinition": {
            "Groups": [ "string" ],
            "PolicyArn": "string",
            "Roles": [ "string" ],
            "Users": [ "string" ]
         },
         "ScpActionDefinition": {
            "PolicyId": "string",
            "TargetIds": [ "string" ]
         },
         "SsmActionDefinition": {
            "ActionSubType": "string",
            "InstanceIds": [ "string" ],
            "Region": "string"
         }
      },
      "ExecutionRoleArn": "string",
      "NotificationType": "string",
      "Status": "string",
      "Subscribers": [
         {
            "Address": "string",
            "SubscriptionType": "string"
         }
      ]
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

AccountId

The account ID of the user. It's a 12-digit number.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

BudgetName

A string that represents the budget name. The ":" and "\" characters, and the "/action/" substring, aren't allowed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(?![^:\\]*/action/|(?i).*<script>.*</script>.*)[^:\\]+$`

NewAction

The updated action resource information.

Type: Action object

OldAction

The previous action resource information.

Type: Action object

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

NotFoundException

We can't locate the resource that you specified.

Message

The error message the exception carries.

HTTP Status Code: 400

ResourceLockedException

The request was received and recognized by the server, but the server rejected that particular method for the requested resource.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

UpdateNotification

Service: AWS Budgets

Updates a notification.

Request Syntax

```
{
   "AccountId": "string",
   "BudgetName": "string",
   "NewNotification": {
      "ComparisonOperator": "string",
      "NotificationState": "string",
      "NotificationType": "string",
      "Threshold": number,
      "ThresholdType": "string"
   },
   "OldNotification": {
      "ComparisonOperator": "string",
      "NotificationState": "string",
      "NotificationType": "string",
      "Threshold": number,
      "ThresholdType": "string"
   }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

AccountId

The `accountId` that is associated with the budget whose notification you want to update.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: Yes

BudgetName

The name of the budget whose notification you want to update.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(?![^:\\]*/action/|(?i).*<script>.*</script>.*)[^:\\]+$`

Required: Yes

NewNotification

The updated notification to be associated with a budget.

Type: Notification object

Required: Yes

OldNotification

The previous notification that is associated with a budget.

Type: Notification object

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

DuplicateRecordException

The budget name already exists. Budget names must be unique within an account.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

NotFoundException

We can't locate the resource that you specified.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

Examples

Example

The following is a sample request of the UpdateNotification operation.

Sample Request

```
POST / HTTP/1.1
Host: awsbudgets.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
 SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSBudgetServiceGateway.UpdateNotification
{
   "AccountId": "111122223333",
   "BudgetName": "Example Budget",
   "NewNotification": {
            "ComparisonOperator": "GREATER_THAN",
            "NotificationType": "ACTUAL",
            "Threshold": 80,
            "ThresholdType": "PERCENTAGE"
         }
    },
   "OldNotification": {
            "ComparisonOperator": "GREATER_THAN",
            "NotificationType": "ACTUAL",
            "Threshold": 80,
            "ThresholdType": "PERCENTAGE"
         }
    }
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

UpdateSubscriber

Service: AWS Budgets

Updates a subscriber.

Request Syntax

```
{
   "AccountId": "string",
   "BudgetName": "string",
   "NewSubscriber": {
      "Address": "string",
      "SubscriptionType": "string"
   },
   "Notification": {
      "ComparisonOperator": "string",
      "NotificationState": "string",
      "NotificationType": "string",
      "Threshold": number,
      "ThresholdType": "string"
   },
   "OldSubscriber": {
      "Address": "string",
      "SubscriptionType": "string"
   }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

AccountId

The `accountId` that is associated with the budget whose subscriber you want to update.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: Yes

BudgetName

The name of the budget whose subscriber you want to update.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(?![^:\\]*/action/|(?i).*<script>.*</script>.*)[^:\\]+$`

Required: Yes

NewSubscriber

The updated subscriber that is associated with a budget notification.

Type: Subscriber object

Required: Yes

Notification

The notification whose subscriber you want to update.

Type: Notification object

Required: Yes

OldSubscriber

The previous subscriber that is associated with a budget notification.

Type: Subscriber object

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You are not authorized to use this operation with the given parameters.

Message

The error message the exception carries.

HTTP Status Code: 400

DuplicateRecordException

The budget name already exists. Budget names must be unique within an account.

Message

The error message the exception carries.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

The error message the exception carries.

HTTP Status Code: 400

InvalidParameterException

An error on the client occurred. Typically, the cause is an invalid input value.

Message

The error message the exception carries.

HTTP Status Code: 400

NotFoundException

We can't locate the resource that you specified.

Message

The error message the exception carries.

HTTP Status Code: 400

ThrottlingException

The number of API requests has exceeded the maximum allowed API request throttling limit for the account.

Message

The error message the exception carries.

HTTP Status Code: 400

Examples

Example

The following is a sample request of the `UpdateSubscriber` operation.

Sample Request

```
POST / HTTP/1.1
Host: awsbudgets.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
 SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSBudgetServiceGateway.UpdateSubscriber
{
   "AccountId": "111122223333",
   "BudgetName": "Example Budget",
   "Notification": {
            "ComparisonOperator": "GREATER_THAN",
            "NotificationType": "ACTUAL",
            "Threshold": 80,
            "ThresholdType": "PERCENTAGE"
   },
   "OldSubscriber": {
      "Address": "example@example.com",
      "SubscriptionType": "EMAIL"
   },
```

```
   "NewSubscriber": {
      "Address": "example2@example.com",
      "SubscriptionType": "EMAIL"
   }
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

AWS Cost Optimization Hub

The following actions are supported by AWS Cost Optimization Hub:

- GetPreferences
- GetRecommendation
- ListEfficiencyMetrics
- ListEnrollmentStatuses
- ListRecommendations
- ListRecommendationSummaries
- UpdateEnrollmentStatus
- UpdatePreferences

GetPreferences

Service: AWS Cost Optimization Hub

Returns a set of preferences for an account in order to add account-specific preferences into the service. These preferences impact how the savings associated with recommendations are presented—estimated savings after discounts or estimated savings before discounts, for example.

Response Syntax

```
{
   "memberAccountDiscountVisibility": "string",
   "preferredCommitment": {
      "paymentOption": "string",
      "term": "string"
   },
   "savingsEstimationMode": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

memberAccountDiscountVisibility

Retrieves the status of the "member account discount visibility" preference.

Type: String

Valid Values: `All | None`

preferredCommitment

Retrieves the current preferences for how Reserved Instances and Savings Plans cost-saving opportunities are prioritized in terms of payment option and term length.

Type: PreferredCommitment object

savingsEstimationMode

Retrieves the status of the "savings estimation mode" preference.

Type: String

Valid Values: `BeforeDiscounts | AfterDiscounts`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You are not authorized to use this operation with the given parameters.

HTTP Status Code: 400

InternalServerException

An error on the server occurred during the processing of your request. Try again later.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

fields

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetRecommendation

Service: AWS Cost Optimization Hub

Returns both the current and recommended resource configuration and the estimated cost impact for a recommendation.

The `recommendationId` is only valid for up to a maximum of 24 hours as recommendations are refreshed daily. To retrieve the `recommendationId`, use the `ListRecommendations` API.

Request Syntax

```
{
   "recommendationId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

recommendationId

The ID for the recommendation.

Type: String

Required: Yes

Response Syntax

```
{
   "accountId": "string",
   "actionType": "string",
   "costCalculationLookbackPeriodInDays": number,
   "currencyCode": "string",
   "currentResourceDetails": { ... },
   "currentResourceType": "string",
   "estimatedMonthlyCost": number,
   "estimatedMonthlySavings": number,
   "estimatedSavingsOverCostCalculationLookbackPeriod": number,
```

```
   "estimatedSavingsPercentage": number,
   "implementationEffort": "string",
   "lastRefreshTimestamp": number,
   "recommendationId": "string",
   "recommendationLookbackPeriodInDays": number,
   "recommendedResourceDetails": { ... },
   "recommendedResourceType": "string",
   "region": "string",
   "resourceArn": "string",
   "resourceId": "string",
   "restartNeeded": boolean,
   "rollbackPossible": boolean,
   "source": "string",
   "tags": [
      {
         "key": "string",
         "value": "string"
      }
   ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

accountId

The account to which the recommendation applies.

Type: String

actionType

The type of action you can take by adopting the recommendation.

Type: String

Valid Values: `Rightsize | Stop | Upgrade | PurchaseSavingsPlans | PurchaseReservedInstances | MigrateToGraviton | Delete | ScaleIn`

costCalculationLookbackPeriodInDays

The lookback period used to calculate cost impact for a recommendation.

Type: Integer

currencyCode

The currency code used for the recommendation.

Type: String

currentResourceDetails

The details for the resource.

Type: ResourceDetails object

Note: This object is a Union. Only one member of this object can be specified or returned.

currentResourceType

The type of resource.

Type: String

Valid Values: `Ec2Instance | LambdaFunction | EbsVolume | EcsService | Ec2AutoScalingGroup | Ec2InstanceSavingsPlans | ComputeSavingsPlans | SageMakerSavingsPlans | Ec2ReservedInstances | RdsReservedInstances | OpenSearchReservedInstances | RedshiftReservedInstances | ElastiCacheReservedInstances | RdsDbInstanceStorage | RdsDbInstance | AuroraDbClusterStorage | DynamoDbReservedCapacity | MemoryDbReservedInstances`

estimatedMonthlyCost

The estimated monthly cost of the current resource. For Reserved Instances and Savings Plans, it refers to the cost for eligible usage.

Type: Double

estimatedMonthlySavings

The estimated monthly savings amount for the recommendation.

Type: Double

estimatedSavingsOverCostCalculationLookbackPeriod

The estimated savings amount over the lookback period used to calculate cost impact for a recommendation.

Type: Double

estimatedSavingsPercentage

The estimated savings percentage relative to the total cost over the cost calculation lookback period.

Type: Double

implementationEffort

The effort required to implement the recommendation.

Type: String

Valid Values: `VeryLow | Low | Medium | High | VeryHigh`

lastRefreshTimestamp

The time when the recommendation was last generated.

Type: Timestamp

recommendationId

The ID for the recommendation.

Type: String

recommendationLookbackPeriodInDays

The lookback period that's used to generate the recommendation.

Type: Integer

recommendedResourceDetails

The details about the recommended resource.

Type: ResourceDetails object

Note: This object is a Union. Only one member of this object can be specified or returned.

recommendedResourceType

The resource type of the recommendation.

Type: String

Valid Values: `Ec2Instance | LambdaFunction | EbsVolume | EcsService | Ec2AutoScalingGroup | Ec2InstanceSavingsPlans | ComputeSavingsPlans | SageMakerSavingsPlans | Ec2ReservedInstances | RdsReservedInstances | OpenSearchReservedInstances | RedshiftReservedInstances | ElastiCacheReservedInstances | RdsDbInstanceStorage | RdsDbInstance | AuroraDbClusterStorage | DynamoDbReservedCapacity | MemoryDbReservedInstances`

region

The AWS Region of the resource.

Type: String

resourceArn

The Amazon Resource Name (ARN) of the resource.

Type: String

resourceId

The unique identifier for the resource. This is the same as the Amazon Resource Name (ARN), if available.

Type: String

restartNeeded

Whether or not implementing the recommendation requires a restart.

Type: Boolean

rollbackPossible

Whether or not implementing the recommendation can be rolled back.

Type: Boolean

source

The source of the recommendation.

Type: String

Valid Values: `ComputeOptimizer | CostExplorer`

tags

A list of tags associated with the resource for which the recommendation exists.

Type: Array of Tag objects

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You are not authorized to use this operation with the given parameters.

HTTP Status Code: 400

InternalServerException

An error on the server occurred during the processing of your request. Try again later.

HTTP Status Code: 500

ResourceNotFoundException

The specified Amazon Resource Name (ARN) in the request doesn't exist.

resourceId

The identifier of the resource that was not found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

fields

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListEfficiencyMetrics

Service: AWS Cost Optimization Hub

Returns cost efficiency metrics aggregated over time and optionally grouped by a specified dimension. The metrics provide insights into your cost optimization progress by tracking estimated savings, spending, and measures how effectively you're optimizing your Cloud resources.

The operation supports both daily and monthly time granularities and allows grouping results by account ID, AWS Region. Results are returned as time-series data, enabling you to analyze trends in your cost optimization performance over the specified time period.

Request Syntax

```
{
   "granularity": "string",
   "groupBy": "string",
   "maxResults": number,
   "nextToken": "string",
   "orderBy": {
      "dimension": "string",
      "order": "string"
   },
   "timePeriod": {
      "end": "string",
      "start": "string"
   }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

granularity

The time granularity for the cost efficiency metrics. Specify `Daily` for metrics aggregated by day, or `Monthly` for metrics aggregated by month.

Type: String

Valid Values: `Daily | Monthly`

Required: Yes

groupBy

The dimension by which to group the cost efficiency metrics. Valid values include account ID, AWS Region. When no grouping is specified, metrics are aggregated across all resources in the specified time period.

Type: String

Required: No

maxResults

The maximum number of groups to return in the response. Valid values range from 0 to 1000. Use in conjunction with `nextToken` to paginate through results when the total number of groups exceeds this limit.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No

nextToken

The token to retrieve the next page of results. This value is returned in the response when the number of groups exceeds the specified `maxResults` value.

Type: String

Required: No

orderBy

The ordering specification for the results. Defines which dimension to sort by and whether to sort in ascending or descending order.

Type: OrderBy object

Required: No

timePeriod

The time period for which to retrieve the cost efficiency metrics. The start date is inclusive and the end date is exclusive. Dates can be specified in either YYYY-MM-DD format or YYYY-MM format depending on the desired granularity.

Type: TimePeriod object

Required: Yes

Response Syntax

```
{
   "efficiencyMetricsByGroup": [
      {
         "group": "string",
         "message": "string",
         "metricsByTime": [
            {
               "savings": number,
               "score": number,
               "spend": number,
               "timestamp": "string"
            }
         ]
      }
   ],
   "nextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

efficiencyMetricsByGroup

A list of cost efficiency metrics grouped by the specified dimension. Each group contains time-series data points with cost efficiency, potential savings, and optimzable spend for the specified time period.

Type: Array of EfficiencyMetricsByGroup objects

nextToken

The token to retrieve the next page of results. When this value is present in the response, additional groups are available. Pass this token in the `nextToken` parameter of a subsequent request to retrieve the next page.

Type: String

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You are not authorized to use this operation with the given parameters.

HTTP Status Code: 400

InternalServerException

An error on the server occurred during the processing of your request. Try again later.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

fields

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2

- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListEnrollmentStatuses

Service: AWS Cost Optimization Hub

Retrieves the enrollment status for an account. It can also return the list of accounts that are enrolled under the organization.

Request Syntax

```
{
   "accountId": "string",
   "includeOrganizationInfo": boolean,
   "maxResults": number,
   "nextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

accountId

The account ID of a member account in the organization.

Type: String

Pattern: `[0-9]{12}`

Required: No

includeOrganizationInfo

Indicates whether to return the enrollment status for the organization.

Type: Boolean

Required: No

maxResults

The maximum number of objects that are returned for the request.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No

nextToken

The token to retrieve the next set of results.

Type: String

Required: No

Response Syntax

```
{
   "includeMemberAccounts": boolean,
   "items": [
      {
         "accountId": "string",
         "createdTimestamp": number,
         "lastUpdatedTimestamp": number,
         "status": "string"
      }
   ],
   "nextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

includeMemberAccounts

The enrollment status of all member accounts in the organization if the account is the management account or delegated administrator.

Type: Boolean

items

The enrollment status of a specific account ID, including creation and last updated timestamps.

Type: Array of AccountEnrollmentStatus objects

nextToken

The token to retrieve the next set of results.

Type: String

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You are not authorized to use this operation with the given parameters.

HTTP Status Code: 400

InternalServerException

An error on the server occurred during the processing of your request. Try again later.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

fields

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListRecommendations

Service: AWS Cost Optimization Hub

Returns a list of recommendations.

Request Syntax

```
{
   "filter": {
      "accountIds": [ "string" ],
      "actionTypes": [ "string" ],
      "implementationEfforts": [ "string" ],
      "recommendationIds": [ "string" ],
      "regions": [ "string" ],
      "resourceArns": [ "string" ],
      "resourceIds": [ "string" ],
      "resourceTypes": [ "string" ],
      "restartNeeded": boolean,
      "rollbackPossible": boolean,
      "tags": [
         {
            "key": "string",
            "value": "string"
         }
      ]
   },
   "includeAllRecommendations": boolean,
   "maxResults": number,
   "nextToken": "string",
   "orderBy": {
      "dimension": "string",
      "order": "string"
   }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

filter

The constraints that you want all returned recommendations to match.

Type: Filter object

Required: No

includeAllRecommendations

List of all recommendations for a resource, or a single recommendation if de-duped by `resourceId`.

Type: Boolean

Required: No

maxResults

The maximum number of recommendations that are returned for the request.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 1000.

Required: No

nextToken

The token to retrieve the next set of results.

Type: String

Required: No

orderBy

The ordering of recommendations by a dimension.

Type: OrderBy object

Required: No

Response Syntax

```
{
```

```
   "items": [
      {
         "accountId": "string",
         "actionType": "string",
         "currencyCode": "string",
         "currentResourceSummary": "string",
         "currentResourceType": "string",
         "estimatedMonthlyCost": number,
         "estimatedMonthlySavings": number,
         "estimatedSavingsPercentage": number,
         "implementationEffort": "string",
         "lastRefreshTimestamp": number,
         "recommendationId": "string",
         "recommendationLookbackPeriodInDays": number,
         "recommendedResourceSummary": "string",
         "recommendedResourceType": "string",
         "region": "string",
         "resourceArn": "string",
         "resourceId": "string",
         "restartNeeded": boolean,
         "rollbackPossible": boolean,
         "source": "string",
         "tags": [
            {
               "key": "string",
               "value": "string"
            }
         ]
      }
   ],
   "nextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

items

List of all savings recommendations.

Type: Array of Recommendation objects

nextToken

The token to retrieve the next set of results.

Type: String

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You are not authorized to use this operation with the given parameters.

HTTP Status Code: 400

InternalServerException

An error on the server occurred during the processing of your request. Try again later.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

fields

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListRecommendationSummaries

Service: AWS Cost Optimization Hub

Returns a concise representation of savings estimates for resources. Also returns de-duped savings across different types of recommendations.

> **Note**
>
> The following filters are not supported for this API: `recommendationIds`, `resourceArns`, and `resourceIds`.

Request Syntax

```
{
   "filter": {
      "accountIds": [ "string" ],
      "actionTypes": [ "string" ],
      "implementationEfforts": [ "string" ],
      "recommendationIds": [ "string" ],
      "regions": [ "string" ],
      "resourceArns": [ "string" ],
      "resourceIds": [ "string" ],
      "resourceTypes": [ "string" ],
      "restartNeeded": boolean,
      "rollbackPossible": boolean,
      "tags": [
         {
            "key": "string",
            "value": "string"
         }
      ]
   },
   "groupBy": "string",
   "maxResults": number,
   "metrics": [ "string" ],
   "nextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

filter

Describes a filter that returns a more specific list of recommendations. Filters recommendations by different dimensions.

Type: Filter object

Required: No

groupBy

The grouping of recommendations by a dimension.

Type: String

Required: Yes

maxResults

The maximum number of recommendations to be returned for the request.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 1000.

Required: No

metrics

Additional metrics to be returned for the request. The only valid value is `savingsPercentage`.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Valid Values: `SavingsPercentage`

Required: No

nextToken

The token to retrieve the next set of results.

Type: String

Required: No

Response Syntax

```
{
   "currencyCode": "string",
   "estimatedTotalDedupedSavings": number,
   "groupBy": "string",
   "items": [
      {
         "estimatedMonthlySavings": number,
         "group": "string",
         "recommendationCount": number
      }
   ],
   "metrics": {
      "savingsPercentage": "string"
   },
   "nextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

currencyCode

The currency code used for the recommendation.

Type: String

estimatedTotalDedupedSavings

The total overall savings for the aggregated view.

Type: Double

groupBy

The dimension used to group the recommendations by.

Type: String

items

A list of all savings recommendations.

Type: Array of RecommendationSummary objects

metrics

The results or descriptions for the additional metrics, based on whether the metrics were or were not requested.

Type: SummaryMetricsResult object

nextToken

The token to retrieve the next set of results.

Type: String

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You are not authorized to use this operation with the given parameters.

HTTP Status Code: 400

InternalServerException

An error on the server occurred during the processing of your request. Try again later.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

fields

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

UpdateEnrollmentStatus

Service: AWS Cost Optimization Hub

Updates the enrollment (opt in and opt out) status of an account to the Cost Optimization Hub service.

If the account is a management account of an organization, this action can also be used to enroll member accounts of the organization.

You must have the appropriate permissions to opt in to Cost Optimization Hub and to view its recommendations. When you opt in, Cost Optimization Hub automatically creates a service-linked role in your account to access its data.

Request Syntax

```
{
   "includeMemberAccounts": boolean,
   "status": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

includeMemberAccounts

Indicates whether to enroll member accounts of the organization if the account is the management account or delegated administrator.

Type: Boolean

Required: No

status

Sets the account status.

Type: String

Valid Values: `Active | Inactive`

Required: Yes

Response Syntax

```
{
   "status": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

status

The enrollment status of the account.

Type: String

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You are not authorized to use this operation with the given parameters.

HTTP Status Code: 400

InternalServerException

An error on the server occurred during the processing of your request. Try again later.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

fields

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

UpdatePreferences

Service: AWS Cost Optimization Hub

Updates a set of preferences for an account in order to add account-specific preferences into the service. These preferences impact how the savings associated with recommendations are presented.

Request Syntax

```
{
   "memberAccountDiscountVisibility": "string",
   "preferredCommitment": {
      "paymentOption": "string",
      "term": "string"
   },
   "savingsEstimationMode": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

memberAccountDiscountVisibility

Sets the "member account discount visibility" preference.

Type: String

Valid Values: `All | None`

Required: No

preferredCommitment

Sets the preferences for how Reserved Instances and Savings Plans cost-saving opportunities are prioritized in terms of payment option and term length.

Type: PreferredCommitment object

Required: No

savingsEstimationMode

Sets the "savings estimation mode" preference.

Type: String

Valid Values: `BeforeDiscounts | AfterDiscounts`

Required: No

Response Syntax

```
{
   "memberAccountDiscountVisibility": "string",
   "preferredCommitment": {
      "paymentOption": "string",
      "term": "string"
   },
   "savingsEstimationMode": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

memberAccountDiscountVisibility

Shows the status of the "member account discount visibility" preference.

Type: String

Valid Values: `All | None`

preferredCommitment

Shows the updated preferences for how Reserved Instances and Savings Plans cost-saving opportunities are prioritized in terms of payment option and term length.

Type: PreferredCommitment object

savingsEstimationMode

Shows the status of the "savings estimation mode" preference.

Type: String

Valid Values: `BeforeDiscounts | AfterDiscounts`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You are not authorized to use this operation with the given parameters.

HTTP Status Code: 400

InternalServerException

An error on the server occurred during the processing of your request. Try again later.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

fields

The list of fields that are invalid.

reason

The reason for the validation exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

AWS Cost and Usage Report

The following actions are supported by AWS Cost and Usage Report:

- DeleteReportDefinition
- DescribeReportDefinitions
- ListTagsForResource
- ModifyReportDefinition
- PutReportDefinition
- TagResource
- UntagResource

DeleteReportDefinition

Service: AWS Cost and Usage Report

Deletes the specified report. Any tags associated with the report are also deleted.

Request Syntax

```
{
   "ReportName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

ReportName

The name of the report that you want to delete. The name must be unique, is case sensitive, and can't include spaces.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `[0-9A-Za-z!\-_.*\'()]+`

Required: Yes

Response Syntax

```
{
   "ResponseMessage": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

ResponseMessage

Whether the deletion was successful or not.

Type: String

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

A message to show the detail of the exception.

HTTP Status Code: 500

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

Message

A message to show the detail of the exception.

HTTP Status Code: 400

Examples

The following is a sample request of the DeleteReportDefinition operation.

This example illustrates one usage of DeleteReportDefinition.

Sample Request

```
POST / HTTP/1.1
Host: api.cur.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
 SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
```

```
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSOrigamiServiceGateway.DeleteReportDefinition
{
        "ReportName": "ExampleReport"
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DescribeReportDefinitions

Service: AWS Cost and Usage Report

Lists the AWS Cost and Usage Report available to this account.

Request Syntax

```
{
   "MaxResults": number,
   "NextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

MaxResults

The maximum number of results that AWS returns for the operation.

Type: Integer

Valid Range: Fixed value of 5.

Required: No

NextToken

A generic string.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `[A-Za-z0-9_\.\-=]*`

Required: No

Response Syntax

```
{
```

```
   "NextToken": "string",
   "ReportDefinitions": [
      {
         "AdditionalArtifacts": [ "string" ],
         "AdditionalSchemaElements": [ "string" ],
         "BillingViewArn": "string",
         "Compression": "string",
         "Format": "string",
         "RefreshClosedReports": boolean,
         "ReportName": "string",
         "ReportStatus": {
            "lastDelivery": "string",
            "lastStatus": "string"
         },
         "ReportVersioning": "string",
         "S3Bucket": "string",
         "S3Prefix": "string",
         "S3Region": "string",
         "TimeUnit": "string"
      }
   ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

NextToken

A generic string.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `[A-Za-z0-9_\.\-=]*`

ReportDefinitions

An AWS Cost and Usage Report list owned by the account.

Type: Array of ReportDefinition objects

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

A message to show the detail of the exception.

HTTP Status Code: 500

Examples

The following is a sample request and response of the DescribeReportDefinitions operation.

This example illustrates one usage of DescribeReportDefinitions.

Sample Request

```
POST / HTTP/1.1
Host: api.cur.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
 SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSOrigamiServiceGateway.DescribeReportDefinitions
{
        "MaxResults": 5
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
```

```
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
        "ReportDefinitions": [
        {
            "AdditionalArtifacts": ["QUICKSIGHT"],
            "AdditionalSchemaElements": ["RESOURCES"],
            "Compression": "GZIP",
            "Format": "textORcsv",
            "ReportName": "ExampleReport",
            "S3Bucket": "example-s3-bucket",
            "S3Prefix": "exampleprefix",
            "S3Region": "us-east-1",
            "TimeUnit": "HOURLY"
        },
        {
            "AdditionalArtifacts": ["QUICKSIGHT"],
            "AdditionalSchemaElements": ["RESOURCES"],
            "Compression": "GZIP",
            "Format": "textORcsv",
            "ReportName": "ExampleReport2",
            "S3Bucket": "example-s3-bucket",
            "S3Prefix": "exampleprefix",
            "S3Region": "us-east-1",
            "TimeUnit": "HOURLY"
            "ReportStatus": {
                "lastDelivery": "20191102T054923Z",
                "lastStatus": "SUCCESS"
        }
      }
    ]
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2

- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListTagsForResource

Service: AWS Cost and Usage Report

Lists the tags associated with the specified report definition.

Request Syntax

```
{
   "ReportName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

ReportName

The report name of the report definition that tags are to be returned for.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `[0-9A-Za-z!\-_.*\'()]+`

Required: Yes

Response Syntax

```
{
   "Tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Tags

The tags assigned to the report definition resource.

Type: Array of Tag objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

A message to show the detail of the exception.

HTTP Status Code: 500

ResourceNotFoundException

The specified report (`ReportName`) in the request doesn't exist.

Message

A message to show the detail of the exception.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

Message

A message to show the detail of the exception.

HTTP Status Code: 400

Examples

The following is a sample request of the ListTagsForResource operation.

This example illustrates one usage of ListTagsForResource.

Sample Request

```
POST / HTTP/1.1
Host: api.cur.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
 SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSOrigamiServiceGateway.ListTagsForResource
{
  "ReportName": "ExampleReport",
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3

- AWS SDK for Python
- AWS SDK for Ruby V3

ModifyReportDefinition

Service: AWS Cost and Usage Report

Allows you to programmatically update your report preferences.

Request Syntax

```
{
   "ReportDefinition": {
      "AdditionalArtifacts": [ "string" ],
      "AdditionalSchemaElements": [ "string" ],
      "BillingViewArn": "string",
      "Compression": "string",
      "Format": "string",
      "RefreshClosedReports": boolean,
      "ReportName": "string",
      "ReportStatus": {
         "lastDelivery": "string",
         "lastStatus": "string"
      },
      "ReportVersioning": "string",
      "S3Bucket": "string",
      "S3Prefix": "string",
      "S3Region": "string",
      "TimeUnit": "string"
   },
   "ReportName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

ReportDefinition

The definition of AWS Cost and Usage Report. You can specify the report name, time unit, report format, compression format, S3 bucket, additional artifacts, and schema elements in the definition.

Type: ReportDefinition object

Required: Yes

ReportName

The name of the report that you want to create. The name must be unique, is case sensitive, and can't include spaces.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `[0-9A-Za-z!\-_.*\'()]+`

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

A message to show the detail of the exception.

HTTP Status Code: 500

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

Message

A message to show the detail of the exception.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

PutReportDefinition

Service: AWS Cost and Usage Report

Creates a new report using the description that you provide.

Request Syntax

```
{
   "ReportDefinition": {
      "AdditionalArtifacts": [ "string" ],
      "AdditionalSchemaElements": [ "string" ],
      "BillingViewArn": "string",
      "Compression": "string",
      "Format": "string",
      "RefreshClosedReports": boolean,
      "ReportName": "string",
      "ReportStatus": {
         "lastDelivery": "string",
         "lastStatus": "string"
      },
      "ReportVersioning": "string",
      "S3Bucket": "string",
      "S3Prefix": "string",
      "S3Region": "string",
      "TimeUnit": "string"
   },
   "Tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

ReportDefinition

Represents the output of the PutReportDefinition operation. The content consists of the detailed metadata and data file information.

Type: ReportDefinition object

Required: Yes

Tags

The tags to be assigned to the report definition resource.

Type: Array of Tag objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: No

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

DuplicateReportNameException

A report with the specified name already exists in the account. Specify a different report name.

Message

A message to show the detail of the exception.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

A message to show the detail of the exception.

HTTP Status Code: 500

ReportLimitReachedException

This account already has five reports defined. To define a new report, you must delete an existing report.

Message

A message to show the detail of the exception.

HTTP Status Code: 400

ResourceNotFoundException

The specified report (`ReportName`) in the request doesn't exist.

Message

A message to show the detail of the exception.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

Message

A message to show the detail of the exception.

HTTP Status Code: 400

Examples

The following is a sample request of the PutReportDefinition operation.

This example illustrates one usage of PutReportDefinition.

Sample Request

```
POST / HTTP/1.1
Host: api.cur.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
 SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
```

```
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSOrigamiServiceGateway.PutReportDefinition
{
        "ReportDefinition": {
            "ReportName": "ExampleReport",
            "TimeUnit": "DAILY",
            "Format": "textORcsv",
            "Compression": "ZIP",
            "AdditionalSchemaElements": [
                "RESOURCES"
            ],
            "S3Bucket": "example-s3-bucket",
            "S3Prefix": "exampleprefix",
            "S3Region": "us-east-1",
            "AdditionalArtifacts": [
                "REDSHIFT",
                "QUICKSIGHT"
             },
        "Tags": [
          {
            "Key": "key-1",
            "Value": "value-1"
          }
        ]
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin

- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

TagResource

Service: AWS Cost and Usage Report

Associates a set of tags with a report definition.

Request Syntax

```
{
   "ReportName": "string",
   "Tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

ReportName

The report name of the report definition that tags are to be associated with.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `[0-9A-Za-z!\-_.*\'()]+`

Required: Yes

Tags

The tags to be assigned to the report definition resource.

Type: Array of Tag objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

A message to show the detail of the exception.

HTTP Status Code: 500

ResourceNotFoundException

The specified report (`ReportName`) in the request doesn't exist.

Message

A message to show the detail of the exception.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

Message

A message to show the detail of the exception.

HTTP Status Code: 400

Examples

The following is a sample request of the TagResource operation.

This example illustrates one usage of TagResource.

Sample Request

```
POST / HTTP/1.1
Host: api.cur.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
 SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSOrigamiServiceGateway.TagResource
{
  "ReportName": "ExampleReport",
  "Tags": [
    {
      "Key": "key-1",
      "Value": "value-1"
    }
  ]
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

UntagResource

Service: AWS Cost and Usage Report

Disassociates a set of tags from a report definition.

Request Syntax

```
{
   "ReportName": "string",
   "TagKeys": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

ReportName

The report name of the report definition that tags are to be disassociated from.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `[0-9A-Za-z!\-_.*\'()]+`

Required: Yes

TagKeys

The tags to be disassociated from the report definition resource.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*`

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

Message

A message to show the detail of the exception.

HTTP Status Code: 500

ResourceNotFoundException

The specified report (`ReportName`) in the request doesn't exist.

Message

A message to show the detail of the exception.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

Message

A message to show the detail of the exception.

HTTP Status Code: 400

Examples

The following is a sample request of the UntagResource operation.

This example illustrates one usage of UntagResource.

Sample Request

```
POST / HTTP/1.1
```

```
Host: api.cur.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
 SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSOrigamiServiceGateway.UntagResource
{
  "ReportName": "ExampleReport",
  "TagKeys": ["tag-1", "tag-2"]
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

AWS Free Tier

The following actions are supported by AWS Free Tier:

- GetAccountActivity
- GetAccountPlanState

- GetFreeTierUsage
- ListAccountActivities
- UpgradeAccountPlan

GetAccountActivity

Service: AWS Free Tier

Returns a specific activity record that is available to the customer.

Request Syntax

```
{
   "activityId": "string",
   "languageCode": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

activityId

A unique identifier that identifies the activity.

Type: String

Length Constraints: Fixed length of 32.

Pattern: `[a-zA-Z0-9]+`

Required: Yes

languageCode

The language code used to return translated title and description fields.

Type: String

Valid Values: `en-US | en-GB | id-ID | de-DE | es-ES | fr-FR | ja-JP | it-IT | pt-PT | ko-KR | zh-CN | zh-TW | tr-TR`

Required: No

Response Syntax

```
{
```

```
   "activityId": "string",
   "completedAt": "string",
   "description": "string",
   "estimatedTimeToCompleteInMinutes": number,
   "expiresAt": "string",
   "instructionsUrl": "string",
   "reward": { ... },
   "startedAt": "string",
   "status": "string",
   "title": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

activityId

A unique identifier that identifies the activity.

Type: String

Length Constraints: Fixed length of 32.

Pattern: `[a-zA-Z0-9]+`

completedAt

The timestamp when the activity is completed. This field appears only for activities in the `COMPLETED` state.

Type: Timestamp

description

Provides detailed information about the activity and its expected outcomes.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

estimatedTimeToCompleteInMinutes

The estimated time to complete the activity. This is the duration in minutes.

Type: Integer

expiresAt

The time by which the activity must be completed to receive a reward.

Type: Timestamp

instructionsUrl

The URL resource that provides guidance on activity requirements and completion.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

reward

A reward granted upon activity completion.

Type: ActivityReward object

Note: This object is a Union. Only one member of this object can be specified or returned.

startedAt

The timestamp when the activity started. This field appears only for activities in the `IN_PROGRESS` or `COMPLETED` states.

Type: Timestamp

status

The current activity status.

Type: String

Valid Values: `NOT_STARTED | IN_PROGRESS | COMPLETED | EXPIRING`

title

A short activity title.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServerException

An unexpected error occurred during the processing of your request.

HTTP Status Code: 500

ResourceNotFoundException

This exception is thrown when the requested resource cannot be found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++

- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetAccountPlanState

Service: AWS Free Tier

This returns all of the information related to the state of the account plan related to Free Tier.

Response Syntax

```
{
   "accountId": "string",
   "accountPlanExpirationDate": "string",
   "accountPlanRemainingCredits": {
      "amount": number,
      "unit": "string"
   },
   "accountPlanStatus": "string",
   "accountPlanType": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

accountId

A unique identifier that identifies the account.

Type: String

Pattern: `[0-9]{12}`

accountPlanExpirationDate

The timestamp for when the current account plan expires.

Type: Timestamp

accountPlanRemainingCredits

The amount of credits remaining for the account.

Type: MonetaryAmount object

accountPlanStatus

The current status for the account plan.

Type: String

Valid Values: `NOT_STARTED | ACTIVE | EXPIRED`

accountPlanType

The plan type for the account.

Type: String

Valid Values: `FREE | PAID`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 400

InternalServerException

An unexpected error occurred during the processing of your request.

HTTP Status Code: 500

ResourceNotFoundException

This exception is thrown when the requested resource cannot be found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetFreeTierUsage

Service: AWS Free Tier

Returns a list of all Free Tier usage objects that match your filters.

Request Syntax

```
{
   "filter": {
      "And": [
         "Expression"
      ],
      "Dimensions": {
         "Key": "string",
         "MatchOptions": [ "string" ],
         "Values": [ "string" ]
      },
      "Not": "Expression",
      "Or": [
         "Expression"
      ]
   },
   "maxResults": number,
   "nextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

filter

An expression that specifies the conditions that you want each `FreeTierUsage` object to meet.

Type: Expression object

Required: No

maxResults

The maximum number of results to return in the response. `MaxResults` means that there can be up to the specified number of values, but there might be fewer results based on your filters.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

nextToken

The pagination token that indicates the next set of results to retrieve.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

Response Syntax

```
{
   "freeTierUsages": [
      {
         "actualUsageAmount": number,
         "description": "string",
         "forecastedUsageAmount": number,
         "freeTierType": "string",
         "limit": number,
         "operation": "string",
         "region": "string",
         "service": "string",
         "unit": "string",
         "usageType": "string"
      }
   ],
   "nextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

freeTierUsages

The list of Free Tier usage objects that meet your filter expression.

Type: Array of FreeTierUsage objects

nextToken

The pagination token that indicates the next set of results to retrieve.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 8192.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServerException

An unexpected error occurred during the processing of your request.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2

- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListAccountActivities

Service: AWS Free Tier

Returns a list of activities that are available. This operation supports pagination and filtering by status.

Request Syntax

```
{
   "filterActivityStatuses": [ "string" ],
   "languageCode": "string",
   "maxResults": number,
   "nextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

filterActivityStatuses

The activity status filter. This field can be used to filter the response by activities status.

Type: Array of strings

Valid Values: `NOT_STARTED | IN_PROGRESS | COMPLETED | EXPIRING`

Required: No

languageCode

The language code used to return translated titles.

Type: String

Valid Values: `en-US | en-GB | id-ID | de-DE | es-ES | fr-FR | ja-JP | it-IT | pt-PT | ko-KR | zh-CN | zh-TW | tr-TR`

Required: No

maxResults

The maximum number of items to return for this request. To get the next page of items, make another request with the token returned in the output.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

nextToken

A token from a previous paginated response. If this is specified, the response includes records beginning from this token (inclusive), up to the number specified by `maxResults`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 8192.

Pattern: `[\S\s]*`

Required: No

Response Syntax

```
{
   "activities": [
      {
         "activityId": "string",
         "reward": { ... },
         "status": "string",
         "title": "string"
      }
   ],
   "nextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

activities

A brief information about the activities.

Type: Array of ActivitySummary objects

nextToken

The token to include in another request to get the next page of items. This value is `null` when there are no more items to return.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 8192.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServerException

An unexpected error occurred during the processing of your request.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

UpgradeAccountPlan

Service: AWS Free Tier

The account plan type for the AWS account.

Request Syntax

```
{
   "accountPlanType": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

accountPlanType

The target account plan type. This makes it explicit about the change and latest value of the `accountPlanType`.

Type: String

Valid Values: `FREE | PAID`

Required: Yes

Response Syntax

```
{
   "accountId": "string",
   "accountPlanStatus": "string",
   "accountPlanType": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

accountId

A unique identifier that identifies the account.

Type: String

Pattern: `[0-9]{12}`

accountPlanStatus

This indicates the latest state of the account plan within its lifecycle.

Type: String

Valid Values: `NOT_STARTED | ACTIVE | EXPIRED`

accountPlanType

The type of plan for the account.

Type: String

Valid Values: `FREE | PAID`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You don't have sufficient access to perform this action.

HTTP Status Code: 400

InternalServerException

An unexpected error occurred during the processing of your request.

HTTP Status Code: 500

ResourceNotFoundException

This exception is thrown when the requested resource cannot be found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

AWS Invoicing

The following actions are supported by AWS Invoicing:

- BatchGetInvoiceProfile
- CreateInvoiceUnit
- CreateProcurementPortalPreference
- DeleteInvoiceUnit

- DeleteProcurementPortalPreference
- GetInvoicePDF
- GetInvoiceUnit
- GetProcurementPortalPreference
- ListInvoiceSummaries
- ListInvoiceUnits
- ListProcurementPortalPreferences
- ListTagsForResource
- PutProcurementPortalPreference
- TagResource
- UntagResource
- UpdateInvoiceUnit
- UpdateProcurementPortalPreferenceStatus

BatchGetInvoiceProfile

Service: AWS Invoicing

This gets the invoice profile associated with a set of accounts. The accounts must be linked accounts under the requester management account organization.

Request Syntax

```
{
   "AccountIds": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

AccountIds

Retrieves the corresponding invoice profile data for these account IDs.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 1000 items.

Pattern: \d{12}

Required: Yes

Response Syntax

```
{
   "Profiles": [
      {
         "AccountId": "string",
         "Issuer": "string",
         "ReceiverAddress": {
            "AddressLine1": "string",
            "AddressLine2": "string",
            "AddressLine3": "string",
```

```
            "City": "string",
            "CompanyName": "string",
            "CountryCode": "string",
            "DistrictOrCounty": "string",
            "PostalCode": "string",
            "StateOrRegion": "string"
         },
         "ReceiverEmail": "string",
         "ReceiverName": "string",
         "TaxRegistrationNumber": "string"
      }
   ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Profiles

A list of invoice profiles corresponding to the requested accounts.

Type: Array of InvoiceProfile objects

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

InternalServerException

The processing request failed because of an unknown error, exception, or failure.

retryAfterSeconds

The processing request failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ResourceNotFoundException

The resource could not be found.

resourceName

The resource could not be found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

fieldList

The input fails to satisfy the constraints specified by an AWS service.

reason

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET

- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

CreateInvoiceUnit

Service: AWS Invoicing

This creates a new invoice unit with the provided definition.

Request Syntax

```
{
   "Description": "string",
   "InvoiceReceiver": "string",
   "Name": "string",
   "ResourceTags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ],
   "Rule": {
      "BillSourceAccounts": [ "string" ],
      "LinkedAccounts": [ "string" ]
   },
   "TaxInheritanceDisabled": boolean
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

Description

The invoice unit's description. This can be changed at a later time.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 500.

Pattern: `[\S\s]*`

Required: No

InvoiceReceiver

The AWS account ID chosen to be the receiver of an invoice unit. All invoices generated for that invoice unit will be sent to this account ID.

Type: String

Pattern: `\d{12}`

Required: Yes

Name

The unique name of the invoice unit that is shown on the generated invoice. This can't be changed once it is set. To change this name, you must delete the invoice unit recreate.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `(?! )[\p{L}\p{N}\p{Z}-_]*(?<! )`

Required: Yes

ResourceTags

The tag structure that contains a tag key and value.

Type: Array of ResourceTag objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: No

Rule

The `InvoiceUnitRule` object used to create invoice units.

Type: InvoiceUnitRule object

Required: Yes

TaxInheritanceDisabled

Whether the invoice unit based tax inheritance is/ should be enabled or disabled.

Type: Boolean

Required: No

Response Syntax

```
{
   "InvoiceUnitArn": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

InvoiceUnitArn

The ARN to identify an invoice unit. This information can't be modified or deleted.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws[-a-z0-9]*:[a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

InternalServerException

The processing request failed because of an unknown error, exception, or failure.

retryAfterSeconds

The processing request failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

fieldList

The input fails to satisfy the constraints specified by an AWS service.

reason

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3

- AWS SDK for Python
- AWS SDK for Ruby V3

CreateProcurementPortalPreference

Service: AWS Invoicing

This feature API is subject to changing at any time. For more information, see the AWS Service Terms (Betas and Previews).

Creates a procurement portal preference configuration for e-invoice delivery and purchase order retrieval. This preference defines how invoices are delivered to a procurement portal and how purchase orders are retrieved.

Request Syntax

```
{
   "BuyerDomain": "string",
   "BuyerIdentifier": "string",
   "ClientToken": "string",
   "Contacts": [
      {
         "Email": "string",
         "Name": "string"
      }
   ],
   "EinvoiceDeliveryEnabled": boolean,
   "EinvoiceDeliveryPreference": {
      "ConnectionTestingMethod": "string",
      "EinvoiceDeliveryActivationDate": number,
      "EinvoiceDeliveryAttachmentTypes": [ "string" ],
      "EinvoiceDeliveryDocumentTypes": [ "string" ],
      "Protocol": "string",
      "PurchaseOrderDataSources": [
         {
            "EinvoiceDeliveryDocumentType": "string",
            "PurchaseOrderDataSourceType": "string"
         }
      ]
   },
   "ProcurementPortalInstanceEndpoint": "string",
   "ProcurementPortalName": "string",
   "ProcurementPortalSharedSecret": "string",
   "PurchaseOrderRetrievalEnabled": boolean,
   "ResourceTags": [
      {
         "Key": "string",
```

```
            "Value": "string"
         }
      ],
      "Selector": {
         "InvoiceUnitArns": [ "string" ],
         "SellerOfRecords": [ "string" ]
      },
      "SupplierDomain": "string",
      "SupplierIdentifier": "string",
      "TestEnvPreference": {
         "BuyerDomain": "string",
         "BuyerIdentifier": "string",
         "ProcurementPortalInstanceEndpoint": "string",
         "ProcurementPortalSharedSecret": "string",
         "SupplierDomain": "string",
         "SupplierIdentifier": "string"
      }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

BuyerDomain

The domain identifier for the buyer in the procurement portal.

Type: String

Valid Values: `NetworkID`

Required: Yes

BuyerIdentifier

The unique identifier for the buyer in the procurement portal.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: \S+

Required: Yes

ClientToken

A unique, case-sensitive identifier that you provide to ensure idempotency of the request.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: \S+

Required: No

Contacts

List of contact information for portal administrators and technical contacts responsible for the e-invoice integration.

Type: Array of Contact objects

Array Members: Fixed number of 1 item.

Required: Yes

EinvoiceDeliveryEnabled

Indicates whether e-invoice delivery is enabled for this procurement portal preference. Set to true to enable e-invoice delivery, false to disable.

Type: Boolean

Required: Yes

EinvoiceDeliveryPreference

Specifies the e-invoice delivery configuration including document types, attachment types, and customization settings for the portal.

Type: EinvoiceDeliveryPreference object

Required: No

ProcurementPortalInstanceEndpoint

The endpoint URL where e-invoices will be delivered to the procurement portal. Must be a valid HTTPS URL.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: \S+

Required: No

ProcurementPortalName

The name of the procurement portal.

Type: String

Valid Values: SAP_BUSINESS_NETWORK | COUPA

Required: Yes

ProcurementPortalSharedSecret

The shared secret or authentication credential used to establish secure communication with the procurement portal. This value must be encrypted at rest.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: \S+

Required: No

PurchaseOrderRetrievalEnabled

Indicates whether purchase order retrieval is enabled for this procurement portal preference. Set to true to enable PO retrieval, false to disable.

Type: Boolean

Required: Yes

ResourceTags

The tags to apply to this procurement portal preference resource. Each tag consists of a key and an optional value.

Type: Array of ResourceTag objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: No

Selector

Specifies criteria for selecting which invoices should be processed using a particular procurement portal preference.

Type: ProcurementPortalPreferenceSelector object

Required: No

SupplierDomain

The domain identifier for the supplier in the procurement portal.

Type: String

Valid Values: `NetworkID`

Required: Yes

SupplierIdentifier

The unique identifier for the supplier in the procurement portal.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: \S+

Required: Yes

TestEnvPreference

Configuration settings for the test environment of the procurement portal. Includes test credentials and endpoints that are used for validation before production deployment.

Type: TestEnvPreferenceInput object

Required: No

Response Syntax

```
{
   "ProcurementPortalPreferenceArn": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

ProcurementPortalPreferenceArn

The Amazon Resource Name (ARN) of the created procurement portal preference.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws:invoicing::[0-9]{12}:procurement-portal-preference/[-a-zA-Z0-9]+`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

ConflictException

The request could not be completed due to a conflict with the current state of the resource. This exception occurs when a concurrent modification is detected during an update operation, or when attempting to create a resource that already exists.

resourceId

The identifier of the resource that caused the conflict.

resourceType

The type of resource that caused the conflict.

HTTP Status Code: 400

InternalServerException

The processing request failed because of an unknown error, exception, or failure.

retryAfterSeconds

The processing request failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ServiceQuotaExceededException

The request was rejected because it attempted to create resources beyond the current AWS account limits. The error message describes the limit exceeded.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

fieldList

The input fails to satisfy the constraints specified by an AWS service.

reason

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DeleteInvoiceUnit

Service: AWS Invoicing

This deletes an invoice unit with the provided invoice unit ARN.

Request Syntax

```
{
   "InvoiceUnitArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

InvoiceUnitArn

The ARN to identify an invoice unit. This information can't be modified or deleted.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws[-a-z0-9]*:[a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: Yes

Response Syntax

```
{
   "InvoiceUnitArn": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

InvoiceUnitArn

The ARN to identify an invoice unit. This information can't be modified or deleted.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws[-a-z0-9]*:[a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

InternalServerException

The processing request failed because of an unknown error, exception, or failure.

retryAfterSeconds

The processing request failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ResourceNotFoundException

The resource could not be found.

resourceName

The resource could not be found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

fieldList

The input fails to satisfy the constraints specified by an AWS service.

reason

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DeleteProcurementPortalPreference

Service: AWS Invoicing

This feature API is subject to changing at any time. For more information, see the AWS Service Terms (Betas and Previews).

Deletes an existing procurement portal preference. This action cannot be undone. Active e-invoice delivery and PO retrieval configurations will be terminated.

Request Syntax

```
{
   "ProcurementPortalPreferenceArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

ProcurementPortalPreferenceArn

The Amazon Resource Name (ARN) of the procurement portal preference to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws:invoicing::[0-9]{12}:procurement-portal-preference/[-a-zA-Z0-9]+`

Required: Yes

Response Syntax

```
{
   "ProcurementPortalPreferenceArn": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

ProcurementPortalPreferenceArn

The Amazon Resource Name (ARN) of the deleted procurement portal preference.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws:invoicing::[0-9]{12}:procurement-portal-preference/[-a-zA-Z0-9]+`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

InternalServerException

The processing request failed because of an unknown error, exception, or failure.

retryAfterSeconds

The processing request failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ResourceNotFoundException

The resource could not be found.

resourceName

The resource could not be found.

HTTP Status Code: 400

ServiceQuotaExceededException

The request was rejected because it attempted to create resources beyond the current AWS account limits. The error message describes the limit exceeded.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

fieldList

The input fails to satisfy the constraints specified by an AWS service.

reason

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++

- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetInvoicePDF

Service: AWS Invoicing

Returns a URL to download the invoice document and supplemental documents associated with an invoice. The URLs are pre-signed and have expiration time. For special cases like Brazil, where AWS generated invoice identifiers and government provided identifiers do not match, use the AWS generated invoice identifier when making API requests. To grant IAM permission to use this operation, the caller needs the `invoicing:GetInvoicePDF` policy action.

Request Syntax

```
{
   "InvoiceId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

InvoiceId

Your unique invoice ID.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `.*`

Required: Yes

Response Syntax

```
{
   "InvoicePDF": {
      "DocumentUrl": "string",
      "DocumentUrlExpirationDate": number,
      "InvoiceId": "string",
```

```
      "SupplementalDocuments": [
         {
            "DocumentUrl": "string",
            "DocumentUrlExpirationDate": number
         }
      ]
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

InvoicePDF

The invoice document and supplemental documents associated with the invoice.

Type: InvoicePDF object

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

InternalServerException

The processing request failed because of an unknown error, exception, or failure.

retryAfterSeconds

The processing request failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ResourceNotFoundException

The resource could not be found.

resourceName

The resource could not be found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

fieldList

The input fails to satisfy the constraints specified by an AWS service.

reason

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2

- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetInvoiceUnit

Service: AWS Invoicing

This retrieves the invoice unit definition.

Request Syntax

```
{
   "AsOf": number,
   "InvoiceUnitArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

AsOf

The state of an invoice unit at a specified time. You can see legacy invoice units that are currently deleted if the `AsOf` time is set to before it was deleted. If an `AsOf` is not provided, the default value is the current time.

Type: Timestamp

Required: No

InvoiceUnitArn

The ARN to identify an invoice unit. This information can't be modified or deleted.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws[-a-z0-9]*:[a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: Yes

Response Syntax

```
{
```

```
   "Description": "string",
   "InvoiceReceiver": "string",
   "InvoiceUnitArn": "string",
   "LastModified": number,
   "Name": "string",
   "Rule": {
      "BillSourceAccounts": [ "string" ],
      "LinkedAccounts": [ "string" ]
   },
   "TaxInheritanceDisabled": boolean
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Description

The assigned description for an invoice unit.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 500.

Pattern: `[\S\s]*`

InvoiceReceiver

The AWS account ID chosen to be the receiver of an invoice unit. All invoices generated for that invoice unit will be sent to this account ID.

Type: String

Pattern: `\d{12}`

InvoiceUnitArn

The ARN to identify an invoice unit. This information can't be modified or deleted.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws[-a-z0-9]*:[a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

LastModified

The most recent date the invoice unit response was updated.

Type: Timestamp

Name

The unique name of the invoice unit that is shown on the generated invoice.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `(?! )[\p{L}\p{N}\p{Z}-_]*(?<! )`

Rule

This is used to categorize the invoice unit. Values are AWS account IDs. Currently, the only supported rule is `LINKED_ACCOUNT`.

Type: InvoiceUnitRule object

TaxInheritanceDisabled

Whether the invoice unit based tax inheritance is/ should be enabled or disabled.

Type: Boolean

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

InternalServerException

The processing request failed because of an unknown error, exception, or failure.

retryAfterSeconds

The processing request failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ResourceNotFoundException

The resource could not be found.

resourceName

The resource could not be found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

fieldList

The input fails to satisfy the constraints specified by an AWS service.

reason

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetProcurementPortalPreference

Service: AWS Invoicing

This feature API is subject to changing at any time. For more information, see the AWS Service Terms (Betas and Previews).

Retrieves the details of a specific procurement portal preference configuration.

Request Syntax

```
{
   "ProcurementPortalPreferenceArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

ProcurementPortalPreferenceArn

The Amazon Resource Name (ARN) of the procurement portal preference to retrieve.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws:invoicing::[0-9]{12}:procurement-portal-preference/[-a-zA-Z0-9]+`

Required: Yes

Response Syntax

```
{
   "ProcurementPortalPreference": {
      "AwsAccountId": "string",
      "BuyerDomain": "string",
      "BuyerIdentifier": "string",
      "Contacts": [
         {
```

```
            "Email": "string",
            "Name": "string"
         }
      ],
      "CreateDate": number,
      "EinvoiceDeliveryEnabled": boolean,
      "EinvoiceDeliveryPreference": {
         "ConnectionTestingMethod": "string",
         "EinvoiceDeliveryActivationDate": number,
         "EinvoiceDeliveryAttachmentTypes": [ "string" ],
         "EinvoiceDeliveryDocumentTypes": [ "string" ],
         "Protocol": "string",
         "PurchaseOrderDataSources": [
            {
               "EinvoiceDeliveryDocumentType": "string",
               "PurchaseOrderDataSourceType": "string"
            }
         ]
      },
      "EinvoiceDeliveryPreferenceStatus": "string",
      "EinvoiceDeliveryPreferenceStatusReason": "string",
      "LastUpdateDate": number,
      "ProcurementPortalInstanceEndpoint": "string",
      "ProcurementPortalName": "string",
      "ProcurementPortalPreferenceArn": "string",
      "ProcurementPortalSharedSecret": "string",
      "PurchaseOrderRetrievalEnabled": boolean,
      "PurchaseOrderRetrievalEndpoint": "string",
      "PurchaseOrderRetrievalPreferenceStatus": "string",
      "PurchaseOrderRetrievalPreferenceStatusReason": "string",
      "Selector": {
         "InvoiceUnitArns": [ "string" ],
         "SellerOfRecords": [ "string" ]
      },
      "SupplierDomain": "string",
      "SupplierIdentifier": "string",
      "TestEnvPreference": {
         "BuyerDomain": "string",
         "BuyerIdentifier": "string",
         "ProcurementPortalInstanceEndpoint": "string",
         "ProcurementPortalSharedSecret": "string",
         "PurchaseOrderRetrievalEndpoint": "string",
         "SupplierDomain": "string",
         "SupplierIdentifier": "string"
```

```
      },
      "Version": number
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

ProcurementPortalPreference

The detailed configuration of the requested procurement portal preference.

Type: ProcurementPortalPreference object

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

ConflictException

The request could not be completed due to a conflict with the current state of the resource. This exception occurs when a concurrent modification is detected during an update operation, or when attempting to create a resource that already exists.

resourceId

The identifier of the resource that caused the conflict.

resourceType

The type of resource that caused the conflict.

HTTP Status Code: 400

InternalServerException

The processing request failed because of an unknown error, exception, or failure.

retryAfterSeconds

The processing request failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ResourceNotFoundException

The resource could not be found.

resourceName

The resource could not be found.

HTTP Status Code: 400

ServiceQuotaExceededException

The request was rejected because it attempted to create resources beyond the current AWS account limits. The error message describes the limit exceeded.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

fieldList

The input fails to satisfy the constraints specified by an AWS service.

reason

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListInvoiceSummaries

Service: AWS Invoicing

Retrieves your invoice details programmatically, without line item details.

Request Syntax

```
{
   "Filter": {
      "BillingPeriod": {
         "Month": number,
         "Year": number
      },
      "InvoicingEntity": "string",
      "TimeInterval": {
         "EndDate": number,
         "StartDate": number
      }
   },
   "MaxResults": number,
   "NextToken": "string",
   "Selector": {
      "ResourceType": "string",
      "Value": "string"
   }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

Filter

Filters you can use to customize your invoice summary.

Type: InvoiceSummariesFilter object

Required: No

MaxResults

The maximum number of invoice summaries a paginated response can contain.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

NextToken

The token to retrieve the next set of results. AWS provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 1.

Pattern: `[\S\s]*`

Required: No

Selector

The option to retrieve details for a specific invoice by providing its unique ID. Alternatively, access information for all invoices linked to the account by providing an account ID.

Type: InvoiceSummariesSelector object

Required: Yes

Response Syntax

```
{
   "InvoiceSummaries": [
      {
         "AccountId": "string",
         "BaseCurrencyAmount": {
            "AmountBreakdown": {
               "Discounts": {
                  "Breakdown": [
                     {
                        "Amount": "string",
                        "Description": "string",
                        "Rate": "string"
                     }
                  ],
                  "TotalAmount": "string"
```

```
            },
            "Fees": {
               "Breakdown": [
                  {
                     "Amount": "string",
                     "Description": "string",
                     "Rate": "string"
                  }
               ],
               "TotalAmount": "string"
            },
            "SubTotalAmount": "string",
            "Taxes": {
               "Breakdown": [
                  {
                     "Amount": "string",
                     "Description": "string",
                     "Rate": "string"
                  }
               ],
               "TotalAmount": "string"
            }
         },
         "CurrencyCode": "string",
         "CurrencyExchangeDetails": {
            "Rate": "string",
            "SourceCurrencyCode": "string",
            "TargetCurrencyCode": "string"
         },
         "TotalAmount": "string",
         "TotalAmountBeforeTax": "string"
      },
      "BillingPeriod": {
         "Month": number,
         "Year": number
      },
      "DueDate": number,
      "Entity": {
         "InvoicingEntity": "string"
      },
      "InvoiceId": "string",
      "InvoiceType": "string",
      "IssuedDate": number,
      "OriginalInvoiceId": "string",
```

```
      "PaymentCurrencyAmount": {
         "AmountBreakdown": {
            "Discounts": {
               "Breakdown": [
                  {
                     "Amount": "string",
                     "Description": "string",
                     "Rate": "string"
                  }
               ],
               "TotalAmount": "string"
            },
            "Fees": {
               "Breakdown": [
                  {
                     "Amount": "string",
                     "Description": "string",
                     "Rate": "string"
                  }
               ],
               "TotalAmount": "string"
            },
            "SubTotalAmount": "string",
            "Taxes": {
               "Breakdown": [
                  {
                     "Amount": "string",
                     "Description": "string",
                     "Rate": "string"
                  }
               ],
               "TotalAmount": "string"
            }
         },
         "CurrencyCode": "string",
         "CurrencyExchangeDetails": {
            "Rate": "string",
            "SourceCurrencyCode": "string",
            "TargetCurrencyCode": "string"
         },
         "TotalAmount": "string",
         "TotalAmountBeforeTax": "string"
      },
      "PurchaseOrderNumber": "string",
```

```
      "TaxCurrencyAmount": {
         "AmountBreakdown": {
            "Discounts": {
               "Breakdown": [
                  {
                     "Amount": "string",
                     "Description": "string",
                     "Rate": "string"
                  }
               ],
               "TotalAmount": "string"
            },
            "Fees": {
               "Breakdown": [
                  {
                     "Amount": "string",
                     "Description": "string",
                     "Rate": "string"
                  }
               ],
               "TotalAmount": "string"
            },
            "SubTotalAmount": "string",
            "Taxes": {
               "Breakdown": [
                  {
                     "Amount": "string",
                     "Description": "string",
                     "Rate": "string"
                  }
               ],
               "TotalAmount": "string"
            }
         },
         "CurrencyCode": "string",
         "CurrencyExchangeDetails": {
            "Rate": "string",
            "SourceCurrencyCode": "string",
            "TargetCurrencyCode": "string"
         },
         "TotalAmount": "string",
         "TotalAmountBeforeTax": "string"
      }
   }
```

```
    ],
    "NextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

InvoiceSummaries

List of key (summary level) invoice details without line item details.

Type: Array of InvoiceSummary objects

NextToken

The token to retrieve the next set of results. AWS provides the token when the response from a previous call has more results than the maximum page size.

Type: String

Length Constraints: Minimum length of 1.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

InternalServerException

The processing request failed because of an unknown error, exception, or failure.

retryAfterSeconds

The processing request failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ResourceNotFoundException

The resource could not be found.

resourceName

The resource could not be found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

fieldList

The input fails to satisfy the constraints specified by an AWS service.

reason

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET

- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListInvoiceUnits

Service: AWS Invoicing

This fetches a list of all invoice unit definitions for a given account, as of the provided `AsOf` date.

Request Syntax

```
{
   "AsOf": number,
   "Filters": {
      "Accounts": [ "string" ],
      "BillSourceAccounts": [ "string" ],
      "InvoiceReceivers": [ "string" ],
      "Names": [ "string" ]
   },
   "MaxResults": number,
   "NextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

AsOf

The state of an invoice unit at a specified time. You can see legacy invoice units that are currently deleted if the `AsOf` time is set to before it was deleted. If an `AsOf` is not provided, the default value is the current time.

Type: Timestamp

Required: No

Filters

An optional input to the list API. If multiple filters are specified, the returned list will be a configuration that match all of the provided filters. Supported filter types are `InvoiceReceivers`, `Names`, and `Accounts`.

Type: Filters object

Required: No

MaxResults

The maximum number of invoice units that can be returned.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 500.

Required: No

NextToken

The next token used to indicate where the returned list should start from.

Type: String

Length Constraints: Minimum length of 1.

Pattern: `[\S\s]*`

Required: No

Response Syntax

```
{
   "InvoiceUnits": [
      {
         "Description": "string",
         "InvoiceReceiver": "string",
         "InvoiceUnitArn": "string",
         "LastModified": number,
         "Name": "string",
         "Rule": {
            "BillSourceAccounts": [ "string" ],
            "LinkedAccounts": [ "string" ]
         },
         "TaxInheritanceDisabled": boolean
      }
   ],
   "NextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

InvoiceUnits

An invoice unit is a set of mutually exclusive accounts that correspond to your business entity.

Type: Array of InvoiceUnit objects

NextToken

The next token used to indicate where the returned list should start from.

Type: String

Length Constraints: Minimum length of 1.

Pattern: `[\S\s]*`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

InternalServerException

The processing request failed because of an unknown error, exception, or failure.

retryAfterSeconds

The processing request failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

fieldList

The input fails to satisfy the constraints specified by an AWS service.

reason

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListProcurementPortalPreferences

Service: AWS Invoicing

This feature API is subject to changing at any time. For more information, see the AWS Service Terms (Betas and Previews).

Retrieves a list of procurement portal preferences associated with the AWS account.

Request Syntax

```
{
   "MaxResults": number,
   "NextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

MaxResults

The maximum number of results to return in a single call. To retrieve the remaining results, make another call with the returned NextToken value.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

NextToken

The token for the next set of results. (You received this token from a previous call.)

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: \S+

Required: No

Response Syntax

```
{
   "NextToken": "string",
   "ProcurementPortalPreferences": [
      {
         "AwsAccountId": "string",
         "BuyerDomain": "string",
         "BuyerIdentifier": "string",
         "CreateDate": number,
         "EinvoiceDeliveryEnabled": boolean,
         "EinvoiceDeliveryPreferenceStatus": "string",
         "EinvoiceDeliveryPreferenceStatusReason": "string",
         "LastUpdateDate": number,
         "ProcurementPortalName": "string",
         "ProcurementPortalPreferenceArn": "string",
         "PurchaseOrderRetrievalEnabled": boolean,
         "PurchaseOrderRetrievalPreferenceStatus": "string",
         "PurchaseOrderRetrievalPreferenceStatusReason": "string",
         "Selector": {
            "InvoiceUnitArns": [ "string" ],
            "SellerOfRecords": [ "string" ]
         },
         "SupplierDomain": "string",
         "SupplierIdentifier": "string",
         "Version": number
      }
   ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

NextToken

The token to use to retrieve the next set of results, or null if there are no more results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: \S+

ProcurementPortalPreferences

The list of procurement portal preferences associated with the AWS account.

Type: Array of ProcurementPortalPreferenceSummary objects

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

ConflictException

The request could not be completed due to a conflict with the current state of the resource. This exception occurs when a concurrent modification is detected during an update operation, or when attempting to create a resource that already exists.

resourceId

The identifier of the resource that caused the conflict.

resourceType

The type of resource that caused the conflict.

HTTP Status Code: 400

InternalServerException

The processing request failed because of an unknown error, exception, or failure.

retryAfterSeconds

The processing request failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ServiceQuotaExceededException

The request was rejected because it attempted to create resources beyond the current AWS account limits. The error message describes the limit exceeded.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

fieldList

The input fails to satisfy the constraints specified by an AWS service.

reason

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin

- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListTagsForResource

Service: AWS Invoicing

Lists the tags for a resource.

Request Syntax

```
{
   "ResourceArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

ResourceArn

The Amazon Resource Name (ARN) of tags to list.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:(invoicing)::[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: Yes

Response Syntax

```
{
   "ResourceTags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

ResourceTags

Adds a tag to a resource.

Type: Array of ResourceTag objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

InternalServerException

The processing request failed because of an unknown error, exception, or failure.

retryAfterSeconds

The processing request failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ResourceNotFoundException

The resource could not be found.

resourceName

The resource could not be found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

fieldList

The input fails to satisfy the constraints specified by an AWS service.

reason

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

PutProcurementPortalPreference

Service: AWS Invoicing

This feature API is subject to changing at any time. For more information, see the AWS Service Terms (Betas and Previews).

Updates an existing procurement portal preference configuration. This operation can modify settings for e-invoice delivery and purchase order retrieval.

Request Syntax

```
{
   "Contacts": [
      {
         "Email": "string",
         "Name": "string"
      }
   ],
   "EinvoiceDeliveryEnabled": boolean,
   "EinvoiceDeliveryPreference": {
      "ConnectionTestingMethod": "string",
      "EinvoiceDeliveryActivationDate": number,
      "EinvoiceDeliveryAttachmentTypes": [ "string" ],
      "EinvoiceDeliveryDocumentTypes": [ "string" ],
      "Protocol": "string",
      "PurchaseOrderDataSources": [
         {
            "EinvoiceDeliveryDocumentType": "string",
            "PurchaseOrderDataSourceType": "string"
         }
      ]
   },
   "ProcurementPortalInstanceEndpoint": "string",
   "ProcurementPortalPreferenceArn": "string",
   "ProcurementPortalSharedSecret": "string",
   "PurchaseOrderRetrievalEnabled": boolean,
   "Selector": {
      "InvoiceUnitArns": [ "string" ],
      "SellerOfRecords": [ "string" ]
   },
   "TestEnvPreference": {
      "BuyerDomain": "string",
      "BuyerIdentifier": "string",
```

```
        "ProcurementPortalInstanceEndpoint": "string",
        "ProcurementPortalSharedSecret": "string",
        "SupplierDomain": "string",
        "SupplierIdentifier": "string"
    }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

Contacts

Updated list of contact information for portal administrators and technical contacts.

Type: Array of Contact objects

Array Members: Fixed number of 1 item.

Required: Yes

EinvoiceDeliveryEnabled

Updated flag indicating whether e-invoice delivery is enabled for this procurement portal preference.

Type: Boolean

Required: Yes

EinvoiceDeliveryPreference

Updated e-invoice delivery configuration including document types, attachment types, and customization settings for the portal.

Type: EinvoiceDeliveryPreference object

Required: No

ProcurementPortalInstanceEndpoint

The updated endpoint URL where e-invoices will be delivered to the procurement portal. Must be a valid HTTPS URL.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: \S+

Required: No

ProcurementPortalPreferenceArn

The Amazon Resource Name (ARN) of the procurement portal preference to update.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws:invoicing::[0-9]{12}:procurement-portal-preference/[-a-zA-Z0-9]+`

Required: Yes

ProcurementPortalSharedSecret

The updated shared secret or authentication credential for the procurement portal. This value must be encrypted at rest.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: \S+

Required: No

PurchaseOrderRetrievalEnabled

Updated flag indicating whether purchase order retrieval is enabled for this procurement portal preference.

Type: Boolean

Required: Yes

Selector

Specifies criteria for selecting which invoices should be processed using a particular procurement portal preference.

Type: ProcurementPortalPreferenceSelector object

Required: No

TestEnvPreference

Updated configuration settings for the test environment of the procurement portal.

Type: TestEnvPreferenceInput object

Required: No

Response Syntax

```
{
   "ProcurementPortalPreferenceArn": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

ProcurementPortalPreferenceArn

The Amazon Resource Name (ARN) of the updated procurement portal preference.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws:invoicing::[0-9]{12}:procurement-portal-preference/[-a-zA-Z0-9]+`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

ConflictException

The request could not be completed due to a conflict with the current state of the resource. This exception occurs when a concurrent modification is detected during an update operation, or when attempting to create a resource that already exists.

resourceId

The identifier of the resource that caused the conflict.

resourceType

The type of resource that caused the conflict.

HTTP Status Code: 400

InternalServerException

The processing request failed because of an unknown error, exception, or failure.

retryAfterSeconds

The processing request failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ResourceNotFoundException

The resource could not be found.

resourceName

The resource could not be found.

HTTP Status Code: 400

ServiceQuotaExceededException

The request was rejected because it attempted to create resources beyond the current AWS account limits. The error message describes the limit exceeded.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

fieldList

The input fails to satisfy the constraints specified by an AWS service.

reason

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

TagResource

Service: AWS Invoicing

Adds a tag to a resource.

Request Syntax

```
{
   "ResourceArn": "string",
   "ResourceTags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

ResourceArn

The Amazon Resource Name (ARN) of the tags.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:(invoicing)::[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: Yes

ResourceTags

Adds a tag to a resource.

Type: Array of ResourceTag objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

InternalServerException

The processing request failed because of an unknown error, exception, or failure.

retryAfterSeconds

The processing request failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ResourceNotFoundException

The resource could not be found.

resourceName

The resource could not be found.

HTTP Status Code: 400

ServiceQuotaExceededException

The request was rejected because it attempted to create resources beyond the current AWS account limits. The error message describes the limit exceeded.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

fieldList

The input fails to satisfy the constraints specified by an AWS service.

reason

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

UntagResource

Service: AWS Invoicing

Removes a tag from a resource.

Request Syntax

```
{
   "ResourceArn": "string",
   "ResourceTagKeys": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

ResourceArn

The Amazon Resource Name (ARN) to untag.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:(invoicing)::[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: Yes

ResourceTagKeys

Keys for the tags to be removed.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

InternalServerException

The processing request failed because of an unknown error, exception, or failure.

retryAfterSeconds

The processing request failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ResourceNotFoundException

The resource could not be found.

resourceName

The resource could not be found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

fieldList

The input fails to satisfy the constraints specified by an AWS service.

reason

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

UpdateInvoiceUnit

Service: AWS Invoicing

You can update the invoice unit configuration at any time, and AWS will use the latest configuration at the end of the month.

Request Syntax

```
{
   "Description": "string",
   "InvoiceUnitArn": "string",
   "Rule": {
      "BillSourceAccounts": [ "string" ],
      "LinkedAccounts": [ "string" ]
   },
   "TaxInheritanceDisabled": boolean
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

Description

The assigned description for an invoice unit. This information can't be modified or deleted.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 500.

Pattern: `[\S\s]*`

Required: No

InvoiceUnitArn

The ARN to identify an invoice unit. This information can't be modified or deleted.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws[-a-z0-9]*:[a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: Yes

Rule

The `InvoiceUnitRule` object used to update invoice units.

Type: InvoiceUnitRule object

Required: No

TaxInheritanceDisabled

Whether the invoice unit based tax inheritance is/ should be enabled or disabled.

Type: Boolean

Required: No

Response Syntax

```
{
   "InvoiceUnitArn": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

InvoiceUnitArn

The ARN to identify an invoice unit. This information can't be modified or deleted.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws[-a-z0-9]*:[a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

InternalServerException

The processing request failed because of an unknown error, exception, or failure.

retryAfterSeconds

The processing request failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ResourceNotFoundException

The resource could not be found.

resourceName

The resource could not be found.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

fieldList

The input fails to satisfy the constraints specified by an AWS service.

reason

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

UpdateProcurementPortalPreferenceStatus

Service: AWS Invoicing

This feature API is subject to changing at any time. For more information, see the AWS Service Terms (Betas and Previews).

Updates the status of a procurement portal preference, including the activation state of e-invoice delivery and purchase order retrieval features.

Request Syntax

```
{
   "EinvoiceDeliveryPreferenceStatus": "string",
   "EinvoiceDeliveryPreferenceStatusReason": "string",
   "ProcurementPortalPreferenceArn": "string",
   "PurchaseOrderRetrievalPreferenceStatus": "string",
   "PurchaseOrderRetrievalPreferenceStatusReason": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

EinvoiceDeliveryPreferenceStatus

The updated status of the e-invoice delivery preference.

Type: String

Valid Values: `PENDING_VERIFICATION | TEST_INITIALIZED | TEST_INITIALIZATION_FAILED | TEST_FAILED | ACTIVE | SUSPENDED`

Required: No

EinvoiceDeliveryPreferenceStatusReason

The reason for the e-invoice delivery preference status update, providing context for the change.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

ProcurementPortalPreferenceArn

The Amazon Resource Name (ARN) of the procurement portal preference to update.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws:invoicing::[0-9]{12}:procurement-portal-preference/[-a-zA-Z0-9]+`

Required: Yes

PurchaseOrderRetrievalPreferenceStatus

The updated status of the purchase order retrieval preference.

Type: String

Valid Values: `PENDING_VERIFICATION | TEST_INITIALIZED | TEST_INITIALIZATION_FAILED | TEST_FAILED | ACTIVE | SUSPENDED`

Required: No

PurchaseOrderRetrievalPreferenceStatusReason

The reason for the purchase order retrieval preference status update, providing context for the change.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

Response Syntax

```
{
```

```
   "ProcurementPortalPreferenceArn": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

ProcurementPortalPreferenceArn

The Amazon Resource Name (ARN) of the procurement portal preference with updated status.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws:invoicing::[0-9]{12}:procurement-portal-preference/[-a-zA-Z0-9]+`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

ConflictException

The request could not be completed due to a conflict with the current state of the resource. This exception occurs when a concurrent modification is detected during an update operation, or when attempting to create a resource that already exists.

resourceId

The identifier of the resource that caused the conflict.

resourceType

The type of resource that caused the conflict.

HTTP Status Code: 400

InternalServerException

The processing request failed because of an unknown error, exception, or failure.

retryAfterSeconds

The processing request failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

ResourceNotFoundException

The resource could not be found.

resourceName

The resource could not be found.

HTTP Status Code: 400

ServiceQuotaExceededException

The request was rejected because it attempted to create resources beyond the current AWS account limits. The error message describes the limit exceeded.

HTTP Status Code: 400

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

fieldList

The input fails to satisfy the constraints specified by an AWS service.

reason

You don't have sufficient access to perform this action.

resourceName

You don't have sufficient access to perform this action.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

AWS Price List

The following actions are supported by AWS Price List:

- DescribeServices
- GetAttributeValues
- GetPriceListFileUrl
- GetProducts
- ListPriceLists

DescribeServices

Service: AWS Price List

Returns the metadata for one service or a list of the metadata for all services. Use this without a service code to get the service codes for all services. Use it with a service code, such as `AmazonEC2`, to get information specific to that service, such as the attribute names available for that service. For example, some of the attribute names available for EC2 are `volumeType`, `maxIopsVolume`, `operation`, `locationType`, and `instanceCapacity10xlarge`.

Request Syntax

```
{
   "FormatVersion": "string",
   "MaxResults": number,
   "NextToken": "string",
   "ServiceCode": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

FormatVersion

The format version that you want the response to be in.

Valid values are: `aws_v1`

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: No

MaxResults

The maximum number of results per response. This is an upper limit, not a guaranteed count. Responses might return fewer results even when more total results exist.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

NextToken

A `NextToken` in the response indicates more results might exist. Continue pagination until you receive a response without a `NextToken`, implying it is complete.

Type: String

Required: No

ServiceCode

The code for the service whose information you want to retrieve, such as `AmazonEC2`. You can use the `ServiceCode` to filter the results in a `GetProducts` call. To retrieve a list of all services, leave this blank.

Type: String

Required: No

Response Syntax

```
{
   "FormatVersion": "string",
   "NextToken": "string",
   "Services": [
      {
         "AttributeNames": [ "string" ],
         "ServiceCode": "string"
      }
   ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

FormatVersion

The format version of the response. For example, `aws_v1`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

NextToken

A `NextToken` in the response indicates more results might exist. Continue pagination until you receive a response without a `NextToken`, implying it is complete.

Type: String

Services

The service metadata for the service or services in the response.

Type: Array of Service objects

Errors

For information about the errors that are common to all actions, see Common Errors.

ExpiredNextTokenException

The pagination token expired. Try again without a pagination token.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

HTTP Status Code: 500

InvalidNextTokenException

The pagination token is invalid. Try again without a pagination token.

HTTP Status Code: 400

InvalidParameterException

One or more parameters had an invalid value.

HTTP Status Code: 400

NotFoundException

The requested resource can't be found.

HTTP Status Code: 400

ThrottlingException

You've made too many requests exceeding service quotas.

HTTP Status Code: 400

Examples

The following is a sample request and response of the GetService operation.

This example illustrates one usage of DescribeServices.

Sample Request

```
POST / HTTP/1.1
Host: api.pricing.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
 SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSPriceListService.DescribeServices
{
    "ServiceCode": "AmazonEC2",
    "FormatVersion": "aws_v1",
    "NextToken": null,
    "MaxResults": 1
}
```

Sample Response

```
HTTP/1.1 200 OK
```

```
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
    "FormatVersion": "aws_v1",
    "NextToken": "abcdefg123",
    "Services": [
        {
            "AttributeNames": [
                "volumeType",
                "maxIopsvolume",
                "instanceCapacity10xlarge",
                "locationType",
                "operation"
            ],
            "ServiceCode": "AmazonEC2"
        }
    ]
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetAttributeValues

Service: AWS Price List

Returns a list of attribute values. Attributes are similar to the details in a Price List API offer file. For a list of available attributes, see Offer File Definitions in the AWS Billing and Cost Management User Guide.

Request Syntax

```
{
   "AttributeName": "string",
   "MaxResults": number,
   "NextToken": "string",
   "ServiceCode": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

AttributeName

The name of the attribute that you want to retrieve the values for, such as `volumeType`.

Type: String

Required: Yes

MaxResults

The maximum number of results per response. This is an upper limit, not a guaranteed count. Responses might return fewer results even when more total results exist.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

NextToken

A `NextToken` in the response indicates more results might exist. Continue pagination until you receive a response without a `NextToken`, implying it is complete.

Type: String

Required: No

ServiceCode

The service code for the service whose attributes you want to retrieve. For example, if you want the retrieve an EC2 attribute, use `AmazonEC2`.

Type: String

Required: Yes

Response Syntax

```
{
   "AttributeValues": [
      {
         "Value": "string"
      }
   ],
   "NextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

AttributeValues

The list of values for an attribute. For example, `Throughput Optimized HDD` and `Provisioned IOPS` are two available values for the `AmazonEC2` `volumeType`.

Type: Array of AttributeValue objects

NextToken

A `NextToken` in the response indicates more results might exist. Continue pagination until you receive a response without a `NextToken`, implying it is complete.

Type: String

Errors

For information about the errors that are common to all actions, see Common Errors.

ExpiredNextTokenException

The pagination token expired. Try again without a pagination token.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

HTTP Status Code: 500

InvalidNextTokenException

The pagination token is invalid. Try again without a pagination token.

HTTP Status Code: 400

InvalidParameterException

One or more parameters had an invalid value.

HTTP Status Code: 400

NotFoundException

The requested resource can't be found.

HTTP Status Code: 400

ThrottlingException

You've made too many requests exceeding service quotas.

HTTP Status Code: 400

Examples

The following is a sample request and response of the GetAttributeValues operation.

This example illustrates one usage of GetAttributeValues.

Sample Request

```
POST / HTTP/1.1
Host: api.pricing.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
 SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSPriceListService.GetAttributeValues
{
    "ServiceCode": "AmazonEC2",
    "AttributeName": "volumeType",
    "NextToken": null,
    "MaxResults": 2
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
    "AttributeValues": [
        {
            "Value": "Throughput Optimized HDD"
        },
        {
            "Value": "Provisioned IOPS"
        }
    ],
```

```
    "NextToken":
 "GpgauTGIY7LGezucl5LV0w==:7GzYJ0nw0DBTJ2J66EoTIIynE6O1uXwQtTRqioJzQadBnDVgHPzI1en4BUQnPCLpzeBk
+Z/9/cTw9GldnPOHN98+FdmJP7wKU3QQpQ8MQr5KOeBkIsAqvAQYdL0DkL7tHwPtE5iCEByAmg9gcC/
yBU1vAOsf7R3VaNN4M5jMDv3woSWqASSIlBVB6tgW78YL22KhssoItM/jWW+aP6Jqtq4mldxp/ct6DWAl
+xLFwHU/CbketimPPXyqHF3/UXDw=="
}
```


See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetPriceListFileUrl

Service: AWS Price List

This feature is in preview release and is subject to change. Your use of AWS Price List API is subject to the Beta Service Participation terms of the AWS Service Terms (Section 1.10).

This returns the URL that you can retrieve your Price List file from. This URL is based on the `PriceListArn` and `FileFormat` that you retrieve from the ListPriceLists response.

Request Syntax

```
{
   "FileFormat": "string",
   "PriceListArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

FileFormat

The format that you want to retrieve your Price List files in. The `FileFormat` can be obtained from the ListPriceLists response.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Required: Yes

PriceListArn

The unique identifier that maps to where your Price List files are located. `PriceListArn` can be obtained from the ListPriceLists response.

Type: String

Length Constraints: Minimum length of 18. Maximum length of 2048.

Pattern: `arn:[A-Za-z0-9][-.A-Za-z0-9]{0,62}:pricing:::price-list/[A-Za-z0-9+_/.-]{1,1023}`

Required: Yes

Response Syntax

```
{
   "Url": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Url

The URL to download your Price List file from.

Type: String

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

General authentication failure. The request wasn't signed correctly.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

HTTP Status Code: 500

InvalidParameterException

One or more parameters had an invalid value.

HTTP Status Code: 400

NotFoundException

The requested resource can't be found.

HTTP Status Code: 400

ResourceNotFoundException

The requested resource can't be found.

HTTP Status Code: 400

ThrottlingException

You've made too many requests exceeding service quotas.

HTTP Status Code: 400

Examples

The following is a sample request and response of the GetPriceListFileUrl operation.

This example illustrates one usage of GetPriceListFileUrl.

Sample Request

```
POST / HTTP/1.1
Host: api.pricing.<region>.<domain>
x-amz-Date: <Date>Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
 SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>Connection: Keep-Alive
X-Amz-Target: AWSPriceListService.GetPriceListFileUrl{
    "PriceListArn": "arn:aws:pricing:::price-list/aws/AmazonEC2/USD/20220603151047/us-
east-1",
    "FileFormat": "json"
}
```

Sample Response

```
HTTP/1.1 200 OK
```

```
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
    "Url": "https://pricing.us-east-1.amazonaws.com/offers/v1.0/aws/
AmazonEC2/20220603151047/us-east-1/index.json"
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetProducts

Service: AWS Price List

Returns a list of all products that match the filter criteria.

Request Syntax

```
{
   "Filters": [
      {
         "Field": "string",
         "Type": "string",
         "Value": "string"
      }
   ],
   "FormatVersion": "string",
   "MaxResults": number,
   "NextToken": "string",
   "ServiceCode": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

Filters

The list of filters that limit the returned products. only products that match all filters are returned.

Type: Array of Filter objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

FormatVersion

The format version that you want the response to be in.

Valid values are: aws_v1

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: No

MaxResults

The maximum number of results per response. This is an upper limit, not a guaranteed count. Responses might return fewer results even when more total results exist.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

NextToken

A `NextToken` in the response indicates more results might exist. Continue pagination until you receive a response without a `NextToken`, implying it is complete.

Type: String

Required: No

ServiceCode

The code for the service whose products you want to retrieve.

Type: String

Required: Yes

Response Syntax

```
{
   "FormatVersion": "string",
   "NextToken": "string",
   "PriceList": [ "string" ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

FormatVersion

The format version of the response. For example, aws_v1.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

NextToken

A `NextToken` in the response indicates more results might exist. Continue pagination until you receive a response without a `NextToken`, implying it is complete.

Type: String

PriceList

The list of products that match your filters. The list contains both the product metadata and the price information.

Type: Array of strings

Errors

For information about the errors that are common to all actions, see Common Errors.

ExpiredNextTokenException

The pagination token expired. Try again without a pagination token.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

HTTP Status Code: 500

InvalidNextTokenException

The pagination token is invalid. Try again without a pagination token.

HTTP Status Code: 400

InvalidParameterException

One or more parameters had an invalid value.

HTTP Status Code: 400

NotFoundException

The requested resource can't be found.

HTTP Status Code: 400

ThrottlingException

You've made too many requests exceeding service quotas.

HTTP Status Code: 400

Examples

The following is a sample request and response of the GetProducts operation.

This example illustrates one usage of GetProducts.

Sample Request

```
POST / HTTP/1.1
Host: api.pricing.<region>.<domain>
x-amz-Date: <Date>
Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
 SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>
User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Connection: Keep-Alive
X-Amz-Target: AWSPriceListService.GetProducts
{
    "Filters": [
        {
            "Type": "TERM_MATCH",
            "Field": "ServiceCode",
            "Value": "AmazonEC2"
        },
```

```
        {
            "Type": "TERM_MATCH",
            "Field": "volumeType",
            "Value": "Provisioned IOPS"
        }
    ],
    "FormatVersion": "aws_v1",
    "NextToken": null,
    "MaxResults": 1,
    "ServiceCode":"AmazonEC2"
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
    "FormatVersion": "aws_v1",
    "NextToken": "57r3UcqRjDujbzWfHF7Ciw==:ywSmZsD3mtpQmQLQ5XfOsIMkYybSj
+vAT+kGmwMFq+K9DGmIoJkz7lunVeamiOPgthdWSO2a7YKojCO+zY4dJmuNl2QvbNhXs
+AJ2Ufn7xGmJncNI2TsEuAsVCUfTAvAQNcwwamtk6XuZ4YdNnooV62FjkV3ZAn40d9+wAxV7+FImvhUHi/
+f8afgZdGh2zPUlH8jlV9uUtj0oHp8+DhPUuHXh+WBII1E/aoKpPSm3c=",
    "PriceList": [
        "{\"product\":{\"productFamily\":\"Storage\",\"attributes\":{\"storageMedia
\":\"SSD-backed\",\"maxThroughputvolume\":\"320 MB/sec\",\"volumeType\":\"Provisioned
 IOPS\",\"maxIopsvolume\":\"20000\",\"servicecode\":\"AmazonEC2\",\"usagetype\":
\"CAN1-EBS:VolumeUsage.piops\",\"locationType\":\"AWS Region\",\"location\":\"Canada
 (Central)\",\"servicename\":\"Amazon Elastic Compute Cloud\",\"maxVolumeSize
\":\"16 TiB\",\"operation\":\"\"},\"sku\":\"WQGC34PB2AWS8R4U\"},\"serviceCode
\":\"AmazonEC2\",\"terms\":{\"OnDemand\":{\"WQGC34PB2AWS8R4U.JRTCKXETXF\":
{\"priceDimensions\":{\"WQGC34PB2AWS8R4U.JRTCKXETXF.6YS6EN2CT7\":{\"unit\":\"GB-Mo
\",\"endRange\":\"Inf\",\"description\":\"$0.138 per GB-month of Provisioned IOPS
 SSD (io1)  provisioned storage - Canada (Central)\",\"appliesTo\":[],\"rateCode
\":\"WQGC34PB2AWS8R4U.JRTCKXETXF.6YS6EN2CT7\",\"beginRange\":\"0\",\"pricePerUnit
\":{\"USD\":\"0.1380000000\"}}},\"sku\":\"WQGC34PB2AWS8R4U\",\"effectiveDate\":
\"2017-08-01T00:00:00Z\",\"offerTermCode\":\"JRTCKXETXF\",\"termAttributes\":{}}}},
\"version\":\"20170901182201\",\"publicationDate\":\"2017-09-01T18:22:01Z\"}"
    ]
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListPriceLists

Service: AWS Price List

This feature is in preview release and is subject to change. Your use of AWS Price List API is subject to the Beta Service Participation terms of the AWS Service Terms (Section 1.10).

This returns a list of Price List references that the requester if authorized to view, given a `ServiceCode`, `CurrencyCode`, and an `EffectiveDate`. Use without a `RegionCode` filter to list Price List references from all available AWS Regions. Use with a `RegionCode` filter to get the Price List reference that's specific to a specific AWS Region. You can use the `PriceListArn` from the response to get your preferred Price List files through the GetPriceListFileUrl API.

Request Syntax

```
{
   "CurrencyCode": "string",
   "EffectiveDate": number,
   "MaxResults": number,
   "NextToken": "string",
   "RegionCode": "string",
   "ServiceCode": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

CurrencyCode

The three alphabetical character ISO-4217 currency code that the Price List files are denominated in.

Type: String

Pattern: `[A-Z]{3}`

Required: Yes

EffectiveDate

The date that the Price List file prices are effective from.

Type: Timestamp

Required: Yes

MaxResults

The maximum number of results per response. This is an upper limit, not a guaranteed count. Responses might return fewer results even when more total results exist.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

NextToken

A `NextToken` in the response indicates more results might exist. Continue pagination until you receive a response without a `NextToken`, implying it is complete.

Type: String

Required: No

RegionCode

This is used to filter the Price List by AWS Region. For example, to get the price list only for the `US East (N. Virginia)` Region, use `us-east-1`. If nothing is specified, you retrieve price lists for all applicable Regions. The available `RegionCode` list can be retrieved from GetAttributeValues API.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Required: No

ServiceCode

The service code or the Savings Plans service code for the attributes that you want to retrieve. For example, to get the list of applicable Amazon EC2 price lists, use `AmazonEC2`. For a full list of service codes containing On-Demand and Reserved Instance (RI) pricing, use the DescribeServices API.

To retrieve the Reserved Instance and Compute Savings Plans price lists, use `ComputeSavingsPlans`.

To retrieve Machine Learning Savings Plans price lists, use `MachineLearningSavingsPlans`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Required: Yes

Response Syntax

```
{
   "NextToken": "string",
   "PriceLists": [
      {
         "CurrencyCode": "string",
         "FileFormats": [ "string" ],
         "PriceListArn": "string",
         "RegionCode": "string"
      }
   ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

NextToken

A `NextToken` in the response indicates more results might exist. Continue pagination until you receive a response without a `NextToken`, implying it is complete.

Type: String

PriceLists

The type of price list references that match your request.

Type: Array of PriceList objects

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

General authentication failure. The request wasn't signed correctly.

HTTP Status Code: 400

ExpiredNextTokenException

The pagination token expired. Try again without a pagination token.

HTTP Status Code: 400

InternalErrorException

An error on the server occurred during the processing of your request. Try again later.

HTTP Status Code: 500

InvalidNextTokenException

The pagination token is invalid. Try again without a pagination token.

HTTP Status Code: 400

InvalidParameterException

One or more parameters had an invalid value.

HTTP Status Code: 400

NotFoundException

The requested resource can't be found.

HTTP Status Code: 400

ResourceNotFoundException

The requested resource can't be found.

HTTP Status Code: 400

ThrottlingException

You've made too many requests exceeding service quotas.

HTTP Status Code: 400

Examples

The following is a sample request and response of the ListPriceLists operation.

This example illustrates one usage of ListPriceLists.

Sample Request

```
POST / HTTP/1.1
Host: api.pricing.<region>.<domain>
x-amz-Date: <Date>Authorization: AWS4-HMAC-SHA256 Credential=<Credential>,
 SignedHeaders=contenttype;date;host;user-agent;x-amz-date;x-amz-target;x-amzn-
requestid,Signature=<Signature>User-Agent: <UserAgentString>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>Connection: Keep-Alive
X-Amz-Target: AWSPriceListService.ListPriceLists{
    "ServiceCode": "AmazonEC2",
    "EffectiveDate": 1651363200,
    "CurrencyCode": "USD",
    "RegionCode": "us-east-1",
    "NextToken": null,
    "MaxResults": 10
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: <RequestId>
Content-Type: application/x-amz-json-1.1
Content-Length: <PayloadSizeBytes>
Date: <Date>
{
    "PriceLists": [
        {
            "PriceListArn": "arn:aws:pricing:::price-list/aws/AmazonEC2/
USD/20220603151047/us-east-1",
            "RegionCode": "us-east-1",
            "CurrencyCode": "USD",
            "FileFormats": [
                "json",
```

```
                "csv"
            ]
        }
    ],
    "NextToken": "abcdefg123"
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

Tax Settings

The following actions are supported by Tax Settings:

- BatchDeleteTaxRegistration
- BatchGetTaxExemptions
- BatchPutTaxRegistration
- DeleteSupplementalTaxRegistration
- DeleteTaxRegistration
- GetTaxExemptionTypes
- GetTaxInheritance
- GetTaxRegistration

- GetTaxRegistrationDocument
- ListSupplementalTaxRegistrations
- ListTaxExemptions
- ListTaxRegistrations
- PutSupplementalTaxRegistration
- PutTaxExemption
- PutTaxInheritance
- PutTaxRegistration

BatchDeleteTaxRegistration

Service: Tax Settings

Deletes tax registration for multiple accounts in batch. This can be used to delete tax registrations for up to five accounts in one batch.

> **Note**
>
> This API operation can't be used to delete your tax registration in Brazil. Use the Payment preferences page in the AWS Billing and Cost Management console instead.

Request Syntax

```
POST /BatchDeleteTaxRegistration HTTP/1.1
Content-type: application/json

{
   "accountIds": [ "string" ]
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

accountIds

List of unique account identifiers.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Length Constraints: Fixed length of 12.

Pattern: \d+

Required: Yes

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "errors": [
      {
         "accountId": "string",
         "code": "string",
         "message": "string"
      }
   ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

errors

The list of errors for the accounts the TRN information could not be deleted for.

Type: Array of BatchDeleteTaxRegistrationError objects

Errors

For information about the errors that are common to all actions, see Common Errors.

ConflictException

The exception when the input is creating conflict with the given state.

errorCode

409

HTTP Status Code: 409

InternalServerException

The exception thrown when an unexpected error occurs when processing a request.

errorCode

500

HTTP Status Code: 500

ValidationException

The exception when the input doesn't pass validation for at least one of the input parameters.

errorCode

400

fieldList

400

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

BatchGetTaxExemptions

Service: Tax Settings

Get the active tax exemptions for a given list of accounts. The IAM action is `tax:GetExemptions`.

Request Syntax

```
POST /BatchGetTaxExemptions HTTP/1.1
Content-type: application/json

{
   "accountIds": [ "string" ]
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

accountIds

List of unique account identifiers.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Length Constraints: Fixed length of 12.

Pattern: \d+

Required: Yes

Response Syntax

```
HTTP/1.1 200
Content-type: application/json
```

```
{
   "failedAccounts": [ "string" ],
   "taxExemptionDetailsMap": {
      "string" : {
         "heritageObtainedDetails": boolean,
         "heritageObtainedParentEntity": "string",
         "heritageObtainedReason": "string",
         "taxExemptions": [
            {
               "authority": {
                  "country": "string",
                  "state": "string"
               },
               "effectiveDate": number,
               "expirationDate": number,
               "status": "string",
               "systemEffectiveDate": number,
               "taxExemptionType": {
                  "applicableJurisdictions": [
                     {
                        "country": "string",
                        "state": "string"
                     }
                  ],
                  "description": "string",
                  "displayName": "string"
               }
            }
         ]
      }
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

failedAccounts

The list of accounts that failed to get tax exemptions.

Type: Array of strings

Length Constraints: Fixed length of 12.

Pattern: \d+

taxExemptionDetailsMap

The tax exemption details map of accountId and tax exemption details.

Type: String to TaxExemptionDetails object map

Key Length Constraints: Fixed length of 12.

Key Pattern: \d+

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServerException

The exception thrown when an unexpected error occurs when processing a request.

errorCode

500

HTTP Status Code: 500

ResourceNotFoundException

The exception thrown when the input doesn't have a resource associated to it.

errorCode

404

HTTP Status Code: 404

ValidationException

The exception when the input doesn't pass validation for at least one of the input parameters.

errorCode

400

fieldList

400

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

BatchPutTaxRegistration

Service: Tax Settings

Adds or updates tax registration for multiple accounts in batch. This can be used to add or update tax registrations for up to five accounts in one batch. You can't set a TRN if there's a pending TRN. You'll need to delete the pending TRN first.

To call this API operation for specific countries, see the following country-specific requirements.

Bangladesh

- You must specify the tax registration certificate document in the `taxRegistrationDocuments` field of the `VerificationDetails` object.

Brazil

- You must complete the tax registration process in the Payment preferences page in the AWS Billing and Cost Management console. After your TRN and billing address are verified, you can call this API operation.
- For AWS accounts created through AWS Organizations, you can call this API operation when you don't have a billing address.

Georgia

- The valid `personType` values are `Physical Person` and `Business`.

Indonesia

- `PutTaxRegistration`: The use of this operation to submit tax information is subject to the AWS service terms. By submitting, you're providing consent for AWS to validate NIK, NPWP, and NITKU data, provided by you with the Directorate General of Taxes of Indonesia in accordance with the Minister of Finance Regulation (PMK) Number 112/PMK.03/2022.
- `BatchPutTaxRegistration`: The use of this operation to submit tax information is subject to the AWS service terms. By submitting, you're providing consent for AWS to validate NIK, NPWP, and NITKU data, provided by you with the Directorate General of Taxes of Indonesia in accordance with the Minister of Finance Regulation (PMK) Number 112/PMK.03/2022, through our third-party partner PT Achilles Advanced Management (OnlinePajak).

- You must specify the `taxRegistrationNumberType` in the `indonesiaAdditionalInfo` field of the `additionalTaxInformation` object.
- If you specify `decisionNumber`, you must specify the `ppnExceptionDesignationCode` in the `indonesiaAdditionalInfo` field of the `additionalTaxInformation` object. If the `taxRegistrationNumberType` is set to NPWP or NITKU, valid values for `ppnExceptionDesignationCode` are either `01`, `02`, `03`, `07`, or `08`.

  For other `taxRegistrationNumberType` values, `ppnExceptionDesignationCode` must be either `01`, `07`, or `08`.
- If `ppnExceptionDesignationCode` is `07` or `08`, you must specify the `decisionNumber` in the `indonesiaAdditionalInfo` field of the `additionalTaxInformation` object.

Kenya

- You must specify the `personType` in the `kenyaAdditionalInfo` field of the `additionalTaxInformation` object.
- If the `personType` is `Physical Person`, you must specify the tax registration certificate document in the `taxRegistrationDocuments` field of the `VerificationDetails` object.

Malaysia

- The sector valid values are `Business` and `Individual`.
- `RegistrationType` valid values are `NRIC` for individual, and TIN and sales and service tax (SST) for Business.
- For individual, you can specify the `taxInformationNumber` in `MalaysiaAdditionalInfo` with NRIC type, and a valid `MyKad` or NRIC number.
- For business, you must specify a `businessRegistrationNumber` in `MalaysiaAdditionalInfo` with a TIN type and tax identification number.
- For business resellers, you must specify a `businessRegistrationNumber` and `taxInformationNumber` in `MalaysiaAdditionalInfo` with a sales and service tax (SST) type and a valid SST number.
- For business resellers with service codes, you must specify `businessRegistrationNumber`, `taxInformationNumber`, and distinct `serviceTaxCodes` in `MalaysiaAdditionalInfo` with a SST type and valid sales and service tax (SST) number. By using this API operation, AWS

registers your self-declaration that you're an authorized business reseller registered with the Royal Malaysia Customs Department (RMCD), and have a valid SST number.

- AWS reserves the right to seek additional information and/or take other actions to support your self-declaration as appropriate.
- AWS is currently registered under the following service tax codes. You must include at least one of the service tax codes in the service tax code strings to declare yourself as an authorized registered business reseller.

  Taxable service and service tax codes:

  Consultancy - 9907061674

  Training or coaching service - 9907071685

  IT service - 9907101676

  Digital services and electronic medium - 9907121690

Mexico

- You must provide a Constancia de Situación fiscal (CSF) document in the **verificationDetails** field.
- You do not need to provide address and legal name. These will be populated based on your tax registration number.

Nepal

- The sector valid values are `Business` and `Individual`.

Saudi Arabia

- For `address`, you must specify `addressLine3`.

South Korea

- You must specify the `certifiedEmailId` and `legalName` in the `TaxRegistrationEntry` object. Use Korean characters for `legalName`.

- You must specify the `businessRepresentativeName`, `itemOfBusiness`, and `lineOfBusiness` in the `southKoreaAdditionalInfo` field of the `additionalTaxInformation` object. Use Korean characters for these fields.
- You must specify the tax registration certificate document in the `taxRegistrationDocuments` field of the `VerificationDetails` object.
- For the `address` object, use Korean characters for `addressLine1`, `addressLine2` `city`, `postalCode`, and `stateOrRegion`.

Spain

- You must specify the `registrationType` in the `spainAdditionalInfo` field of the `additionalTaxInformation` object.
- If the `registrationType` is `Local`, you must specify the tax registration certificate document in the `taxRegistrationDocuments` field of the `VerificationDetails` object.

Turkey

- You must specify the `sector` in the `taxRegistrationEntry` object.
- If your `sector` is `Business`, `Individual`, or `Government`:
  - Specify the `taxOffice`. If your `sector` is `Individual`, don't enter this value.
  - (Optional) Specify the `kepEmailId`. If your `sector` is `Individual`, don't enter this value.
  - **Note:** In the **Tax Settings** page of the AWS Billing console, `Government` appears as **Public institutions**
- If your `sector` is `Business` and you're subject to KDV tax, you must specify your industry in the `industries` field.
- For `address`, you must specify `districtOrCounty`.

Ukraine

- The sector valid values are `Business` and `Individual`.

Request Syntax

```
POST /BatchPutTaxRegistration HTTP/1.1
```

```
Content-type: application/json

{
   "accountIds": [ "string" ],
   "taxRegistrationEntry": {
      "additionalTaxInformation": {
         "canadaAdditionalInfo": {
            "canadaQuebecSalesTaxNumber": "string",
            "canadaRetailSalesTaxNumber": "string",
            "isResellerAccount": boolean,
            "provincialSalesTaxId": "string"
         },
         "egyptAdditionalInfo": {
            "uniqueIdentificationNumber": "string",
            "uniqueIdentificationNumberExpirationDate": "string"
         },
         "estoniaAdditionalInfo": {
            "registryCommercialCode": "string"
         },
         "georgiaAdditionalInfo": {
            "personType": "string"
         },
         "greeceAdditionalInfo": {
            "contractingAuthorityCode": "string"
         },
         "indonesiaAdditionalInfo": {
            "decisionNumber": "string",
            "ppnExceptionDesignationCode": "string",
            "taxRegistrationNumberType": "string"
         },
         "israelAdditionalInfo": {
            "customerType": "string",
            "dealerType": "string"
         },
         "italyAdditionalInfo": {
            "cigNumber": "string",
            "cupNumber": "string",
            "sdiAccountId": "string",
            "taxCode": "string"
         },
         "kenyaAdditionalInfo": {
            "personType": "string"
         },
         "malaysiaAdditionalInfo": {
```

```
            "businessRegistrationNumber": "string",
            "serviceTaxCodes": [ "string" ],
            "taxInformationNumber": "string"
         },
         "polandAdditionalInfo": {
            "individualRegistrationNumber": "string",
            "isGroupVatEnabled": boolean
         },
         "romaniaAdditionalInfo": {
            "taxRegistrationNumberType": "string"
         },
         "saudiArabiaAdditionalInfo": {
            "taxRegistrationNumberType": "string"
         },
         "southKoreaAdditionalInfo": {
            "businessRepresentativeName": "string",
            "itemOfBusiness": "string",
            "lineOfBusiness": "string"
         },
         "spainAdditionalInfo": {
            "registrationType": "string"
         },
         "turkeyAdditionalInfo": {
            "industries": "string",
            "kepEmailId": "string",
            "secondaryTaxId": "string",
            "taxOffice": "string"
         },
         "ukraineAdditionalInfo": {
            "ukraineTrnType": "string"
         },
         "uzbekistanAdditionalInfo": {
            "taxRegistrationNumberType": "string",
            "vatRegistrationNumber": "string"
         },
         "vietnamAdditionalInfo": {
            "electronicTransactionCodeNumber": "string",
            "enterpriseIdentificationNumber": "string",
            "paymentVoucherNumber": "string",
            "paymentVoucherNumberDate": "string"
         }
      },
      "certifiedEmailId": "string",
      "legalAddress": {
```

```
            "addressLine1": "string",
            "addressLine2": "string",
            "addressLine3": "string",
            "city": "string",
            "countryCode": "string",
            "districtOrCounty": "string",
            "postalCode": "string",
            "stateOrRegion": "string"
         },
         "legalName": "string",
         "registrationId": "string",
         "registrationType": "string",
         "sector": "string",
         "verificationDetails": {
            "dateOfBirth": "string",
            "taxRegistrationDocuments": [
               {
                  "file": {
                     "fileContent": blob,
                     "fileName": "string"
                  },
                  "s3Location": {
                     "bucket": "string",
                     "key": "string"
                  }
               }
            ]
         }
      }
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

accountIds

List of unique account identifiers.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 550 items.

Length Constraints: Fixed length of 12.

Pattern: \d+

Required: Yes

taxRegistrationEntry

Your TRN information that will be stored to the accounts mentioned in `putEntries`.

Type: TaxRegistrationEntry object

Required: Yes

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "errors": [
      {
         "accountId": "string",
         "code": "string",
         "message": "string"
      }
   ],
   "status": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

errors

List of errors for the accounts the TRN information could not be added or updated to.

Type: Array of BatchPutTaxRegistrationError objects

status

The status of your TRN stored in the system after processing. Based on the validation occurring on the TRN, the status can be `Verified`, `Pending` or `Rejected`.

Type: String

Valid Values: `Verified | Pending | Deleted | Rejected`

Errors

For information about the errors that are common to all actions, see Common Errors.

ConflictException

The exception when the input is creating conflict with the given state.

errorCode

409

HTTP Status Code: 409

InternalServerException

The exception thrown when an unexpected error occurs when processing a request.

errorCode

500

HTTP Status Code: 500

ValidationException

The exception when the input doesn't pass validation for at least one of the input parameters.

errorCode

400

fieldList

400

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DeleteSupplementalTaxRegistration

Service: Tax Settings

Deletes a supplemental tax registration for a single account.

Request Syntax

```
POST /DeleteSupplementalTaxRegistration HTTP/1.1
Content-type: application/json

{
   "authorityId": "string"
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

authorityId

The unique authority Id for the supplemental TRN information that needs to be deleted.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: `[\s\S]*`

Required: Yes

Response Syntax

```
HTTP/1.1 200
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

ConflictException

The exception when the input is creating conflict with the given state.

errorCode

409

HTTP Status Code: 409

InternalServerException

The exception thrown when an unexpected error occurs when processing a request.

errorCode

500

HTTP Status Code: 500

ResourceNotFoundException

The exception thrown when the input doesn't have a resource associated to it.

errorCode

404

HTTP Status Code: 404

ValidationException

The exception when the input doesn't pass validation for at least one of the input parameters.

errorCode

400

fieldList

400

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

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- AWS SDK for .NET
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- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DeleteTaxRegistration

Service: Tax Settings

Deletes tax registration for a single account.

> **Note**
>
> This API operation can't be used to delete your tax registration in Brazil. Use the Payment preferences page in the AWS Billing and Cost Management console instead.

Request Syntax

```
POST /DeleteTaxRegistration HTTP/1.1
Content-type: application/json

{
   "accountId": "string"
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

accountId

Unique account identifier for the TRN information that needs to be deleted. If this isn't passed, the account ID corresponding to the credentials of the API caller will be used for this parameter.

Type: String

Length Constraints: Fixed length of 12.

Pattern: \d+

Required: No

Response Syntax

```
HTTP/1.1 200
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

ConflictException

The exception when the input is creating conflict with the given state.

errorCode

409

HTTP Status Code: 409

InternalServerException

The exception thrown when an unexpected error occurs when processing a request.

errorCode

500

HTTP Status Code: 500

ResourceNotFoundException

The exception thrown when the input doesn't have a resource associated to it.

errorCode

404

HTTP Status Code: 404

ValidationException

The exception when the input doesn't pass validation for at least one of the input parameters.

errorCode

400

fieldList

400

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetTaxExemptionTypes

Service: Tax Settings

Get supported tax exemption types. The IAM action is `tax:GetExemptions`.

Request Syntax

```
POST /GetTaxExemptionTypes HTTP/1.1
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "taxExemptionTypes": [
      {
         "applicableJurisdictions": [
            {
               "country": "string",
               "state": "string"
            }
         ],
         "description": "string",
         "displayName": "string"
      }
   ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

taxExemptionTypes

The supported types of tax exemptions.

Type: Array of TaxExemptionType objects

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServerException

The exception thrown when an unexpected error occurs when processing a request.

errorCode

500

HTTP Status Code: 500

ResourceNotFoundException

The exception thrown when the input doesn't have a resource associated to it.

errorCode

404

HTTP Status Code: 404

ValidationException

The exception when the input doesn't pass validation for at least one of the input parameters.

errorCode

400

fieldList

400

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetTaxInheritance

Service: Tax Settings

The get account tax inheritance status.

Request Syntax

```
POST /GetTaxInheritance HTTP/1.1
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "heritageStatus": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

heritageStatus

The tax inheritance status.

Type: String

Valid Values: `OptIn | OptOut`

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServerException

The exception thrown when an unexpected error occurs when processing a request.

errorCode

500

HTTP Status Code: 500

ResourceNotFoundException

The exception thrown when the input doesn't have a resource associated to it.

errorCode

404

HTTP Status Code: 404

ValidationException

The exception when the input doesn't pass validation for at least one of the input parameters.

errorCode

400

fieldList

400

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET

- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetTaxRegistration

Service: Tax Settings

Retrieves tax registration for a single account.

Request Syntax

```
POST /GetTaxRegistration HTTP/1.1
Content-type: application/json

{
   "accountId": "string"
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

accountId

Your unique account identifier.

Type: String

Length Constraints: Fixed length of 12.

Pattern: \d+

Required: No

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "taxRegistration": {
      "additionalTaxInformation": {
```

```
      "brazilAdditionalInfo": {
         "ccmCode": "string",
         "legalNatureCode": "string"
      },
      "canadaAdditionalInfo": {
         "canadaQuebecSalesTaxNumber": "string",
         "canadaRetailSalesTaxNumber": "string",
         "isResellerAccount": boolean,
         "provincialSalesTaxId": "string"
      },
      "egyptAdditionalInfo": {
         "uniqueIdentificationNumber": "string",
         "uniqueIdentificationNumberExpirationDate": "string"
      },
      "estoniaAdditionalInfo": {
         "registryCommercialCode": "string"
      },
      "georgiaAdditionalInfo": {
         "personType": "string"
      },
      "greeceAdditionalInfo": {
         "contractingAuthorityCode": "string"
      },
      "indiaAdditionalInfo": {
         "pan": "string"
      },
      "indonesiaAdditionalInfo": {
         "decisionNumber": "string",
         "ppnExceptionDesignationCode": "string",
         "taxRegistrationNumberType": "string"
      },
      "israelAdditionalInfo": {
         "customerType": "string",
         "dealerType": "string"
      },
      "italyAdditionalInfo": {
         "cigNumber": "string",
         "cupNumber": "string",
         "sdiAccountId": "string",
         "taxCode": "string"
      },
      "kenyaAdditionalInfo": {
         "personType": "string"
      },
```

```
      "malaysiaAdditionalInfo": {
         "businessRegistrationNumber": "string",
         "serviceTaxCodes": [ "string" ],
         "taxInformationNumber": "string"
      },
      "polandAdditionalInfo": {
         "individualRegistrationNumber": "string",
         "isGroupVatEnabled": boolean
      },
      "romaniaAdditionalInfo": {
         "taxRegistrationNumberType": "string"
      },
      "saudiArabiaAdditionalInfo": {
         "taxRegistrationNumberType": "string"
      },
      "southKoreaAdditionalInfo": {
         "businessRepresentativeName": "string",
         "itemOfBusiness": "string",
         "lineOfBusiness": "string"
      },
      "spainAdditionalInfo": {
         "registrationType": "string"
      },
      "turkeyAdditionalInfo": {
         "industries": "string",
         "kepEmailId": "string",
         "secondaryTaxId": "string",
         "taxOffice": "string"
      },
      "ukraineAdditionalInfo": {
         "ukraineTrnType": "string"
      },
      "uzbekistanAdditionalInfo": {
         "taxRegistrationNumberType": "string",
         "vatRegistrationNumber": "string"
      },
      "vietnamAdditionalInfo": {
         "electronicTransactionCodeNumber": "string",
         "enterpriseIdentificationNumber": "string",
         "paymentVoucherNumber": "string",
         "paymentVoucherNumberDate": "string"
      }
   },
   "certifiedEmailId": "string",
```

```
      "legalAddress": {
         "addressLine1": "string",
         "addressLine2": "string",
         "addressLine3": "string",
         "city": "string",
         "countryCode": "string",
         "districtOrCounty": "string",
         "postalCode": "string",
         "stateOrRegion": "string"
      },
      "legalName": "string",
      "registrationId": "string",
      "registrationType": "string",
      "sector": "string",
      "status": "string",
      "taxDocumentMetadatas": [
         {
            "taxDocumentAccessToken": "string",
            "taxDocumentName": "string"
         }
      ]
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

taxRegistration

TRN information of the account mentioned in the request.

Type: TaxRegistration object

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServerException

The exception thrown when an unexpected error occurs when processing a request.

errorCode

500

HTTP Status Code: 500

ResourceNotFoundException

The exception thrown when the input doesn't have a resource associated to it.

errorCode

404

HTTP Status Code: 404

ValidationException

The exception when the input doesn't pass validation for at least one of the input parameters.

errorCode

400

fieldList

400

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3

- AWS SDK for Python
- AWS SDK for Ruby V3

GetTaxRegistrationDocument

Service: Tax Settings

Downloads your tax documents to the Amazon S3 bucket that you specify in your request.

Request Syntax

```
POST /GetTaxRegistrationDocument HTTP/1.1
Content-type: application/json

{
   "destinationS3Location": {
      "bucket": "string",
      "prefix": "string"
   },
   "taxDocumentMetadata": {
      "taxDocumentAccessToken": "string",
      "taxDocumentName": "string"
   }
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

destinationS3Location

The Amazon S3 bucket that you specify to download your tax documents to.

Type: DestinationS3Location object

Required: No

taxDocumentMetadata

The metadata for your tax document.

Type: TaxDocumentMetadata object

Required: Yes

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "destinationFilePath": "string",
   "presignedS3Url": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

destinationFilePath

The file path of the Amazon S3 bucket where you want to download your tax document to.

Type: String

Pattern: `[\s\S]*`

presignedS3Url

The Amazon S3 presigned URL of the tax registration document.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: `https.*\S.*`

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServerException

The exception thrown when an unexpected error occurs when processing a request.

errorCode

500

HTTP Status Code: 500

ValidationException

The exception when the input doesn't pass validation for at least one of the input parameters.

errorCode

400

fieldList

400

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListSupplementalTaxRegistrations

Service: Tax Settings

Retrieves supplemental tax registrations for a single account.

Request Syntax

```
POST /ListSupplementalTaxRegistrations HTTP/1.1
Content-type: application/json

{
   "maxResults": number,
   "nextToken": "string"
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

maxResults

The number of `taxRegistrations` results you want in one response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

nextToken

The token to retrieve the next set of results.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2000.

Pattern: `[-A-Za-z0-9_+\=\/]+`

Required: No

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "nextToken": "string",
   "taxRegistrations": [
      {
         "address": {
            "addressLine1": "string",
            "addressLine2": "string",
            "addressLine3": "string",
            "city": "string",
            "countryCode": "string",
            "districtOrCounty": "string",
            "postalCode": "string",
            "stateOrRegion": "string"
         },
         "authorityId": "string",
         "legalName": "string",
         "registrationId": "string",
         "registrationType": "string",
         "status": "string"
      }
   ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

nextToken

The token to retrieve the next set of results.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2000.

Pattern: `[-A-Za-z0-9_+\=\/]+`

taxRegistrations

The list of supplemental tax registrations.

Type: Array of SupplementalTaxRegistration objects

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServerException

The exception thrown when an unexpected error occurs when processing a request.

errorCode

500

HTTP Status Code: 500

ResourceNotFoundException

The exception thrown when the input doesn't have a resource associated to it.

errorCode

404

HTTP Status Code: 404

ValidationException

The exception when the input doesn't pass validation for at least one of the input parameters.

errorCode

400

fieldList

400

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListTaxExemptions

Service: Tax Settings

Retrieves the tax exemption of accounts listed in a consolidated billing family. The IAM action is `tax:GetExemptions`.

Request Syntax

```
POST /ListTaxExemptions HTTP/1.1
Content-type: application/json

{
   "maxResults": number,
   "nextToken": "string"
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

maxResults

The number of results you want in one response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

nextToken

The token to retrieve the next set of results.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2000.

Pattern: `[-A-Za-z0-9_+\=\/]+`

Required: No

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "nextToken": "string",
   "taxExemptionDetailsMap": {
      "string" : {
         "heritageObtainedDetails": boolean,
         "heritageObtainedParentEntity": "string",
         "heritageObtainedReason": "string",
         "taxExemptions": [
            {
               "authority": {
                  "country": "string",
                  "state": "string"
               },
               "effectiveDate": number,
               "expirationDate": number,
               "status": "string",
               "systemEffectiveDate": number,
               "taxExemptionType": {
                  "applicableJurisdictions": [
                     {
                        "country": "string",
                        "state": "string"
                     }
                  ],
                  "description": "string",
                  "displayName": "string"
               }
            }
         ]
      }
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

nextToken

The token to retrieve the next set of results.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2000.

Pattern: `[-A-Za-z0-9_+\=\/]+`

taxExemptionDetailsMap

The tax exemption details map of `accountId` and tax exemption details.

Type: String to TaxExemptionDetails object map

Key Length Constraints: Fixed length of 12.

Key Pattern: `\d+`

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServerException

The exception thrown when an unexpected error occurs when processing a request.

errorCode

500

HTTP Status Code: 500

ResourceNotFoundException

The exception thrown when the input doesn't have a resource associated to it.

errorCode

404

HTTP Status Code: 404

ValidationException

The exception when the input doesn't pass validation for at least one of the input parameters.

errorCode

400

fieldList

400

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListTaxRegistrations

Service: Tax Settings

Retrieves the tax registration of accounts listed in a consolidated billing family. This can be used to retrieve up to 100 accounts' tax registrations in one call (default 50).

Request Syntax

```
POST /ListTaxRegistrations HTTP/1.1
Content-type: application/json

{
   "maxResults": number,
   "nextToken": "string"
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

maxResults

Number of `accountDetails` results you want in one response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

nextToken

The token to retrieve the next set of results.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2000.

Pattern: `[-A-Za-z0-9_+\=\/]+`

Required: No

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "accountDetails": [
      {
         "accountId": "string",
         "accountMetaData": {
            "accountName": "string",
            "address": {
               "addressLine1": "string",
               "addressLine2": "string",
               "addressLine3": "string",
               "city": "string",
               "countryCode": "string",
               "districtOrCounty": "string",
               "postalCode": "string",
               "stateOrRegion": "string"
            },
            "addressRoleMap": {
               "string" : {
                  "countryCode": "string",
                  "stateOrRegion": "string"
               }
            },
            "addressType": "string",
            "seller": "string"
         },
         "taxInheritanceDetails": {
            "inheritanceObtainedReason": "string",
            "parentEntityId": "string"
         },
         "taxRegistration": {
            "additionalTaxInformation": {
               "brazilAdditionalInfo": {
                  "ccmCode": "string",
                  "legalNatureCode": "string"
               },
               "canadaAdditionalInfo": {
                  "canadaQuebecSalesTaxNumber": "string",
                  "canadaRetailSalesTaxNumber": "string",
```

```
      "isResellerAccount": boolean,
      "provincialSalesTaxId": "string"
   },
   "egyptAdditionalInfo": {
      "uniqueIdentificationNumber": "string",
      "uniqueIdentificationNumberExpirationDate": "string"
   },
   "estoniaAdditionalInfo": {
      "registryCommercialCode": "string"
   },
   "georgiaAdditionalInfo": {
      "personType": "string"
   },
   "greeceAdditionalInfo": {
      "contractingAuthorityCode": "string"
   },
   "indiaAdditionalInfo": {
      "pan": "string"
   },
   "indonesiaAdditionalInfo": {
      "decisionNumber": "string",
      "ppnExceptionDesignationCode": "string",
      "taxRegistrationNumberType": "string"
   },
   "israelAdditionalInfo": {
      "customerType": "string",
      "dealerType": "string"
   },
   "italyAdditionalInfo": {
      "cigNumber": "string",
      "cupNumber": "string",
      "sdiAccountId": "string",
      "taxCode": "string"
   },
   "kenyaAdditionalInfo": {
      "personType": "string"
   },
   "malaysiaAdditionalInfo": {
      "businessRegistrationNumber": "string",
      "serviceTaxCodes": [ "string" ],
      "taxInformationNumber": "string"
   },
   "polandAdditionalInfo": {
      "individualRegistrationNumber": "string",
```

```
            "isGroupVatEnabled": boolean
         },
         "romaniaAdditionalInfo": {
            "taxRegistrationNumberType": "string"
         },
         "saudiArabiaAdditionalInfo": {
            "taxRegistrationNumberType": "string"
         },
         "southKoreaAdditionalInfo": {
            "businessRepresentativeName": "string",
            "itemOfBusiness": "string",
            "lineOfBusiness": "string"
         },
         "spainAdditionalInfo": {
            "registrationType": "string"
         },
         "turkeyAdditionalInfo": {
            "industries": "string",
            "kepEmailId": "string",
            "secondaryTaxId": "string",
            "taxOffice": "string"
         },
         "ukraineAdditionalInfo": {
            "ukraineTrnType": "string"
         },
         "uzbekistanAdditionalInfo": {
            "taxRegistrationNumberType": "string",
            "vatRegistrationNumber": "string"
         },
         "vietnamAdditionalInfo": {
            "electronicTransactionCodeNumber": "string",
            "enterpriseIdentificationNumber": "string",
            "paymentVoucherNumber": "string",
            "paymentVoucherNumberDate": "string"
         }
      },
      "certifiedEmailId": "string",
      "jurisdiction": {
         "countryCode": "string",
         "stateOrRegion": "string"
      },
      "legalName": "string",
      "registrationId": "string",
      "registrationType": "string",
```

```
            "sector": "string",
            "status": "string",
            "taxDocumentMetadatas": [
               {
                  "taxDocumentAccessToken": "string",
                  "taxDocumentName": "string"
               }
            ]
         }
      }
   ],
   "nextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

accountDetails

The list of account details. This contains account Ids and TRN Information for each of the linked accounts.

Type: Array of AccountDetails objects

nextToken

The token to retrieve the next set of results.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2000.

Pattern: `[-A-Za-z0-9_+\=\/]+`

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServerException

The exception thrown when an unexpected error occurs when processing a request.

errorCode

500

HTTP Status Code: 500

ResourceNotFoundException

The exception thrown when the input doesn't have a resource associated to it.

errorCode

404

HTTP Status Code: 404

ValidationException

The exception when the input doesn't pass validation for at least one of the input parameters.

errorCode

400

fieldList

400

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3

- AWS SDK for Python
- AWS SDK for Ruby V3

PutSupplementalTaxRegistration

Service: Tax Settings

Stores supplemental tax registration for a single account.

Request Syntax

```
POST /PutSupplementalTaxRegistration HTTP/1.1
Content-type: application/json

{
   "taxRegistrationEntry": {
      "address": {
         "addressLine1": "string",
         "addressLine2": "string",
         "addressLine3": "string",
         "city": "string",
         "countryCode": "string",
         "districtOrCounty": "string",
         "postalCode": "string",
         "stateOrRegion": "string"
      },
      "legalName": "string",
      "registrationId": "string",
      "registrationType": "string"
   }
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

taxRegistrationEntry

The supplemental TRN information that will be stored for the caller account ID.

Type: SupplementalTaxRegistrationEntry object

Required: Yes

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "authorityId": "string",
   "status": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

authorityId

Unique authority ID for the supplemental TRN information that was stored.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: `[\s\S]*`

status

The status of the supplemental TRN stored in the system after processing. Based on the validation occurring on the TRN, the status can be `Verified`, `Pending`, `Rejected`, or `Deleted`.

Type: String

Valid Values: `Verified | Pending | Deleted | Rejected`

Errors

For information about the errors that are common to all actions, see Common Errors.

ConflictException

The exception when the input is creating conflict with the given state.

errorCode

409

HTTP Status Code: 409

InternalServerException

The exception thrown when an unexpected error occurs when processing a request.

errorCode

500

HTTP Status Code: 500

ValidationException

The exception when the input doesn't pass validation for at least one of the input parameters.

errorCode

400

fieldList

400

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3

- AWS SDK for Python
- AWS SDK for Ruby V3

PutTaxExemption

Service: Tax Settings

Adds the tax exemption for a single account or all accounts listed in a consolidated billing family. The IAM action is `tax:UpdateExemptions`.

Request Syntax

```
POST /PutTaxExemption HTTP/1.1
Content-type: application/json

{
   "accountIds": [ "string" ],
   "authority": {
      "country": "string",
      "state": "string"
   },
   "exemptionCertificate": {
      "documentFile": blob,
      "documentName": "string"
   },
   "exemptionType": "string"
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

accountIds

The list of unique account identifiers.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 550 items.

Length Constraints: Fixed length of 12.

Pattern: \d+

Required: Yes

authority

The address domain associate with the tax information.

Type: Authority object

Required: Yes

exemptionCertificate

The exemption certificate.

Type: ExemptionCertificate object

Required: Yes

exemptionType

The exemption type. Use the supported tax exemption type description.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: `[\s\S]*`

Required: Yes

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "caseId": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

caseId

The customer support case ID.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: `[\s\S]*`

Errors

For information about the errors that are common to all actions, see Common Errors.

AccessDeniedException

The access is denied for the Support API.

HTTP Status Code: 401

AttachmentUploadException

Failed to upload the tax exemption document to Support case.

HTTP Status Code: 400

CaseCreationLimitExceededException

You've exceeded the Support case creation limit for your account.

HTTP Status Code: 413

InternalServerException

The exception thrown when an unexpected error occurs when processing a request.

errorCode

500

HTTP Status Code: 500

ResourceNotFoundException

The exception thrown when the input doesn't have a resource associated to it.

errorCode

404

HTTP Status Code: 404

ValidationException

The exception when the input doesn't pass validation for at least one of the input parameters.

errorCode

400

fieldList

400

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

PutTaxInheritance

Service: Tax Settings

The updated tax inheritance status.

Request Syntax

```
POST /PutTaxInheritance HTTP/1.1
Content-type: application/json

{
   "heritageStatus": "string"
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

heritageStatus

The tax inheritance status.

Type: String

Valid Values: `OptIn | OptOut`

Required: No

Response Syntax

```
HTTP/1.1 200
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

ConflictException

The exception when the input is creating conflict with the given state.

errorCode

409

HTTP Status Code: 409

InternalServerException

The exception thrown when an unexpected error occurs when processing a request.

errorCode

500

HTTP Status Code: 500

ResourceNotFoundException

The exception thrown when the input doesn't have a resource associated to it.

errorCode

404

HTTP Status Code: 404

ValidationException

The exception when the input doesn't pass validation for at least one of the input parameters.

errorCode

400

fieldList

400

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface V2
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

PutTaxRegistration

Service: Tax Settings

Adds or updates tax registration for a single account. You can't set a TRN if there's a pending TRN. You'll need to delete the pending TRN first.

To call this API operation for specific countries, see the following country-specific requirements.

Bangladesh

- You must specify the tax registration certificate document in the `taxRegistrationDocuments` field of the `VerificationDetails` object.

Brazil

- You must complete the tax registration process in the Payment preferences page in the AWS Billing and Cost Management console. After your TRN and billing address are verified, you can call this API operation.
- For AWS accounts created through AWS Organizations, you can call this API operation when you don't have a billing address.

Georgia

- The valid `personType` values are `Physical Person` and `Business`.

Indonesia

- `PutTaxRegistration`: The use of this operation to submit tax information is subject to the AWS service terms. By submitting, you're providing consent for AWS to validate NIK, NPWP, and NITKU data, provided by you with the Directorate General of Taxes of Indonesia in accordance with the Minister of Finance Regulation (PMK) Number 112/PMK.03/2022.
- `BatchPutTaxRegistration`: The use of this operation to submit tax information is subject to the AWS service terms. By submitting, you're providing consent for AWS to validate NIK, NPWP, and NITKU data, provided by you with the Directorate General of Taxes of Indonesia in accordance with the Minister of Finance Regulation (PMK) Number 112/PMK.03/2022, through our third-party partner PT Achilles Advanced Management (OnlinePajak).

- You must specify the `taxRegistrationNumberType` in the `indonesiaAdditionalInfo` field of the `additionalTaxInformation` object.
- If you specify `decisionNumber`, you must specify the `ppnExceptionDesignationCode` in the `indonesiaAdditionalInfo` field of the `additionalTaxInformation` object. If the `taxRegistrationNumberType` is set to NPWP or NITKU, valid values for `ppnExceptionDesignationCode` are either `01`, `02`, `03`, `07`, or `08`.

  For other `taxRegistrationNumberType` values, `ppnExceptionDesignationCode` must be either `01`, `07`, or `08`.
- If `ppnExceptionDesignationCode` is `07` or `08`, you must specify the `decisionNumber` in the `indonesiaAdditionalInfo` field of the `additionalTaxInformation` object.

Kenya

- You must specify the `personType` in the `kenyaAdditionalInfo` field of the `additionalTaxInformation` object.
- If the `personType` is `Physical Person`, you must specify the tax registration certificate document in the `taxRegistrationDocuments` field of the `VerificationDetails` object.

Malaysia

- The sector valid values are `Business` and `Individual`.
- `RegistrationType` valid values are `NRIC` for individual, and TIN and sales and service tax (SST) for Business.
- For individual, you can specify the `taxInformationNumber` in `MalaysiaAdditionalInfo` with NRIC type, and a valid `MyKad` or NRIC number.
- For business, you must specify a `businessRegistrationNumber` in `MalaysiaAdditionalInfo` with a TIN type and tax identification number.
- For business resellers, you must specify a `businessRegistrationNumber` and `taxInformationNumber` in `MalaysiaAdditionalInfo` with a sales and service tax (SST) type and a valid SST number.
- For business resellers with service codes, you must specify `businessRegistrationNumber`, `taxInformationNumber`, and distinct `serviceTaxCodes` in `MalaysiaAdditionalInfo` with a SST type and valid sales and service tax (SST) number. By using this API operation, AWS

registers your self-declaration that you're an authorized business reseller registered with the Royal Malaysia Customs Department (RMCD), and have a valid SST number.

- AWS reserves the right to seek additional information and/or take other actions to support your self-declaration as appropriate.
- AWS is currently registered under the following service tax codes. You must include at least one of the service tax codes in the service tax code strings to declare yourself as an authorized registered business reseller.

  Taxable service and service tax codes:

  Consultancy - 9907061674

  Training or coaching service - 9907071685

  IT service - 9907101676

  Digital services and electronic medium - 9907121690

Mexico

- You must provide a Constancia de Situación fiscal (CSF) document in the **verificationDetails** field.
- You do not need to provide address and legal name. These will be populated based on your tax registration number.

Nepal

- The sector valid values are `Business` and `Individual`.

Saudi Arabia

- For `address`, you must specify `addressLine3`.

South Korea

- You must specify the `certifiedEmailId` and `legalName` in the `TaxRegistrationEntry` object. Use Korean characters for `legalName`.

- You must specify the `businessRepresentativeName`, `itemOfBusiness`, and `lineOfBusiness` in the `southKoreaAdditionalInfo` field of the `additionalTaxInformation` object. Use Korean characters for these fields.
- You must specify the tax registration certificate document in the `taxRegistrationDocuments` field of the `VerificationDetails` object.
- For the `address` object, use Korean characters for `addressLine1`, `addressLine2` `city`, `postalCode`, and `stateOrRegion`.

Spain

- You must specify the `registrationType` in the `spainAdditionalInfo` field of the `additionalTaxInformation` object.
- If the `registrationType` is `Local`, you must specify the tax registration certificate document in the `taxRegistrationDocuments` field of the `VerificationDetails` object.

Turkey

- You must specify the `sector` in the `taxRegistrationEntry` object.
- If your `sector` is `Business`, `Individual`, or `Government`:
  - Specify the `taxOffice`. If your `sector` is `Individual`, don't enter this value.
  - (Optional) Specify the `kepEmailId`. If your `sector` is `Individual`, don't enter this value.
  - **Note:** In the **Tax Settings** page of the AWS Billing console, `Government` appears as **Public institutions**
- If your `sector` is `Business` and you're subject to KDV tax, you must specify your industry in the `industries` field.
- For `address`, you must specify `districtOrCounty`.

Ukraine

- The sector valid values are `Business` and `Individual`.

Request Syntax

```
POST /PutTaxRegistration HTTP/1.1
```

```
Content-type: application/json

{
   "accountId": "string",
   "taxRegistrationEntry": {
      "additionalTaxInformation": {
         "canadaAdditionalInfo": {
            "canadaQuebecSalesTaxNumber": "string",
            "canadaRetailSalesTaxNumber": "string",
            "isResellerAccount": boolean,
            "provincialSalesTaxId": "string"
         },
         "egyptAdditionalInfo": {
            "uniqueIdentificationNumber": "string",
            "uniqueIdentificationNumberExpirationDate": "string"
         },
         "estoniaAdditionalInfo": {
            "registryCommercialCode": "string"
         },
         "georgiaAdditionalInfo": {
            "personType": "string"
         },
         "greeceAdditionalInfo": {
            "contractingAuthorityCode": "string"
         },
         "indonesiaAdditionalInfo": {
            "decisionNumber": "string",
            "ppnExceptionDesignationCode": "string",
            "taxRegistrationNumberType": "string"
         },
         "israelAdditionalInfo": {
            "customerType": "string",
            "dealerType": "string"
         },
         "italyAdditionalInfo": {
            "cigNumber": "string",
            "cupNumber": "string",
            "sdiAccountId": "string",
            "taxCode": "string"
         },
         "kenyaAdditionalInfo": {
            "personType": "string"
         },
         "malaysiaAdditionalInfo": {
```

```
            "businessRegistrationNumber": "string",
            "serviceTaxCodes": [ "string" ],
            "taxInformationNumber": "string"
         },
         "polandAdditionalInfo": {
            "individualRegistrationNumber": "string",
            "isGroupVatEnabled": boolean
         },
         "romaniaAdditionalInfo": {
            "taxRegistrationNumberType": "string"
         },
         "saudiArabiaAdditionalInfo": {
            "taxRegistrationNumberType": "string"
         },
         "southKoreaAdditionalInfo": {
            "businessRepresentativeName": "string",
            "itemOfBusiness": "string",
            "lineOfBusiness": "string"
         },
         "spainAdditionalInfo": {
            "registrationType": "string"
         },
         "turkeyAdditionalInfo": {
            "industries": "string",
            "kepEmailId": "string",
            "secondaryTaxId": "string",
            "taxOffice": "string"
         },
         "ukraineAdditionalInfo": {
            "ukraineTrnType": "string"
         },
         "uzbekistanAdditionalInfo": {
            "taxRegistrationNumberType": "string",
            "vatRegistrationNumber": "string"
         },
         "vietnamAdditionalInfo": {
            "electronicTransactionCodeNumber": "string",
            "enterpriseIdentificationNumber": "string",
            "paymentVoucherNumber": "string",
            "paymentVoucherNumberDate": "string"
         }
      },
      "certifiedEmailId": "string",
      "legalAddress": {
```

```
            "addressLine1": "string",
            "addressLine2": "string",
            "addressLine3": "string",
            "city": "string",
            "countryCode": "string",
            "districtOrCounty": "string",
            "postalCode": "string",
            "stateOrRegion": "string"
         },
         "legalName": "string",
         "registrationId": "string",
         "registrationType": "string",
         "sector": "string",
         "verificationDetails": {
            "dateOfBirth": "string",
            "taxRegistrationDocuments": [
               {
                  "file": {
                     "fileContent": blob,
                     "fileName": "string"
                  },
                  "s3Location": {
                     "bucket": "string",
                     "key": "string"
                  }
               }
            ]
         }
      }
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

accountId

Your unique account identifier.

Type: String

Length Constraints: Fixed length of 12.

Pattern: \d+

Required: No

taxRegistrationEntry

Your TRN information that will be stored to the account mentioned in `accountId`.

Type: TaxRegistrationEntry object

Required: Yes

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "status": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

status

The status of your TRN stored in the system after processing. Based on the validation occurring on the TRN, the status can be `Verified`, `Pending` or `Rejected`.

Type: String

Valid Values: `Verified | Pending | Deleted | Rejected`

Errors

For information about the errors that are common to all actions, see Common Errors.

ConflictException

The exception when the input is creating conflict with the given state.

errorCode

409

HTTP Status Code: 409

InternalServerException

The exception thrown when an unexpected error occurs when processing a request.

errorCode

500

HTTP Status Code: 500

ValidationException

The exception when the input doesn't pass validation for at least one of the input parameters.

errorCode

400

fieldList

400

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

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- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2

- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

Data Types

The following data types are supported by AWS Cost Explorer:

- AnalysisDetails
- AnalysisSummary
- Anomaly
- AnomalyDateInterval
- AnomalyMonitor
- AnomalyScore
- AnomalySubscription
- CommitmentPurchaseAnalysisConfiguration
- ComparisonMetricValue
- CostAllocationTag
- CostAllocationTagBackfillRequest
- CostAllocationTagStatusEntry
- CostAndUsageComparison
- CostCategory
- CostCategoryInheritedValueDimension
- CostCategoryProcessingStatus
- CostCategoryReference
- CostCategoryResourceAssociation
- CostCategoryRule
- CostCategorySplitChargeRule
- CostCategorySplitChargeRuleParameter
- CostCategoryValues
- CostComparisonDriver
- CostDriver
- Coverage
- CoverageByTime
- CoverageCost

- CoverageHours
- CoverageNormalizedUnits
- CurrentInstance
- DateInterval
- DimensionValues
- DimensionValuesWithAttributes
- DiskResourceUtilization
- DynamoDBCapacityDetails
- EBSResourceUtilization
- EC2InstanceDetails
- EC2ResourceDetails
- EC2ResourceUtilization
- EC2Specification
- ElastiCacheInstanceDetails
- ESInstanceDetails
- Expression
- ForecastResult
- GenerationSummary
- Group
- GroupDefinition
- Impact
- InstanceDetails
- MemoryDBInstanceDetails
- MetricValue
- ModifyRecommendationDetail
- NetworkResourceUtilization
- RDSInstanceDetails
- RecommendationDetailData
- RecommendationDetailHourlyMetrics
- RedshiftInstanceDetails

- ReservationAggregates
- ReservationCoverageGroup
- ReservationPurchaseRecommendation
- ReservationPurchaseRecommendationDetail
- ReservationPurchaseRecommendationMetadata
- ReservationPurchaseRecommendationSummary
- ReservationUtilizationGroup
- ReservedCapacityDetails
- ResourceDetails
- ResourceTag
- ResourceUtilization
- ResultByTime
- RightsizingRecommendation
- RightsizingRecommendationConfiguration
- RightsizingRecommendationMetadata
- RightsizingRecommendationSummary
- RootCause
- RootCauseImpact
- SavingsPlans
- SavingsPlansAmortizedCommitment
- SavingsPlansCoverage
- SavingsPlansCoverageData
- SavingsPlansDetails
- SavingsPlansPurchaseAnalysisConfiguration
- SavingsPlansPurchaseAnalysisDetails
- SavingsPlansPurchaseRecommendation
- SavingsPlansPurchaseRecommendationDetail
- SavingsPlansPurchaseRecommendationMetadata
- SavingsPlansPurchaseRecommendationSummary
- SavingsPlansSavings

- SavingsPlansUtilization
- SavingsPlansUtilizationAggregates
- SavingsPlansUtilizationByTime
- SavingsPlansUtilizationDetail
- ServiceSpecification
- SortDefinition
- Subscriber
- TagValues
- TargetInstance
- TerminateRecommendationDetail
- TotalImpactFilter
- UpdateCostAllocationTagsStatusError
- UtilizationByTime

The following data types are supported by AWS Billing and Cost Management Dashboards:

- CostAndUsageQuery
- CostCategoryValues
- DashboardReference
- DateTimeRange
- DateTimeValue
- DimensionValues
- DisplayConfig
- Expression
- GraphDisplayConfig
- GroupDefinition
- QueryParameters
- ReservationCoverageQuery
- ReservationUtilizationQuery
- ResourceTag
- SavingsPlansCoverageQuery

- SavingsPlansUtilizationQuery
- TableDisplayConfigStruct
- TagValues
- Widget
- WidgetConfig

The following data types are supported by AWS Data Exports:

- Column
- DataQuery
- DestinationConfigurations
- ExecutionReference
- ExecutionStatus
- Export
- ExportReference
- ExportStatus
- RefreshCadence
- ResourceTag
- S3Destination
- S3OutputConfigurations
- Table
- TablePropertyDescription
- ValidationExceptionField

The following data types are supported by AWS Pricing Calculator:

- AddReservedInstanceAction
- AddSavingsPlanAction
- BatchCreateBillScenarioCommitmentModificationEntry
- BatchCreateBillScenarioCommitmentModificationError
- BatchCreateBillScenarioCommitmentModificationItem
- BatchCreateBillScenarioUsageModificationEntry

- BatchCreateBillScenarioUsageModificationError
- BatchCreateBillScenarioUsageModificationItem
- BatchCreateWorkloadEstimateUsageEntry
- BatchCreateWorkloadEstimateUsageError
- BatchCreateWorkloadEstimateUsageItem
- BatchDeleteBillScenarioCommitmentModificationError
- BatchDeleteBillScenarioUsageModificationError
- BatchDeleteWorkloadEstimateUsageError
- BatchUpdateBillScenarioCommitmentModificationEntry
- BatchUpdateBillScenarioCommitmentModificationError
- BatchUpdateBillScenarioUsageModificationEntry
- BatchUpdateBillScenarioUsageModificationError
- BatchUpdateWorkloadEstimateUsageEntry
- BatchUpdateWorkloadEstimateUsageError
- BillEstimateCommitmentSummary
- BillEstimateCostSummary
- BillEstimateInputCommitmentModificationSummary
- BillEstimateInputUsageModificationSummary
- BillEstimateLineItemSummary
- BillEstimateSummary
- BillInterval
- BillScenarioCommitmentModificationAction
- BillScenarioCommitmentModificationItem
- BillScenarioSummary
- BillScenarioUsageModificationItem
- CostAmount
- CostDifference
- Expression
- ExpressionFilter
- FilterTimestamp

- HistoricalUsageEntity
- ListBillEstimateLineItemsFilter
- ListBillEstimatesFilter
- ListBillScenariosFilter
- ListUsageFilter
- ListWorkloadEstimatesFilter
- NegateReservedInstanceAction
- NegateSavingsPlanAction
- UsageAmount
- UsageQuantity
- UsageQuantityResult
- ValidationExceptionField
- WorkloadEstimateSummary
- WorkloadEstimateUsageItem
- WorkloadEstimateUsageQuantity

The following data types are supported by AWS Billing and Cost Management Recommended Actions:

- ActionFilter
- RecommendedAction
- RequestFilter
- ValidationExceptionField

The following data types are supported by AWS Billing:

- ActiveTimeRange
- BillingViewElement
- BillingViewHealthStatus
- BillingViewListElement
- CostCategoryValues
- DimensionValues

- Expression
- ResourceTag
- StringSearch
- TagValues
- TimeRange
- ValidationExceptionField

The following data types are supported by AWS Budgets:

- Action
- ActionHistory
- ActionHistoryDetails
- ActionThreshold
- AutoAdjustData
- Budget
- BudgetedAndActualAmounts
- BudgetNotificationsForAccount
- BudgetPerformanceHistory
- CalculatedSpend
- CostCategoryValues
- CostTypes
- Definition
- Expression
- ExpressionDimensionValues
- HealthStatus
- HistoricalOptions
- IamActionDefinition
- Notification
- NotificationWithSubscribers
- ResourceTag
- ScpActionDefinition

- Spend
- SsmActionDefinition
- Subscriber
- TagValues
- TimePeriod

The following data types are supported by AWS Cost Optimization Hub:

- AccountEnrollmentStatus
- AuroraDbClusterStorage
- AuroraDbClusterStorageConfiguration
- BlockStoragePerformanceConfiguration
- ComputeConfiguration
- ComputeSavingsPlans
- ComputeSavingsPlansConfiguration
- DbInstanceConfiguration
- DynamoDbReservedCapacity
- DynamoDbReservedCapacityConfiguration
- EbsVolume
- EbsVolumeConfiguration
- Ec2AutoScalingGroup
- Ec2AutoScalingGroupConfiguration
- Ec2Instance
- Ec2InstanceConfiguration
- Ec2InstanceSavingsPlans
- Ec2InstanceSavingsPlansConfiguration
- Ec2ReservedInstances
- Ec2ReservedInstancesConfiguration
- EcsService
- EcsServiceConfiguration
- EfficiencyMetricsByGroup

- ElastiCacheReservedInstances
- ElastiCacheReservedInstancesConfiguration
- EstimatedDiscounts
- Filter
- InstanceConfiguration
- LambdaFunction
- LambdaFunctionConfiguration
- MemoryDbReservedInstances
- MemoryDbReservedInstancesConfiguration
- MetricsByTime
- MixedInstanceConfiguration
- OpenSearchReservedInstances
- OpenSearchReservedInstancesConfiguration
- OrderBy
- PreferredCommitment
- RdsDbInstance
- RdsDbInstanceConfiguration
- RdsDbInstanceStorage
- RdsDbInstanceStorageConfiguration
- RdsReservedInstances
- RdsReservedInstancesConfiguration
- Recommendation
- RecommendationSummary
- RedshiftReservedInstances
- RedshiftReservedInstancesConfiguration
- ReservedInstancesCostCalculation
- ReservedInstancesPricing
- ResourceCostCalculation
- ResourceDetails
- ResourcePricing

- SageMakerSavingsPlans
- SageMakerSavingsPlansConfiguration
- SavingsPlansCostCalculation
- SavingsPlansPricing
- StorageConfiguration
- SummaryMetricsResult
- Tag
- TimePeriod
- Usage
- ValidationExceptionDetail

The following data types are supported by AWS Cost and Usage Report:

- ReportDefinition
- ReportStatus
- Tag

The following data types are supported by AWS Free Tier:

- ActivityReward
- ActivitySummary
- DimensionValues
- Expression
- FreeTierUsage
- MonetaryAmount

The following data types are supported by AWS Invoicing:

- AmountBreakdown
- BillingPeriod
- Contact
- CurrencyExchangeDetails

- DateInterval
- DiscountsBreakdown
- DiscountsBreakdownAmount
- EinvoiceDeliveryPreference
- Entity
- FeesBreakdown
- FeesBreakdownAmount
- Filters
- InvoiceCurrencyAmount
- InvoicePDF
- InvoiceProfile
- InvoiceSummariesFilter
- InvoiceSummariesSelector
- InvoiceSummary
- InvoiceUnit
- InvoiceUnitRule
- ProcurementPortalPreference
- ProcurementPortalPreferenceSelector
- ProcurementPortalPreferenceSummary
- PurchaseOrderDataSource
- ReceiverAddress
- ResourceTag
- SupplementalDocument
- TaxesBreakdown
- TaxesBreakdownAmount
- TestEnvPreference
- TestEnvPreferenceInput
- ValidationExceptionField

The following data types are supported by AWS Price List:

- AttributeValue
- Filter
- PriceList
- Service

The following data types are supported by Tax Settings:

- AccountDetails
- AccountMetaData
- AdditionalInfoRequest
- AdditionalInfoResponse
- Address
- Authority
- BatchDeleteTaxRegistrationError
- BatchPutTaxRegistrationError
- BrazilAdditionalInfo
- CanadaAdditionalInfo
- DestinationS3Location
- EgyptAdditionalInfo
- EstoniaAdditionalInfo
- ExemptionCertificate
- GeorgiaAdditionalInfo
- GreeceAdditionalInfo
- IndiaAdditionalInfo
- IndonesiaAdditionalInfo
- IsraelAdditionalInfo
- ItalyAdditionalInfo
- Jurisdiction
- KenyaAdditionalInfo
- MalaysiaAdditionalInfo
- PolandAdditionalInfo

- RomaniaAdditionalInfo
- SaudiArabiaAdditionalInfo
- SourceS3Location
- SouthKoreaAdditionalInfo
- SpainAdditionalInfo
- SupplementalTaxRegistration
- SupplementalTaxRegistrationEntry
- TaxDocumentMetadata
- TaxExemption
- TaxExemptionDetails
- TaxExemptionType
- TaxInheritanceDetails
- TaxRegistration
- TaxRegistrationDocFile
- TaxRegistrationDocument
- TaxRegistrationEntry
- TaxRegistrationWithJurisdiction
- TurkeyAdditionalInfo
- UkraineAdditionalInfo
- UzbekistanAdditionalInfo
- ValidationExceptionField
- VerificationDetails
- VietnamAdditionalInfo

AWS Cost Explorer

The following data types are supported by AWS Cost Explorer:

- AnalysisDetails
- AnalysisSummary
- Anomaly

- AnomalyDateInterval
- AnomalyMonitor
- AnomalyScore
- AnomalySubscription
- CommitmentPurchaseAnalysisConfiguration
- ComparisonMetricValue
- CostAllocationTag
- CostAllocationTagBackfillRequest
- CostAllocationTagStatusEntry
- CostAndUsageComparison
- CostCategory
- CostCategoryInheritedValueDimension
- CostCategoryProcessingStatus
- CostCategoryReference
- CostCategoryResourceAssociation
- CostCategoryRule
- CostCategorySplitChargeRule
- CostCategorySplitChargeRuleParameter
- CostCategoryValues
- CostComparisonDriver
- CostDriver
- Coverage
- CoverageByTime
- CoverageCost
- CoverageHours
- CoverageNormalizedUnits
- CurrentInstance
- DateInterval
- DimensionValues
- DimensionValuesWithAttributes

- DiskResourceUtilization
- DynamoDBCapacityDetails
- EBSResourceUtilization
- EC2InstanceDetails
- EC2ResourceDetails
- EC2ResourceUtilization
- EC2Specification
- ElastiCacheInstanceDetails
- ESInstanceDetails
- Expression
- ForecastResult
- GenerationSummary
- Group
- GroupDefinition
- Impact
- InstanceDetails
- MemoryDBInstanceDetails
- MetricValue
- ModifyRecommendationDetail
- NetworkResourceUtilization
- RDSInstanceDetails
- RecommendationDetailData
- RecommendationDetailHourlyMetrics
- RedshiftInstanceDetails
- ReservationAggregates
- ReservationCoverageGroup
- ReservationPurchaseRecommendation
- ReservationPurchaseRecommendationDetail
- ReservationPurchaseRecommendationMetadata
- ReservationPurchaseRecommendationSummary

- ReservationUtilizationGroup
- ReservedCapacityDetails
- ResourceDetails
- ResourceTag
- ResourceUtilization
- ResultByTime
- RightsizingRecommendation
- RightsizingRecommendationConfiguration
- RightsizingRecommendationMetadata
- RightsizingRecommendationSummary
- RootCause
- RootCauseImpact
- SavingsPlans
- SavingsPlansAmortizedCommitment
- SavingsPlansCoverage
- SavingsPlansCoverageData
- SavingsPlansDetails
- SavingsPlansPurchaseAnalysisConfiguration
- SavingsPlansPurchaseAnalysisDetails
- SavingsPlansPurchaseRecommendation
- SavingsPlansPurchaseRecommendationDetail
- SavingsPlansPurchaseRecommendationMetadata
- SavingsPlansPurchaseRecommendationSummary
- SavingsPlansSavings
- SavingsPlansUtilization
- SavingsPlansUtilizationAggregates
- SavingsPlansUtilizationByTime
- SavingsPlansUtilizationDetail
- ServiceSpecification
- SortDefinition

- Subscriber
- TagValues
- TargetInstance
- TerminateRecommendationDetail
- TotalImpactFilter
- UpdateCostAllocationTagsStatusError
- UtilizationByTime

AnalysisDetails

Service: AWS Cost Explorer

Details about the analysis.

Contents

SavingsPlansPurchaseAnalysisDetails

Details about the Savings Plans purchase analysis.

Type: SavingsPlansPurchaseAnalysisDetails object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

AnalysisSummary

Service: AWS Cost Explorer

A summary of the analysis.

Contents

AnalysisCompletionTime

The completion time of the analysis.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: ^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([+-]\d\d:\d\d)|Z)$

Required: No

AnalysisId

The analysis ID that's associated with the commitment purchase analysis.

Type: String

Length Constraints: Fixed length of 36.

Pattern: ^[\S\s]{8}-[\S\s]{4}-[\S\s]{4}-[\S\s]{4}-[\S\s]{12}$

Required: No

AnalysisStartedTime

The start time of the analysis.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: ^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([+-]\d\d:\d\d)|Z)$

Required: No

AnalysisStatus

The status of the analysis.

Type: String

Valid Values: `SUCCEEDED | PROCESSING | FAILED`

Required: No

CommitmentPurchaseAnalysisConfiguration

The configuration for the commitment purchase analysis.

Type: CommitmentPurchaseAnalysisConfiguration object

Required: No

ErrorCode

The error code used for the analysis.

Type: String

Valid Values: `NO_USAGE_FOUND | INTERNAL_FAILURE | INVALID_SAVINGS_PLANS_TO_ADD | INVALID_SAVINGS_PLANS_TO_EXCLUDE | INVALID_ACCOUNT_ID`

Required: No

EstimatedCompletionTime

The estimated time for when the analysis will complete.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([+-]\d\d:\d\d)|Z)$`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++

- AWS SDK for Java V2
- AWS SDK for Ruby V3

Anomaly

Service: AWS Cost Explorer

An unusual cost pattern. This consists of the detailed metadata and the current status of the anomaly object.

Contents

AnomalyId

The unique identifier for the anomaly.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

AnomalyScore

The latest and maximum score for the anomaly.

Type: AnomalyScore object

Required: Yes

Impact

The dollar impact for the anomaly.

Type: Impact object

Required: Yes

MonitorArn

The Amazon Resource Name (ARN) for the cost monitor that generated this anomaly.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

AnomalyEndDate

The last day the anomaly is detected.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 40.

Pattern: `(\d{4}-\d{2}-\d{2})(T\d{2}:\d{2}:\d{2}Z)?`

Required: No

AnomalyStartDate

The first day the anomaly is detected.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 40.

Pattern: `(\d{4}-\d{2}-\d{2})(T\d{2}:\d{2}:\d{2}Z)?`

Required: No

DimensionValue

The dimension for the anomaly (for example, an AWS service in a service monitor).

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Feedback

The feedback value.

Type: String

Valid Values: `YES | NO | PLANNED_ACTIVITY`

Required: No

RootCauses

The list of identified root causes for the anomaly.

Type: Array of RootCause objects

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

AnomalyDateInterval

Service: AWS Cost Explorer

The time period for an anomaly.

Contents

StartDate

The first date an anomaly was observed.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 40.

Pattern: `(\d{4}-\d{2}-\d{2})(T\d{2}:\d{2}:\d{2}Z)?`

Required: Yes

EndDate

The last date an anomaly was observed.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 40.

Pattern: `(\d{4}-\d{2}-\d{2})(T\d{2}:\d{2}:\d{2}Z)?`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

AnomalyMonitor

Service: AWS Cost Explorer

This object continuously inspects your account's cost data for anomalies. It's based on `MonitorType` and `MonitorSpecification`. The content consists of detailed metadata and the current status of the monitor object.

Contents

MonitorName

The name of the monitor.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

MonitorType

The type of the monitor.

Set this to `DIMENSIONAL` for an AWS managed monitor. AWS managed monitors automatically track up to the top 5,000 values by cost within a dimension of your choosing. Each dimension value is evaluated independently. If you start incurring cost in a new value of your chosen dimension, it will automatically be analyzed by an AWS managed monitor.

Set this to `CUSTOM` for a customer managed monitor. Customer managed monitors let you select specific dimension values that get monitored in aggregate.

For more information about monitor types, see Monitor types in the *Billing and Cost Management User Guide*.

Type: String

Valid Values: `DIMENSIONAL | CUSTOM`

Required: Yes

CreationDate

The date when the monitor was created.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 40.

Pattern: `(\d{4}-\d{2}-\d{2})(T\d{2}:\d{2}:\d{2}Z)?`

Required: No

DimensionalValueCount

The value for evaluated dimensions.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

LastEvaluatedDate

The date when the monitor last evaluated for anomalies.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 40.

Pattern: `(\d{4}-\d{2}-\d{2})(T\d{2}:\d{2}:\d{2}Z)?`

Required: No

LastUpdatedDate

The date when the monitor was last updated.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 40.

Pattern: `(\d{4}-\d{2}-\d{2})(T\d{2}:\d{2}:\d{2}Z)?`

Required: No

MonitorArn

The Amazon Resource Name (ARN) value.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

MonitorDimension

For customer managed monitors, do not specify this field.

For AWS managed monitors, this field controls which cost dimension is automatically analyzed by the monitor. For `TAG` and `COST_CATEGORY` dimensions, you must also specify MonitorSpecification to configure the specific tag or cost category key to analyze.

Type: String

Valid Values: `SERVICE | LINKED_ACCOUNT | TAG | COST_CATEGORY`

Required: No

MonitorSpecification

An Expression object used to control what costs the monitor analyzes for anomalies.

For AWS managed monitors:

- If MonitorDimension is `SERVICE` or `LINKED_ACCOUNT`, do not specify this field
- If MonitorDimension is `TAG`, set this field to `{ "Tags": { "Key": "your tag key" } }`
- If MonitorDimension is `COST_CATEGORY`, set this field to `{ "CostCategories": { "Key": "your cost category key" } }`

For customer managed monitors:

- To track linked accounts, set this field to `{ "Dimensions": { "Key": "LINKED_ACCOUNT", "Values": [ "your list of up to 10 account IDs" ] } }`
- To track cost allocation tags, set this field to `{ "Tags": { "Key": "your tag key", "Values": [ "your list of up to 10 tag values" ] } }`

- To track cost categories, set this field to`{ "CostCategories": { "Key": "your cost category key", "Values": [ "your cost category value" ] } }`

Type: Expression object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

AnomalyScore

Service: AWS Cost Explorer

Quantifies the anomaly. The higher score means that it's more anomalous.

Contents

CurrentScore

The last observed score.

Type: Double

Required: Yes

MaxScore

The maximum score that's observed during the `AnomalyDateInterval`.

Type: Double

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

AnomalySubscription

Service: AWS Cost Explorer

An `AnomalySubscription` resource (also referred to as an alert subscription) sends notifications about specific anomalies that meet an alerting criteria defined by you.

You can specify the frequency of the alerts and the subscribers to notify.

Anomaly subscriptions can be associated with one or more `AnomalyMonitor` resources, and they only send notifications about anomalies detected by those associated monitors. You can also configure a threshold to further control which anomalies are included in the notifications.

Anomalies that don't exceed the chosen threshold and therefore don't trigger notifications from an anomaly subscription will still be available on the console and from the `GetAnomalies` API.

Contents

Frequency

The frequency that anomaly notifications are sent. Notifications are sent either over email (for DAILY and WEEKLY frequencies) or SNS (for IMMEDIATE frequency). For more information, see Creating an Amazon SNS topic for anomaly notifications.

Type: String

Valid Values: `DAILY | IMMEDIATE | WEEKLY`

Required: Yes

MonitorArnList

A list of cost anomaly monitors.

Type: Array of strings

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: Yes

Subscribers

A list of subscribers to notify.

Type: Array of Subscriber objects

Required: Yes

SubscriptionName

The name for the subscription.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

AccountId

Your unique account identifier.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

SubscriptionArn

The `AnomalySubscription` Amazon Resource Name (ARN).

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Threshold

(deprecated)

An absolute dollar value that must be exceeded by the anomaly's total impact (see Impact for more details) for an anomaly notification to be generated.

This field has been deprecated. To specify a threshold, use ThresholdExpression. Continued use of Threshold will be treated as shorthand syntax for a ThresholdExpression.

One of Threshold or ThresholdExpression is required for this resource. You cannot specify both.

Type: Double

Valid Range: Minimum value of 0.0.

Required: No

ThresholdExpression

An Expression object used to specify the anomalies that you want to generate alerts for. This supports dimensions and nested expressions. The supported dimensions are `ANOMALY_TOTAL_IMPACT_ABSOLUTE` and `ANOMALY_TOTAL_IMPACT_PERCENTAGE`, corresponding to an anomaly's TotalImpact and TotalImpactPercentage, respectively (see Impact for more details). The supported nested expression types are `AND` and `OR`. The match option `GREATER_THAN_OR_EQUAL` is required. Values must be numbers between 0 and 10,000,000,000 in string format.

One of Threshold or ThresholdExpression is required for this resource. You cannot specify both.

The following are examples of valid ThresholdExpressions:

- Absolute threshold: `{ "Dimensions": { "Key": "ANOMALY_TOTAL_IMPACT_ABSOLUTE", "MatchOptions": [ "GREATER_THAN_OR_EQUAL" ], "Values": [ "100" ] } }`
- Percentage threshold: `{ "Dimensions": { "Key": "ANOMALY_TOTAL_IMPACT_PERCENTAGE", "MatchOptions": [ "GREATER_THAN_OR_EQUAL" ], "Values": [ "100" ] } }`
- `AND` two thresholds together: `{ "And": [ { "Dimensions": { "Key": "ANOMALY_TOTAL_IMPACT_ABSOLUTE", "MatchOptions": [ "GREATER_THAN_OR_EQUAL" ], "Values": [ "100" ] } }, { "Dimensions": { "Key": "ANOMALY_TOTAL_IMPACT_PERCENTAGE", "MatchOptions": [ "GREATER_THAN_OR_EQUAL" ], "Values": [ "100" ] } } ] }`
- `OR` two thresholds together: `{ "Or": [ { "Dimensions": { "Key": "ANOMALY_TOTAL_IMPACT_ABSOLUTE", "MatchOptions": [ "GREATER_THAN_OR_EQUAL" ], "Values": [ "100" ] } }, { "Dimensions":`

```
{ "Key": "ANOMALY_TOTAL_IMPACT_PERCENTAGE", "MatchOptions":
[ "GREATER_THAN_OR_EQUAL" ], "Values": [ "100" ] } } ] }
```

Type: Expression object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

CommitmentPurchaseAnalysisConfiguration

Service: AWS Cost Explorer

The configuration for the commitment purchase analysis.

Contents

SavingsPlansPurchaseAnalysisConfiguration

The configuration for the Savings Plans purchase analysis.

Type: SavingsPlansPurchaseAnalysisConfiguration object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ComparisonMetricValue

Service: AWS Cost Explorer

Contains cost or usage metric values for comparing two time periods. Each value includes amounts for the baseline and comparison time periods, their difference, and the unit of measurement.

Contents

BaselineTimePeriodAmount

The numeric value for the baseline time period measurement.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

ComparisonTimePeriodAmount

The numeric value for the comparison time period measurement.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Difference

The calculated difference between `ComparisonTimePeriodAmount` and `BaselineTimePeriodAmount`.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Unit

The unit of measurement applicable to all numeric values in this comparison.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

CostAllocationTag

Service: AWS Cost Explorer

The cost allocation tag structure. This includes detailed metadata for the `CostAllocationTag` object.

Contents

Status

The status of a cost allocation tag.

Type: String

Valid Values: `Active | Inactive`

Required: Yes

TagKey

The key for the cost allocation tag.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

Type

The type of cost allocation tag. You can use `AWSGenerated` or `UserDefined` type tags. `AWSGenerated` type tags are tags that AWS defines and applies to support AWS resources for cost allocation purposes. `UserDefined` type tags are tags that you define, create, and apply to resources.

Type: String

Valid Values: `AWSGenerated | UserDefined`

Required: Yes

LastUpdatedDate

The last date that the tag was either activated or deactivated.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([+-]\d\d:\d\d)|Z)$`

Required: No

LastUsedDate

The last month that the tag was used on an AWS resource.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([+-]\d\d:\d\d)|Z)$`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

CostAllocationTagBackfillRequest

Service: AWS Cost Explorer

The cost allocation tag backfill request structure that contains metadata and details of a certain backfill.

Contents

BackfillFrom

The date the backfill starts from.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([+-]\d\d:\d\d)|Z)$`

Required: No

BackfillStatus

The status of the cost allocation tag backfill request.

Type: String

Valid Values: `SUCCEEDED | PROCESSING | FAILED`

Required: No

CompletedAt

The backfill completion time.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([+-]\d\d:\d\d)|Z)$`

Required: No

LastUpdatedAt

The time when the backfill status was last updated.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([+-]\d\d:\d\d)|Z)$`

Required: No

RequestedAt

The time when the backfill was requested.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([+-]\d\d:\d\d)|Z)$`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

CostAllocationTagStatusEntry

Service: AWS Cost Explorer

The cost allocation tag status. The status of a key can either be active or inactive.

Contents

Status

The status of a cost allocation tag.

Type: String

Valid Values: `Active | Inactive`

Required: Yes

TagKey

The key for the cost allocation tag.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

CostAndUsageComparison

Service: AWS Cost Explorer

Represents a comparison of cost and usage metrics between two time periods.

Contents

CostAndUsageSelector

Use `Expression` to filter in various Cost Explorer APIs.

Not all `Expression` types are supported in each API. Refer to the documentation for each specific API to see what is supported.

There are two patterns:

- Simple dimension values.
  - There are three types of simple dimension values: `CostCategories`, `Tags`, and `Dimensions`.
    - Specify the `CostCategories` field to define a filter that acts on Cost Categories.
    - Specify the `Tags` field to define a filter that acts on Cost Allocation Tags.
    - Specify the `Dimensions` field to define a filter that acts on the `DimensionValues`.
  - For each filter type, you can set the dimension name and values for the filters that you plan to use.
    - For example, you can filter for `REGION==us-east-1 OR REGION==us-west-1`. For `GetRightsizingRecommendation`, the Region is a full name (for example, `REGION==US East (N. Virginia)`.
    - The corresponding `Expression` for this example is as follows: `{ "Dimensions": { "Key": "REGION", "Values": [ "us-east-1", "us-west-1" ] } }`
    - As shown in the previous example, lists of dimension values are combined with `OR` when applying the filter.
  - You can also set different match options to further control how the filter behaves. Not all APIs support match options. Refer to the documentation for each specific API to see what is supported.
    - For example, you can filter for linked account names that start with "a".

  - The corresponding `Expression` for this example is as follows: `{ "Dimensions": { "Key": "LINKED_ACCOUNT_NAME", "MatchOptions": [ "STARTS_WITH" ], "Values": [ "a" ] } }`

- Compound `Expression` types with logical operations.
  - You can use multiple `Expression` types and the logical operators `AND/OR/NOT` to create a list of one or more `Expression` objects. By doing this, you can filter by more advanced options.
  - For example, you can filter by `((REGION == us-east-1 OR REGION == us-west-1) OR (TAG.Type == Type1)) AND (USAGE_TYPE != DataTransfer)`.
  - The corresponding `Expression` for this example is as follows: `{ "And": [ {"Or": [ {"Dimensions": { "Key": "REGION", "Values": [ "us-east-1", "us-west-1" ] }}, {"Tags": { "Key": "TagName", "Values": ["Value1"] } } ]}, {"Not": {"Dimensions": { "Key": "USAGE_TYPE", "Values": ["DataTransfer"] }}} ] }`

> **Note**
>
> Because each `Expression` can have only one operator, the service returns an error if more than one is specified. The following example shows an `Expression` object that creates an error: `{ "And": [ ... ], "Dimensions": { "Key": "USAGE_TYPE", "Values": [ "DataTransfer" ] } }`
>
> The following is an example of the corresponding error message: `"Expression has more than one roots. Only one root operator is allowed for each expression: And, Or, Not, Dimensions, Tags, CostCategories"`

> **Note**
>
> For the `GetRightsizingRecommendation` action, a combination of OR and NOT isn't supported. OR isn't supported between different dimensions, or dimensions and tags. NOT operators aren't supported. Dimensions are also limited to `LINKED_ACCOUNT`, `REGION`, or `RIGHTSIZING_TYPE`.
>
> For the `GetReservationPurchaseRecommendation` action, only NOT is supported. AND and OR aren't supported. Dimensions are limited to `LINKED_ACCOUNT`.

Type: Expression object

Required: No

Metrics

A mapping of metric names to their comparison values.

Type: String to ComparisonMetricValue object map

Key Length Constraints: Minimum length of 0. Maximum length of 1024.

Key Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

CostCategory

Service: AWS Cost Explorer

The structure of Cost Categories. This includes detailed metadata and the set of rules for the `CostCategory` object.

Contents

CostCategoryArn

The unique identifier for your cost category.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: Yes

EffectiveStart

The effective start date of your cost category.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([+-]\d\d:\d\d)|Z)$`

Required: Yes

Name

The unique name of the cost category.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `^(?! )[\p{L}\p{N}\p{Z}-_]*(?<! )$`

Required: Yes

Rules

The rules are processed in order. If there are multiple rules that match the line item, then the first rule to match is used to determine that cost category value.

Type: Array of CostCategoryRule objects

Array Members: Minimum number of 1 item. Maximum number of 500 items.

Required: Yes

RuleVersion

The rule schema version in this particular cost category.

Type: String

Valid Values: `CostCategoryExpression.v1`

Required: Yes

DefaultValue

The default value for the cost category.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `^(?! )[\p{L}\p{N}\p{Z}-_]*(?<! )$`

Required: No

EffectiveEnd

The effective end date of your cost category.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([+-]\d\d:\d\d)|Z)$`

Required: No

ProcessingStatus

The list of processing statuses for Cost Management products for a specific cost category.

Type: Array of CostCategoryProcessingStatus objects

Required: No

SplitChargeRules

The split charge rules that are used to allocate your charges between your cost category values.

Type: Array of CostCategorySplitChargeRule objects

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

CostCategoryInheritedValueDimension

Service: AWS Cost Explorer

When you create or update a cost category, you can define the `CostCategoryRule` rule type as `INHERITED_VALUE`. This rule type adds the flexibility to define a rule that dynamically inherits the cost category value from the dimension value that's defined by `CostCategoryInheritedValueDimension`. For example, suppose that you want to dynamically group costs that are based on the value of a specific tag key. First, choose an inherited value rule type, and then choose the tag dimension and specify the tag key to use.

Contents

DimensionKey

The key to extract cost category values.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

DimensionName

The name of the dimension that's used to group costs.

If you specify `LINKED_ACCOUNT_NAME`, the cost category value is based on account name. If you specify `TAG`, the cost category value is based on the value of the specified tag key.

Type: String

Valid Values: `LINKED_ACCOUNT_NAME | TAG`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

CostCategoryProcessingStatus

Service: AWS Cost Explorer

The list of processing statuses for Cost Management products for a specific cost category.

Contents

Component

The Cost Management product name of the applied status.

Type: String

Valid Values: `COST_EXPLORER`

Required: No

Status

The process status for a specific cost category.

Type: String

Valid Values: `PROCESSING | APPLIED`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

CostCategoryReference

Service: AWS Cost Explorer

A reference to a cost category containing only enough information to identify the Cost Category.

You can use this information to retrieve the full cost category information using `DescribeCostCategory`.

Contents

CostCategoryArn

The unique identifier for your cost category.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: No

DefaultValue

The default value for the cost category.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `^(?! )[\p{L}\p{N}\p{Z}-_]*(?<! )$`

Required: No

EffectiveEnd

The cost category's effective end date.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([+-]\d\d:\d\d)|Z)$`

Required: No

EffectiveStart

The cost category's effective start date.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([+-]\d\d:\d\d)|Z)$`

Required: No

Name

The unique name of the cost category.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `^(?! )[\p{L}\p{N}\p{Z}-_]*(?<! )$`

Required: No

NumberOfRules

The number of rules that are associated with a specific cost category.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

ProcessingStatus

The list of processing statuses for Cost Management products for a specific cost category.

Type: Array of CostCategoryProcessingStatus objects

Required: No

SupportedResourceTypes

The resource types supported by a specific cost category.

Type: Array of strings

Pattern: `^[-a-zA-Z0-9/_]+:[-a-zA-Z0-9/_]+`

Required: No

Values

A list of unique cost category values in a specific cost category.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `^(?! )[\p{L}\p{N}\p{Z}-_]*(?<! )$`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

CostCategoryResourceAssociation

Service: AWS Cost Explorer

A reference to a cost category association that contains information on an associated resource.

Contents

CostCategoryArn

The unique identifier for your cost category.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: No

CostCategoryName

The unique name of the cost category.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `^(?! )[\p{L}\p{N}\p{Z}-_]*(?<! )$`

Required: No

ResourceArn

The unique identifier for an associated resource.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

CostCategoryRule

Service: AWS Cost Explorer

Rules are processed in order. If there are multiple rules that match the line item, then the first rule to match is used to determine that cost category value.

Contents

InheritedValue

The value the line item is categorized as if the line item contains the matched dimension.

Type: CostCategoryInheritedValueDimension object

Required: No

Rule

An Expression object used to categorize costs. This supports dimensions, tags, and nested expressions. Currently the only dimensions supported are `LINKED_ACCOUNT`, `SERVICE_CODE`, `RECORD_TYPE`, `LINKED_ACCOUNT_NAME`, `REGION`, and `USAGE_TYPE`.

`RECORD_TYPE` is a dimension used for Cost Explorer APIs, and is also supported for cost category expressions. This dimension uses different terms, depending on whether you're using the console or API/JSON editor. For a detailed comparison, see Term Comparisons in the *AWS Billing and Cost Management User Guide*.

Type: Expression object

Required: No

Type

You can define the `CostCategoryRule` rule type as either `REGULAR` or `INHERITED_VALUE`. The `INHERITED_VALUE` rule type adds the flexibility to define a rule that dynamically inherits the cost category value. This value is from the dimension value that's defined by `CostCategoryInheritedValueDimension`. For example, suppose that you want to costs to be dynamically grouped based on the value of a specific tag key. First, choose an inherited value rule type, and then choose the tag dimension and specify the tag key to use.

Type: String

Valid Values: `REGULAR | INHERITED_VALUE`

Required: No

Value

The default value for the cost category.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `^(?! )[\p{L}\p{N}\p{Z}-_]*(?<! )$`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

CostCategorySplitChargeRule

Service: AWS Cost Explorer

Use the split charge rule to split the cost of one cost category value across several other target values.

Contents

Method

The method that's used to define how to split your source costs across your targets.

`Proportional` - Allocates charges across your targets based on the proportional weighted cost of each target.

`Fixed` - Allocates charges across your targets based on your defined allocation percentage.

>`Even` - Allocates costs evenly across all targets.

Type: String

Valid Values: `FIXED | PROPORTIONAL | EVEN`

Required: Yes

Source

The cost category value that you want to split. That value can't be used as a source or a target in other split charge rules. To indicate uncategorized costs, you can use an empty string as the source.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

Targets

The cost category values that you want to split costs across. These values can't be used as a source in other split charge rules.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 500 items.

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

Parameters

The parameters for a split charge method. This is only required for the `FIXED` method.

Type: Array of CostCategorySplitChargeRuleParameter objects

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

CostCategorySplitChargeRuleParameter

Service: AWS Cost Explorer

The parameters for a split charge method.

Contents

Type

The parameter type.

Type: String

Valid Values: `ALLOCATION_PERCENTAGES`

Required: Yes

Values

The parameter values.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 500 items.

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

CostCategoryValues

Service: AWS Cost Explorer

The Cost Categories values used for filtering the costs.

If `Values` and `Key` are not specified, the `ABSENT` `MatchOption` is applied to all Cost Categories. That is, it filters on resources that aren't mapped to any Cost Categories.

If `Values` is provided and `Key` isn't specified, the `ABSENT` `MatchOption` is applied to the Cost Categories `Key` only. That is, it filters on resources without the given Cost Categories key.

Contents

Key

The unique name of the cost category.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `^(?! )[\p{L}\p{N}\p{Z}-_]*(?<! )$`

Required: No

MatchOptions

The match options that you can use to filter your results. MatchOptions is only applicable for actions related to cost category. The default values for `MatchOptions` is `EQUALS` and `CASE_SENSITIVE`.

Type: Array of strings

Valid Values: `EQUALS | ABSENT | STARTS_WITH | ENDS_WITH | CONTAINS | CASE_SENSITIVE | CASE_INSENSITIVE | GREATER_THAN_OR_EQUAL`

Required: No

Values

The specific value of the cost category.

Type: Array of strings

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

CostComparisonDriver

Service: AWS Cost Explorer

Represents a collection of cost drivers and their associated metrics for cost comparison analysis.

Contents

CostDrivers

An array of cost drivers, each representing a cost difference between the baseline and comparison time periods. Each entry also includes a metric delta (for example, usage change) that contributed to the cost variance, along with the identifier and type of change.

Type: Array of CostDriver objects

Required: No

CostSelector

Use `Expression` to filter in various Cost Explorer APIs.

Not all `Expression` types are supported in each API. Refer to the documentation for each specific API to see what is supported.

There are two patterns:

- Simple dimension values.
  - There are three types of simple dimension values: `CostCategories`, `Tags`, and `Dimensions`.
    - Specify the `CostCategories` field to define a filter that acts on Cost Categories.
    - Specify the `Tags` field to define a filter that acts on Cost Allocation Tags.
    - Specify the `Dimensions` field to define a filter that acts on the `DimensionValues`.
  - For each filter type, you can set the dimension name and values for the filters that you plan to use.
    - For example, you can filter for `REGION==us-east-1 OR REGION==us-west-1`. For `GetRightsizingRecommendation`, the Region is a full name (for example, `REGION==US East (N. Virginia)`.
    - The corresponding `Expression` for this example is as follows: `{ "Dimensions": { "Key": "REGION", "Values": [ "us-east-1", "us-west-1" ] } }`

    - As shown in the previous example, lists of dimension values are combined with OR when applying the filter.
  - You can also set different match options to further control how the filter behaves. Not all APIs support match options. Refer to the documentation for each specific API to see what is supported.
    - For example, you can filter for linked account names that start with "a".
    - The corresponding `Expression` for this example is as follows: `{ "Dimensions": { "Key": "LINKED_ACCOUNT_NAME", "MatchOptions": [ "STARTS_WITH" ], "Values": [ "a" ] } }`
- Compound `Expression` types with logical operations.
  - You can use multiple `Expression` types and the logical operators `AND/OR/NOT` to create a list of one or more `Expression` objects. By doing this, you can filter by more advanced options.
  - For example, you can filter by `((REGION == us-east-1 OR REGION == us-west-1) OR (TAG.Type == Type1)) AND (USAGE_TYPE != DataTransfer)`.
  - The corresponding `Expression` for this example is as follows: `{ "And": [ {"Or": [ {"Dimensions": { "Key": "REGION", "Values": [ "us-east-1", "us-west-1" ] }}, {"Tags": { "Key": "TagName", "Values": ["Value1"] } } ]}, {"Not": {"Dimensions": { "Key": "USAGE_TYPE", "Values": ["DataTransfer"] }}} ] }`

> **Note**
>
> Because each `Expression` can have only one operator, the service returns an error if more than one is specified. The following example shows an `Expression` object that creates an error: `{ "And": [ ... ], "Dimensions": { "Key": "USAGE_TYPE", "Values": [ "DataTransfer" ] } }`
> The following is an example of the corresponding error message: `"Expression has more than one roots. Only one root operator is allowed for each expression: And, Or, Not, Dimensions, Tags, CostCategories"`

> **Note**
>
> For the `GetRightsizingRecommendation` action, a combination of OR and NOT isn't supported. OR isn't supported between different dimensions, or dimensions and tags.

NOT operators aren't supported. Dimensions are also limited to `LINKED_ACCOUNT`, `REGION`, or `RIGHTSIZING_TYPE`.
For the `GetReservationPurchaseRecommendation` action, only NOT is supported. AND and OR aren't supported. Dimensions are limited to `LINKED_ACCOUNT`.

Type: Expression object

Required: No

Metrics

A mapping of metric names to their comparison values.

Type: String to ComparisonMetricValue object map

Key Length Constraints: Minimum length of 0. Maximum length of 1024.

Key Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

CostDriver

Service: AWS Cost Explorer

Represents factors that contribute to cost variations between the baseline and comparison time periods, including the type of driver, an identifier of the driver, and associated metrics.

Contents

Metrics

A mapping of metric names to their comparison values, measuring the impact of this cost driver.

Type: String to ComparisonMetricValue object map

Key Length Constraints: Minimum length of 0. Maximum length of 1024.

Key Pattern: `[\S\s]*`

Required: No

Name

The specific identifier of the cost driver.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Type

The category or classification of the cost driver.

Values include: BUNDLED_DISCOUNT, CREDIT, OUT_OF_CYCLE_CHARGE, REFUND, RECURRING_RESERVATION_FEE, RESERVATION_USAGE, RI_VOLUME_DISCOUNT, SAVINGS_PLAN_USAGE, SAVINGS_PLAN_RECURRING_FEE, SUPPORT_FEE, TAX, UPFRONT_RESERVATION_FEE, USAGE_CHANGE, COMMITMENT

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Coverage

Service: AWS Cost Explorer

The amount of instance usage that a reservation covered.

Contents

CoverageCost

The amount of cost that the reservation covered.

Type: CoverageCost object

Required: No

CoverageHours

The amount of instance usage that the reservation covered, in hours.

Type: CoverageHours object

Required: No

CoverageNormalizedUnits

The amount of instance usage that the reservation covered, in normalized units.

Type: CoverageNormalizedUnits object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

CoverageByTime

Service: AWS Cost Explorer

Reservation coverage for a specified period, in hours.

Contents

Groups

The groups of instances that the reservation covered.

Type: Array of ReservationCoverageGroup objects

Required: No

TimePeriod

The period that this coverage was used over.

Type: DateInterval object

Required: No

Total

The total reservation coverage, in hours.

Type: Coverage object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

CoverageCost

Service: AWS Cost Explorer

How much it costs to run an instance.

Contents

OnDemandCost

How much an On-Demand Instance costs.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

CoverageHours

Service: AWS Cost Explorer

How long a running instance either used a reservation or was On-Demand.

Contents

CoverageHoursPercentage

The percentage of instance hours that a reservation covered.

Type: String

Required: No

OnDemandHours

The number of instance running hours that On-Demand Instances covered.

Type: String

Required: No

ReservedHours

The number of instance running hours that reservations covered.

Type: String

Required: No

TotalRunningHours

The total instance usage, in hours.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

CoverageNormalizedUnits

Service: AWS Cost Explorer

The amount of instance usage, in normalized units. You can use normalized units to see your EC2 usage for multiple sizes of instances in a uniform way. For example, suppose that you run an xlarge instance and a 2xlarge instance. If you run both instances for the same amount of time, the 2xlarge instance uses twice as much of your reservation as the xlarge instance, even though both instances show only one instance-hour. When you use normalized units instead of instance-hours, the xlarge instance used 8 normalized units, and the 2xlarge instance used 16 normalized units.

For more information, see Modifying Reserved Instances in the *Amazon Elastic Compute Cloud User Guide for Linux Instances*.

Contents

CoverageNormalizedUnitsPercentage

The percentage of your used instance normalized units that a reservation covers.

Type: String

Required: No

OnDemandNormalizedUnits

The number of normalized units that are covered by On-Demand Instances instead of a reservation.

Type: String

Required: No

ReservedNormalizedUnits

The number of normalized units that a reservation covers.

Type: String

Required: No

TotalRunningNormalizedUnits

The total number of normalized units that you used.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

CurrentInstance

Service: AWS Cost Explorer

Context about the current instance.

Contents

CurrencyCode

The currency code that AWS used to calculate the costs for this instance.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

InstanceName

The name that you given an instance. This field shows as blank if you haven't given the instance a name.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

MonthlyCost

The current On-Demand cost of operating this instance on a monthly basis.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

OnDemandHoursInLookbackPeriod

The number of hours during the lookback period that's billed at On-Demand rates.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

ReservationCoveredHoursInLookbackPeriod

The number of hours during the lookback period that's covered by reservations.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

ResourceDetails

Details about the resource and utilization.

Type: ResourceDetails object

Required: No

ResourceId

Resource ID of the current instance.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

ResourceUtilization

Utilization information of the current instance during the lookback period.

Type: ResourceUtilization object

Required: No

SavingsPlansCoveredHoursInLookbackPeriod

The number of hours during the lookback period that's covered by Savings Plans.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Tags

Cost allocation resource tags that are applied to the instance.

Type: Array of TagValues objects

Required: No

TotalRunningHoursInLookbackPeriod

The total number of hours that the instance ran during the lookback period.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

DateInterval

Service: AWS Cost Explorer

The time period of the request.

Contents

End

The end of the time period. The end date is exclusive. For example, if `end` is `2017-05-01`, AWS retrieves cost and usage data from the start date up to, but not including, `2017-05-01`.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 40.

Pattern: `(\d{4}-\d{2}-\d{2})(T\d{2}:\d{2}:\d{2}Z)?`

Required: Yes

Start

The beginning of the time period. The start date is inclusive. For example, if `start` is `2017-01-01`, AWS retrieves cost and usage data starting at `2017-01-01` up to the end date. The start date must be equal to or no later than the current date to avoid a validation error.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 40.

Pattern: `(\d{4}-\d{2}-\d{2})(T\d{2}:\d{2}:\d{2}Z)?`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2

- AWS SDK for Ruby V3

DimensionValues

Service: AWS Cost Explorer

The metadata that you can use to filter and group your results. You can use `GetDimensionValues` to find specific values.

Contents

Key

The names of the metadata types that you can use to filter and group your results. For example, `AZ` returns a list of Availability Zones.

Not all dimensions are supported in each API. Refer to the documentation for each specific API to see what is supported.

`LINKED_ACCOUNT_NAME` and `SERVICE_CODE` can only be used in CostCategoryRule.

`ANOMALY_TOTAL_IMPACT_ABSOLUTE` and `ANOMALY_TOTAL_IMPACT_PERCENTAGE` can only be used in AnomalySubscriptions.

Type: String

Valid Values: `AZ | INSTANCE_TYPE | LINKED_ACCOUNT | PAYER_ACCOUNT | LINKED_ACCOUNT_NAME | OPERATION | PURCHASE_TYPE | REGION | SERVICE | SERVICE_CODE | USAGE_TYPE | USAGE_TYPE_GROUP | RECORD_TYPE | OPERATING_SYSTEM | TENANCY | SCOPE | PLATFORM | SUBSCRIPTION_ID | LEGAL_ENTITY_NAME | DEPLOYMENT_OPTION | DATABASE_ENGINE | CACHE_ENGINE | INSTANCE_TYPE_FAMILY | BILLING_ENTITY | RESERVATION_ID | RESOURCE_ID | RIGHTSIZING_TYPE | SAVINGS_PLANS_TYPE | SAVINGS_PLAN_ARN | PAYMENT_OPTION | AGREEMENT_END_DATE_TIME_AFTER | AGREEMENT_END_DATE_TIME_BEFORE | INVOICING_ENTITY | ANOMALY_TOTAL_IMPACT_ABSOLUTE | ANOMALY_TOTAL_IMPACT_PERCENTAGE`

Required: No

MatchOptions

The match options that you can use to filter your results.

`MatchOptions` is only applicable for actions related to cost category and Anomaly Subscriptions. Refer to the documentation for each specific API to see what is supported.

The default values for `MatchOptions` are `EQUALS` and `CASE_SENSITIVE`.

Type: Array of strings

Valid Values: `EQUALS | ABSENT | STARTS_WITH | ENDS_WITH | CONTAINS | CASE_SENSITIVE | CASE_INSENSITIVE | GREATER_THAN_OR_EQUAL`

Required: No

Values

The metadata values that you can use to filter and group your results. You can use `GetDimensionValues` to find specific values.

Type: Array of strings

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

DimensionValuesWithAttributes

Service: AWS Cost Explorer

The metadata of a specific type that you can use to filter and group your results. You can use `GetDimensionValues` to find specific values.

Contents

Attributes

The attribute that applies to a specific `Dimension`.

Type: String to string map

Required: No

Value

The value of a dimension with a specific attribute.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

DiskResourceUtilization

Service: AWS Cost Explorer

The field that contains a list of disk (local storage) metrics that are associated with the current instance.

Contents

DiskReadBytesPerSecond

The maximum read throughput operations per second.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

DiskReadOpsPerSecond

The maximum number of read operations per second.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

DiskWriteBytesPerSecond

The maximum write throughput operations per second.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

DiskWriteOpsPerSecond

The maximum number of write operations per second.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

DynamoDBCapacityDetails

Service: AWS Cost Explorer

The DynamoDB reservations that AWS recommends that you purchase.

Contents

CapacityUnits

The capacity unit of the recommended reservation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Region

The AWS Region of the recommended reservation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

EBSResourceUtilization

Service: AWS Cost Explorer

The EBS field that contains a list of EBS metrics that are associated with the current instance.

Contents

EbsReadBytesPerSecond

The maximum size of read operations per second

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EbsReadOpsPerSecond

The maximum number of read operations per second.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EbsWriteBytesPerSecond

The maximum size of write operations per second.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EbsWriteOpsPerSecond

The maximum number of write operations per second.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

EC2InstanceDetails

Service: AWS Cost Explorer

Details about the Amazon EC2 reservations that AWS recommends that you purchase.

Contents

AvailabilityZone

The Availability Zone of the recommended reservation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

CurrentGeneration

Determines whether the recommendation is for a current-generation instance.

Type: Boolean

Required: No

Family

The instance family of the recommended reservation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

InstanceType

The type of instance that AWS recommends.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Platform

The platform of the recommended reservation. The platform is the specific combination of operating system, license model, and software on an instance.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Region

The AWS Region of the recommended reservation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

SizeFlexEligible

Determines whether the recommended reservation is size flexible.

Type: Boolean

Required: No

Tenancy

Determines whether the recommended reservation is dedicated or shared.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

EC2ResourceDetails

Service: AWS Cost Explorer

Details on the Amazon EC2 Resource.

Contents

HourlyOnDemandRate

The hourly public On-Demand rate for the instance type.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

InstanceType

The type of AWS instance.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Memory

The memory capacity of the AWS instance.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

NetworkPerformance

The network performance capacity of the AWS instance.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Platform

The platform of the AWS instance. The platform is the specific combination of operating system, license model, and software on an instance.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Region

The AWS Region of the instance.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Sku

The SKU of the product.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Storage

The disk storage of the AWS instance. This doesn't include EBS storage.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Vcpu

The number of VCPU cores in the AWS instance type.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

EC2ResourceUtilization

Service: AWS Cost Explorer

Utilization metrics for the instance.

Contents

DiskResourceUtilization

The field that contains a list of disk (local storage) metrics that are associated with the current instance.

Type: DiskResourceUtilization object

Required: No

EBSResourceUtilization

The EBS field that contains a list of EBS metrics that are associated with the current instance.

Type: EBSResourceUtilization object

Required: No

MaxCpuUtilizationPercentage

The maximum observed or expected CPU utilization of the instance.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

MaxMemoryUtilizationPercentage

The maximum observed or expected memory utilization of the instance.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

MaxStorageUtilizationPercentage

The maximum observed or expected storage utilization of the instance. This doesn't include EBS storage.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

NetworkResourceUtilization

The network field that contains a list of network metrics that are associated with the current instance.

Type: NetworkResourceUtilization object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

EC2Specification

Service: AWS Cost Explorer

The Amazon EC2 hardware specifications that you want AWS to provide recommendations for.

Contents

OfferingClass

Indicates whether you want a recommendation for standard or convertible reservations.

Type: String

Valid Values: `STANDARD | CONVERTIBLE`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ElastiCacheInstanceDetails

Service: AWS Cost Explorer

Details about the Amazon ElastiCache reservations that AWS recommends that you purchase.

Contents

CurrentGeneration

Determines whether the recommendation is for a current generation instance.

Type: Boolean

Required: No

Family

The instance family of the recommended reservation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

NodeType

The type of node that AWS recommends.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

ProductDescription

The description of the recommended reservation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Region

The AWS Region of the recommended reservation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

SizeFlexEligible

Determines whether the recommended reservation is size flexible.

Type: Boolean

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ESInstanceDetails

Service: AWS Cost Explorer

Details about the Amazon OpenSearch Service reservations that AWS recommends that you purchase.

Contents

CurrentGeneration

Determines whether the recommendation is for a current-generation instance.

Type: Boolean

Required: No

InstanceClass

The class of instance that AWS recommends.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

InstanceSize

The size of instance that AWS recommends.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Region

The AWS Region of the recommended reservation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

SizeFlexEligible

Determines whether the recommended reservation is size flexible.

Type: Boolean

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Expression

Service: AWS Cost Explorer

Use `Expression` to filter in various Cost Explorer APIs.

Not all `Expression` types are supported in each API. Refer to the documentation for each specific API to see what is supported.

There are two patterns:

- Simple dimension values.
  - There are three types of simple dimension values: `CostCategories`, `Tags`, and `Dimensions`.
    - Specify the `CostCategories` field to define a filter that acts on Cost Categories.
    - Specify the `Tags` field to define a filter that acts on Cost Allocation Tags.
    - Specify the `Dimensions` field to define a filter that acts on the `DimensionValues`.
  - For each filter type, you can set the dimension name and values for the filters that you plan to use.
    - For example, you can filter for `REGION==us-east-1 OR REGION==us-west-1`. For `GetRightsizingRecommendation`, the Region is a full name (for example, `REGION==US East (N. Virginia)`).
    - The corresponding `Expression` for this example is as follows: `{ "Dimensions": { "Key": "REGION", "Values": [ "us-east-1", "us-west-1" ] } }`
    - As shown in the previous example, lists of dimension values are combined with `OR` when applying the filter.
  - You can also set different match options to further control how the filter behaves. Not all APIs support match options. Refer to the documentation for each specific API to see what is supported.
    - For example, you can filter for linked account names that start with "a".
    - The corresponding `Expression` for this example is as follows: `{ "Dimensions": { "Key": "LINKED_ACCOUNT_NAME", "MatchOptions": [ "STARTS_WITH" ], "Values": [ "a" ] } }`
- Compound `Expression` types with logical operations.
  - You can use multiple `Expression` types and the logical operators `AND/OR/NOT` to create a list of one or more `Expression` objects. By doing this, you can filter by more advanced options.

- For example, you can filter by `((REGION == us-east-1 OR REGION == us-west-1) OR (TAG.Type == Type1)) AND (USAGE_TYPE != DataTransfer)`.
- The corresponding `Expression` for this example is as follows: `{ "And": [ {"Or": [ {"Dimensions": { "Key": "REGION", "Values": [ "us-east-1", "us-west-1" ] }}, {"Tags": { "Key": "TagName", "Values": ["Value1"] } } ]}, {"Not": {"Dimensions": { "Key": "USAGE_TYPE", "Values": ["DataTransfer"] }}} ] }`

> **Note**
>
> Because each `Expression` can have only one operator, the service returns an error if more than one is specified. The following example shows an `Expression` object that creates an error: `{ "And": [ ... ], "Dimensions": { "Key": "USAGE_TYPE", "Values": [ "DataTransfer" ] } }`
> The following is an example of the corresponding error message: `"Expression has more than one roots. Only one root operator is allowed for each expression: And, Or, Not, Dimensions, Tags, CostCategories"`

> **Note**
>
> For the `GetRightsizingRecommendation` action, a combination of OR and NOT isn't supported. OR isn't supported between different dimensions, or dimensions and tags. NOT operators aren't supported. Dimensions are also limited to `LINKED_ACCOUNT`, `REGION`, or `RIGHTSIZING_TYPE`.
> For the `GetReservationPurchaseRecommendation` action, only NOT is supported. AND and OR aren't supported. Dimensions are limited to `LINKED_ACCOUNT`.

Contents

And

Return results that match both `Dimension` objects.

Type: Array of Expression objects

Required: No

CostCategories

The filter that's based on `CostCategory` values.

Type: CostCategoryValues object

Required: No

Dimensions

The specific `Dimension` to use for `Expression`.

Type: DimensionValues object

Required: No

Not

Return results that don't match a `Dimension` object.

Type: Expression object

Required: No

Or

Return results that match either `Dimension` object.

Type: Array of Expression objects

Required: No

Tags

The specific `Tag` to use for `Expression`.

Type: TagValues object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++

- AWS SDK for Java V2
- AWS SDK for Ruby V3

ForecastResult

Service: AWS Cost Explorer

The forecast that's created for your query.

Contents

MeanValue

The mean value of the forecast.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

PredictionIntervalLowerBound

The lower limit for the prediction interval.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

PredictionIntervalUpperBound

The upper limit for the prediction interval.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

TimePeriod

The period of time that the forecast covers.

Type: DateInterval object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

GenerationSummary

Service: AWS Cost Explorer

The summary of the Savings Plans recommendation generation.

Contents

EstimatedCompletionTime

Indicates the estimated time for when the recommendation generation will complete.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([+-]\d\d:\d\d)|Z)$`

Required: No

GenerationCompletionTime

Indicates the completion time of the recommendation generation.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([+-]\d\d:\d\d)|Z)$`

Required: No

GenerationStartedTime

Indicates the start time of the recommendation generation.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([+-]\d\d:\d\d)|Z)$`

Required: No

GenerationStatus

Indicates whether the recommendation generation succeeded, is processing, or failed.

Type: String

Valid Values: `SUCCEEDED | PROCESSING | FAILED`

Required: No

RecommendationId

Indicates the ID for this specific recommendation.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `^[\S\s]{8}-[\S\s]{4}-[\S\s]{4}-[\S\s]{4}-[\S\s]{12}$`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Group

Service: AWS Cost Explorer

One level of grouped data in the results.

Contents

Keys

The keys that are included in this group.

Type: Array of strings

Required: No

Metrics

The metrics that are included in this group.

Type: String to MetricValue object map

Key Length Constraints: Minimum length of 0. Maximum length of 1024.

Key Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

GroupDefinition

Service: AWS Cost Explorer

Represents a group when you specify a group by criteria or in the response to a query with a specific grouping.

Contents

Key

The string that represents a key for a specified group.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Type

The string that represents the type of group.

Type: String

Valid Values: `DIMENSION | TAG | COST_CATEGORY`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Impact

Service: AWS Cost Explorer

The dollar value of the anomaly.

Contents

MaxImpact

The maximum dollar value that's observed for an anomaly.

Type: Double

Required: Yes

TotalActualSpend

The cumulative dollar amount that was actually spent during the anomaly.

Type: Double

Valid Range: Minimum value of 0.0.

Required: No

TotalExpectedSpend

The cumulative dollar amount that was expected to be spent during the anomaly. It is calculated using advanced machine learning models to determine the typical spending pattern based on historical data for a customer.

Type: Double

Valid Range: Minimum value of 0.0.

Required: No

TotalImpact

The cumulative dollar difference between the total actual spend and total expected spend. It is calculated as `TotalActualSpend - TotalExpectedSpend`.

Type: Double

Required: No

TotalImpactPercentage

The cumulative percentage difference between the total actual spend and total expected spend. It is calculated as `(TotalImpact / TotalExpectedSpend) * 100`. When `TotalExpectedSpend` is zero, this field is omitted. Expected spend can be zero in situations such as when you start to use a service for the first time.

Type: Double

Valid Range: Minimum value of 0.0.

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

InstanceDetails

Service: AWS Cost Explorer

Details about the reservations that AWS recommends that you purchase.

Contents

EC2InstanceDetails

The Amazon EC2 reservations that AWS recommends that you purchase.

Type: EC2InstanceDetails object

Required: No

ElastiCacheInstanceDetails

The ElastiCache reservations that AWS recommends that you purchase.

Type: ElastiCacheInstanceDetails object

Required: No

ESInstanceDetails

The Amazon OpenSearch Service reservations that AWS recommends that you purchase.

Type: ESInstanceDetails object

Required: No

MemoryDBInstanceDetails

The MemoryDB reservations that AWS recommends that you purchase.

Type: MemoryDBInstanceDetails object

Required: No

RDSInstanceDetails

The Amazon RDS reservations that AWS recommends that you purchase.

Type: RDSInstanceDetails object

Required: No

RedshiftInstanceDetails

The Amazon Redshift reservations that AWS recommends that you purchase.

Type: RedshiftInstanceDetails object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

MemoryDBInstanceDetails

Service: AWS Cost Explorer

Details about the MemoryDB reservations that AWS recommends that you purchase.

Contents

CurrentGeneration

Determines whether the recommendation is for a current generation instance.

Type: Boolean

Required: No

Family

The instance family of the recommended reservation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

NodeType

The node type of the recommended reservation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Region

The AWS Region of the recommended reservation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

SizeFlexEligible

Determines whether the recommended reservation is size flexible.

Type: Boolean

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

MetricValue

Service: AWS Cost Explorer

The aggregated value for a metric.

Contents

Amount

The actual number that represents the metric.

Type: String

Required: No

Unit

The unit that the metric is given in.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ModifyRecommendationDetail

Service: AWS Cost Explorer

Details for the modification recommendation.

Contents

TargetInstances

Determines whether this instance type is the AWS default recommendation.

Type: Array of TargetInstance objects

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

NetworkResourceUtilization

Service: AWS Cost Explorer

The network field that contains a list of network metrics that are associated with the current instance.

Contents

NetworkInBytesPerSecond

The network inbound throughput utilization measured in Bytes per second (Bps).

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

NetworkOutBytesPerSecond

The network outbound throughput utilization measured in Bytes per second (Bps).

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

NetworkPacketsInPerSecond

The network inbound packets that are measured in packets per second.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

NetworkPacketsOutPerSecond

The network outbound packets that are measured in packets per second.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

RDSInstanceDetails

Service: AWS Cost Explorer

Details about the Amazon RDS reservations that AWS recommends that you purchase.

Contents

CurrentGeneration

Determines whether the recommendation is for a current-generation instance.

Type: Boolean

Required: No

DatabaseEdition

The database edition that the recommended reservation supports.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

DatabaseEngine

The database engine that the recommended reservation supports.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

DeploymentModel

Determines whether the recommendation is for a reservation for RDS Custom.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

DeploymentOption

Determines whether the recommendation is for a reservation in a single Availability Zone or a reservation with a backup in a second Availability Zone.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Family

The instance family of the recommended reservation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

InstanceType

The type of instance that AWS recommends.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

LicenseModel

The license model that the recommended reservation supports.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Region

The AWS Region of the recommended reservation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

SizeFlexEligible

Determines whether the recommended reservation is size flexible.

Type: Boolean

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

RecommendationDetailData

Service: AWS Cost Explorer

The details and metrics for the given recommendation.

Contents

AccountId

The AccountID that the recommendation is generated for.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

AccountScope

The account scope that you want your recommendations for. AWS calculates recommendations including the management account and member accounts if the value is set to PAYER. If the value is LINKED, recommendations are calculated for individual member accounts only.

Type: String

Valid Values: `PAYER | LINKED`

Required: No

CurrencyCode

The currency code that AWS used to generate the recommendation and present potential savings.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

CurrentAverageCoverage

The average value of hourly coverage over the lookback period.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

CurrentAverageHourlyOnDemandSpend

The average value of hourly On-Demand spend over the lookback period of the applicable usage type.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

CurrentMaximumHourlyOnDemandSpend

The highest value of hourly On-Demand spend over the lookback period of the applicable usage type.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

CurrentMinimumHourlyOnDemandSpend

The lowest value of hourly On-Demand spend over the lookback period of the applicable usage type.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedAverageCoverage

The estimated coverage of the recommended Savings Plan.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedAverageUtilization

The estimated utilization of the recommended Savings Plan.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedMonthlySavingsAmount

The estimated monthly savings amount based on the recommended Savings Plan.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedOnDemandCost

The remaining On-Demand cost estimated to not be covered by the recommended Savings Plan, over the length of the lookback period.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedOnDemandCostWithCurrentCommitment

The estimated On-Demand costs you expect with no additional commitment, based on your usage of the selected time period and the Savings Plan you own.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedROI

The estimated return on investment that's based on the recommended Savings Plan that you purchased. This is calculated as estimatedSavingsAmount/estimatedSPCost*100.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedSavingsAmount

The estimated savings amount that's based on the recommended Savings Plan over the length of the lookback period.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedSavingsPercentage

The estimated savings percentage relative to the total cost of applicable On-Demand usage over the lookback period.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedSPCost

The cost of the recommended Savings Plan over the length of the lookback period.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

ExistingHourlyCommitment

The existing hourly commitment for the Savings Plan type.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

GenerationTimestamp

The period of time that you want the usage and costs for.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: ^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([+-]\d\d:\d\d)|Z)$

Required: No

HourlyCommitmentToPurchase

The recommended hourly commitment level for the Savings Plan type and the configuration that's based on the usage during the lookback period.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: [\S\s]*

Required: No

InstanceFamily

The instance family of the recommended Savings Plan.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: [\S\s]*

Required: No

LatestUsageTimestamp

The period of time that you want the usage and costs for.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: ^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([+-]\d\d:\d\d)|Z)$

Required: No

LookbackPeriodInDays

How many days of previous usage that AWS considers when making this recommendation.

Type: String

Valid Values: `SEVEN_DAYS | THIRTY_DAYS | SIXTY_DAYS`

Required: No

MetricsOverLookbackPeriod

The related hourly cost, coverage, and utilization metrics over the lookback period.

Type: Array of RecommendationDetailHourlyMetrics objects

Required: No

OfferingId

The unique ID that's used to distinguish Savings Plans from one another.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

PaymentOption

The payment option for the commitment (for example, All Upfront or No Upfront).

Type: String

Valid Values: `NO_UPFRONT | PARTIAL_UPFRONT | ALL_UPFRONT | LIGHT_UTILIZATION | MEDIUM_UTILIZATION | HEAVY_UTILIZATION`

Required: No

Region

The region the recommendation is generated for.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

SavingsPlansType

The requested Savings Plan recommendation type.

Type: String

Valid Values: `COMPUTE_SP | EC2_INSTANCE_SP | SAGEMAKER_SP | DATABASE_SP`

Required: No

TermInYears

The term of the commitment in years.

Type: String

Valid Values: `ONE_YEAR | THREE_YEARS`

Required: No

UpfrontCost

The upfront cost of the recommended Savings Plan, based on the selected payment option.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

RecommendationDetailHourlyMetrics

Service: AWS Cost Explorer

Contains the hourly metrics for the given recommendation over the lookback period.

Contents

CurrentCoverage

The current amount of Savings Plans eligible usage that the Savings Plan covered.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedCoverage

The estimated coverage amount based on the recommended Savings Plan.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedNewCommitmentUtilization

The estimated utilization for the recommended Savings Plan.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedOnDemandCost

The remaining On-Demand cost estimated to not be covered by the recommended Savings Plan, over the length of the lookback period.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

StartTime

The period of time that you want the usage and costs for.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 25.

Pattern: `^\d{4}-\d\d-\d\dT\d\d:\d\d:\d\d(([+-]\d\d:\d\d)|Z)$`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

RedshiftInstanceDetails

Service: AWS Cost Explorer

Details about the Amazon Redshift reservations that AWS recommends that you purchase.

Contents

CurrentGeneration

Determines whether the recommendation is for a current-generation instance.

Type: Boolean

Required: No

Family

The instance family of the recommended reservation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

NodeType

The type of node that AWS recommends.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Region

The AWS Region of the recommended reservation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

SizeFlexEligible

Determines whether the recommended reservation is size flexible.

Type: Boolean

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ReservationAggregates

Service: AWS Cost Explorer

The aggregated numbers for your reservation usage.

Contents

AmortizedRecurringFee

The monthly cost of your reservation. It's amortized over the reservation period.

Type: String

Required: No

AmortizedUpfrontFee

The upfront cost of your reservation. It's amortized over the reservation period.

Type: String

Required: No

NetRISavings

How much you saved due to purchasing and utilizing reservation. AWS calculates this by subtracting `TotalAmortizedFee` from `OnDemandCostOfRIHoursUsed`.

Type: String

Required: No

OnDemandCostOfRIHoursUsed

How much your reservation costs if charged On-Demand rates.

Type: String

Required: No

PurchasedHours

How many reservation hours that you purchased.

Type: String

Required: No

PurchasedUnits

The number of Amazon EC2 reservation hours that you purchased. It's converted to normalized units. Normalized units are available only for Amazon EC2 usage after November 11, 2017.

Type: String

Required: No

RealizedSavings

The realized savings because of purchasing and using a reservation.

Type: String

Required: No

RICostForUnusedHours

The cost of unused hours for your reservation.

Type: String

Required: No

TotalActualHours

The total number of reservation hours that you used.

Type: String

Required: No

TotalActualUnits

The total number of Amazon EC2 reservation hours that you used. It's converted to normalized units. Normalized units are available only for Amazon EC2 usage after November 11, 2017.

Type: String

Required: No

TotalAmortizedFee

The total cost of your reservation. It's amortized over the reservation period.

Type: String

Required: No

TotalPotentialRISavings

How much you might save if you use your entire reservation.

Type: String

Required: No

UnrealizedSavings

The unrealized savings because of purchasing and using a reservation.

Type: String

Required: No

UnusedHours

The number of reservation hours that you didn't use.

Type: String

Required: No

UnusedUnits

The number of Amazon EC2 reservation hours that you didn't use. It's converted to normalized units. Normalized units are available only for Amazon EC2 usage after November 11, 2017.

Type: String

Required: No

UtilizationPercentage

The percentage of reservation time that you used.

Type: String

Required: No

UtilizationPercentageInUnits

The percentage of Amazon EC2 reservation time that you used. It's converted to normalized units. Normalized units are available only for Amazon EC2 usage after November 11, 2017.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ReservationCoverageGroup

Service: AWS Cost Explorer

A group of reservations that share a set of attributes.

Contents

Attributes

The attributes for this group of reservations.

Type: String to string map

Required: No

Coverage

How much instance usage this group of reservations covered.

Type: Coverage object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ReservationPurchaseRecommendation

Service: AWS Cost Explorer

A specific reservation that AWS recommends for purchase.

Contents

AccountScope

The account scope that AWS recommends that you purchase this instance for. For example, you can purchase this reservation for an entire organization in AWS Organizations.

Type: String

Valid Values: `PAYER | LINKED`

Required: No

LookbackPeriodInDays

How many days of previous usage that AWS considers when making this recommendation.

Type: String

Valid Values: `SEVEN_DAYS | THIRTY_DAYS | SIXTY_DAYS`

Required: No

PaymentOption

The payment option for the reservation (for example, `AllUpfront` or `NoUpfront`).

Type: String

Valid Values: `NO_UPFRONT | PARTIAL_UPFRONT | ALL_UPFRONT | LIGHT_UTILIZATION | MEDIUM_UTILIZATION | HEAVY_UTILIZATION`

Required: No

RecommendationDetails

Details about the recommended purchases.

Type: Array of ReservationPurchaseRecommendationDetail objects

Required: No

RecommendationSummary

A summary about the recommended purchase.

Type: ReservationPurchaseRecommendationSummary object

Required: No

ServiceSpecification

Hardware specifications for the service that you want recommendations for.

Type: ServiceSpecification object

Required: No

TermInYears

The term of the reservation that you want recommendations for, in years.

Type: String

Valid Values: `ONE_YEAR | THREE_YEARS`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ReservationPurchaseRecommendationDetail

Service: AWS Cost Explorer

Details about your recommended reservation purchase.

Contents

AccountId

The account that this Reserved Instance (RI) recommendation is for.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

AverageNormalizedUnitsUsedPerHour

The average number of normalized units that you used in an hour during the historical period. AWS uses this to calculate your recommended reservation purchases.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

AverageNumberOfCapacityUnitsUsedPerHour

The average number of provisioned capacity units that you used in an hour during the historical period. AWS uses this to calculate your recommended reservation purchases.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

AverageNumberOfInstancesUsedPerHour

The average number of instances that you used in an hour during the historical period. AWS uses this to calculate your recommended reservation purchases.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

AverageUtilization

The average utilization of your instances. AWS uses this to calculate your recommended reservation purchases.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

CurrencyCode

The currency code that AWS used to calculate the costs for this instance.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedBreakEvenInMonths

How long AWS estimates that it takes for this instance to start saving you money, in months.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: [\S\s]*

Required: No

EstimatedMonthlyOnDemandCost

How much AWS estimates that you spend on On-Demand Instances in a month.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: [\S\s]*

Required: No

EstimatedMonthlySavingsAmount

How much AWS estimates that this specific recommendation might save you in a month.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: [\S\s]*

Required: No

EstimatedMonthlySavingsPercentage

How much AWS estimates that this specific recommendation might save you in a month, as a percentage of your overall costs.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: [\S\s]*

Required: No

EstimatedReservationCostForLookbackPeriod

How much AWS estimates that you might spend for all usage during the specified historical period if you had a reservation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

InstanceDetails

Details about the reservations that AWS recommends that you purchase.

Type: InstanceDetails object

Required: No

MaximumNormalizedUnitsUsedPerHour

The maximum number of normalized units that you used in an hour during the historical period. AWS uses this to calculate your recommended reservation purchases.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

MaximumNumberOfCapacityUnitsUsedPerHour

The maximum number of provisioned capacity units that you used in an hour during the historical period. AWS uses this to calculate your recommended reservation purchases.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

MaximumNumberOfInstancesUsedPerHour

The maximum number of instances that you used in an hour during the historical period. AWS uses this to calculate your recommended reservation purchases.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

MinimumNormalizedUnitsUsedPerHour

The minimum number of normalized units that you used in an hour during the historical period. AWS uses this to calculate your recommended reservation purchases.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

MinimumNumberOfCapacityUnitsUsedPerHour

The minimum number of provisioned capacity units that you used in an hour during the historical period. AWS uses this to calculate your recommended reservation purchases.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

MinimumNumberOfInstancesUsedPerHour

The minimum number of instances that you used in an hour during the historical period. AWS uses this to calculate your recommended reservation purchases.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

RecommendedNormalizedUnitsToPurchase

The number of normalized units that AWS recommends that you purchase.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

RecommendedNumberOfCapacityUnitsToPurchase

The number of reserved capacity units that AWS recommends that you purchase.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

RecommendedNumberOfInstancesToPurchase

The number of instances that AWS recommends that you purchase.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

RecurringStandardMonthlyCost

How much purchasing this instance costs you on a monthly basis.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

ReservedCapacityDetails

Details about the reservations that AWS recommends that you purchase.

Type: ReservedCapacityDetails object

Required: No

UpfrontCost

How much purchasing this instance costs you upfront.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ReservationPurchaseRecommendationMetadata

Service: AWS Cost Explorer

Information about a recommendation, such as the timestamp for when AWS made a specific recommendation.

Contents

AdditionalMetadata

Additional metadata that might be applicable to the recommendation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

GenerationTimestamp

The timestamp for when AWS made the recommendation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

RecommendationId

The ID for the recommendation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ReservationPurchaseRecommendationSummary

Service: AWS Cost Explorer

A summary about this recommendation, such as the currency code, the amount that AWS estimates that you could save, and the total amount of reservation to purchase.

Contents

CurrencyCode

The currency code used for this recommendation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

TotalEstimatedMonthlySavingsAmount

The total amount that AWS estimates that this recommendation could save you in a month.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

TotalEstimatedMonthlySavingsPercentage

The total amount that AWS estimates that this recommendation could save you in a month, as a percentage of your costs.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ReservationUtilizationGroup

Service: AWS Cost Explorer

A group of reservations that share a set of attributes.

Contents

Attributes

The attributes for this group of reservations.

Type: String to string map

Required: No

Key

The key for a specific reservation attribute.

Type: String

Required: No

Utilization

How much you used this group of reservations.

Type: ReservationAggregates object

Required: No

Value

The value of a specific reservation attribute.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ReservedCapacityDetails

Service: AWS Cost Explorer

Details about the reservations that AWS recommends that you purchase.

Contents

DynamoDBCapacityDetails

The DynamoDB reservations that AWS recommends that you purchase.

Type: DynamoDBCapacityDetails object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ResourceDetails

Service: AWS Cost Explorer

Details for the resource.

Contents

EC2ResourceDetails

Details for the Amazon EC2 resource.

Type: EC2ResourceDetails object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ResourceTag

Service: AWS Cost Explorer

The tag structure that contains a tag key and value.

> **Note**
>
> Tagging is supported only for the following Cost Explorer resource types: `AnomalyMonitor`, `AnomalySubscription`, `CostCategory`.

Contents

Key

The key that's associated with the tag.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^([\p{L}\p{Z}\p{N}_.:/=+\-@]*)$`

Required: Yes

Value

The value that's associated with the tag.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Pattern: `^([\p{L}\p{Z}\p{N}_.:/=+\-@]*)$`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ResourceUtilization

Service: AWS Cost Explorer

Resource utilization of current resource.

Contents

EC2ResourceUtilization

The utilization of current Amazon EC2 instance.

Type: EC2ResourceUtilization object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ResultByTime

Service: AWS Cost Explorer

The result that's associated with a time period.

Contents

Estimated

Determines whether the result is estimated.

Type: Boolean

Required: No

Groups

The groups that this time period includes.

Type: Array of Group objects

Required: No

TimePeriod

The time period that the result covers.

Type: DateInterval object

Required: No

Total

The total amount of cost or usage accrued during the time period.

Type: String to MetricValue object map

Key Length Constraints: Minimum length of 0. Maximum length of 1024.

Key Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

RightsizingRecommendation

Service: AWS Cost Explorer

Recommendations to rightsize resources.

Contents

AccountId

The account that this recommendation is for.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

CurrentInstance

Context regarding the current instance.

Type: CurrentInstance object

Required: No

FindingReasonCodes

The list of possible reasons why the recommendation is generated, such as under- or over-utilization of specific metrics (for example, CPU, Memory, Network).

Type: Array of strings

Valid Values: `CPU_OVER_PROVISIONED | CPU_UNDER_PROVISIONED | MEMORY_OVER_PROVISIONED | MEMORY_UNDER_PROVISIONED | EBS_THROUGHPUT_OVER_PROVISIONED | EBS_THROUGHPUT_UNDER_PROVISIONED | EBS_IOPS_OVER_PROVISIONED | EBS_IOPS_UNDER_PROVISIONED | NETWORK_BANDWIDTH_OVER_PROVISIONED | NETWORK_BANDWIDTH_UNDER_PROVISIONED | NETWORK_PPS_OVER_PROVISIONED | NETWORK_PPS_UNDER_PROVISIONED | DISK_IOPS_OVER_PROVISIONED | DISK_IOPS_UNDER_PROVISIONED | DISK_THROUGHPUT_OVER_PROVISIONED | DISK_THROUGHPUT_UNDER_PROVISIONED`

Required: No

ModifyRecommendationDetail

The details for the modification recommendations.

Type: ModifyRecommendationDetail object

Required: No

RightsizingType

A recommendation to either terminate or modify the resource.

Type: String

Valid Values: `TERMINATE | MODIFY`

Required: No

TerminateRecommendationDetail

The details for termination recommendations.

Type: TerminateRecommendationDetail object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

RightsizingRecommendationConfiguration

Service: AWS Cost Explorer

You can use `RightsizingRecommendationConfiguration` to customize recommendations across two attributes. You can choose to view recommendations for instances within the same instance families or across different instance families. You can also choose to view your estimated savings that are associated with recommendations with consideration of existing Savings Plans or Reserved Instance (RI) benefits, or neither.

Contents

BenefitsConsidered

The option to consider RI or Savings Plans discount benefits in your savings calculation. The default value is `TRUE`.

Type: Boolean

Required: Yes

RecommendationTarget

The option to see recommendations within the same instance family or recommendations for instances across other families. The default value is `SAME_INSTANCE_FAMILY`.

Type: String

Valid Values: `SAME_INSTANCE_FAMILY | CROSS_INSTANCE_FAMILY`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

RightsizingRecommendationMetadata

Service: AWS Cost Explorer

Metadata for a recommendation set.

Contents

AdditionalMetadata

Additional metadata that might be applicable to the recommendation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

GenerationTimestamp

The timestamp for when AWS made the recommendation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

LookbackPeriodInDays

The number of days of previous usage that AWS considers when making the recommendation.

Type: String

Valid Values: `SEVEN_DAYS | THIRTY_DAYS | SIXTY_DAYS`

Required: No

RecommendationId

The ID for the recommendation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

RightsizingRecommendationSummary

Service: AWS Cost Explorer

The summary of rightsizing recommendations

Contents

EstimatedTotalMonthlySavingsAmount

The estimated total savings resulting from modifications, on a monthly basis.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

SavingsCurrencyCode

The currency code that AWS used to calculate the savings.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

SavingsPercentage

The savings percentage based on the recommended modifications. It's relative to the total On-Demand costs that are associated with these instances.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

TotalRecommendationCount

The total number of instance recommendations.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

RootCause

Service: AWS Cost Explorer

The combination of AWS service, linked account, linked account name, Region, and usage type where a cost anomaly is observed, along with the dollar and percentage amount of the anomaly impact. The linked account name will only be available when the account name can be identified.

Contents

Impact

The dollar impact for the root cause.

Type: RootCauseImpact object

Required: No

LinkedAccount

The member account value that's associated with the cost anomaly.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

LinkedAccountName

The member account name value that's associated with the cost anomaly.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Region

The AWS Region that's associated with the cost anomaly.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Service

The AWS service name that's associated with the cost anomaly.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

UsageType

The `UsageType` value that's associated with the cost anomaly.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

RootCauseImpact

Service: AWS Cost Explorer

The dollar value of the root cause.

Contents

Contribution

The dollar amount that this root cause contributed to the anomaly's TotalImpact.

Type: Double

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

SavingsPlans

Service: AWS Cost Explorer

The Savings Plans commitment details.

Contents

InstanceFamily

The instance family of the Savings Plans commitment.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

OfferingId

The unique ID that's used to distinguish Savings Plans commitments from one another.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

PaymentOption

The payment option for the Savings Plans commitment.

Type: String

Valid Values: `NO_UPFRONT | PARTIAL_UPFRONT | ALL_UPFRONT | LIGHT_UTILIZATION | MEDIUM_UTILIZATION | HEAVY_UTILIZATION`

Required: No

Region

The Region associated with the Savings Plans commitment.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

SavingsPlansCommitment

The Savings Plans commitment.

Type: Double

Valid Range: Minimum value of 0.001. Maximum value of 5000.

Required: No

SavingsPlansType

The Savings Plans type.

Type: String

Valid Values: `COMPUTE_SP | EC2_INSTANCE_SP | SAGEMAKER_SP | DATABASE_SP`

Required: No

TermInYears

The term that you want the Savings Plans commitment for.

Type: String

Valid Values: `ONE_YEAR | THREE_YEARS`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++

- AWS SDK for Java V2
- AWS SDK for Ruby V3

SavingsPlansAmortizedCommitment

Service: AWS Cost Explorer

The amortized amount of Savings Plans purchased in a specific account during a specific time interval.

Contents

AmortizedRecurringCommitment

The amortized amount of your Savings Plans commitment that was purchased with either a `Partial` or a `NoUpfront`.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

AmortizedUpfrontCommitment

The amortized amount of your Savings Plans commitment that was purchased with an `Upfront` or `PartialUpfront` Savings Plans.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

TotalAmortizedCommitment

The total amortized amount of your Savings Plans commitment, regardless of your Savings Plans purchase method.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

SavingsPlansCoverage

Service: AWS Cost Explorer

The amount of Savings Plans eligible usage that's covered by Savings Plans. All calculations consider the On-Demand equivalent of your Savings Plans usage.

Contents

Attributes

The attribute that applies to a specific `Dimension`.

Type: String to string map

Required: No

Coverage

The amount of Savings Plans eligible usage that the Savings Plans covered.

Type: SavingsPlansCoverageData object

Required: No

TimePeriod

The time period of the request.

Type: DateInterval object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

SavingsPlansCoverageData

Service: AWS Cost Explorer

Specific coverage percentage, On-Demand costs, and spend covered by Savings Plans, and total Savings Plans costs for an account.

Contents

CoveragePercentage

The percentage of your existing Savings Plans covered usage, divided by all of your eligible Savings Plans usage in an account (or set of accounts).

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

OnDemandCost

The cost of your AWS usage at the public On-Demand rate.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

SpendCoveredBySavingsPlans

The amount of your AWS usage that's covered by a Savings Plans.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

TotalCost

The total cost of your AWS usage, regardless of your purchase option.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

SavingsPlansDetails

Service: AWS Cost Explorer

The attribute details on a specific Savings Plan.

Contents

InstanceFamily

A group of instance types that Savings Plans applies to.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

OfferingId

The unique ID that's used to distinguish Savings Plans from one another.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Region

A collection of AWS resources in a geographic area. Each AWS Region is isolated and independent of the other Regions.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

SavingsPlansPurchaseAnalysisConfiguration

Service: AWS Cost Explorer

The configuration for the Savings Plans purchase analysis.

Contents

AnalysisType

The type of analysis.

Type: String

Valid Values: `MAX_SAVINGS | CUSTOM_COMMITMENT`

Required: Yes

LookBackTimePeriod

The time period associated with the analysis.

Type: DateInterval object

Required: Yes

SavingsPlansToAdd

Savings Plans to include in the analysis.

Type: Array of SavingsPlans objects

Array Members: Fixed number of 1 item.

Required: Yes

AccountId

The account that the analysis is for.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `[0-9]{12}`

Required: No

AccountScope

The account scope that you want your analysis for.

Type: String

Valid Values: `PAYER | LINKED`

Required: No

SavingsPlansToExclude

Savings Plans to exclude from the analysis.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 1000 items.

Length Constraints: Fixed length of 36.

Pattern: `^[\S\s]{8}-[\S\s]{4}-[\S\s]{4}-[\S\s]{4}-[\S\s]{12}$`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

SavingsPlansPurchaseAnalysisDetails

Service: AWS Cost Explorer

Details about the Savings Plans purchase analysis.

Contents

AdditionalMetadata

Additional metadata that might be applicable to the commitment.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

CurrencyCode

The currency code used for the analysis.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

CurrentAverageCoverage

The average value of hourly coverage over the lookback period.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

CurrentAverageHourlyOnDemandSpend

The average value of hourly On-Demand spend over the lookback period.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

CurrentMaximumHourlyOnDemandSpend

The highest value of hourly On-Demand spend over the lookback period.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

CurrentMinimumHourlyOnDemandSpend

The lowest value of hourly On-Demand spend over the lookback period.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

CurrentOnDemandSpend

The current total On-Demand spend over the lookback period.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedAverageCoverage

The estimated coverage of the Savings Plan.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedAverageUtilization

The estimated utilization of the Savings Plan.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedCommitmentCost

The estimated cost of the Savings Plan over the length of the lookback period.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedMonthlySavingsAmount

The estimated monthly savings amount based on the Savings Plan.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedOnDemandCost

The remaining On-Demand cost estimated to not be covered by the Savings Plan over the length of the lookback period.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedOnDemandCostWithCurrentCommitment

The estimated On-Demand cost you expect with no additional commitment based on your usage of the selected time period and the Savings Plan you own.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedROI

The estimated return on investment that's based on the Savings Plan and estimated savings. This is calculated as estimatedSavingsAmount/estimatedSPCost*100.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedSavingsAmount

The estimated savings amount that's based on the Savings Plan over the length of the lookback period.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedSavingsPercentage

The estimated savings percentage relative to the total cost over the cost calculation lookback period.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

ExistingHourlyCommitment

The existing hourly commitment for the Savings Plan type.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

HourlyCommitmentToPurchase

The recommended or custom hourly commitment.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

LatestUsageTimestamp

The date and time of the last hour that went into the analysis.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

LookbackPeriodInHours

The lookback period in hours that's used to generate the analysis.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

MetricsOverLookbackPeriod

The related hourly cost, coverage, and utilization metrics over the lookback period.

Type: Array of RecommendationDetailHourlyMetrics objects

Required: No

UpfrontCost

The upfront cost of the Savings Plan based on the selected payment option.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

SavingsPlansPurchaseRecommendation

Service: AWS Cost Explorer

Contains your request parameters, Savings Plan Recommendations Summary, and Details.

Contents

AccountScope

The account scope that you want your recommendations for. Amazon Web Services calculates recommendations that include the management account and member accounts if the value is set to PAYER. If the value is LINKED, recommendations are calculated for individual member accounts only.

Type: String

Valid Values: PAYER | LINKED

Required: No

LookbackPeriodInDays

The lookback period in days that's used to generate the recommendation.

Type: String

Valid Values: SEVEN_DAYS | THIRTY_DAYS | SIXTY_DAYS

Required: No

PaymentOption

The payment option that's used to generate the recommendation.

Type: String

Valid Values: NO_UPFRONT | PARTIAL_UPFRONT | ALL_UPFRONT | LIGHT_UTILIZATION | MEDIUM_UTILIZATION | HEAVY_UTILIZATION

Required: No

SavingsPlansPurchaseRecommendationDetails

Details for the Savings Plans that we recommend that you purchase to cover existing Savings Plans eligible workloads.

Type: Array of SavingsPlansPurchaseRecommendationDetail objects

Required: No

SavingsPlansPurchaseRecommendationSummary

Summary metrics for your Savings Plans Recommendations.

Type: SavingsPlansPurchaseRecommendationSummary object

Required: No

SavingsPlansType

The requested Savings Plans recommendation type.

Type: String

Valid Values: `COMPUTE_SP | EC2_INSTANCE_SP | SAGEMAKER_SP | DATABASE_SP`

Required: No

TermInYears

The Savings Plans recommendation term in years. It's used to generate the recommendation.

Type: String

Valid Values: `ONE_YEAR | THREE_YEARS`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

SavingsPlansPurchaseRecommendationDetail

Service: AWS Cost Explorer

Details for your recommended Savings Plans.

Contents

AccountId

The `AccountID` the recommendation is generated for.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

CurrencyCode

The currency code that AWS used to generate the recommendations and present potential savings.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

CurrentAverageHourlyOnDemandSpend

The average value of hourly On-Demand spend over the lookback period of the applicable usage type.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

CurrentMaximumHourlyOnDemandSpend

The highest value of hourly On-Demand spend over the lookback period of the applicable usage type.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

CurrentMinimumHourlyOnDemandSpend

The lowest value of hourly On-Demand spend over the lookback period of the applicable usage type.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedAverageUtilization

The estimated utilization of the recommended Savings Plans.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedMonthlySavingsAmount

The estimated monthly savings amount based on the recommended Savings Plans.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedOnDemandCost

The remaining On-Demand cost estimated to not be covered by the recommended Savings Plans, over the length of the lookback period.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedOnDemandCostWithCurrentCommitment

The estimated On-Demand costs you expect with no additional commitment, based on your usage of the selected time period and the Savings Plans you own.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedROI

The estimated return on investment that's based on the recommended Savings Plans that you purchased. This is calculated as `estimatedSavingsAmount/ estimatedSPCost*100`.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedSavingsAmount

The estimated savings amount that's based on the recommended Savings Plans over the length of the lookback period.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedSavingsPercentage

The estimated savings percentage relative to the total cost of applicable On-Demand usage over the lookback period.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedSPCost

The cost of the recommended Savings Plans over the length of the lookback period.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

HourlyCommitmentToPurchase

The recommended hourly commitment level for the Savings Plans type and the configuration that's based on the usage during the lookback period.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

RecommendationDetailId

Contains detailed information about a specific Savings Plan recommendation.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `^[\S\s]{8}-[\S\s]{4}-[\S\s]{4}-[\S\s]{4}-[\S\s]{12}$`

Required: No

SavingsPlansDetails

Details for your recommended Savings Plans.

Type: SavingsPlansDetails object

Required: No

UpfrontCost

The upfront cost of the recommended Savings Plans, based on the selected payment option.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

SavingsPlansPurchaseRecommendationMetadata

Service: AWS Cost Explorer

Metadata about your Savings Plans Purchase Recommendations.

Contents

AdditionalMetadata

Additional metadata that might be applicable to the recommendation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

GenerationTimestamp

The timestamp that shows when the recommendations were generated.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

RecommendationId

The unique identifier for the recommendation set.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

SavingsPlansPurchaseRecommendationSummary

Service: AWS Cost Explorer

Summary metrics for your Savings Plans Purchase Recommendations.

Contents

CurrencyCode

The currency code that AWS used to generate the recommendations and present potential savings.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

CurrentOnDemandSpend

The current total on demand spend of the applicable usage types over the lookback period.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

DailyCommitmentToPurchase

The recommended Savings Plans cost on a daily (24 hourly) basis.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedMonthlySavingsAmount

The estimated monthly savings amount that's based on the recommended Savings Plans purchase.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedOnDemandCostWithCurrentCommitment

The estimated On-Demand costs you expect with no additional commitment. It's based on your usage of the selected time period and the Savings Plans you own.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedROI

The estimated return on investment that's based on the recommended Savings Plans and estimated savings.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedSavingsAmount

The estimated total savings over the lookback period, based on the purchase of the recommended Savings Plans.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedSavingsPercentage

The estimated savings relative to the total cost of On-Demand usage, over the lookback period. This is calculated as `estimatedSavingsAmount/ CurrentOnDemandSpend*100`.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedTotalCost

The estimated total cost of the usage after purchasing the recommended Savings Plans. This is a sum of the cost of Savings Plans during this term, and the remaining On-Demand usage.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

HourlyCommitmentToPurchase

The recommended hourly commitment that's based on the recommendation parameters.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

TotalRecommendationCount

The aggregate number of Savings Plans recommendations that exist for your account.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

SavingsPlansSavings

Service: AWS Cost Explorer

The amount of savings that you're accumulating, against the public On-Demand rate of the usage accrued in an account.

Contents

NetSavings

The savings amount that you're accumulating for the usage that's covered by a Savings Plans, when compared to the On-Demand equivalent of the same usage.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

OnDemandCostEquivalent

How much the amount that the usage would have cost if it was accrued at the On-Demand rate.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

SavingsPlansUtilization

Service: AWS Cost Explorer

The measurement of how well you're using your existing Savings Plans.

Contents

TotalCommitment

The total amount of Savings Plans commitment that's been purchased in an account (or set of accounts).

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

UnusedCommitment

The amount of your Savings Plans commitment that wasn't consumed from Savings Plans eligible usage in a specific period.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

UsedCommitment

The amount of your Savings Plans commitment that was consumed from Savings Plans eligible usage in a specific period.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

UtilizationPercentage

The amount of `UsedCommitment` divided by the `TotalCommitment` for your Savings Plans.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

SavingsPlansUtilizationAggregates

Service: AWS Cost Explorer

The aggregated utilization metrics for your Savings Plans usage.

Contents

Utilization

A ratio of your effectiveness of using existing Savings Plans to apply to workloads that are Savings Plans eligible.

Type: SavingsPlansUtilization object

Required: Yes

AmortizedCommitment

The total amortized commitment for a Savings Plans. This includes the sum of the upfront and recurring Savings Plans fees.

Type: SavingsPlansAmortizedCommitment object

Required: No

Savings

The amount that's saved by using existing Savings Plans. Savings returns both net savings from Savings Plans and also the `onDemandCostEquivalent` of the Savings Plans when considering the utilization rate.

Type: SavingsPlansSavings object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2

- AWS SDK for Ruby V3

SavingsPlansUtilizationByTime

Service: AWS Cost Explorer

The amount of Savings Plans utilization (in hours).

Contents

TimePeriod

The time period of the request.

Type: DateInterval object

Required: Yes

Utilization

A ratio of your effectiveness of using existing Savings Plans to apply to workloads that are Savings Plans eligible.

Type: SavingsPlansUtilization object

Required: Yes

AmortizedCommitment

The total amortized commitment for a Savings Plans. This includes the sum of the upfront and recurring Savings Plans fees.

Type: SavingsPlansAmortizedCommitment object

Required: No

Savings

The amount that's saved by using existing Savings Plans. Savings returns both net savings from Savings Plans and also the `onDemandCostEquivalent` of the Savings Plans when considering the utilization rate.

Type: SavingsPlansSavings object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

SavingsPlansUtilizationDetail

Service: AWS Cost Explorer

A single daily or monthly Savings Plans utilization rate and details for your account. A management account in an organization have access to member accounts. You can use `GetDimensionValues` to determine the possible dimension values.

Contents

AmortizedCommitment

The total amortized commitment for a Savings Plans. Includes the sum of the upfront and recurring Savings Plans fees.

Type: SavingsPlansAmortizedCommitment object

Required: No

Attributes

The attribute that applies to a specific `Dimension`.

Type: String to string map

Required: No

Savings

The amount saved by using existing Savings Plans. Savings returns both net savings from savings plans and also the `onDemandCostEquivalent` of the Savings Plans when considering the utilization rate.

Type: SavingsPlansSavings object

Required: No

SavingsPlanArn

The unique Amazon Resource Name (ARN) for a particular Savings Plan.

Type: String

Required: No

Utilization

A ratio of your effectiveness of using existing Savings Plans to apply to workloads that are Savings Plans eligible.

Type: SavingsPlansUtilization object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ServiceSpecification

Service: AWS Cost Explorer

Hardware specifications for the service that you want recommendations for.

Contents

EC2Specification

The Amazon EC2 hardware specifications that you want AWS to provide recommendations for.

Type: EC2Specification object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

SortDefinition

Service: AWS Cost Explorer

The details for how to sort the data.

Contents

Key

The key that's used to sort the data.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

SortOrder

The order that's used to sort the data.

Type: String

Valid Values: `ASCENDING | DESCENDING`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Subscriber

Service: AWS Cost Explorer

The recipient of `AnomalySubscription` notifications.

Contents

Address

The email address or SNS Amazon Resource Name (ARN). This depends on the `Type`.

Type: String

Length Constraints: Minimum length of 6. Maximum length of 302.

Pattern: `(^[a-zA-Z0-9.!#$%&'*+=?^_‘{|}~-]+@[a-zA-Z0-9_-]+(\.[a-zA-Z0-9_-]+)+$)|(^arn:(aws[a-zA-Z-]*):sns:[a-zA-Z0-9-]+:[0-9]{12}:[a-zA-Z0-9_-]+(\.fifo)?$)`

Required: No

Status

Indicates if the subscriber accepts the notifications.

Type: String

Valid Values: `CONFIRMED | DECLINED`

Required: No

Type

The notification delivery channel.

Type: String

Valid Values: `EMAIL | SNS`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

TagValues

Service: AWS Cost Explorer

The values that are available for a tag.

If `Values` and `Key` aren't specified, the `ABSENT` `MatchOption` is applied to all tags. That is, it's filtered on resources with no tags.

If `Key` is provided and `Values` isn't specified, the `ABSENT` `MatchOption` is applied to the tag `Key` only. That is, it's filtered on resources without the given tag key.

Contents

Key

The key for the tag.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

MatchOptions

The match options that you can use to filter your results. `MatchOptions` is only applicable for actions related to cost category. The default values for `MatchOptions` are `EQUALS` and `CASE_SENSITIVE`.

Type: Array of strings

Valid Values: `EQUALS | ABSENT | STARTS_WITH | ENDS_WITH | CONTAINS | CASE_SENSITIVE | CASE_INSENSITIVE | GREATER_THAN_OR_EQUAL`

Required: No

Values

The specific value of the tag.

Type: Array of strings

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

TargetInstance

Service: AWS Cost Explorer

Details on recommended instance.

Contents

CurrencyCode

The currency code that AWS used to calculate the costs for this instance.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

DefaultTargetInstance

Determines whether this recommendation is the defaulted AWS recommendation.

Type: Boolean

Required: No

EstimatedMonthlyCost

The expected cost to operate this instance type on a monthly basis.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedMonthlySavings

The estimated savings that result from modification, on a monthly basis.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

ExpectedResourceUtilization

The expected utilization metrics for target instance type.

Type: ResourceUtilization object

Required: No

PlatformDifferences

Explains the actions that you might need to take to successfully migrate your workloads from the current instance type to the recommended instance type.

Type: Array of strings

Valid Values: `HYPERVISOR | NETWORK_INTERFACE | STORAGE_INTERFACE | INSTANCE_STORE_AVAILABILITY | VIRTUALIZATION_TYPE`

Required: No

ResourceDetails

Details on the target instance type.

Type: ResourceDetails object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

TerminateRecommendationDetail

Service: AWS Cost Explorer

Details on termination recommendation.

Contents

CurrencyCode

The currency code that AWS used to calculate the costs for this instance.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

EstimatedMonthlySavings

The estimated savings that result from modification, on a monthly basis.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

TotalImpactFilter

Service: AWS Cost Explorer

Filters cost anomalies based on the total impact.

Contents

NumericOperator

The comparing value that's used in the filter.

Type: String

Valid Values: `EQUAL | GREATER_THAN_OR_EQUAL | LESS_THAN_OR_EQUAL | GREATER_THAN | LESS_THAN | BETWEEN`

Required: Yes

StartValue

The lower bound dollar value that's used in the filter.

Type: Double

Required: Yes

EndValue

The upper bound dollar value that's used in the filter.

Type: Double

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

UpdateCostAllocationTagsStatusError

Service: AWS Cost Explorer

Gives a detailed description of the result of an action. It's on each cost allocation tag entry in the request.

Contents

Code

An error code representing why the action failed on this entry.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Message

A message explaining why the action failed on this entry.

Type: String

Required: No

TagKey

The key for the cost allocation tag.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

UtilizationByTime

Service: AWS Cost Explorer

The amount of utilization, in hours.

Contents

Groups

The groups that this utilization result uses.

Type: Array of ReservationUtilizationGroup objects

Required: No

TimePeriod

The period of time that this utilization was used for.

Type: DateInterval object

Required: No

Total

The total number of reservation hours that were used.

Type: ReservationAggregates object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

AWS Billing and Cost Management Dashboards

The following data types are supported by AWS Billing and Cost Management Dashboards:

- CostAndUsageQuery
- CostCategoryValues
- DashboardReference
- DateTimeRange
- DateTimeValue
- DimensionValues
- DisplayConfig
- Expression
- GraphDisplayConfig
- GroupDefinition
- QueryParameters
- ReservationCoverageQuery
- ReservationUtilizationQuery
- ResourceTag
- SavingsPlansCoverageQuery
- SavingsPlansUtilizationQuery
- TableDisplayConfigStruct
- TagValues
- Widget
- WidgetConfig

CostAndUsageQuery

Service: AWS Billing and Cost Management Dashboards

Defines the parameters for retrieving AWS cost and usage data. Includes specifications for metrics, time periods, granularity, grouping dimensions, and filtering conditions.

Contents

granularity

The granularity of the retrieved data: `HOURLY`, `DAILY`, or `MONTHLY`.

Type: String

Valid Values: `HOURLY | DAILY | MONTHLY`

Required: Yes

metrics

The specific cost and usage metrics to retrieve.

> **Note**
>
> Valid values for CostAndUsageQuery metrics are `AmortizedCost`, `BlendedCost`, `NetAmortizedCost`, `NetUnblendedCost`, `NormalizedUsageAmount`, `UnblendedCost`, and `UsageQuantity`.

Type: Array of strings

Valid Values: `AmortizedCost | BlendedCost | NetAmortizedCost | NetUnblendedCost | NormalizedUsageAmount | UnblendedCost | UsageQuantity | SpendCoveredBySavingsPlans | Hour | Unit | Cost`

Required: Yes

timeRange

The time period for which to retrieve data. Can be specified as absolute dates or relative time periods.

Type: DateTimeRange object

Required: Yes

filter

The filter expression to be applied to the cost and usage data.

Type: Expression object

Required: No

groupBy

Specifies how to group the retrieved data, such as by `SERVICE`, `ACCOUNT`, or `TAG`.

Type: Array of GroupDefinition objects

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

CostCategoryValues

Service: AWS Billing and Cost Management Dashboards

Specifies the values and match options for cost category-based filtering in cost and usage queries.

Contents

key

The key of the cost category to filter on.

Type: String

Required: No

matchOptions

The match options for cost category values, such as `EQUALS`, `CONTAINS`, `STARTS_WITH`, or `ENDS_WITH`.

Type: Array of strings

Valid Values: `EQUALS | ABSENT | STARTS_WITH | ENDS_WITH | CONTAINS | GREATER_THAN_OR_EQUAL | CASE_SENSITIVE | CASE_INSENSITIVE`

Required: No

values

The values to match for the specified cost category key.

Type: Array of strings

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2

- AWS SDK for Ruby V3

DashboardReference

Service: AWS Billing and Cost Management Dashboards

Contains basic information about a dashboard, including its ARN, name, type, and timestamps.

Contents

arn

The ARN of the referenced dashboard.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:bcm-dashboards::[0-9]{12}:dashboard/(\*|[-a-z0-9]+)`

Required: Yes

createdAt

The timestamp when the dashboard was created.

Type: Timestamp

Required: Yes

name

The name of the referenced dashboard.

Type: String

Length Constraints: Minimum length of 2. Maximum length of 50.

Pattern: `(?!.* {2})[a-zA-Z][a-zA-Z0-9 _-]{0,48}[a-zA-Z0-9_-]`

Required: Yes

type

The dashboard type.

Type: String

Valid Values: CUSTOM

Required: Yes

updatedAt

The timestamp when the dashboard was last modified.

Type: Timestamp

Required: Yes

description

The description of the referenced dashboard.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: `(?!.* {2})[ a-zA-Z0-9.,!?;:@#$%&\-_/\\]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

DateTimeRange

Service: AWS Billing and Cost Management Dashboards

Defines a time period with explicit start and end times for data queries.

Contents

endTime

The end time of the date range for querying data.

Type: DateTimeValue object

Required: Yes

startTime

The start time of the date range for querying data.

Type: DateTimeValue object

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

DateTimeValue

Service: AWS Billing and Cost Management Dashboards

Represents a point in time that can be specified as either an absolute date (for example, "2025-07-01") or a relative time period using ISO 8601 duration format (for example, "-P3M" for three months ago).

Contents

type

The type of date/time value: `ABSOLUTE` for specific dates or `RELATIVE` for dynamic time periods.

Type: String

Valid Values: `ABSOLUTE | RELATIVE`

Required: Yes

value

The actual date/time value.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

DimensionValues

Service: AWS Billing and Cost Management Dashboards

Specifies the values and match options for dimension-based filtering in cost and usage queries.

Contents

key

The key of the dimension to filter on (for example, `SERVICE`, `USAGE_TYPE`, or `OPERATION`).

Type: String

Valid Values: `AZ | INSTANCE_TYPE | LINKED_ACCOUNT | OPERATION | PURCHASE_TYPE | REGION | SERVICE | USAGE_TYPE | USAGE_TYPE_GROUP | RECORD_TYPE | RESOURCE_ID | SUBSCRIPTION_ID | TAG_KEY | OPERATING_SYSTEM | TENANCY | BILLING_ENTITY | RESERVATION_ID | COST_CATEGORY_NAME | DATABASE_ENGINE | LEGAL_ENTITY_NAME | SAVINGS_PLANS_TYPE | INSTANCE_TYPE_FAMILY | CACHE_ENGINE | DEPLOYMENT_OPTION | SCOPE | PLATFORM`

Required: Yes

values

The values to match for the specified dimension key.

Type: Array of strings

Required: Yes

matchOptions

The match options for dimension values, such as `EQUALS`, `CONTAINS`, `STARTS_WITH`, or `ENDS_WITH`.

Type: Array of strings

Valid Values: `EQUALS | ABSENT | STARTS_WITH | ENDS_WITH | CONTAINS | GREATER_THAN_OR_EQUAL | CASE_SENSITIVE | CASE_INSENSITIVE`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

DisplayConfig

Service: AWS Billing and Cost Management Dashboards

Defines how the widget's data should be visualized, including chart type, color schemes, axis configurations, and other display preferences.

Contents

> **Important**
>
> This data type is a UNION, so only one of the following members can be specified when used or returned.

graph

The configuration for graphical display of the widget data, including chart type and visual options.

Type: String to GraphDisplayConfig object map

Key Length Constraints: Minimum length of 0. Maximum length of 1024.

Key Pattern: `[\S\s]*`

Required: No

table

The configuration for tabular display of the widget data.

Type: TableDisplayConfigStruct object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++

- AWS SDK for Java V2
- AWS SDK for Ruby V3

Expression

Service: AWS Billing and Cost Management Dashboards

Defines complex filtering conditions using logical operators (`AND`, `OR`, `NOT`) and various filter types.

Contents

and

A list of expressions to combine with AND logic.

Type: Array of Expression objects

Required: No

costCategories

The cost category values to include in the filter expression.

Type: CostCategoryValues object

Required: No

dimensions

The dimension values to include in the filter expression.

Type: DimensionValues object

Required: No

not

An expression to negate with NOT logic.

Type: Expression object

Required: No

or

A list of expressions to combine with OR logic.

Type: Array of Expression objects

Required: No

tags

The tag values to include in the filter expression.

Type: TagValues object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

GraphDisplayConfig

Service: AWS Billing and Cost Management Dashboards

Defines the visual representation settings for widget data, including the visualization type, styling options, and display preferences for different metric types.

Contents

visualType

The type of visualization to use for the data.

Type: String

Valid Values: `LINE | BAR | STACK`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

GroupDefinition

Service: AWS Billing and Cost Management Dashboards

Specifies how to group cost and usage data.

Contents

key

The key to use for grouping cost and usage data.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

type

The type of grouping to apply.

Type: String

Valid Values: `DIMENSION | TAG | COST_CATEGORY`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

QueryParameters

Service: AWS Billing and Cost Management Dashboards

Defines the data retrieval parameters for a widget.

Contents

> **Important**
>
> This data type is a UNION, so only one of the following members can be specified when used or returned.

costAndUsage

The parameters for querying cost and usage data, including metrics, time range, granularity, grouping dimensions, and filters.

Type: CostAndUsageQuery object

Required: No

reservationCoverage

The parameters for querying Reserved Instance coverage data, showing how much of your eligible instance usage is covered by Reserved Instances.

Type: ReservationCoverageQuery object

Required: No

reservationUtilization

The parameters for querying Reserved Instance utilization data, showing how effectively your Reserved Instances are being used.

Type: ReservationUtilizationQuery object

Required: No

savingsPlansCoverage

The parameters for querying Savings Plans coverage data, showing how much of your eligible compute usage is covered by Savings Plans.

Type: SavingsPlansCoverageQuery object

Required: No

savingsPlansUtilization

The parameters for querying Savings Plans utilization data, showing how effectively your Savings Plans are being used.

Type: SavingsPlansUtilizationQuery object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ReservationCoverageQuery

Service: AWS Billing and Cost Management Dashboards

Defines the parameters for querying Reserved Instance coverage data, including grouping options, metrics, and sorting preferences.

Contents

timeRange

Defines a time period with explicit start and end times for data queries.

Type: DateTimeRange object

Required: Yes

filter

Defines complex filtering conditions using logical operators (`AND`, `OR`, `NOT`) and various filter types.

Type: Expression object

Required: No

granularity

The time granularity of the retrieved data: `HOURLY`, `DAILY`, or `MONTHLY`.

Type: String

Valid Values: `HOURLY | DAILY | MONTHLY`

Required: No

groupBy

Specifies how to group the Reserved Instance coverage data, such as by service, Region, or instance type.

Type: Array of GroupDefinition objects

Required: No

metrics

The coverage metrics to include in the results.

> **Note**
>
> Valid values for ReservationCoverageQuery metrics are `Hour`, `Unit`, and `Cost`.

Type: Array of strings

Valid Values: `AmortizedCost | BlendedCost | NetAmortizedCost | NetUnblendedCost | NormalizedUsageAmount | UnblendedCost | UsageQuantity | SpendCoveredBySavingsPlans | Hour | Unit | Cost`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ReservationUtilizationQuery

Service: AWS Billing and Cost Management Dashboards

Defines the parameters for querying Reserved Instance utilization data, including grouping options and time granularity.

Contents

timeRange

Defines a time period with explicit start and end times for data queries.

Type: DateTimeRange object

Required: Yes

filter

Defines complex filtering conditions using logical operators (`AND`, `OR`, `NOT`) and various filter types.

Type: Expression object

Required: No

granularity

The time granularity of the retrieved data: `HOURLY`, `DAILY`, or `MONTHLY`.

Type: String

Valid Values: `HOURLY | DAILY | MONTHLY`

Required: No

groupBy

Specifies how to group the Reserved Instance utilization data, such as by service, Region, or instance type.

Type: Array of GroupDefinition objects

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ResourceTag

Service: AWS Billing and Cost Management Dashboards

A key-value pair that can be attached to a dashboard for organization and management purposes.

Contents

key

The key of the tag to be attached to the dashboard resource.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\S\s]*`

Required: Yes

value

The value of the tag to be attached to the dashboard resource.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Pattern: `[\S\s]*`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

SavingsPlansCoverageQuery

Service: AWS Billing and Cost Management Dashboards

Defines the parameters for querying Savings Plans coverage data, including metrics, grouping options, and time granularity.

Contents

timeRange

Defines a time period with explicit start and end times for data queries.

Type: DateTimeRange object

Required: Yes

filter

Defines complex filtering conditions using logical operators (`AND`, `OR`, `NOT`) and various filter types.

Type: Expression object

Required: No

granularity

The time granularity of the retrieved data: `HOURLY`, `DAILY`, or `MONTHLY`.

Type: String

Valid Values: `HOURLY | DAILY | MONTHLY`

Required: No

groupBy

Specifies how to group the Savings Plans coverage data, such as by service or instance family.

Type: Array of GroupDefinition objects

Required: No

metrics

The coverage metrics to include in the results.

> **Note**
>
> Valid value for SavingsPlansCoverageQuery metrics is `SpendCoveredBySavingsPlans`.

Type: Array of strings

Valid Values: `AmortizedCost | BlendedCost | NetAmortizedCost | NetUnblendedCost | NormalizedUsageAmount | UnblendedCost | UsageQuantity | SpendCoveredBySavingsPlans | Hour | Unit | Cost`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

SavingsPlansUtilizationQuery

Service: AWS Billing and Cost Management Dashboards

Defines the parameters for querying Savings Plans utilization data, including time granularity and sorting preferences.

Contents

timeRange

Defines a time period with explicit start and end times for data queries.

Type: DateTimeRange object

Required: Yes

filter

Defines complex filtering conditions using logical operators (`AND`, `OR`, `NOT`) and various filter types.

Type: Expression object

Required: No

granularity

The time granularity of the retrieved data: HOURLY, DAILY, or MONTHLY.

Type: String

Valid Values: `HOURLY | DAILY | MONTHLY`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2

- AWS SDK for Ruby V3

TableDisplayConfigStruct

Service: AWS Billing and Cost Management Dashboards

Configuration structure for customizing the tabular display of widget data.

Contents

The members of this exception structure are context-dependent.

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

TagValues

Service: AWS Billing and Cost Management Dashboards

Specifies tag-based filtering options for cost and usage queries.

Contents

key

The key of the tag to filter on.

Type: String

Required: No

matchOptions

The match options for tag values, such as `EQUALS`, `CONTAINS`, `STARTS_WITH`, or `ENDS_WITH`.

Type: Array of strings

Valid Values: `EQUALS | ABSENT | STARTS_WITH | ENDS_WITH | CONTAINS | GREATER_THAN_OR_EQUAL | CASE_SENSITIVE | CASE_INSENSITIVE`

Required: No

values

The values to match for the specified tag key.

Type: Array of strings

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Widget

Service: AWS Billing and Cost Management Dashboards

A configurable visualization component within a dashboard that displays specific cost and usage metrics. Each widget can show data as charts or tables and includes settings for data querying, filtering, and visual presentation.

Contents

configs

An array of configurations that define the data queries and display settings for the widget.

Type: Array of WidgetConfig objects

Array Members: Minimum number of 1 item. Maximum number of 2 items.

Required: Yes

title

The title of the widget.

Type: String

Length Constraints: Minimum length of 2. Maximum length of 50.

Pattern: `(?!.* {2})[a-zA-Z0-9_-][ a-zA-Z0-9_-]*[a-zA-Z0-9_-]`

Required: Yes

description

A description of the widget's purpose or the data it displays.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: `(?!.* {2})[ a-zA-Z0-9.,!?;:@#$%&\-_/\\]*`

Required: No

height

The height of the widget in row spans. The dashboard layout consists of a grid system.

Type: Integer

Valid Range: Minimum value of 4. Maximum value of 10.

Required: No

horizontalOffset

Specifies the starting column position of the widget in the dashboard's grid layout. Used to control widget placement.

Type: Integer

Required: No

width

The width of the widget in column spans. The dashboard layout consists of a grid system.

Type: Integer

Valid Range: Minimum value of 2. Maximum value of 6.

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

WidgetConfig

Service: AWS Billing and Cost Management Dashboards

Defines the complete configuration for a widget, including data retrieval settings and visualization preferences.

Contents

displayConfig

The configuration that determines how the retrieved data should be visualized in the widget.

Type: DisplayConfig object

Note: This object is a Union. Only one member of this object can be specified or returned.

Required: Yes

queryParameters

The parameters that define what data the widget should retrieve and how it should be filtered or grouped.

Type: QueryParameters object

Note: This object is a Union. Only one member of this object can be specified or returned.

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

AWS Data Exports

The following data types are supported by AWS Data Exports:

- Column
- DataQuery
- DestinationConfigurations
- ExecutionReference
- ExecutionStatus
- Export
- ExportReference
- ExportStatus
- RefreshCadence
- ResourceTag
- S3Destination
- S3OutputConfigurations
- Table
- TablePropertyDescription
- ValidationExceptionField

Column

Service: AWS Data Exports

Includes basic information for a data column such as its description, name, and type.

Contents

Description

The description for a column.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Name

The column name.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Type

The kind of data a column stores.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

DataQuery

Service: AWS Data Exports

The SQL query of column selections and row filters from the data table you want.

Contents

QueryStatement

The query statement.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 36000.

Pattern: `[\S\s]*`

Required: Yes

TableConfigurations

The table configuration.

Type: String to string to string map map

Key Length Constraints: Minimum length of 0. Maximum length of 1024.

Key Pattern: `[\S\s]*`

Key Length Constraints: Minimum length of 0. Maximum length of 1024.

Key Pattern: `[\S\s]*`

Value Length Constraints: Minimum length of 0. Maximum length of 1024.

Value Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

DestinationConfigurations

Service: AWS Data Exports

The destinations used for data exports.

Contents

S3Destination

An object that describes the destination of the data exports file.

Type: S3Destination object

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ExecutionReference

Service: AWS Data Exports

The reference for the data export update.

Contents

ExecutionId

The ID for this specific execution.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

ExecutionStatus

The status of this specific execution.

Type: ExecutionStatus object

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ExecutionStatus

Service: AWS Data Exports

The status of the execution.

Contents

CompletedAt

The time when the execution was completed.

Type: Timestamp

Required: No

CreatedAt

The time when the execution was created.

Type: Timestamp

Required: No

LastUpdatedAt

The time when the execution was last updated.

Type: Timestamp

Required: No

StatusCode

The code for the status of the execution.

Type: String

Valid Values: `INITIATION_IN_PROCESS | QUERY_QUEUED | QUERY_IN_PROCESS | QUERY_FAILURE | DELIVERY_IN_PROCESS | DELIVERY_SUCCESS | DELIVERY_FAILURE`

Required: No

StatusReason

The reason for the failed status.

Type: String

Valid Values: `INSUFFICIENT_PERMISSION | BILL_OWNER_CHANGED | INTERNAL_FAILURE`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Export

Service: AWS Data Exports

The details that are available for an export.

Contents

DataQuery

The data query for this specific data export.

Type: DataQuery object

Required: Yes

DestinationConfigurations

The destination configuration for this specific data export.

Type: DestinationConfigurations object

Required: Yes

Name

The name of this specific data export.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[0-9A-Za-z!\-_.*\'()]+`

Required: Yes

RefreshCadence

The cadence for AWS to update the export in your S3 bucket.

Type: RefreshCadence object

Required: Yes

Description

The description for this specific data export.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

ExportArn

The Amazon Resource Name (ARN) for this export.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[-a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ExportReference

Service: AWS Data Exports

The reference details for a given export.

Contents

ExportArn

The Amazon Resource Name (ARN) for this export.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:[-a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: Yes

ExportName

The name of this specific data export.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[0-9A-Za-z!\-_.*\'()]+`

Required: Yes

ExportStatus

The status of this specific data export.

Type: ExportStatus object

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ExportStatus

Service: AWS Data Exports

The status of the data export.

Contents

CreatedAt

The timestamp of when the export was created.

Type: Timestamp

Required: No

LastRefreshedAt

The timestamp of when the export was last generated.

Type: Timestamp

Required: No

LastUpdatedAt

The timestamp of when the export was updated.

Type: Timestamp

Required: No

StatusCode

The status code for the request.

Type: String

Valid Values: `HEALTHY | UNHEALTHY`

Required: No

StatusReason

The description for the status code.

Type: String

Valid Values: `INSUFFICIENT_PERMISSION | BILL_OWNER_CHANGED | INTERNAL_FAILURE`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

RefreshCadence

Service: AWS Data Exports

The cadence for AWS to update the data export in your S3 bucket.

Contents

Frequency

The frequency that data exports are updated. The export refreshes each time the source data updates, up to three times daily.

Type: String

Valid Values: SYNCHRONOUS

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ResourceTag

Service: AWS Data Exports

The tag structure that contains a tag key and value.

Contents

Key

The key that's associated with the tag.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: Yes

Value

The value that's associated with the tag.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

S3Destination

Service: AWS Data Exports

Describes the destination Amazon Simple Storage Service (Amazon S3) bucket name and object keys of a data exports file.

Contents

S3Bucket

The name of the Amazon S3 bucket used as the destination of a data export file.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

S3OutputConfigurations

The output configuration for the data export.

Type: S3OutputConfigurations object

Required: Yes

S3Prefix

The S3 path prefix you want prepended to the name of your data export.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

S3Region

The S3 bucket Region.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

S3OutputConfigurations

Service: AWS Data Exports

The compression type, file format, and overwrite preference for the data export.

Contents

Compression

The compression type for the data export.

Type: String

Valid Values: `GZIP | PARQUET`

Required: Yes

Format

The file format for the data export.

Type: String

Valid Values: `TEXT_OR_CSV | PARQUET`

Required: Yes

OutputType

The output type for the data export.

Type: String

Valid Values: `CUSTOM`

Required: Yes

Overwrite

The rule to follow when generating a version of the data export file. You have the choice to overwrite the previous version or to be delivered in addition to the previous versions. Overwriting exports can save on Amazon S3 storage costs. Creating new export versions allows you to track the changes in cost and usage data over time.

Type: String

Valid Values: `CREATE_NEW_REPORT | OVERWRITE_REPORT`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Table

Service: AWS Data Exports

The details for the data export table.

Contents

Description

The description for the table.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

TableName

The name of the table.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

TableProperties

The properties for the table.

Type: Array of TablePropertyDescription objects

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

TablePropertyDescription

Service: AWS Data Exports

The properties for the data export table.

Contents

DefaultValue

The default value for the table.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Description

The description for the table.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

Name

The name of the table.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

ValidValues

The valid values for the table.

Type: Array of strings

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ValidationExceptionField

Service: AWS Data Exports

The input failed to meet the constraints specified by the AWS service in a specified field.

Contents

Message

A message with the reason for the validation exception error.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

Name

The field name where the invalid entry was detected.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

AWS Pricing Calculator

The following data types are supported by AWS Pricing Calculator:

- AddReservedInstanceAction
- AddSavingsPlanAction
- BatchCreateBillScenarioCommitmentModificationEntry
- BatchCreateBillScenarioCommitmentModificationError
- BatchCreateBillScenarioCommitmentModificationItem
- BatchCreateBillScenarioUsageModificationEntry
- BatchCreateBillScenarioUsageModificationError
- BatchCreateBillScenarioUsageModificationItem
- BatchCreateWorkloadEstimateUsageEntry
- BatchCreateWorkloadEstimateUsageError
- BatchCreateWorkloadEstimateUsageItem
- BatchDeleteBillScenarioCommitmentModificationError
- BatchDeleteBillScenarioUsageModificationError
- BatchDeleteWorkloadEstimateUsageError
- BatchUpdateBillScenarioCommitmentModificationEntry
- BatchUpdateBillScenarioCommitmentModificationError
- BatchUpdateBillScenarioUsageModificationEntry
- BatchUpdateBillScenarioUsageModificationError
- BatchUpdateWorkloadEstimateUsageEntry
- BatchUpdateWorkloadEstimateUsageError
- BillEstimateCommitmentSummary
- BillEstimateCostSummary
- BillEstimateInputCommitmentModificationSummary
- BillEstimateInputUsageModificationSummary
- BillEstimateLineItemSummary
- BillEstimateSummary
- BillInterval

- BillScenarioCommitmentModificationAction
- BillScenarioCommitmentModificationItem
- BillScenarioSummary
- BillScenarioUsageModificationItem
- CostAmount
- CostDifference
- Expression
- ExpressionFilter
- FilterTimestamp
- HistoricalUsageEntity
- ListBillEstimateLineItemsFilter
- ListBillEstimatesFilter
- ListBillScenariosFilter
- ListUsageFilter
- ListWorkloadEstimatesFilter
- NegateReservedInstanceAction
- NegateSavingsPlanAction
- UsageAmount
- UsageQuantity
- UsageQuantityResult
- ValidationExceptionField
- WorkloadEstimateSummary
- WorkloadEstimateUsageItem
- WorkloadEstimateUsageQuantity

AddReservedInstanceAction

Service: AWS Pricing Calculator

Represents an action to add a Reserved Instance to a bill scenario.

Contents

instanceCount

The number of instances to add for this Reserved Instance offering.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

reservedInstancesOfferingId

The ID of the Reserved Instance offering to add. For more information, see DescribeReservedInstancesOfferings.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

AddSavingsPlanAction

Service: AWS Pricing Calculator

Represents an action to add a Savings Plan to a bill scenario.

Contents

commitment

The hourly commitment, in the same currency of the `savingsPlanOfferingId`. This is a value between 0.001 and 1 million. You cannot specify more than five digits after the decimal point.

Type: Double

Valid Range: Minimum value of 0.001. Maximum value of 1000000.

Required: No

savingsPlanOfferingId

The ID of the Savings Plan offering to add. For more information, see DescribeSavingsPlansOfferings.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

BatchCreateBillScenarioCommitmentModificationEntry

Service: AWS Pricing Calculator

Represents an entry object in the batch operation to create bill scenario commitment modifications.

Contents

commitmentAction

The specific commitment action to be taken (e.g., adding a Reserved Instance or Savings Plan).

Type: BillScenarioCommitmentModificationAction object

Note: This object is a Union. Only one member of this object can be specified or returned.

Required: Yes

key

A unique identifier for this entry in the batch operation. This can be any valid string. This key is useful to identify errors associated with any commitment entry as any error is returned with this key.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 10.

Pattern: `[a-zA-Z0-9]*`

Required: Yes

usageAccountId

The AWS account ID to which this commitment will be applied to.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: Yes

group

An optional group identifier for the commitment modification.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 30.

Pattern: `[a-zA-Z0-9-]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

BatchCreateBillScenarioCommitmentModificationError

Service: AWS Pricing Calculator

Represents an error that occurred during a batch create operation for bill scenario commitment modifications.

Contents

errorCode

The error code associated with the failed operation.

Type: String

Valid Values: `CONFLICT | INTERNAL_SERVER_ERROR | INVALID_ACCOUNT`

Required: No

errorMessage

A descriptive message for the error that occurred.

Type: String

Required: No

key

The key of the entry that caused the error.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 10.

Pattern: `[a-zA-Z0-9]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

BatchCreateBillScenarioCommitmentModificationItem

Service: AWS Pricing Calculator

Represents a successfully created item in a batch operation for bill scenario commitment modifications.

Contents

commitmentAction

The specific commitment action that was taken.

Type: BillScenarioCommitmentModificationAction object

Note: This object is a Union. Only one member of this object can be specified or returned.

Required: No

group

The group identifier for the created commitment modification.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 30.

Pattern: `[a-zA-Z0-9-]*`

Required: No

id

The unique identifier assigned to the created commitment modification.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: No

key

The key of the successfully created entry. This can be any valid string. This key is useful to identify errors associated with any commitment entry as any error is returned with this key.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 10.

Pattern: `[a-zA-Z0-9]*`

Required: No

usageAccountId

The AWS account ID associated with the created commitment modification.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

BatchCreateBillScenarioUsageModificationEntry

Service: AWS Pricing Calculator

Represents an entry in a batch operation to create bill scenario usage modifications.

Contents

key

A unique identifier for this entry in the batch operation. This can be any valid string. This key is useful to identify errors associated with any usage entry as any error is returned with this key.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 10.

Pattern: `[a-zA-Z0-9]*`

Required: Yes

operation

The specific operation associated with this usage modification. Describes the specific AWS operation that this usage line models. For example, `RunInstances` indicates the operation of an Amazon EC2 instance.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 32.

Pattern: `[-a-zA-Z0-9\.\-_:, \/()]*`

Required: Yes

serviceCode

The AWS service code for this usage modification. This identifies the specific AWS service to the customer as a unique short abbreviation. For example, `AmazonEC2` and `AWSKMS`.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 32.

Pattern: `[-a-zA-Z0-9\.\-_:, \/()]*`

Required: Yes

usageAccountId

The AWS account ID to which this usage will be applied to.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: Yes

usageType

Describes the usage details of the usage line item.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 128.

Pattern: `[-a-zA-Z0-9\.\-_:, \/()]*`

Required: Yes

amounts

The amount of usage you want to create for the service use you are modeling.

Type: Array of UsageAmount objects

Required: No

availabilityZone

The Availability Zone that this usage line uses.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 32.

Pattern: `[-a-zA-Z0-9\.\-_:, \/()]*`

Required: No

group

An optional group identifier for the usage modification.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 30.

Pattern: `[a-zA-Z0-9-]*`

Required: No

historicalUsage

Historical usage data associated with this modification, if available.

Type: HistoricalUsageEntity object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

BatchCreateBillScenarioUsageModificationError

Service: AWS Pricing Calculator

Represents an error that occurred during a batch create operation for bill scenario usage modifications.

Contents

errorCode

The error code associated with the failed operation.

Type: String

Valid Values: `BAD_REQUEST | NOT_FOUND | CONFLICT | INTERNAL_SERVER_ERROR`

Required: No

errorMessage

A descriptive message for the error that occurred.

Type: String

Required: No

key

The key of the entry that caused the error.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 10.

Pattern: `[a-zA-Z0-9]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

BatchCreateBillScenarioUsageModificationItem

Service: AWS Pricing Calculator

Represents a successfully created item in a batch operation for bill scenario usage modifications.

Contents

operation

The specific operation associated with this usage modification.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 32.

Pattern: `[-a-zA-Z0-9\.\-_:, \/()]*`

Required: Yes

serviceCode

The AWS service code for this usage modification.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 32.

Pattern: `[-a-zA-Z0-9\.\-_:, \/()]*`

Required: Yes

usageType

The type of usage that was modified.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 128.

Pattern: `[-a-zA-Z0-9\.\-_:, \/()]*`

Required: Yes

availabilityZone

The availability zone associated with this usage modification, if applicable.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 32.

Pattern: `[-a-zA-Z0-9\.\-_:, \/()]*`

Required: No

group

The group identifier for the created usage modification.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 30.

Pattern: `[a-zA-Z0-9-]*`

Required: No

historicalUsage

Historical usage data associated with this modification, if available.

Type: HistoricalUsageEntity object

Required: No

id

The unique identifier assigned to the created usage modification.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: No

key

The key of the successfully created entry.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 10.

Pattern: `[a-zA-Z0-9]*`

Required: No

location

The location associated with this usage modification.

Type: String

Required: No

quantities

The modified usage quantities.

Type: Array of UsageQuantity objects

Required: No

usageAccountId

The AWS account ID associated with the created usage modification.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

BatchCreateWorkloadEstimateUsageEntry

Service: AWS Pricing Calculator

Represents an entry in a batch operation to create workload estimate usage.

Contents

amount

The estimated usage amount.

Type: Double

Required: Yes

key

A unique identifier for this entry in the batch operation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 10.

Pattern: `[a-zA-Z0-9]*`

Required: Yes

operation

The specific operation associated with this usage estimate.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 32.

Pattern: `[-a-zA-Z0-9\.\-_:, \/()]*`

Required: Yes

serviceCode

The AWS service code for this usage estimate.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 32.

Pattern: `[-a-zA-Z0-9\.\-_:, \/()]*`

Required: Yes

usageAccountId

The AWS account ID associated with this usage estimate.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: Yes

usageType

The type of usage being estimated.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 128.

Pattern: `[-a-zA-Z0-9\.\-_:, \/()]*`

Required: Yes

group

An optional group identifier for the usage estimate.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 30.

Pattern: `[a-zA-Z0-9-]*`

Required: No

historicalUsage

Historical usage data associated with this estimate, if available.

Type: HistoricalUsageEntity object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

BatchCreateWorkloadEstimateUsageError

Service: AWS Pricing Calculator

Represents an error that occurred during a batch create operation for workload estimate usage.

Contents

errorCode

The error code associated with the failed operation.

Type: String

Valid Values: `BAD_REQUEST | NOT_FOUND | CONFLICT | INTERNAL_SERVER_ERROR`

Required: No

errorMessage

A descriptive message for the error that occurred.

Type: String

Required: No

key

The key of the entry that caused the error.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 10.

Pattern: `[a-zA-Z0-9]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++

- AWS SDK for Java V2
- AWS SDK for Ruby V3

BatchCreateWorkloadEstimateUsageItem

Service: AWS Pricing Calculator

Represents a successfully created item in a batch operation for workload estimate usage.

Contents

operation

The specific operation associated with this usage estimate.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 32.

Pattern: `[-a-zA-Z0-9\.\-_:, \/()]*`

Required: Yes

serviceCode

The AWS service code for this usage estimate.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 32.

Pattern: `[-a-zA-Z0-9\.\-_:, \/()]*`

Required: Yes

usageType

The type of usage that was estimated.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 128.

Pattern: `[-a-zA-Z0-9\.\-_:, \/()]*`

Required: Yes

cost

The estimated cost associated with this usage.

Type: Double

Required: No

currency

The currency of the estimated cost.

Type: String

Valid Values: USD

Required: No

group

The group identifier for the created usage estimate.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 30.

Pattern: `[a-zA-Z0-9-]*`

Required: No

historicalUsage

Historical usage data associated with this estimate, if available.

Type: HistoricalUsageEntity object

Required: No

id

The unique identifier assigned to the created usage estimate.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: No

key

The key of the successfully created entry.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 10.

Pattern: `[a-zA-Z0-9]*`

Required: No

location

The location associated with this usage estimate.

Type: String

Required: No

quantity

The estimated usage quantity.

Type: WorkloadEstimateUsageQuantity object

Required: No

status

The current status of the created usage estimate.

Type: String

Valid Values: `VALID | INVALID | STALE`

Required: No

usageAccountId

The AWS account ID associated with the created usage estimate.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

BatchDeleteBillScenarioCommitmentModificationError

Service: AWS Pricing Calculator

Represents an error that occurred when deleting a commitment in a Bill Scenario.

Contents

errorCode

The code associated with the error.

Type: String

Valid Values: `BAD_REQUEST | CONFLICT | INTERNAL_SERVER_ERROR`

Required: No

errorMessage

The message that describes the error.

Type: String

Required: No

id

The ID of the error.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++

- AWS SDK for Java V2
- AWS SDK for Ruby V3

BatchDeleteBillScenarioUsageModificationError

Service: AWS Pricing Calculator

Represents an error that occurred when deleting usage in a Bill Scenario.

Contents

errorCode

The code associated with the error.

Type: String

Valid Values: `BAD_REQUEST | CONFLICT | INTERNAL_SERVER_ERROR`

Required: No

errorMessage

The message that describes the error.

Type: String

Required: No

id

The ID of the error.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++

- AWS SDK for Java V2
- AWS SDK for Ruby V3

BatchDeleteWorkloadEstimateUsageError

Service: AWS Pricing Calculator

Represents an error that occurred when deleting usage in a workload estimate.

Contents

errorCode

The code associated with the error.

Type: String

Valid Values: `BAD_REQUEST | NOT_FOUND | CONFLICT | INTERNAL_SERVER_ERROR`

Required: No

errorMessage

The message that describes the error.

Type: String

Required: No

id

The ID of the error.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++

- AWS SDK for Java V2
- AWS SDK for Ruby V3

BatchUpdateBillScenarioCommitmentModificationEntry

Service: AWS Pricing Calculator

Represents an entry in a batch operation to update bill scenario commitment modifications.

Contents

id

The unique identifier of the commitment modification to update.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

group

The updated group identifier for the commitment modification.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 30.

Pattern: `[a-zA-Z0-9-]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

BatchUpdateBillScenarioCommitmentModificationError

Service: AWS Pricing Calculator

Represents an error that occurred when updating a commitment in a Bill Scenario.

Contents

errorCode

The code associated with the error.

Type: String

Valid Values: `BAD_REQUEST | NOT_FOUND | CONFLICT | INTERNAL_SERVER_ERROR`

Required: No

errorMessage

The message that describes the error.

Type: String

Required: No

id

The ID of the error.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++

- AWS SDK for Java V2
- AWS SDK for Ruby V3

BatchUpdateBillScenarioUsageModificationEntry

Service: AWS Pricing Calculator

Represents an entry in a batch operation to update bill scenario usage modifications.

Contents

id

The unique identifier of the usage modification to update.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

amounts

The updated usage amounts for the modification.

Type: Array of UsageAmount objects

Required: No

group

The updated group identifier for the usage modification.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 30.

Pattern: `[a-zA-Z0-9-]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

BatchUpdateBillScenarioUsageModificationError

Service: AWS Pricing Calculator

Represents an error that occurred when updating usage in a Bill Scenario.

Contents

errorCode

The code associated with the error.

Type: String

Valid Values: `BAD_REQUEST | NOT_FOUND | CONFLICT | INTERNAL_SERVER_ERROR`

Required: No

errorMessage

The message that describes the error.

Type: String

Required: No

id

The ID of the error.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++

- AWS SDK for Java V2
- AWS SDK for Ruby V3

BatchUpdateWorkloadEstimateUsageEntry

Service: AWS Pricing Calculator

Represents an entry in a batch operation to update workload estimate usage.

Contents

id

The unique identifier of the usage estimate to update.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

amount

The updated estimated usage amount.

Type: Double

Required: No

group

The updated group identifier for the usage estimate.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 30.

Pattern: `[a-zA-Z0-9-]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

BatchUpdateWorkloadEstimateUsageError

Service: AWS Pricing Calculator

Represents an error that occurred when updating usage in a workload estimate.

Contents

errorCode

The code associated with the error.

Type: String

Valid Values: `BAD_REQUEST | NOT_FOUND | CONFLICT | INTERNAL_SERVER_ERROR`

Required: No

errorMessage

The message that describes the error.

Type: String

Required: No

id

The ID of the error.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++

- AWS SDK for Java V2
- AWS SDK for Ruby V3

BillEstimateCommitmentSummary

Service: AWS Pricing Calculator

Provides a summary of commitment-related information for a bill estimate.

Contents

id

The unique identifier of the commitment.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: No

monthlyPayment

The monthly payment amount for this commitment, if applicable.

Type: CostAmount object

Required: No

offeringId

The identifier of the specific offering associated with this commitment.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: No

paymentOption

The payment option chosen for this commitment (e.g., All Upfront, Partial Upfront, No Upfront).

Type: String

Required: No

purchaseAgreementType

The type of purchase agreement (e.g., Reserved Instance, Savings Plan).

Type: String

Valid Values: `SAVINGS_PLANS | RESERVED_INSTANCE`

Required: No

region

The AWS region associated with this commitment.

Type: String

Required: No

termLength

The length of the commitment term.

Type: String

Required: No

upfrontPayment

The upfront payment amount for this commitment, if applicable.

Type: CostAmount object

Required: No

usageAccountId

The AWS account ID associated with this commitment.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

BillEstimateCostSummary

Service: AWS Pricing Calculator

Provides a summary of cost-related information for a bill estimate.

Contents

serviceCostDifferences

A breakdown of cost differences by AWS service.

Type: String to CostDifference object map

Required: No

totalCostDifference

The total difference in cost between the estimated and historical costs.

Type: CostDifference object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

BillEstimateInputCommitmentModificationSummary

Service: AWS Pricing Calculator

Summarizes an input commitment modification for a bill estimate.

Contents

commitmentAction

The specific commitment action taken in this modification.

Type: BillScenarioCommitmentModificationAction object

Note: This object is a Union. Only one member of this object can be specified or returned.

Required: No

group

The group identifier for the commitment modification.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 30.

Pattern: `[a-zA-Z0-9-]*`

Required: No

id

The unique identifier of the commitment modification.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: No

usageAccountId

The AWS account ID associated with this commitment modification.

Type: String

Length Constraints: Fixed length of 12.

Pattern: \d{12}

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

BillEstimateInputUsageModificationSummary

Service: AWS Pricing Calculator

Summarizes an input usage modification for a bill estimate.

Contents

operation

The specific operation associated with this usage modification.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 32.

Pattern: `[-a-zA-Z0-9\.\-_:, \/()]*`

Required: Yes

serviceCode

The AWS service code for this usage modification.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 32.

Pattern: `[-a-zA-Z0-9\.\-_:, \/()]*`

Required: Yes

usageType

The type of usage being modified.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 128.

Pattern: `[-a-zA-Z0-9\.\-_:, \/()]*`

Required: Yes

availabilityZone

The availability zone associated with this usage modification, if applicable.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 32.

Pattern: `[-a-zA-Z0-9\.\-_:, \/()]*`

Required: No

group

The group identifier for the usage modification.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 30.

Pattern: `[a-zA-Z0-9-]*`

Required: No

historicalUsage

Historical usage data associated with this modification, if available.

Type: HistoricalUsageEntity object

Required: No

id

The unique identifier of the usage modification.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: No

location

The location associated with this usage modification.

Type: String

Required: No

quantities

The modified usage quantities.

Type: Array of UsageQuantity objects

Required: No

usageAccountId

The AWS account ID associated with this usage modification.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

BillEstimateLineItemSummary

Service: AWS Pricing Calculator

Provides a summary of a line item in a bill estimate.

Contents

operation

The specific operation associated with this line item.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 32.

Pattern: `[-a-zA-Z0-9\.\-_:, \/()]*`

Required: Yes

serviceCode

The AWS service code associated with this line item.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 32.

Pattern: `[-a-zA-Z0-9\.\-_:, \/()]*`

Required: Yes

usageType

The type of usage for this line item.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 128.

Pattern: `[-a-zA-Z0-9\.\-_:, \/()]*`

Required: Yes

availabilityZone

The availability zone associated with this line item, if applicable.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 32.

Pattern: `[-a-zA-Z0-9\.\-_:, \/()]*`

Required: No

estimatedCost

The estimated cost for this line item.

Type: CostAmount object

Required: No

estimatedUsageQuantity

The estimated usage quantity for this line item.

Type: UsageQuantityResult object

Required: No

historicalCost

The historical cost for this line item.

Type: CostAmount object

Required: No

historicalUsageQuantity

The historical usage quantity for this line item.

Type: UsageQuantityResult object

Required: No

id

The unique identifier of this line item.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: No

lineItemId

The line item identifier from the original bill.

Type: String

Required: No

lineItemType

The type of this line item (e.g., Usage, Tax, Credit).

Type: String

Required: No

location

The location associated with this line item.

Type: String

Required: No

payerAccountId

The AWS account ID of the payer for this line item.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: No

savingsPlanArns

The Amazon Resource Names (ARNs) of any Savings Plans applied to this line item.

Type: Array of strings

Required: No

usageAccountId

The AWS account ID associated with the usage for this line item.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

BillEstimateSummary

Service: AWS Pricing Calculator

Provides a summary of a bill estimate.

Contents

id

The unique identifier of the bill estimate.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

billInterval

The time period covered by the bill estimate.

Type: BillInterval object

Required: No

createdAt

The timestamp when the bill estimate was created.

Type: Timestamp

Required: No

expiresAt

The timestamp when the bill estimate will expire.

Type: Timestamp

Required: No

name

The name of the bill estimate.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 64.

Pattern: `[a-zA-Z0-9-]+`

Required: No

status

The current status of the bill estimate.

Type: String

Valid Values: `IN_PROGRESS | COMPLETE | FAILED`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

BillInterval

Service: AWS Pricing Calculator

Represents a time interval for a bill or estimate.

Contents

end

The end date and time of the interval.

Type: Timestamp

Required: No

start

The start date and time of the interval.

Type: Timestamp

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

BillScenarioCommitmentModificationAction

Service: AWS Pricing Calculator

Represents an action to modify commitments in a bill scenario.

Contents

> **Important**
>
> This data type is a UNION, so only one of the following members can be specified when used or returned.

addReservedInstanceAction

Action to add a Reserved Instance to the scenario.

Type: AddReservedInstanceAction object

Required: No

addSavingsPlanAction

Action to add a Savings Plan to the scenario.

Type: AddSavingsPlanAction object

Required: No

negateReservedInstanceAction

Action to remove a Reserved Instance from the scenario.

Type: NegateReservedInstanceAction object

Required: No

negateSavingsPlanAction

Action to remove a Savings Plan from the scenario.

Type: NegateSavingsPlanAction object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

BillScenarioCommitmentModificationItem

Service: AWS Pricing Calculator

Represents a commitment modification item in a bill scenario.

Contents

commitmentAction

The specific commitment action taken in this modification.

Type: BillScenarioCommitmentModificationAction object

Note: This object is a Union. Only one member of this object can be specified or returned.

Required: No

group

The group identifier for the commitment modification.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 30.

Pattern: `[a-zA-Z0-9-]*`

Required: No

id

The unique identifier of the commitment modification.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: No

usageAccountId

The AWS account ID associated with this commitment modification.

Type: String

Length Constraints: Fixed length of 12.

Pattern: \d{12}

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

BillScenarioSummary

Service: AWS Pricing Calculator

Provides a summary of a bill scenario.

Contents

id

The unique identifier of the bill scenario.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

billInterval

The time period covered by the bill scenario.

Type: BillInterval object

Required: No

costCategoryGroupSharingPreferenceArn

The arn of the cost category used in the reserved and prioritized group sharing.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[-a-z0-9]*:ce::[0-9]{12}:costcategory/[a-f0-9-]{36}`

Required: No

createdAt

The timestamp when the bill scenario was created.

Type: Timestamp

Required: No

expiresAt

The timestamp when the bill scenario will expire.

Type: Timestamp

Required: No

failureMessage

An error message if the bill scenario creation or processing failed.

Type: String

Required: No

groupSharingPreference

The setting for the reserved instance and savings plan group sharing used in this estimate.

Type: String

Valid Values: `OPEN | PRIORITIZED | RESTRICTED`

Required: No

name

The name of the bill scenario.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 64.

Pattern: `[a-zA-Z0-9-]+`

Required: No

status

The current status of the bill scenario.

Type: String

Valid Values: `READY | LOCKED | FAILED | STALE`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

BillScenarioUsageModificationItem

Service: AWS Pricing Calculator

Represents a usage modification item in a bill scenario.

Contents

operation

The specific operation associated with this usage modification.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 32.

Pattern: `[-a-zA-Z0-9\.\-_:, \/()]*`

Required: Yes

serviceCode

The AWS service code for this usage modification.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 32.

Pattern: `[-a-zA-Z0-9\.\-_:, \/()]*`

Required: Yes

usageType

The type of usage being modified.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 128.

Pattern: `[-a-zA-Z0-9\.\-_:, \/()]*`

Required: Yes

availabilityZone

The availability zone associated with this usage modification, if applicable.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 32.

Pattern: `[-a-zA-Z0-9\.\-_:, \/()]*`

Required: No

group

The group identifier for the usage modification.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 30.

Pattern: `[a-zA-Z0-9-]*`

Required: No

historicalUsage

Historical usage data associated with this modification, if available.

Type: HistoricalUsageEntity object

Required: No

id

The unique identifier of the usage modification.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: No

location

The location associated with this usage modification.

Type: String

Required: No

quantities

The modified usage quantities.

Type: Array of UsageQuantity objects

Required: No

usageAccountId

The AWS account ID associated with this usage modification.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

CostAmount

Service: AWS Pricing Calculator

Represents a monetary amount with associated currency.

Contents

amount

The numeric value of the cost.

Type: Double

Required: No

currency

The currency code for the cost amount.

Type: String

Valid Values: USD

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

CostDifference

Service: AWS Pricing Calculator

Represents the difference between historical and estimated costs.

Contents

estimatedCost

The estimated cost amount.

Type: CostAmount object

Required: No

historicalCost

The historical cost amount.

Type: CostAmount object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Expression

Service: AWS Pricing Calculator

Represents a complex filtering expression for cost and usage data.

Contents

and

A list of expressions to be combined with AND logic.

Type: Array of Expression objects

Required: No

costCategories

Filters based on cost categories.

Type: ExpressionFilter object

Required: No

dimensions

Filters based on dimensions (e.g., service, operation).

Type: ExpressionFilter object

Required: No

not

An expression to be negated.

Type: Expression object

Required: No

or

A list of expressions to be combined with OR logic.

Type: Array of Expression objects

Required: No

tags

Filters based on resource tags.

Type: ExpressionFilter object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ExpressionFilter

Service: AWS Pricing Calculator

Represents a filter used within an expression.

Contents

key

The key or attribute to filter on.

Type: String

Required: No

matchOptions

The match options for the filter (e.g., equals, contains).

Type: Array of strings

Required: No

values

The values to match against.

Type: Array of strings

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

FilterTimestamp

Service: AWS Pricing Calculator

Represents a time-based filter.

Contents

afterTimestamp

Include results after this timestamp.

Type: Timestamp

Required: No

beforeTimestamp

Include results before this timestamp.

Type: Timestamp

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

HistoricalUsageEntity

Service: AWS Pricing Calculator

Represents historical usage data for a specific entity.

Contents

billInterval

The time interval for the historical usage data.

Type: BillInterval object

Required: Yes

filterExpression

An optional filter expression to apply to the historical usage data.

Type: Expression object

Required: Yes

operation

The specific operation associated with the usage.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 32.

Pattern: `[-a-zA-Z0-9\.\-_:, \/()]*`

Required: Yes

serviceCode

The AWS service code associated with the usage.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 32.

Pattern: `[-a-zA-Z0-9\.\-_:, \/()]*`

Required: Yes

usageAccountId

The AWS account ID associated with the usage.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: Yes

usageType

The type of usage.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 128.

Pattern: `[-a-zA-Z0-9\.\-_:, \/()]*`

Required: Yes

location

The location associated with the usage.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ListBillEstimateLineItemsFilter

Service: AWS Pricing Calculator

Represents a filter for listing bill estimate line items.

Contents

name

The name of the filter attribute.

Type: String

Valid Values: `USAGE_ACCOUNT_ID | SERVICE_CODE | USAGE_TYPE | OPERATION | LOCATION | LINE_ITEM_TYPE`

Required: Yes

values

The values to filter by.

Type: Array of strings

Required: Yes

matchOption

The match option for the filter (e.g., equals, contains).

Type: String

Valid Values: `EQUALS | STARTS_WITH | CONTAINS`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2

- AWS SDK for Ruby V3

ListBillEstimatesFilter

Service: AWS Pricing Calculator

Represents a filter for listing bill estimates.

Contents

name

The name of the filter attribute.

Type: String

Valid Values: `STATUS | NAME`

Required: Yes

values

The values to filter by.

Type: Array of strings

Required: Yes

matchOption

The match option for the filter (e.g., equals, contains).

Type: String

Valid Values: `EQUALS | STARTS_WITH | CONTAINS`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ListBillScenariosFilter

Service: AWS Pricing Calculator

Represents a filter for listing bill scenarios.

Contents

name

The name of the filter attribute.

Type: String

Valid Values: `STATUS | NAME | GROUP_SHARING_PREFERENCE | COST_CATEGORY_ARN`

Required: Yes

values

The values to filter by.

Type: Array of strings

Required: Yes

matchOption

The match option for the filter (e.g., equals, contains).

Type: String

Valid Values: `EQUALS | STARTS_WITH | CONTAINS`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ListUsageFilter

Service: AWS Pricing Calculator

Represents a filter for listing usage data.

Contents

name

The name of the filter attribute.

Type: String

Valid Values: `USAGE_ACCOUNT_ID | SERVICE_CODE | USAGE_TYPE | OPERATION | LOCATION | USAGE_GROUP | HISTORICAL_USAGE_ACCOUNT_ID | HISTORICAL_SERVICE_CODE | HISTORICAL_USAGE_TYPE | HISTORICAL_OPERATION | HISTORICAL_LOCATION`

Required: Yes

values

The values to filter by.

Type: Array of strings

Required: Yes

matchOption

The match option for the filter (e.g., equals, contains).

Type: String

Valid Values: `EQUALS | STARTS_WITH | CONTAINS`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ListWorkloadEstimatesFilter

Service: AWS Pricing Calculator

Represents a filter for listing workload estimates.

Contents

name

The name of the filter attribute.

Type: String

Valid Values: `STATUS | NAME`

Required: Yes

values

The values to filter by.

Type: Array of strings

Required: Yes

matchOption

The match option for the filter (e.g., equals, contains).

Type: String

Valid Values: `EQUALS | STARTS_WITH | CONTAINS`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

NegateReservedInstanceAction

Service: AWS Pricing Calculator

Represents an action to remove a Reserved Instance from a bill scenario.

This is the ID of an existing Reserved Instance in your account.

Contents

reservedInstancesId

The ID of the Reserved Instance to remove.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

NegateSavingsPlanAction

Service: AWS Pricing Calculator

Represents an action to remove a Savings Plan from a bill scenario.

This is the ID of an existing Savings Plan in your account.

Contents

savingsPlanId

The ID of the Savings Plan to remove.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

UsageAmount

Service: AWS Pricing Calculator

Represents a usage amount for a specific time period.

Contents

amount

The usage amount for the period.

Type: Double

Required: Yes

startHour

The start hour of the usage period.

Type: Timestamp

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

UsageQuantity

Service: AWS Pricing Calculator

Represents a usage quantity with associated unit and time period.

Contents

amount

The numeric value of the usage quantity.

Type: Double

Required: No

startHour

The start hour of the usage period.

Type: Timestamp

Required: No

unit

The unit of measurement for the usage quantity.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

UsageQuantityResult

Service: AWS Pricing Calculator

Represents the result of a usage quantity calculation.

Contents

amount

The numeric value of the usage quantity result.

Type: Double

Required: No

unit

The unit of measurement for the usage quantity result.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ValidationExceptionField

Service: AWS Pricing Calculator

Represents a field that failed validation in a request.

Contents

message

The error message describing why the field failed validation.

Type: String

Required: Yes

name

The name of the field that failed validation.

Type: String

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

WorkloadEstimateSummary

Service: AWS Pricing Calculator

Provides a summary of a workload estimate.

Contents

id

The unique identifier of the workload estimate.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

costCurrency

The currency of the estimated cost.

Type: String

Valid Values: USD

Required: No

createdAt

The timestamp when the workload estimate was created.

Type: Timestamp

Required: No

expiresAt

The timestamp when the workload estimate will expire.

Type: Timestamp

Required: No

failureMessage

An error message if the workload estimate creation or processing failed.

Type: String

Required: No

name

The name of the workload estimate.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 64.

Pattern: `[a-zA-Z0-9-]+`

Required: No

rateTimestamp

The timestamp of the pricing rates used for the estimate.

Type: Timestamp

Required: No

rateType

The type of pricing rates used for the estimate.

Type: String

Valid Values: `BEFORE_DISCOUNTS | AFTER_DISCOUNTS | AFTER_DISCOUNTS_AND_COMMITMENTS`

Required: No

status

The current status of the workload estimate.

Type: String

Valid Values: `UPDATING | VALID | INVALID | ACTION_NEEDED`

Required: No

totalCost

The total estimated cost for the workload.

Type: Double

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

WorkloadEstimateUsageItem

Service: AWS Pricing Calculator

Represents a usage item in a workload estimate.

Contents

operation

The specific operation associated with this usage item.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 32.

Pattern: `[-a-zA-Z0-9\.\-_:, \/()]*`

Required: Yes

serviceCode

The AWS service code associated with this usage item.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 32.

Pattern: `[-a-zA-Z0-9\.\-_:, \/()]*`

Required: Yes

usageType

The type of usage for this item.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 128.

Pattern: `[-a-zA-Z0-9\.\-_:, \/()]*`

Required: Yes

cost

The estimated cost for this usage item.

Type: Double

Required: No

currency

The currency of the estimated cost.

Type: String

Valid Values: USD

Required: No

group

The group identifier for this usage item.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 30.

Pattern: `[a-zA-Z0-9-]*`

Required: No

historicalUsage

Historical usage data associated with this item, if available.

Type: HistoricalUsageEntity object

Required: No

id

The unique identifier of this usage item.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: No

location

The location associated with this usage item.

Type: String

Required: No

quantity

The estimated usage quantity for this item.

Type: WorkloadEstimateUsageQuantity object

Required: No

status

The current status of this usage item.

Type: String

Valid Values: `VALID | INVALID | STALE`

Required: No

usageAccountId

The AWS account ID associated with this usage item.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d{12}`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++

- AWS SDK for Java V2
- AWS SDK for Ruby V3

WorkloadEstimateUsageQuantity

Service: AWS Pricing Calculator

Represents a usage quantity for a workload estimate.

Contents

amount

The numeric value of the usage quantity.

Type: Double

Required: No

unit

The unit of measurement for the usage quantity.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

AWS Billing and Cost Management Recommended Actions

The following data types are supported by AWS Billing and Cost Management Recommended Actions:

- ActionFilter
- RecommendedAction

- RequestFilter
- ValidationExceptionField

ActionFilter

Service: AWS Billing and Cost Management Recommended Actions

Describes a filter that returns a more specific list of recommended actions.

Contents

key

The category to filter on. Valid values are `FEATURE` for feature type, `SEVERITY` for severity level, and `TYPE` for recommendation type.

Type: String

Valid Values: `FEATURE | SEVERITY | TYPE`

Required: Yes

matchOption

Specifies how to apply the filter. Use `EQUALS` to include matching results or `NOT_EQUALS` to exclude matching results.

Type: String

Valid Values: `EQUALS | NOT_EQUALS`

Required: Yes

values

One or more values to match against the specified key.

Type: Array of strings

Array Members: Minimum number of 1 item.

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `.*[\S\s]*.*`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

RecommendedAction

Service: AWS Billing and Cost Management Recommended Actions

Describes a specific recommended action.

Contents

accountId

The account that the recommended action is for.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `[0-9]{12}`

Required: No

context

Context that applies to the recommended action.

Type: String to string map

Required: No

feature

The feature associated with the recommended action.

Type: String

Valid Values: `ACCOUNT | BUDGETS | COST_ANOMALY_DETECTION | COST_OPTIMIZATION_HUB | FREE_TIER | IAM | PAYMENTS | RESERVATIONS | SAVINGS_PLANS | TAX_SETTINGS`

Required: No

id

The ID for the recommended action.

Type: String

Required: No

lastUpdatedTimeStamp

The time when the recommended action status was last updated.

Type: String

Required: No

nextSteps

The possible next steps to execute the recommended action.

Type: Array of strings

Required: No

severity

The severity associated with the recommended action.

Type: String

Valid Values: `INFO | WARNING | CRITICAL`

Required: No

type

The type of action you can take by adopting the recommended action.

Type: String

Valid Values: `ADD_ALTERNATE_BILLING_CONTACT | CREATE_ANOMALY_MONITOR | CREATE_BUDGET | ENABLE_COST_OPTIMIZATION_HUB | MIGRATE_TO_GRANULAR_PERMISSIONS | PAYMENTS_DUE | PAYMENTS_PAST_DUE | REVIEW_ANOMALIES | REVIEW_BUDGET_ALERTS | REVIEW_BUDGETS_EXCEEDED | REVIEW_EXPIRING_RI | REVIEW_EXPIRING_SP | REVIEW_FREETIER_USAGE_ALERTS | REVIEW_FREETIER_CREDITS_REMAINING | REVIEW_FREETIER_DAYS_REMAINING | REVIEW_SAVINGS_OPPORTUNITY_RECOMMENDATIONS | UPDATE_EXPIRED_PAYMENT_METHOD | UPDATE_INVALID_PAYMENT_METHOD | UPDATE_TAX_EXEMPTION_CERTIFICATE | UPDATE_TAX_REGISTRATION_NUMBER`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

RequestFilter

Service: AWS Billing and Cost Management Recommended Actions

Enables filtering of results based on specified action criteria. You can define multiple action filters to refine results using combinations of feature type, severity level, and recommendation type.

Contents

actions

A list of action filters that define criteria for filtering results. Each filter specifies a key, match option, and corresponding values to filter on.

Type: Array of ActionFilter objects

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ValidationExceptionField

Service: AWS Billing and Cost Management Recommended Actions

Provides specific details about why a particular field failed validation.

Contents

message

Provides a message explaining why the field failed validation.

Type: String

Required: Yes

name

Provides the name of the field that failed validation.

Type: String

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

AWS Billing

The following data types are supported by AWS Billing:

- ActiveTimeRange
- BillingViewElement
- BillingViewHealthStatus

- BillingViewListElement
- CostCategoryValues
- DimensionValues
- Expression
- ResourceTag
- StringSearch
- TagValues
- TimeRange
- ValidationExceptionField

ActiveTimeRange

Service: AWS Billing

A time range with a start and end time.

Contents

activeAfterInclusive

The inclusive time range start date.

Type: Timestamp

Required: Yes

activeBeforeInclusive

The inclusive time range end date.

Type: Timestamp

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

BillingViewElement

Service: AWS Billing

The metadata associated to the billing view.

Contents

arn

The Amazon Resource Name (ARN) that can be used to uniquely identify the billing view.

Type: String

Pattern: `arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[a-zA-Z0-9/:_\+=\.\-@]{0,75}[a-zA-Z0-9]`

Required: No

billingViewType

The type of billing group.

Type: String

Valid Values: `PRIMARY | BILLING_GROUP | CUSTOM | BILLING_TRANSFER | BILLING_TRANSFER_SHOWBACK`

Required: No

createdAt

The time when the billing view was created.

Type: Timestamp

Required: No

dataFilterExpression

See Expression. Billing view only supports `LINKED_ACCOUNT`, `Tags`, and `CostCategories`.

Type: Expression object

Required: No

derivedViewCount

The number of billing views that use this billing view as a source.

Type: Integer

Required: No

description

The description of the billing view.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `([ a-zA-Z0-9_\+=\.\-@]+)?`

Required: No

healthStatus

The current health status of the billing view.

Type: BillingViewHealthStatus object

Required: No

name

The account name of the billing view.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[ a-zA-Z0-9_\+=\.\-@]+`

Required: No

ownerAccountId

The account owner of the billing view.

Type: String

Pattern: `[0-9]{12}`

Required: No

sourceAccountId

The AWS account ID that owns the source billing view, if this is a derived billing view.

Type: String

Pattern: `[0-9]{12}`

Required: No

sourceViewCount

The number of source views associated with this billing view.

Type: Integer

Required: No

updatedAt

The time when the billing view was last updated.

Type: Timestamp

Required: No

viewDefinitionLastUpdatedAt

The timestamp of when the billing view definition was last updated.

Type: Timestamp

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

BillingViewHealthStatus

Service: AWS Billing

Represents the health status of a billing view, including a status code and optional reasons for the status.

Contents

statusCode

The current health status code of the billing view.

Type: String

Valid Values: `HEALTHY | UNHEALTHY | CREATING | UPDATING`

Required: No

statusReasons

A list of reasons explaining the current health status, if applicable.

Type: Array of strings

Valid Values: `SOURCE_VIEW_UNHEALTHY | SOURCE_VIEW_UPDATING | SOURCE_VIEW_ACCESS_DENIED | SOURCE_VIEW_NOT_FOUND | CYCLIC_DEPENDENCY | SOURCE_VIEW_DEPTH_EXCEEDED | AGGREGATE_SOURCE | VIEW_OWNER_NOT_MANAGEMENT_ACCOUNT`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

BillingViewListElement

Service: AWS Billing

A representation of a billing view.

Contents

arn

The Amazon Resource Name (ARN) that can be used to uniquely identify the billing view.

Type: String

Pattern: `arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[a-zA-Z0-9/:_\+=\.\-@]{0,75}[a-zA-Z0-9]`

Required: No

billingViewType

The type of billing view.

Type: String

Valid Values: `PRIMARY | BILLING_GROUP | CUSTOM | BILLING_TRANSFER | BILLING_TRANSFER_SHOWBACK`

Required: No

description

The description of the billing view.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `([ a-zA-Z0-9_\+=\.\-@]+)?`

Required: No

healthStatus

The current health status of the billing view.

Type: BillingViewHealthStatus object

Required: No

name

A list of names of the Billing view.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[ a-zA-Z0-9_\+=\.\-@]+`

Required: No

ownerAccountId

The list of owners of the Billing view.

Type: String

Pattern: `[0-9]{12}`

Required: No

sourceAccountId

The AWS account ID that owns the source billing view, if this is a derived billing view.

Type: String

Pattern: `[0-9]{12}`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

CostCategoryValues

Service: AWS Billing

The Cost Categories values used for filtering the costs.

Contents

key

The unique name of the Cost Category.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `(?! )[\p{L}\p{N}\p{Z}-_]*(?<! )`

Required: Yes

values

The specific value of the Cost Category.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 200 items.

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

DimensionValues

Service: AWS Billing

The metadata that you can use to filter and group your results.

Contents

key

The names of the metadata types that you can use to filter and group your results.

Type: String

Valid Values: `LINKED_ACCOUNT`

Required: Yes

values

The metadata values that you can use to filter and group your results.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 200 items.

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Expression

Service: AWS Billing

See Expression. Billing view only supports `LINKED_ACCOUNT`, `Tags`, and `CostCategories`.

Contents

costCategories

The filter that's based on `CostCategory` values.

Type: CostCategoryValues object

Required: No

dimensions

The specific `Dimension` to use for `Expression`.

Type: DimensionValues object

Required: No

tags

The specific `Tag` to use for `Expression`.

Type: TagValues object

Required: No

timeRange

Specifies a time range filter for the billing view data.

Type: TimeRange object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ResourceTag

Service: AWS Billing

The tag structure that contains a tag key and value.

Contents

key

The key that's associated with the tag.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: Yes

value

The value that's associated with the tag.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

StringSearch

Service: AWS Billing

A structure that defines how to search for string values. You can specify a search option and the value to search for.

Contents

searchOption

The type of search operation to perform on the string value. Determines how the search value is matched against the target field.

Type: String

Valid Values: `STARTS_WITH`

Required: Yes

searchValue

The string value to use in the search operation. This value is compared against the target field using the specified search option.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9_\+=\.\-@ ]+`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

TagValues

Service: AWS Billing

The values that are available for a tag.

Contents

key

The key for the tag.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

values

The specific value of the tag.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 200 items.

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

TimeRange

Service: AWS Billing

Specifies a time range with inclusive begin and end dates.

Contents

beginDateInclusive

The inclusive start date of the time range.

Type: Timestamp

Required: No

endDateInclusive

The inclusive end date of the time range.

Type: Timestamp

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ValidationExceptionField

Service: AWS Billing

The field's information of a request that resulted in an exception.

Contents

message

The message describing why the field failed validation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Required: Yes

name

The name of the field.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 100.

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

AWS Budgets

The following data types are supported by AWS Budgets:

- Action

- ActionHistory
- ActionHistoryDetails
- ActionThreshold
- AutoAdjustData
- Budget
- BudgetedAndActualAmounts
- BudgetNotificationsForAccount
- BudgetPerformanceHistory
- CalculatedSpend
- CostCategoryValues
- CostTypes
- Definition
- Expression
- ExpressionDimensionValues
- HealthStatus
- HistoricalOptions
- IamActionDefinition
- Notification
- NotificationWithSubscribers
- ResourceTag
- ScpActionDefinition
- Spend
- SsmActionDefinition
- Subscriber
- TagValues
- TimePeriod

Action

Service: AWS Budgets

A budget action resource.

Contents

ActionId

A system-generated universally unique identifier (UUID) for the action.

Type: String

Length Constraints: Fixed length of 36.

Pattern: `^[a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{12}$`

Required: Yes

ActionThreshold

The trigger threshold of the action.

Type: ActionThreshold object

Required: Yes

ActionType

The type of action. This defines the type of tasks that can be carried out by this action. This field also determines the format for definition.

Type: String

Valid Values: `APPLY_IAM_POLICY | APPLY_SCP_POLICY | RUN_SSM_DOCUMENTS`

Required: Yes

ApprovalModel

This specifies if the action needs manual or automatic approval.

Type: String

Valid Values: `AUTOMATIC | MANUAL`

Required: Yes

BudgetName

A string that represents the budget name. The ":" and "\" characters, and the "/action/" substring, aren't allowed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(?![^:\\]*/action/|(?i).*<script>.*</script>.*)[^:\\]+$`

Required: Yes

Definition

Where you specify all of the type-specific parameters.

Type: Definition object

Required: Yes

ExecutionRoleArn

The role passed for action execution and reversion. Roles and actions must be in the same account.

Type: String

Length Constraints: Minimum length of 32. Maximum length of 618.

Pattern: `^arn:aws(-cn|-us-gov|-iso|-iso-[a-z]{1})?:iam::\d{12}:role(\u002F[\u0021-\u007F]+\u002F|\u002F)[\w+=,.@-]+$`

Required: Yes

NotificationType

The type of a notification. It must be ACTUAL or FORECASTED.

Type: String

Valid Values: `ACTUAL | FORECASTED`

Required: Yes

Status

The status of the action.

Type: String

Valid Values: `STANDBY | PENDING | EXECUTION_IN_PROGRESS | EXECUTION_SUCCESS | EXECUTION_FAILURE | REVERSE_IN_PROGRESS | REVERSE_SUCCESS | REVERSE_FAILURE | RESET_IN_PROGRESS | RESET_FAILURE`

Required: Yes

Subscribers

A list of subscribers.

Type: Array of Subscriber objects

Array Members: Minimum number of 1 item. Maximum number of 11 items.

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ActionHistory

Service: AWS Budgets

The historical records for a budget action.

Contents

ActionHistoryDetails

The description of the details for the event.

Type: ActionHistoryDetails object

Required: Yes

EventType

This distinguishes between whether the events are triggered by the user or are generated by the system.

Type: String

Valid Values: `SYSTEM | CREATE_ACTION | DELETE_ACTION | UPDATE_ACTION | EXECUTE_ACTION`

Required: Yes

Status

The status of action at the time of the event.

Type: String

Valid Values: `STANDBY | PENDING | EXECUTION_IN_PROGRESS | EXECUTION_SUCCESS | EXECUTION_FAILURE | REVERSE_IN_PROGRESS | REVERSE_SUCCESS | REVERSE_FAILURE | RESET_IN_PROGRESS | RESET_FAILURE`

Required: Yes

Timestamp

A generic time stamp. In Java, it's transformed to a `Date` object.

Type: Timestamp

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ActionHistoryDetails

Service: AWS Budgets

The description of the details for the event.

Contents

Action

The budget action resource.

Type: Action object

Required: Yes

Message

A generic string.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2147483647.

Pattern: `.*`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ActionThreshold

Service: AWS Budgets

The trigger threshold of the action.

Contents

ActionThresholdType

The type of threshold for a notification.

Type: String

Valid Values: `PERCENTAGE | ABSOLUTE_VALUE`

Required: Yes

ActionThresholdValue

The threshold of a notification.

Type: Double

Valid Range: Minimum value of 0. Maximum value of 15000000000000.

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

AutoAdjustData

Service: AWS Budgets

The parameters that determine the budget amount for an auto-adjusting budget.

Contents

AutoAdjustType

The string that defines whether your budget auto-adjusts based on historical or forecasted data.

Type: String

Valid Values: `HISTORICAL | FORECAST`

Required: Yes

HistoricalOptions

The parameters that define or describe the historical data that your auto-adjusting budget is based on.

Type: HistoricalOptions object

Required: No

LastAutoAdjustTime

The last time that your budget was auto-adjusted.

Type: Timestamp

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2

- AWS SDK for Ruby V3

Budget

Service: AWS Budgets

Represents the output of the `CreateBudget` operation. The content consists of the detailed metadata and data file information, and the current status of the `budget` object.

This is the Amazon Resource Name (ARN) pattern for a budget:

`arn:aws:budgets::AccountId:budget/budgetName`

Contents

BudgetName

The name of a budget. The name must be unique within an account. The `:` and `\` characters, and the "/action/" substring, aren't allowed in `BudgetName`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(?![^:\\]*/action/|(?i).*<script>.*</script>.*)[^:\\]+$`

Required: Yes

BudgetType

Specifies whether this budget tracks costs, usage, RI utilization, RI coverage, Savings Plans utilization, or Savings Plans coverage.

Type: String

Valid Values: `USAGE | COST | RI_UTILIZATION | RI_COVERAGE | SAVINGS_PLANS_UTILIZATION | SAVINGS_PLANS_COVERAGE`

Required: Yes

TimeUnit

The length of time until a budget resets the actual and forecasted spend.

Type: String

Valid Values: `DAILY | MONTHLY | QUARTERLY | ANNUALLY | CUSTOM`

Required: Yes

AutoAdjustData

The parameters that determine the budget amount for an auto-adjusting budget.

Type: AutoAdjustData object

Required: No

BillingViewArn

The Amazon Resource Name (ARN) that uniquely identifies a specific billing view. The ARN is used to specify which particular billing view you want to interact with or retrieve information from when making API calls related to AWS Billing and Cost Management features. The BillingViewArn can be retrieved by calling the ListBillingViews API.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[a-zA-Z0-9/:_\+=\.\-@]{0,75}[a-zA-Z0-9]$`

Required: No

BudgetLimit

The total amount of cost, usage, RI utilization, RI coverage, Savings Plans utilization, or Savings Plans coverage that you want to track with your budget.

`BudgetLimit` is required for cost or usage budgets, but optional for RI or Savings Plans utilization or coverage budgets. RI and Savings Plans utilization or coverage budgets default to `100`. This is the only valid value for RI or Savings Plans utilization or coverage budgets. You can't use `BudgetLimit` with `PlannedBudgetLimits` for `CreateBudget` and `UpdateBudget` actions.

Type: Spend object

Required: No

CalculatedSpend

The actual and forecasted cost or usage that the budget tracks.

Type: CalculatedSpend object

Required: No

CostFilters

This member has been deprecated.

The cost filters, such as `Region`, `Service`, `LinkedAccount`, `Tag`, or `CostCategory`, that are applied to a budget.

AWS Budgets supports the following services as a `Service` filter for RI budgets:

- Amazon EC2
- Amazon Redshift
- Amazon Relational Database Service
- Amazon ElastiCache
- Amazon OpenSearch Service

Type: String to array of strings map

Key Length Constraints: Minimum length of 0. Maximum length of 2147483647.

Key Pattern: `.*`

Length Constraints: Minimum length of 0. Maximum length of 2147483647.

Pattern: `[\S\s]*`

Required: No

CostTypes

This member has been deprecated.

The types of costs that are included in this `COST` budget.

`USAGE`, `RI_UTILIZATION`, `RI_COVERAGE`, `SAVINGS_PLANS_UTILIZATION`, and `SAVINGS_PLANS_COVERAGE` budgets do not have `CostTypes`.

Type: CostTypes object

Required: No

FilterExpression

The filtering dimensions for the budget and their corresponding values.

Type: Expression object

Required: No

HealthStatus

The current operational state of a Billing View derived resource.

Type: HealthStatus object

Required: No

LastUpdatedTime

The last time that you updated this budget.

Type: Timestamp

Required: No

Metrics

The definition for how the budget data is aggregated.

Type: Array of strings

Array Members: Maximum number of 1 item.

Valid Values: `BlendedCost | UnblendedCost | AmortizedCost | NetUnblendedCost | NetAmortizedCost | UsageQuantity | NormalizedUsageAmount | Hours`

Required: No

PlannedBudgetLimits

A map containing multiple `BudgetLimit`, including current or future limits.

`PlannedBudgetLimits` is available for cost or usage budget and supports both monthly and quarterly `TimeUnit`.

For monthly budgets, provide 12 months of `PlannedBudgetLimits` values. This must start from the current month and include the next 11 months. The `key` is the start of the month, UTC in epoch seconds.

For quarterly budgets, provide four quarters of PlannedBudgetLimits value entries in standard calendar quarter increments. This must start from the current quarter and include the next three quarters. The key is the start of the quarter, UTC in epoch seconds.

If the planned budget expires before 12 months for monthly or four quarters for quarterly, provide the PlannedBudgetLimits values only for the remaining periods.

If the budget begins at a date in the future, provide PlannedBudgetLimits values from the start date of the budget.

After all of the BudgetLimit values in PlannedBudgetLimits are used, the budget continues to use the last limit as the BudgetLimit. At that point, the planned budget provides the same experience as a fixed budget.

DescribeBudget and DescribeBudgets response along with PlannedBudgetLimits also contain BudgetLimit representing the current month or quarter limit present in PlannedBudgetLimits. This only applies to budgets that are created with PlannedBudgetLimits. Budgets that are created without PlannedBudgetLimits only contain BudgetLimit. They don't contain PlannedBudgetLimits.

Type: String to Spend object map

Key Length Constraints: Minimum length of 0. Maximum length of 2147483647.

Key Pattern: .*

Required: No

TimePeriod

The period of time that's covered by a budget. You set the start date and end date. The start date must come before the end date. The end date must come before 06/15/87 00:00 UTC.

If you create your budget and don't specify a start date, AWS defaults to the start of your chosen time period (DAILY, MONTHLY, QUARTERLY, ANNUALLY, or CUSTOM). For example, if you created your budget on January 24, 2018, chose DAILY, and didn't set a start date, AWS set your start date to 01/24/18 00:00 UTC. If you chose MONTHLY, AWS set your start date to 01/01/18 00:00 UTC. If you didn't specify an end date, AWS set your end date to 06/15/87 00:00 UTC. The defaults are the same for the AWS Billing and Cost Management console and the API.

You can change either date with the UpdateBudget operation.

After the end date, AWS deletes the budget and all the associated notifications and subscribers.

Type: TimePeriod object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

BudgetedAndActualAmounts

Service: AWS Budgets

The amount of cost or usage that you created the budget for, compared to your actual costs or usage.

Contents

ActualAmount

Your actual costs or usage for a budget period.

Type: Spend object

Required: No

BudgetedAmount

The amount of cost or usage that you created the budget for.

Type: Spend object

Required: No

TimePeriod

The time period that's covered by this budget comparison.

Type: TimePeriod object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

BudgetNotificationsForAccount

Service: AWS Budgets

The budget name and associated notifications for an account.

Contents

BudgetName

A string that represents the budget name. The ":" and "\" characters, and the "/action/" substring, aren't allowed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(?![^:\\]*/action/|(?i).*<script>.*</script>.*)[^:\\]+$`

Required: No

Notifications

A list of notifications.

Type: Array of Notification objects

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

BudgetPerformanceHistory

Service: AWS Budgets

A history of the state of a budget at the end of the budget's specified time period.

Contents

BillingViewArn

The Amazon Resource Name (ARN) that uniquely identifies a specific billing view. The ARN is used to specify which particular billing view you want to interact with or retrieve information from when making API calls related to AWS Billing and Cost Management features. The BillingViewArn can be retrieved by calling the ListBillingViews API.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z-]*:(billing)::[0-9]{12}:billingview/[a-zA-Z0-9/:_\+=\.\-@]{0,75}[a-zA-Z0-9]$`

Required: No

BudgetedAndActualAmountsList

A list of amounts of cost or usage that you created budgets for, which are compared to your actual costs or usage.

Type: Array of BudgetedAndActualAmounts objects

Required: No

BudgetName

A string that represents the budget name. The ":" and "\" characters, and the "/action/" substring, aren't allowed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^(?![^:\\]*/action/|(?i).*<script>.*</script>.*)[^:\\]+$`

Required: No

BudgetType

The type of a budget. It must be one of the following types:

`COST`, `USAGE`, `RI_UTILIZATION`, `RI_COVERAGE`, `SAVINGS_PLANS_UTILIZATION`, or `SAVINGS_PLANS_COVERAGE`.

Type: String

Valid Values: `USAGE | COST | RI_UTILIZATION | RI_COVERAGE | SAVINGS_PLANS_UTILIZATION | SAVINGS_PLANS_COVERAGE`

Required: No

CostFilters

The history of the cost filters for a budget during the specified time period.

Type: String to array of strings map

Key Length Constraints: Minimum length of 0. Maximum length of 2147483647.

Key Pattern: `.*`

Length Constraints: Minimum length of 0. Maximum length of 2147483647.

Pattern: `[\S\s]*`

Required: No

CostTypes

The history of the cost types for a budget during the specified time period.

Type: CostTypes object

Required: No

TimeUnit

The time unit of the budget, such as MONTHLY or QUARTERLY.

Type: String

Valid Values: `DAILY | MONTHLY | QUARTERLY | ANNUALLY | CUSTOM`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

CalculatedSpend

Service: AWS Budgets

The spend objects that are associated with this budget. The `actualSpend` tracks how much you've used, cost, usage, RI units, or Savings Plans units and the `forecastedSpend` tracks how much that you're predicted to spend based on your historical usage profile.

For example, if it's the 20th of the month and you have spent `50` dollars on Amazon EC2, your `actualSpend` is `50 USD`, and your `forecastedSpend` is `75 USD`.

Contents

ActualSpend

The amount of cost, usage, RI units, or Savings Plans units that you used.

Type: Spend object

Required: Yes

ForecastedSpend

The amount of cost, usage, RI units, or Savings Plans units that you're forecasted to use.

Type: Spend object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

CostCategoryValues

Service: AWS Budgets

The cost category values used for filtering the costs.

Contents

Key

The unique name of the cost category.

Type: String

Required: No

MatchOptions

The match options that you can use to filter your results.

Type: Array of strings

Valid Values: `EQUALS | ABSENT | STARTS_WITH | ENDS_WITH | CONTAINS | GREATER_THAN_OR_EQUAL | CASE_SENSITIVE | CASE_INSENSITIVE`

Required: No

Values

The specific value of the cost category.

Type: Array of strings

Array Members: Minimum number of 1 item.

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

CostTypes

Service: AWS Budgets

The types of cost that are included in a `COST` budget, such as tax and subscriptions.

`USAGE`, `RI_UTILIZATION`, `RI_COVERAGE`, `SAVINGS_PLANS_UTILIZATION`, and `SAVINGS_PLANS_COVERAGE` budgets don't have `CostTypes`.

Contents

IncludeCredit

Specifies whether a budget includes credits.

The default value is `true`.

Type: Boolean

Required: No

IncludeDiscount

Specifies whether a budget includes discounts.

The default value is `true`.

Type: Boolean

Required: No

IncludeOtherSubscription

Specifies whether a budget includes non-RI subscription costs.

The default value is `true`.

Type: Boolean

Required: No

IncludeRecurring

Specifies whether a budget includes recurring fees such as monthly RI fees.

The default value is `true`.

Type: Boolean

Required: No

IncludeRefund

Specifies whether a budget includes refunds.

The default value is `true`.

Type: Boolean

Required: No

IncludeSubscription

Specifies whether a budget includes subscriptions.

The default value is `true`.

Type: Boolean

Required: No

IncludeSupport

Specifies whether a budget includes support subscription fees.

The default value is `true`.

Type: Boolean

Required: No

IncludeTax

Specifies whether a budget includes taxes.

The default value is `true`.

Type: Boolean

Required: No

IncludeUpfront

Specifies whether a budget includes upfront RI costs.

The default value is `true`.

Type: Boolean

Required: No

UseAmortized

Specifies whether a budget uses the amortized rate.

The default value is `false`.

Type: Boolean

Required: No

UseBlended

Specifies whether a budget uses a blended rate.

The default value is `false`.

Type: Boolean

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Definition

Service: AWS Budgets

Specifies all of the type-specific parameters.

Contents

IamActionDefinition

The AWS Identity and Access Management (IAM) action definition details.

Type: IamActionDefinition object

Required: No

ScpActionDefinition

The service control policies (SCPs) action definition details.

Type: ScpActionDefinition object

Required: No

SsmActionDefinition

The AWS Systems Manager (SSM) action definition details.

Type: SsmActionDefinition object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Expression

Service: AWS Budgets

Use Expression to filter in various Budgets APIs.

Contents

And

Return results that match both Dimension objects.

Type: Array of Expression objects

Required: No

CostCategories

The filter that's based on CostCategoryValues.

Type: CostCategoryValues object

Required: No

Dimensions

The specific Dimension to use for Expression.

Type: ExpressionDimensionValues object

Required: No

Not

Return results that don't match a Dimension object.

Type: Expression object

Required: No

Or

Return results that match either Dimension object.

Type: Array of Expression objects

Required: No

Tags

The specific Tag to use for Expression.

Type: TagValues object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ExpressionDimensionValues

Service: AWS Budgets

Contains the specifications for the filters to use for your request.

Contents

Key

The name of the dimension that you want to filter on.

Type: String

Valid Values: `AZ | INSTANCE_TYPE | LINKED_ACCOUNT | LINKED_ACCOUNT_NAME | OPERATION | PURCHASE_TYPE | REGION | SERVICE | SERVICE_CODE | USAGE_TYPE | USAGE_TYPE_GROUP | RECORD_TYPE | OPERATING_SYSTEM | TENANCY | SCOPE | PLATFORM | SUBSCRIPTION_ID | LEGAL_ENTITY_NAME | INVOICING_ENTITY | DEPLOYMENT_OPTION | DATABASE_ENGINE | CACHE_ENGINE | INSTANCE_TYPE_FAMILY | BILLING_ENTITY | RESERVATION_ID | RESOURCE_ID | RIGHTSIZING_TYPE | SAVINGS_PLANS_TYPE | SAVINGS_PLAN_ARN | PAYMENT_OPTION | RESERVATION_MODIFIED | TAG_KEY | COST_CATEGORY_NAME`

Required: Yes

Values

The metadata values you can specify to filter upon, so that the results all match at least one of the specified values.

Type: Array of strings

Array Members: Minimum number of 1 item.

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

MatchOptions

The match options that you can use to filter your results. You can specify only one of these values in the array.

Type: Array of strings

Valid Values: `EQUALS | ABSENT | STARTS_WITH | ENDS_WITH | CONTAINS | GREATER_THAN_OR_EQUAL | CASE_SENSITIVE | CASE_INSENSITIVE`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

HealthStatus

Service: AWS Budgets

Provides information about the current operational state of a billing view resource, including its ability to access and update based on its associated billing view.

Contents

LastUpdatedTime

A generic time stamp. In Java, it's transformed to a `Date` object.

Type: Timestamp

Required: No

Status

The current status of the billing view resource.

Type: String

Valid Values: `HEALTHY | UNHEALTHY`

Required: No

StatusReason

The reason for the current status.

- `BILLING_VIEW_NO_ACCESS`: The billing view resource does not grant `billing:GetBillingViewData` permission to this account.
- `BILLING_VIEW_UNHEALTHY`: The billing view associated with the budget is unhealthy.
- `FILTER_INVALID`: The filter contains reference to an account you do not have access to.
- `MULTI_YEAR_HISTORICAL_DATA_DISABLED`: The budget is not being updated. Enable multi-year historical data in your Cost Management preferences.

Type: String

Valid Values: `BILLING_VIEW_NO_ACCESS | BILLING_VIEW_UNHEALTHY | FILTER_INVALID | MULTI_YEAR_HISTORICAL_DATA_DISABLED`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

HistoricalOptions

Service: AWS Budgets

The parameters that define or describe the historical data that your auto-adjusting budget is based on.

Contents

BudgetAdjustmentPeriod

The number of budget periods included in the moving-average calculation that determines your auto-adjusted budget amount. The maximum value depends on the `TimeUnit` granularity of the budget:

- For the `DAILY` granularity, the maximum value is `60`.
- For the `MONTHLY` granularity, the maximum value is `12`.
- For the `QUARTERLY` granularity, the maximum value is `4`.
- For the `ANNUALLY` granularity, the maximum value is `1`.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 60.

Required: Yes

LookBackAvailablePeriods

The integer that describes how many budget periods in your `BudgetAdjustmentPeriod` are included in the calculation of your current `BudgetLimit`. If the first budget period in your `BudgetAdjustmentPeriod` has no cost data, then that budget period isn't included in the average that determines your budget limit.

For example, if you set `BudgetAdjustmentPeriod` as `4` quarters, but your account had no cost data in the first quarter, then only the last three quarters are included in the calculation. In this scenario, `LookBackAvailablePeriods` returns `3`.

You can't set your own `LookBackAvailablePeriods`. The value is automatically calculated from the `BudgetAdjustmentPeriod` and your historical cost data.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 60.

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

IamActionDefinition

Service: AWS Budgets

The AWS Identity and Access Management (IAM) action definition details.

Contents

PolicyArn

The Amazon Resource Name (ARN) of the policy to be attached.

Type: String

Length Constraints: Minimum length of 25. Maximum length of 684.

Pattern: `^arn:aws(-cn|-us-gov|-iso|-iso-[a-z]{1})?:iam::(\d{12}|aws):policy(\u002F[\u0021-\u007F]+\u002F|\u002F)[\w+=,.@-]+$`

Required: Yes

Groups

A list of groups to be attached. There must be at least one group.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Length Constraints: Minimum length of 1. Maximum length of 640.

Pattern: `^([\u0021-\u007F]+\u002F)?[\w+=,.@-]+$`

Required: No

Roles

A list of roles to be attached. There must be at least one role.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Length Constraints: Minimum length of 1. Maximum length of 576.

Pattern: `^([\u0021-\u007F]+\u002F)?[\w+=,.@-]+$`

Required: No

Users

A list of users to be attached. There must be at least one user.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Length Constraints: Minimum length of 1. Maximum length of 576.

Pattern: `^([\u0021-\u007F]+\u002F)?[\w+=,.@-]+$`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Notification

Service: AWS Budgets

A notification that's associated with a budget. A budget can have up to ten notifications.

Each notification must have at least one subscriber. A notification can have one SNS subscriber and up to 10 email subscribers, for a total of 11 subscribers.

For example, if you have a budget for 200 dollars and you want to be notified when you go over 160 dollars, create a notification with the following parameters:

- A notificationType of `ACTUAL`
- A `thresholdType` of `PERCENTAGE`
- A `comparisonOperator` of `GREATER_THAN`
- A notification `threshold` of `80`

Contents

ComparisonOperator

The comparison that's used for this notification.

Type: String

Valid Values: `GREATER_THAN | LESS_THAN | EQUAL_TO`

Required: Yes

NotificationType

Specifies whether the notification is for how much you have spent (`ACTUAL`) or for how much that you're forecasted to spend (`FORECASTED`).

Type: String

Valid Values: `ACTUAL | FORECASTED`

Required: Yes

Threshold

The threshold that's associated with a notification. Thresholds are always a percentage, and many customers find value being alerted between 50% - 200% of the budgeted amount. The maximum limit for your threshold is 1,000,000% above the budgeted amount.

Type: Double

Valid Range: Minimum value of 0. Maximum value of 15000000000000.

Required: Yes

NotificationState

Specifies whether this notification is in alarm. If a budget notification is in the `ALARM` state, you passed the set threshold for the budget.

Type: String

Valid Values: `OK | ALARM`

Required: No

ThresholdType

The type of threshold for a notification. For `ABSOLUTE_VALUE` thresholds, AWS notifies you when you go over or are forecasted to go over your total cost threshold. For `PERCENTAGE` thresholds, AWS notifies you when you go over or are forecasted to go over a certain percentage of your forecasted spend. For example, if you have a budget for 200 dollars and you have a `PERCENTAGE` threshold of 80%, AWS notifies you when you go over 160 dollars.

Type: String

Valid Values: `PERCENTAGE | ABSOLUTE_VALUE`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++

- AWS SDK for Java V2
- AWS SDK for Ruby V3

NotificationWithSubscribers

Service: AWS Budgets

A notification with subscribers. A notification can have one SNS subscriber and up to 10 email subscribers, for a total of 11 subscribers.

Contents

Notification

The notification that's associated with a budget.

Type: Notification object

Required: Yes

Subscribers

A list of subscribers who are subscribed to this notification.

Type: Array of Subscriber objects

Array Members: Minimum number of 1 item. Maximum number of 11 items.

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ResourceTag

Service: AWS Budgets

The tag structure that contains a tag key and value.

Contents

Key

The key that's associated with the tag.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: Yes

Value

The value that's associated with the tag.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ScpActionDefinition

Service: AWS Budgets

The service control policies (SCP) action definition details.

Contents

PolicyId

The policy ID attached.

Type: String

Length Constraints: Minimum length of 10. Maximum length of 130.

Pattern: `^p-[0-9a-zA-Z_]{8,128}$`

Required: Yes

TargetIds

A list of target IDs.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Length Constraints: Minimum length of 12. Maximum length of 68.

Pattern: `^(ou-[0-9a-z]{4,32}-[a-z0-9]{8,32}$)|(\d{12})`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Spend

Service: AWS Budgets

The amount of cost or usage that's measured for a budget.

Cost example: A Spend for `3 USD` of costs has the following parameters:

- An `Amount` of `3`
- A `Unit` of `USD`

Usage example: A Spend for `3 GB` of S3 usage has the following parameters:

- An `Amount` of `3`
- A `Unit` of `GB`

Contents

Amount

The cost or usage amount that's associated with a budget forecast, actual spend, or budget threshold.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2147483647.

Pattern: `([0-9]*\.)?[0-9]+`

Required: Yes

Unit

The unit of measurement that's used for the budget forecast, actual spend, or budget threshold.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2147483647.

Pattern: `.*`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

SsmActionDefinition

Service: AWS Budgets

The AWS Systems Manager (SSM) action definition details.

Contents

ActionSubType

The action subType.

Type: String

Valid Values: `STOP_EC2_INSTANCES | STOP_RDS_INSTANCES`

Required: Yes

InstanceIds

The EC2 and RDS instance IDs.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^i-(\w{8}|\w{17})$|^[a-zA-Z]([\w-]{0,61}\w)?$`

Required: Yes

Region

The Region to run the SSM document.

Type: String

Length Constraints: Minimum length of 9. Maximum length of 20.

Pattern: `^\w{2}-\w+(-\w+)?-\d$`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Subscriber

Service: AWS Budgets

The subscriber to a budget notification. The subscriber consists of a subscription type and either an Amazon SNS topic or an email address.

For example, an email subscriber has the following parameters:

- A `subscriptionType` of `EMAIL`
- An `address` of `example@example.com`

Contents

Address

The address that AWS sends budget notifications to, either an SNS topic or an email.

When you create a subscriber, the value of `Address` can't contain line breaks.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2147483647.

Pattern: `(.*[\n\r\t\f\ ]?)*`

Required: Yes

SubscriptionType

The type of notification that AWS sends to a subscriber.

Type: String

Valid Values: `SNS | EMAIL`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

TagValues

Service: AWS Budgets

The values that are available for a tag.

Contents

Key

The key for the tag.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

MatchOptions

The match options that you can use to filter your results.

Type: Array of strings

Valid Values: `EQUALS | ABSENT | STARTS_WITH | ENDS_WITH | CONTAINS | GREATER_THAN_OR_EQUAL | CASE_SENSITIVE | CASE_INSENSITIVE`

Required: No

Values

The specific value of the tag.

Type: Array of strings

Array Members: Minimum number of 1 item.

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

TimePeriod

Service: AWS Budgets

The period of time that's covered by a budget. The period has a start date and an end date. The start date must come before the end date. There are no restrictions on the end date.

Contents

End

The end date for a budget. If you didn't specify an end date, AWS set your end date to `06/15/87 00:00` UTC. The defaults are the same for the AWS Billing and Cost Management console and the API.

After the end date, AWS deletes the budget and all the associated notifications and subscribers. You can change your end date with the `UpdateBudget` operation.

Type: Timestamp

Required: No

Start

The start date for a budget. If you created your budget and didn't specify a start date, AWS defaults to the start of your chosen time period (DAILY, MONTHLY, QUARTERLY, ANNUALLY, or CUSTOM). For example, if you created your budget on January 24, 2018, chose `DAILY`, and didn't set a start date, AWS set your start date to `01/24/18 00:00` UTC. If you chose `MONTHLY`, AWS set your start date to `01/01/18 00:00` UTC. The defaults are the same for the AWS Billing and Cost Management console and the API.

You can change your start date with the `UpdateBudget` operation.

Type: Timestamp

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

AWS Cost Optimization Hub

The following data types are supported by AWS Cost Optimization Hub:

- AccountEnrollmentStatus
- AuroraDbClusterStorage
- AuroraDbClusterStorageConfiguration
- BlockStoragePerformanceConfiguration
- ComputeConfiguration
- ComputeSavingsPlans
- ComputeSavingsPlansConfiguration
- DbInstanceConfiguration
- DynamoDbReservedCapacity
- DynamoDbReservedCapacityConfiguration
- EbsVolume
- EbsVolumeConfiguration
- Ec2AutoScalingGroup
- Ec2AutoScalingGroupConfiguration
- Ec2Instance
- Ec2InstanceConfiguration
- Ec2InstanceSavingsPlans
- Ec2InstanceSavingsPlansConfiguration
- Ec2ReservedInstances
- Ec2ReservedInstancesConfiguration
- EcsService
- EcsServiceConfiguration
- EfficiencyMetricsByGroup

- ElastiCacheReservedInstances
- ElastiCacheReservedInstancesConfiguration
- EstimatedDiscounts
- Filter
- InstanceConfiguration
- LambdaFunction
- LambdaFunctionConfiguration
- MemoryDbReservedInstances
- MemoryDbReservedInstancesConfiguration
- MetricsByTime
- MixedInstanceConfiguration
- OpenSearchReservedInstances
- OpenSearchReservedInstancesConfiguration
- OrderBy
- PreferredCommitment
- RdsDbInstance
- RdsDbInstanceConfiguration
- RdsDbInstanceStorage
- RdsDbInstanceStorageConfiguration
- RdsReservedInstances
- RdsReservedInstancesConfiguration
- Recommendation
- RecommendationSummary
- RedshiftReservedInstances
- RedshiftReservedInstancesConfiguration
- ReservedInstancesCostCalculation
- ReservedInstancesPricing
- ResourceCostCalculation
- ResourceDetails
- ResourcePricing

- SageMakerSavingsPlans
- SageMakerSavingsPlansConfiguration
- SavingsPlansCostCalculation
- SavingsPlansPricing
- StorageConfiguration
- SummaryMetricsResult
- Tag
- TimePeriod
- Usage
- ValidationExceptionDetail

AccountEnrollmentStatus

Service: AWS Cost Optimization Hub

Describes the enrollment status of an organization's member accounts in Cost Optimization Hub.

Contents

accountId

The AWS account ID.

Type: String

Pattern: `[0-9]{12}`

Required: No

createdTimestamp

The time when the account enrollment status was created.

Type: Timestamp

Required: No

lastUpdatedTimestamp

The time when the account enrollment status was last updated.

Type: Timestamp

Required: No

status

The account enrollment status.

Type: String

Valid Values: `Active | Inactive`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

AuroraDbClusterStorage

Service: AWS Cost Optimization Hub

Contains the details of an Aurora DB cluster storage.

Contents

configuration

The Aurora DB cluster storage configuration used for recommendations.

Type: AuroraDbClusterStorageConfiguration object

Required: No

costCalculation

Cost impact of the resource recommendation.

Type: ResourceCostCalculation object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

AuroraDbClusterStorageConfiguration

Service: AWS Cost Optimization Hub

The Aurora DB cluster storage configuration used for recommendations.

Contents

storageType

The storage type to associate with the Aurora DB cluster.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

BlockStoragePerformanceConfiguration

Service: AWS Cost Optimization Hub

Describes the Amazon Elastic Block Store performance configuration of the current and recommended resource configuration for a recommendation.

Contents

iops

The number of I/O operations per second.

Type: Double

Required: No

throughput

The throughput that the volume supports.

Type: Double

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ComputeConfiguration

Service: AWS Cost Optimization Hub

Describes the performance configuration for compute services such as Amazon EC2, Lambda, and ECS.

Contents

architecture

The architecture of the resource.

Type: String

Required: No

memorySizeInMB

The memory size of the resource.

Type: Integer

Required: No

platform

The platform of the resource. The platform is the specific combination of operating system, license model, and software on an instance.

Type: String

Required: No

vCpu

The number of vCPU cores in the resource.

Type: Double

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ComputeSavingsPlans

Service: AWS Cost Optimization Hub

The Compute Savings Plans recommendation details.

Contents

configuration

Configuration details of the Compute Savings Plans to purchase.

Type: ComputeSavingsPlansConfiguration object

Required: No

costCalculation

Cost impact of the Savings Plans purchase recommendation.

Type: SavingsPlansCostCalculation object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ComputeSavingsPlansConfiguration

Service: AWS Cost Optimization Hub

The Compute Savings Plans configuration used for recommendations.

Contents

accountScope

The account scope for which you want recommendations. AWS calculates recommendations including the management account and member accounts if the value is set to PAYER. If the value is LINKED, recommendations are calculated for individual member accounts only.

Type: String

Required: No

hourlyCommitment

The hourly commitment for the Savings Plans type.

Type: String

Required: No

paymentOption

The payment option for the commitment.

Type: String

Required: No

term

The Savings Plans recommendation term in years.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

DbInstanceConfiguration

Service: AWS Cost Optimization Hub

The DB instance configuration used for recommendations.

Contents

dbInstanceClass

The DB instance class of the DB instance.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

DynamoDbReservedCapacity

Service: AWS Cost Optimization Hub

The DynamoDB reserved capacity recommendation details.

Contents

configuration

The DynamoDB reserved capacity configuration used for recommendations.

Type: DynamoDbReservedCapacityConfiguration object

Required: No

costCalculation

Cost impact of the purchase recommendation.

Type: ReservedInstancesCostCalculation object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

DynamoDbReservedCapacityConfiguration

Service: AWS Cost Optimization Hub

The DynamoDB reserved capacity configuration used for recommendations.

Contents

accountScope

The account scope for which you want recommendations.

Type: String

Required: No

capacityUnits

The capacity unit of the recommended reservation.

Type: String

Required: No

monthlyRecurringCost

How much purchasing this reserved capacity costs you on a monthly basis.

Type: String

Required: No

numberOfCapacityUnitsToPurchase

The number of reserved capacity units that AWS recommends that you purchase.

Type: String

Required: No

paymentOption

The payment option for the commitment.

Type: String

Required: No

reservedInstancesRegion

The AWS Region of the commitment.

Type: String

Required: No

service

The service for which you want recommendations.

Type: String

Required: No

term

The reserved capacity recommendation term in years.

Type: String

Required: No

upfrontCost

How much purchasing this reserved capacity costs you upfront.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

EbsVolume

Service: AWS Cost Optimization Hub

Describes the Amazon Elastic Block Store volume configuration of the current and recommended resource configuration for a recommendation.

Contents

configuration

The Amazon Elastic Block Store volume configuration used for recommendations.

Type: EbsVolumeConfiguration object

Required: No

costCalculation

Cost impact of the recommendation.

Type: ResourceCostCalculation object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

EbsVolumeConfiguration

Service: AWS Cost Optimization Hub

The Amazon Elastic Block Store volume configuration used for recommendations.

Contents

attachmentState

The Amazon Elastic Block Store attachment state.

Type: String

Required: No

performance

The Amazon Elastic Block Store performance configuration.

Type: BlockStoragePerformanceConfiguration object

Required: No

storage

The disk storage of the Amazon Elastic Block Store volume.

Type: StorageConfiguration object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Ec2AutoScalingGroup

Service: AWS Cost Optimization Hub

The EC2 Auto Scaling group recommendation details.

Contents

configuration

The EC2 Auto Scaling group configuration used for recommendations.

Type: Ec2AutoScalingGroupConfiguration object

Required: No

costCalculation

Cost impact of the recommendation.

Type: ResourceCostCalculation object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Ec2AutoScalingGroupConfiguration

Service: AWS Cost Optimization Hub

The EC2 Auto Scaling group configuration used for recommendations.

Contents

allocationStrategy

The strategy used for allocating instances, based on a predefined priority order or based on the lowest available price.

Type: String

Valid Values: `Prioritized | LowestPrice`

Required: No

instance

Details about the instance for the EC2 Auto Scaling group with a single instance type.

Type: InstanceConfiguration object

Required: No

mixedInstances

A list of instance types for an EC2 Auto Scaling group with mixed instance types.

Type: Array of MixedInstanceConfiguration objects

Required: No

type

The type of EC2 Auto Scaling group, showing whether it consists of a single instance type or mixed instance types.

Type: String

Valid Values: `SingleInstanceType | MixedInstanceTypes`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Ec2Instance

Service: AWS Cost Optimization Hub

Describes the EC2 instance configuration of the current and recommended resource configuration for a recommendation.

Contents

configuration

The EC2 instance configuration used for recommendations.

Type: Ec2InstanceConfiguration object

Required: No

costCalculation

Cost impact of the recommendation.

Type: ResourceCostCalculation object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Ec2InstanceConfiguration

Service: AWS Cost Optimization Hub

The EC2 instance configuration used for recommendations.

Contents

instance

Details about the instance.

Type: InstanceConfiguration object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Ec2InstanceSavingsPlans

Service: AWS Cost Optimization Hub

The EC2 instance Savings Plans recommendation details.

Contents

configuration

The EC2 instance Savings Plans configuration used for recommendations.

Type: Ec2InstanceSavingsPlansConfiguration object

Required: No

costCalculation

Cost impact of the Savings Plans purchase recommendation.

Type: SavingsPlansCostCalculation object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Ec2InstanceSavingsPlansConfiguration

Service: AWS Cost Optimization Hub

The EC2 instance Savings Plans configuration used for recommendations.

Contents

accountScope

The account scope for which you want recommendations.

Type: String

Required: No

hourlyCommitment

The hourly commitment for the Savings Plans type.

Type: String

Required: No

instanceFamily

The instance family of the recommended Savings Plans.

Type: String

Required: No

paymentOption

The payment option for the commitment.

Type: String

Required: No

savingsPlansRegion

The AWS Region of the commitment.

Type: String

Required: No

term

The Savings Plans recommendation term in years.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Ec2ReservedInstances

Service: AWS Cost Optimization Hub

The EC2 reserved instances recommendation details.

Contents

configuration

The EC2 reserved instances configuration used for recommendations.

Type: Ec2ReservedInstancesConfiguration object

Required: No

costCalculation

Cost impact of the purchase recommendation.

Type: ReservedInstancesCostCalculation object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Ec2ReservedInstancesConfiguration

Service: AWS Cost Optimization Hub

The EC2 reserved instances configuration used for recommendations.

Contents

accountScope

The account scope for which you want recommendations.

Type: String

Required: No

currentGeneration

Determines whether the recommendation is for a current generation instance.

Type: String

Required: No

instanceFamily

The instance family of the recommended reservation.

Type: String

Required: No

instanceType

The type of instance that AWS recommends.

Type: String

Required: No

monthlyRecurringCost

How much purchasing these reserved instances costs you on a monthly basis.

Type: String

Required: No

normalizedUnitsToPurchase

The number of normalized units that AWS recommends that you purchase.

Type: String

Required: No

numberOfInstancesToPurchase

The number of instances that AWS recommends that you purchase.

Type: String

Required: No

offeringClass

Indicates whether the recommendation is for standard or convertible reservations.

Type: String

Required: No

paymentOption

The payment option for the commitment.

Type: String

Required: No

platform

The platform of the recommended reservation. The platform is the specific combination of operating system, license model, and software on an instance.

Type: String

Required: No

reservedInstancesRegion

The AWS Region of the commitment.

Type: String

Required: No

service

The service for which you want recommendations.

Type: String

Required: No

sizeFlexEligible

Determines whether the recommendation is size flexible.

Type: Boolean

Required: No

tenancy

Determines whether the recommended reservation is dedicated or shared.

Type: String

Required: No

term

The reserved instances recommendation term in years.

Type: String

Required: No

upfrontCost

How much purchasing this instance costs you upfront.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

EcsService

Service: AWS Cost Optimization Hub

The ECS service recommendation details.

Contents

configuration

The ECS service configuration used for recommendations.

Type: EcsServiceConfiguration object

Required: No

costCalculation

Cost impact of the recommendation.

Type: ResourceCostCalculation object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

EcsServiceConfiguration

Service: AWS Cost Optimization Hub

The ECS service configuration used for recommendations.

Contents

compute

Details about the compute configuration.

Type: ComputeConfiguration object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

EfficiencyMetricsByGroup

Service: AWS Cost Optimization Hub

Contains cost efficiency metrics for a specific group over time. The group is defined by the grouping dimension specified in the request, such as account ID, AWS Region.

Contents

group

The value of the grouping dimension for this set of metrics. For example, if grouped by account ID, this field contains the account ID. If no grouping is specified, this field is empty.

Type: String

Required: No

message

An explanation of why efficiency metrics could not be calculated for this group when the metricsByTime field is null. Common reasons include insufficient or inconclusive cost and usage data during the specified time period. This field is null or empty when metrics are successfully calculated.

Type: String

Required: No

metricsByTime

A list of time-series data points containing efficiency metrics for this group. Each data point includes an efficiency score, estimated savings, spending, and a timestamp corresponding to the specified granularity. This field is null when efficiency metrics cannot be calculated for the group, in which case the message field provides an explanation.

Type: Array of MetricsByTime objects

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ElastiCacheReservedInstances

Service: AWS Cost Optimization Hub

The ElastiCache reserved instances recommendation details.

Contents

configuration

The ElastiCache reserved instances configuration used for recommendations.

Type: ElastiCacheReservedInstancesConfiguration object

Required: No

costCalculation

Cost impact of the purchase recommendation.

Type: ReservedInstancesCostCalculation object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ElastiCacheReservedInstancesConfiguration

Service: AWS Cost Optimization Hub

The ElastiCache reserved instances configuration used for recommendations.

Contents

accountScope

The account scope for which you want recommendations.

Type: String

Required: No

currentGeneration

Determines whether the recommendation is for a current generation instance.

Type: String

Required: No

instanceFamily

The instance family of the recommended reservation.

Type: String

Required: No

instanceType

The type of instance that AWS recommends.

Type: String

Required: No

monthlyRecurringCost

How much purchasing these reserved instances costs you on a monthly basis.

Type: String

Required: No

normalizedUnitsToPurchase

The number of normalized units that AWS recommends that you purchase.

Type: String

Required: No

numberOfInstancesToPurchase

The number of instances that AWS recommends that you purchase.

Type: String

Required: No

paymentOption

The payment option for the commitment.

Type: String

Required: No

reservedInstancesRegion

The AWS Region of the commitment.

Type: String

Required: No

service

The service for which you want recommendations.

Type: String

Required: No

sizeFlexEligible

Determines whether the recommendation is size flexible.

Type: Boolean

Required: No

term

The reserved instances recommendation term in years.

Type: String

Required: No

upfrontCost

How much purchasing this instance costs you upfront.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

EstimatedDiscounts

Service: AWS Cost Optimization Hub

Estimated discount details of the current and recommended resource configuration for a recommendation.

Contents

otherDiscount

Estimated other discounts include all discounts that are not itemized. Itemized discounts include `reservedInstanceDiscount` and `savingsPlansDiscount`.

Type: Double

Required: No

reservedInstancesDiscount

Estimated reserved instance discounts.

Type: Double

Required: No

savingsPlansDiscount

Estimated Savings Plans discounts.

Type: Double

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Filter

Service: AWS Cost Optimization Hub

Describes a filter that returns a more specific list of recommendations. Filters recommendations by different dimensions.

Contents

accountIds

The account to which the recommendation applies.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Pattern: `[0-9]{12}`

Required: No

actionTypes

The type of action you can take by adopting the recommendation.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Valid Values: `Rightsize | Stop | Upgrade | PurchaseSavingsPlans | PurchaseReservedInstances | MigrateToGraviton | Delete | ScaleIn`

Required: No

implementationEfforts

The effort required to implement the recommendation.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Valid Values: `VeryLow | Low | Medium | High | VeryHigh`

Required: No

recommendationIds

The IDs for the recommendations.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Required: No

regions

The AWS Region of the resource.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Required: No

resourceArns

The Amazon Resource Name (ARN) of the recommendation.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Required: No

resourceIds

The resource ID of the recommendation.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Required: No

resourceTypes

The resource type of the recommendation.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Valid Values: `Ec2Instance | LambdaFunction | EbsVolume | EcsService | Ec2AutoScalingGroup | Ec2InstanceSavingsPlans | ComputeSavingsPlans | SageMakerSavingsPlans | Ec2ReservedInstances | RdsReservedInstances | OpenSearchReservedInstances | RedshiftReservedInstances | ElastiCacheReservedInstances | RdsDbInstanceStorage | RdsDbInstance | AuroraDbClusterStorage | DynamoDbReservedCapacity | MemoryDbReservedInstances`

Required: No

restartNeeded

Whether or not implementing the recommendation requires a restart.

Type: Boolean

Required: No

rollbackPossible

Whether or not implementing the recommendation can be rolled back.

Type: Boolean

Required: No

tags

A list of tags assigned to the recommendation.

Type: Array of Tag objects

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2

- AWS SDK for Ruby V3

InstanceConfiguration

Service: AWS Cost Optimization Hub

The instance configuration used for recommendations.

Contents

type

The instance type of the configuration.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

LambdaFunction

Service: AWS Cost Optimization Hub

The Lambda function recommendation details.

Contents

configuration

The Lambda function configuration used for recommendations.

Type: LambdaFunctionConfiguration object

Required: No

costCalculation

Cost impact of the recommendation.

Type: ResourceCostCalculation object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

LambdaFunctionConfiguration

Service: AWS Cost Optimization Hub

The Lambda function configuration used for recommendations.

Contents

compute

Details about the compute configuration.

Type: ComputeConfiguration object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

MemoryDbReservedInstances

Service: AWS Cost Optimization Hub

The MemoryDB reserved instances recommendation details.

> **Note**
>
> While the API reference uses "MemoryDB reserved instances", the user guide and other documentation refer to them as "MemoryDB reserved nodes", as the terms are used interchangeably.

Contents

configuration

The MemoryDB reserved instances configuration used for recommendations.

Type: MemoryDbReservedInstancesConfiguration object

Required: No

costCalculation

Cost impact of the purchase recommendation.

Type: ReservedInstancesCostCalculation object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

MemoryDbReservedInstancesConfiguration

Service: AWS Cost Optimization Hub

The MemoryDB reserved instances configuration used for recommendations.

> **Note**
>
> While the API reference uses "MemoryDB reserved instances", the user guide and other documentation refer to them as "MemoryDB reserved nodes", as the terms are used interchangeably.

Contents

accountScope

The account scope for which you want recommendations.

Type: String

Required: No

currentGeneration

Determines whether the recommendation is for a current generation instance.

Type: String

Required: No

instanceFamily

The instance family of the recommended reservation.

Type: String

Required: No

instanceType

The type of instance that AWS recommends.

Type: String

Required: No

monthlyRecurringCost

How much purchasing these reserved instances costs you on a monthly basis.

Type: String

Required: No

normalizedUnitsToPurchase

The number of normalized units that AWS recommends that you purchase.

Type: String

Required: No

numberOfInstancesToPurchase

The number of instances that AWS recommends that you purchase.

Type: String

Required: No

paymentOption

The payment option for the commitment.

Type: String

Required: No

reservedInstancesRegion

The AWS Region of the commitment.

Type: String

Required: No

service

The service for which you want recommendations.

Type: String

Required: No

sizeFlexEligible

Determines whether the recommendation is size flexible.

Type: Boolean

Required: No

term

The reserved instances recommendation term in years.

Type: String

Required: No

upfrontCost

How much purchasing these reserved instances costs you upfront.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

MetricsByTime

Service: AWS Cost Optimization Hub

Contains efficiency metrics for a specific point in time, including an efficiency score, potential savings, optimizable spend, and timestamp.

Contents

savings

The estimated savings amount for this time period, representing the potential cost reduction achieved through optimization recommendations.

Type: Double

Required: No

score

The efficiency score for this time period. The score represents a measure of how effectively the cloud resources are being optimized, with higher scores indicating better optimization performance.

Type: Double

Required: No

spend

The total spending amount for this time period.

Type: Double

Required: No

timestamp

The timestamp for this data point. The format depends on the granularity: YYYY-MM-DD for daily metrics, or YYYY-MM for monthly metrics.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

MixedInstanceConfiguration

Service: AWS Cost Optimization Hub

The configuration for the EC2 Auto Scaling group with mixed instance types.

Contents

type

The instance type of the configuration.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

OpenSearchReservedInstances

Service: AWS Cost Optimization Hub

The OpenSearch reserved instances recommendation details.

Contents

configuration

The OpenSearch reserved instances configuration used for recommendations.

Type: OpenSearchReservedInstancesConfiguration object

Required: No

costCalculation

Cost impact of the purchase recommendation.

Type: ReservedInstancesCostCalculation object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

OpenSearchReservedInstancesConfiguration

Service: AWS Cost Optimization Hub

The OpenSearch reserved instances configuration used for recommendations.

Contents

accountScope

The account scope for which you want recommendations.

Type: String

Required: No

currentGeneration

Determines whether the recommendation is for a current generation instance.

Type: String

Required: No

instanceType

The type of instance that AWS recommends.

Type: String

Required: No

monthlyRecurringCost

How much purchasing these reserved instances costs you on a monthly basis.

Type: String

Required: No

normalizedUnitsToPurchase

The number of normalized units that AWS recommends that you purchase.

Type: String

Required: No

numberOfInstancesToPurchase

The number of instances that AWS recommends that you purchase.

Type: String

Required: No

paymentOption

The payment option for the commitment.

Type: String

Required: No

reservedInstancesRegion

The AWS Region of the commitment.

Type: String

Required: No

service

The service for which you want recommendations.

Type: String

Required: No

sizeFlexEligible

Determines whether the recommendation is size flexible.

Type: Boolean

Required: No

term

The reserved instances recommendation term in years.

Type: String

Required: No

upfrontCost

How much purchasing this instance costs you upfront.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

OrderBy

Service: AWS Cost Optimization Hub

Defines how rows will be sorted in the response.

Contents

dimension

Sorts by dimension values.

Type: String

Required: No

order

The order that's used to sort the data.

Type: String

Valid Values: `Asc | Desc`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

PreferredCommitment

Service: AWS Cost Optimization Hub

The preferred configuration for Reserved Instances and Savings Plans commitment-based discounts, consisting of a payment option and a commitment duration.

Contents

paymentOption

The preferred upfront payment structure for commitments. If the value is null, it will default to `AllUpfront` (highest savings) where applicable.

Type: String

Valid Values: `AllUpfront | PartialUpfront | NoUpfront`

Required: No

term

The preferred length of the commitment period. If the value is null, it will default to `ThreeYears` (highest savings) where applicable.

Type: String

Valid Values: `OneYear | ThreeYears`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

RdsDbInstance

Service: AWS Cost Optimization Hub

Contains the details of an Amazon RDS DB instance.

Contents

configuration

The Amazon RDS DB instance configuration used for recommendations.

Type: RdsDbInstanceConfiguration object

Required: No

costCalculation

Cost impact of the resource recommendation.

Type: ResourceCostCalculation object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

RdsDbInstanceConfiguration

Service: AWS Cost Optimization Hub

The Amazon RDS DB instance configuration used for recommendations.

Contents

instance

Details about the instance configuration.

Type: DbInstanceConfiguration object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

RdsDbInstanceStorage

Service: AWS Cost Optimization Hub

Contains the details of an Amazon RDS DB instance storage.

Contents

configuration

The Amazon RDS DB instance storage configuration used for recommendations.

Type: RdsDbInstanceStorageConfiguration object

Required: No

costCalculation

Cost impact of the resource recommendation.

Type: ResourceCostCalculation object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

RdsDbInstanceStorageConfiguration

Service: AWS Cost Optimization Hub

The Amazon RDS DB instance storage configuration used for recommendations.

Contents

allocatedStorageInGb

The new amount of storage in GB to allocate for the DB instance.

Type: Double

Required: No

iops

The amount of Provisioned IOPS (input/output operations per second) to be initially allocated for the DB instance.

Type: Double

Required: No

storageThroughput

The storage throughput for the DB instance.

Type: Double

Required: No

storageType

The storage type to associate with the DB instance.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

RdsReservedInstances

Service: AWS Cost Optimization Hub

The RDS reserved instances recommendation details.

Contents

configuration

The RDS reserved instances configuration used for recommendations.

Type: RdsReservedInstancesConfiguration object

Required: No

costCalculation

Cost impact of the purchase recommendation.

Type: ReservedInstancesCostCalculation object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

RdsReservedInstancesConfiguration

Service: AWS Cost Optimization Hub

The RDS reserved instances configuration used for recommendations.

Contents

accountScope

The account scope for which you want recommendations.

Type: String

Required: No

currentGeneration

Determines whether the recommendation is for a current generation instance.

Type: String

Required: No

databaseEdition

The database edition that the recommended reservation supports.

Type: String

Required: No

databaseEngine

The database engine that the recommended reservation supports.

Type: String

Required: No

deploymentOption

Determines whether the recommendation is for a reservation in a single Availability Zone or a reservation with a backup in a second Availability Zone.

Type: String

Required: No

instanceFamily

The instance family of the recommended reservation.

Type: String

Required: No

instanceType

The type of instance that AWS recommends.

Type: String

Required: No

licenseModel

The license model that the recommended reservation supports.

Type: String

Required: No

monthlyRecurringCost

How much purchasing this instance costs you on a monthly basis.

Type: String

Required: No

normalizedUnitsToPurchase

The number of normalized units that AWS recommends that you purchase.

Type: String

Required: No

numberOfInstancesToPurchase

The number of instances that AWS recommends that you purchase.

Type: String

Required: No

paymentOption

The payment option for the commitment.

Type: String

Required: No

reservedInstancesRegion

The AWS Region of the commitment.

Type: String

Required: No

service

The service for which you want recommendations.

Type: String

Required: No

sizeFlexEligible

Determines whether the recommendation is size flexible.

Type: Boolean

Required: No

term

The reserved instances recommendation term in years.

Type: String

Required: No

upfrontCost

How much purchasing this instance costs you upfront.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Recommendation

Service: AWS Cost Optimization Hub

Describes a recommendation.

Contents

accountId

The account to which the recommendation applies.

Type: String

Required: No

actionType

The type of tasks that can be carried out by this action.

Type: String

Required: No

currencyCode

The currency code used for the recommendation.

Type: String

Required: No

currentResourceSummary

Describes the current resource.

Type: String

Required: No

currentResourceType

The current resource type.

Type: String

Required: No

estimatedMonthlyCost

The estimated monthly cost of the current resource. For Reserved Instances and Savings Plans, it refers to the cost for eligible usage.

Type: Double

Required: No

estimatedMonthlySavings

The estimated monthly savings amount for the recommendation.

Type: Double

Required: No

estimatedSavingsPercentage

The estimated savings percentage relative to the total cost over the cost calculation lookback period.

Type: Double

Required: No

implementationEffort

The effort required to implement the recommendation.

Type: String

Required: No

lastRefreshTimestamp

The time when the recommendation was last generated.

Type: Timestamp

Required: No

recommendationId

The ID for the recommendation.

Type: String

Required: No

recommendationLookbackPeriodInDays

The lookback period that's used to generate the recommendation.

Type: Integer

Required: No

recommendedResourceSummary

Describes the recommended resource.

Type: String

Required: No

recommendedResourceType

The recommended resource type.

Type: String

Required: No

region

The AWS Region of the resource.

Type: String

Required: No

resourceArn

The Amazon Resource Name (ARN) for the recommendation.

Type: String

Required: No

resourceId

The resource ID for the recommendation.

Type: String

Required: No

restartNeeded

Whether or not implementing the recommendation requires a restart.

Type: Boolean

Required: No

rollbackPossible

Whether or not implementing the recommendation can be rolled back.

Type: Boolean

Required: No

source

The source of the recommendation.

Type: String

Valid Values: `ComputeOptimizer | CostExplorer`

Required: No

tags

A list of tags assigned to the recommendation.

Type: Array of Tag objects

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2

- AWS SDK for Ruby V3

RecommendationSummary

Service: AWS Cost Optimization Hub

The summary of rightsizing recommendations, including de-duped savings from all types of recommendations.

Contents

estimatedMonthlySavings

The estimated total savings resulting from modifications, on a monthly basis.

Type: Double

Required: No

group

The grouping of recommendations.

Type: String

Required: No

recommendationCount

The total number of instance recommendations.

Type: Integer

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

RedshiftReservedInstances

Service: AWS Cost Optimization Hub

The Redshift reserved instances recommendation details.

Contents

configuration

The Redshift reserved instances configuration used for recommendations.

Type: RedshiftReservedInstancesConfiguration object

Required: No

costCalculation

Cost impact of the purchase recommendation.

Type: ReservedInstancesCostCalculation object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

RedshiftReservedInstancesConfiguration

Service: AWS Cost Optimization Hub

The Redshift reserved instances configuration used for recommendations.

Contents

accountScope

The account scope for which you want recommendations.

Type: String

Required: No

currentGeneration

Determines whether the recommendation is for a current generation instance.

Type: String

Required: No

instanceFamily

The instance family of the recommended reservation.

Type: String

Required: No

instanceType

The type of instance that AWS recommends.

Type: String

Required: No

monthlyRecurringCost

How much purchasing these reserved instances costs you on a monthly basis.

Type: String

Required: No

normalizedUnitsToPurchase

The number of normalized units that AWS recommends that you purchase.

Type: String

Required: No

numberOfInstancesToPurchase

The number of instances that AWS recommends that you purchase.

Type: String

Required: No

paymentOption

The payment option for the commitment.

Type: String

Required: No

reservedInstancesRegion

The AWS Region of the commitment.

Type: String

Required: No

service

The service for which you want recommendations.

Type: String

Required: No

sizeFlexEligible

Determines whether the recommendation is size flexible.

Type: Boolean

Required: No

term

The reserved instances recommendation term in years.

Type: String

Required: No

upfrontCost

How much purchasing this instance costs you upfront.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ReservedInstancesCostCalculation

Service: AWS Cost Optimization Hub

Cost impact of the purchase recommendation.

Contents

pricing

Pricing details of the purchase recommendation.

Type: ReservedInstancesPricing object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ReservedInstancesPricing

Service: AWS Cost Optimization Hub

Pricing details for your recommended reserved instance.

Contents

estimatedMonthlyAmortizedReservationCost

The estimated cost of your recurring monthly fees for the recommended reserved instance across the month.

Type: Double

Required: No

estimatedOnDemandCost

The remaining On-Demand cost estimated to not be covered by the recommended reserved instance, over the length of the lookback period.

Type: Double

Required: No

monthlyReservationEligibleCost

The cost of paying for the recommended reserved instance monthly.

Type: Double

Required: No

savingsPercentage

The savings percentage relative to the total On-Demand costs that are associated with this instance.

Type: Double

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ResourceCostCalculation

Service: AWS Cost Optimization Hub

Cost impact of the resource recommendation.

Contents

pricing

Pricing details of the resource recommendation.

Type: ResourcePricing object

Required: No

usages

Usage details of the resource recommendation.

Type: Array of Usage objects

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ResourceDetails

Service: AWS Cost Optimization Hub

Contains detailed information about the specified resource.

Contents

> **Important**
>
> This data type is a UNION, so only one of the following members can be specified when used or returned.

auroraDbClusterStorage

The Aurora DB cluster storage recommendation details.

Type: AuroraDbClusterStorage object

Required: No

computeSavingsPlans

The Compute Savings Plans recommendation details.

Type: ComputeSavingsPlans object

Required: No

dynamoDbReservedCapacity

The DynamoDB reserved capacity recommendation details.

Type: DynamoDbReservedCapacity object

Required: No

ebsVolume

The Amazon Elastic Block Store volume recommendation details.

Type: EbsVolume object

Required: No

ec2AutoScalingGroup

The EC2 Auto Scaling group recommendation details.

Type: Ec2AutoScalingGroup object

Required: No

ec2Instance

The EC2 instance recommendation details.

Type: Ec2Instance object

Required: No

ec2InstanceSavingsPlans

The EC2 instance Savings Plans recommendation details.

Type: Ec2InstanceSavingsPlans object

Required: No

ec2ReservedInstances

The EC2 reserved instances recommendation details.

Type: Ec2ReservedInstances object

Required: No

ecsService

The ECS service recommendation details.

Type: EcsService object

Required: No

elastiCacheReservedInstances

The ElastiCache reserved instances recommendation details.

Type: ElastiCacheReservedInstances object

Required: No

lambdaFunction

The Lambda function recommendation details.

Type: LambdaFunction object

Required: No

memoryDbReservedInstances

The MemoryDB reserved instances recommendation details.

Type: MemoryDbReservedInstances object

Required: No

openSearchReservedInstances

The OpenSearch reserved instances recommendation details.

Type: OpenSearchReservedInstances object

Required: No

rdsDbInstance

The DB instance recommendation details.

Type: RdsDbInstance object

Required: No

rdsDbInstanceStorage

The DB instance storage recommendation details.

Type: RdsDbInstanceStorage object

Required: No

rdsReservedInstances

The RDS reserved instances recommendation details.

Type: RdsReservedInstances object

Required: No

redshiftReservedInstances

The Redshift reserved instances recommendation details.

Type: RedshiftReservedInstances object

Required: No

sageMakerSavingsPlans

The SageMaker AI Savings Plans recommendation details.

Type: SageMakerSavingsPlans object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ResourcePricing

Service: AWS Cost Optimization Hub

Contains pricing information about the specified resource.

Contents

estimatedCostAfterDiscounts

The savings estimate incorporating all discounts with AWS, such as Reserved Instances and Savings Plans.

Type: Double

Required: No

estimatedCostBeforeDiscounts

The savings estimate using AWS public pricing without incorporating any discounts.

Type: Double

Required: No

estimatedDiscounts

The estimated discounts for a recommendation.

Type: EstimatedDiscounts object

Required: No

estimatedNetUnusedAmortizedCommitments

The estimated net unused amortized commitment for the recommendation.

Type: Double

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

SageMakerSavingsPlans

Service: AWS Cost Optimization Hub

The SageMaker Savings Plans recommendation details.

Contents

configuration

The SageMaker Savings Plans configuration used for recommendations.

Type: SageMakerSavingsPlansConfiguration object

Required: No

costCalculation

Cost impact of the Savings Plans purchase recommendation.

Type: SavingsPlansCostCalculation object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

SageMakerSavingsPlansConfiguration

Service: AWS Cost Optimization Hub

The SageMaker Savings Plans configuration used for recommendations.

Contents

accountScope

The account scope for which you want recommendations.

Type: String

Required: No

hourlyCommitment

The hourly commitment for the Savings Plans type.

Type: String

Required: No

paymentOption

The payment option for the commitment.

Type: String

Required: No

term

The Savings Plans recommendation term in years.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

SavingsPlansCostCalculation

Service: AWS Cost Optimization Hub

Cost impact of the purchase recommendation.

Contents

pricing

Pricing details of the purchase recommendation.

Type: SavingsPlansPricing object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

SavingsPlansPricing

Service: AWS Cost Optimization Hub

Pricing information about a Savings Plans.

Contents

estimatedMonthlyCommitment

Estimated monthly commitment for the Savings Plans.

Type: Double

Required: No

estimatedOnDemandCost

Estimated On-Demand cost you will pay after buying the Savings Plans.

Type: Double

Required: No

monthlySavingsPlansEligibleCost

The cost of paying for the recommended Savings Plans monthly.

Type: Double

Required: No

savingsPercentage

Estimated savings as a percentage of your overall costs after buying the Savings Plans.

Type: Double

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

StorageConfiguration

Service: AWS Cost Optimization Hub

The storage configuration used for recommendations.

Contents

sizeInGb

The storage volume.

Type: Double

Required: No

type

The storage type.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

SummaryMetricsResult

Service: AWS Cost Optimization Hub

The results or descriptions for the additional metrics, based on whether the metrics were or were not requested.

Contents

savingsPercentage

The savings percentage based on your AWS spend over the past 30 days.

> **Note**
>
> Savings percentage is only supported when filtering by Region, account ID, or tags.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Tag

Service: AWS Cost Optimization Hub

The tag structure that contains a tag key and value.

Contents

key

The key that's associated with the tag.

Type: String

Required: No

value

The value that's associated with the tag.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

TimePeriod

Service: AWS Cost Optimization Hub

Specifies a date range for retrieving efficiency metrics. The start date is inclusive and the end date is exclusive.

Contents

end

The end of the time period (exclusive). Specify the date in ISO 8601 format, such as 2024-12-31.

Type: String

Required: Yes

start

The beginning of the time period (inclusive). Specify the date in ISO 8601 format, such as 2024-01-01.

Type: String

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Usage

Service: AWS Cost Optimization Hub

Details about the usage.

Contents

operation

The operation value.

Type: String

Required: No

productCode

The product code.

Type: String

Required: No

unit

The usage unit.

Type: String

Required: No

usageAmount

The usage amount.

Type: Double

Required: No

usageType

The usage type.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ValidationExceptionDetail

Service: AWS Cost Optimization Hub

The input failed to meet the constraints specified by the AWS service in a specified field.

Contents

fieldName

The field name where the invalid entry was detected.

Type: String

Required: Yes

message

A message with the reason for the validation exception error.

Type: String

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

AWS Cost and Usage Report

The following data types are supported by AWS Cost and Usage Report:

- ReportDefinition
- ReportStatus
- Tag

ReportDefinition

Service: AWS Cost and Usage Report

The definition of AWS Cost and Usage Report. You can specify the report name, time unit, report format, compression format, S3 bucket, additional artifacts, and schema elements in the definition.

Contents

AdditionalSchemaElements

A list of strings that indicate additional content that AWS includes in the report, such as individual resource IDs.

Type: Array of strings

Valid Values: `RESOURCES | SPLIT_COST_ALLOCATION_DATA | MANUAL_DISCOUNT_COMPATIBILITY`

Required: Yes

Compression

The compression format that AWS uses for the report.

If you choose `Parquet` for the `Compression`, you must also specify `Parquet` for the `Format` parameter.

If you choose `ZIP` or `GZIP` for the `Compression`, you must specify `textORcsv` for the `Format` parameter.

Type: String

Valid Values: `ZIP | GZIP | Parquet`

Required: Yes

Format

The format that AWS saves the report in.

If you choose `Parquet` for the `Format`, you must also specify `Parquet` for the `Compression` parameter.

If you choose `textORcsv` for the `Format`, you must specify `ZIP` or `GZIP` for the `Compression` parameter.

Type: String

Valid Values: `textORcsv | Parquet`

Required: Yes

ReportName

The name of the report that you want to create. The name must be unique, is case sensitive, and can't include spaces.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `[0-9A-Za-z!\-_.*\'()]+`

Required: Yes

S3Bucket

The S3 bucket where AWS delivers the report. The S3 bucket must be owned by the AWS account that was used to create the report.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `[A-Za-z0-9_\.\-]+`

Required: Yes

S3Prefix

The prefix that AWS adds to the report name when AWS delivers the report. Your prefix can't include spaces.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `[0-9A-Za-z!\-_.*\'()/]*`

Required: Yes

S3Region

The region of the S3 bucket that AWS delivers the report into.

Type: String

Valid Values: `af-south-1 | ap-east-1 | ap-south-1 | ap-south-2 | ap-southeast-1 | ap-southeast-2 | ap-southeast-3 | ap-northeast-1 | ap-northeast-2 | ap-northeast-3 | ca-central-1 | eu-central-1 | eu-central-2 | eu-west-1 | eu-west-2 | eu-west-3 | eu-north-1 | eu-south-1 | eu-south-2 | me-central-1 | me-south-1 | sa-east-1 | us-east-1 | us-east-2 | us-west-1 | us-west-2 | cn-north-1 | cn-northwest-1`

Required: Yes

TimeUnit

The length of time covered by the report.

Type: String

Valid Values: `HOURLY | DAILY | MONTHLY`

Required: Yes

AdditionalArtifacts

A list of manifests that you want AWS to create for this report.

Type: Array of strings

Valid Values: `REDSHIFT | QUICKSIGHT | ATHENA`

Required: No

BillingViewArn

The Amazon resource name of the billing view. The `BillingViewArn` is needed to create AWS Cost and Usage Report for each billing group maintained in the AWS Billing Conductor service. The `BillingViewArn` for a billing group can be constructed as: `arn:aws:billing::payer-account-id:billingview/billing-group-primary-account-id` or retrieved by calling the ListBillingViews API.

Type: String

Length Constraints: Maximum length of 128.

Pattern: `(arn:aws(-cn)?:billing::[0-9]{12}:billingview/)?[a-zA-Z0-9_\+=\.\-@].{1,30}`

Required: No

RefreshClosedReports

Whether you want AWS to update your reports after they have been finalized if AWS detects charges related to previous months. These charges can include refunds, credits, or support fees.

Type: Boolean

Required: No

ReportStatus

The status of the report.

Type: ReportStatus object

Required: No

ReportVersioning

Whether you want AWS to overwrite the previous version of each report or to deliver the report in addition to the previous versions.

Type: String

Valid Values: `CREATE_NEW_REPORT | OVERWRITE_REPORT`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2

- AWS SDK for Ruby V3

ReportStatus

Service: AWS Cost and Usage Report

A two element dictionary with a `lastDelivery` and `lastStatus` key whose values describe the date and status of the last delivered report for a particular report definition.

Contents

lastDelivery

A timestamp that gives the date of a report delivery.

Type: String

Length Constraints: Minimum length of 16. Maximum length of 20.

Pattern: `[0-9]{8}[T][0-9]{6}([Z]|[+-][0-9]{4})`

Required: No

lastStatus

An enum that gives the status of a report delivery.

Type: String

Valid Values: `SUCCESS | ERROR_PERMISSIONS | ERROR_NO_BUCKET`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Tag

Service: AWS Cost and Usage Report

Describes a tag. A tag is a key-value pair. You can add up to 50 tags to a report definition.

Contents

Key

The key of the tag. Tag keys are case sensitive. Each report definition can only have up to one tag with the same key. If you try to add an existing tag with the same key, the existing tag value will be updated to the new value.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*`

Required: Yes

Value

The value of the tag. Tag values are case-sensitive. This can be an empty string.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Pattern: `.*`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

AWS Free Tier

The following data types are supported by AWS Free Tier:

- ActivityReward
- ActivitySummary
- DimensionValues
- Expression
- FreeTierUsage
- MonetaryAmount

ActivityReward

Service: AWS Free Tier

The summary of the rewards granted as a result of activities completed.

Contents

> **Important**
>
> This data type is a UNION, so only one of the following members can be specified when used or returned.

credit

The credits gained by activity rewards.

Type: MonetaryAmount object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ActivitySummary

Service: AWS Free Tier

The summary of activities.

Contents

activityId

A unique identifier that identifies the activity.

Type: String

Length Constraints: Fixed length of 32.

Pattern: `[a-zA-Z0-9]+`

Required: Yes

reward

The reward for the activity.

Type: ActivityReward object

Note: This object is a Union. Only one member of this object can be specified or returned.

Required: Yes

status

The current status of the activity.

Type: String

Valid Values: `NOT_STARTED | IN_PROGRESS | COMPLETED | EXPIRING`

Required: Yes

title

The title of the activity.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

DimensionValues

Service: AWS Free Tier

Contains the specifications for the filters to use for your request.

Contents

Key

The name of the dimension that you want to filter on.

Type: String

Valid Values: `SERVICE | OPERATION | USAGE_TYPE | REGION | FREE_TIER_TYPE | DESCRIPTION | USAGE_PERCENTAGE`

Required: Yes

MatchOptions

The match options that you can use to filter your results. You can specify only one of these values in the array.

Type: Array of strings

Valid Values: `EQUALS | STARTS_WITH | ENDS_WITH | CONTAINS | GREATER_THAN_OR_EQUAL`

Required: Yes

Values

The metadata values you can specify to filter upon, so that the results all match at least one of the specified values.

Type: Array of strings

Array Members: Minimum number of 1 item.

Length Constraints: Minimum length of 1. Maximum length of 20.

Pattern: `[ a-zA-Z0-9\-\:\.\_\/\,\$\(\)]*`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Expression

Service: AWS Free Tier

Use `Expression` to filter in the `GetFreeTierUsage` API operation.

You can use the following patterns:

- Simple dimension values (`Dimensions` root operator)
- Complex expressions with logical operators (`AND`, `NOT`, and `OR` root operators).

For *simple dimension values*, you can set the dimension name, values, and match type for the filters that you plan to use.

Example for simple dimension values

You can filter to match exactly for `REGION==us-east-1 OR REGION==us-west-1`.

The corresponding `Expression` appears like the following: `{ "Dimensions": { "Key": "REGION", "Values": [ "us-east-1", "us-west-1" ], "MatchOptions": ["EQUALS"] } }`

As shown in the previous example, lists of dimension values are combined with `OR` when you apply the filter.

For *complex expressions with logical operators*, you can have nested expressions to use the logical operators and specify advanced filtering.

Example for complex expressions with logical operators

You can filter by `((REGION == us-east-1 OR REGION == us-west-1) OR (SERVICE CONTAINS AWSLambda)) AND (USAGE_TYPE !CONTAINS DataTransfer)`.

The corresponding `Expression` appears like the following: `{ "And": [{"Or": [{"Dimensions": { "Key": "REGION", "Values": ["us-east-1", "us-west-1"], "MatchOptions": ["EQUALS"] }}, {"Dimensions": { "Key": "SERVICE", "Values": ["AWSLambda"], "MatchOptions": ["CONTAINS"] } }]}, {"Not": {"Dimensions": { "Key": "USAGE_TYPE", "Values": ["DataTransfer"], "MatchOptions": ["CONTAINS"] }}}] }`

In the following **Contents**, you must specify exactly one of the following root operators.

Contents

And

Return results that match all `Expressions` that you specified in the array.

Type: Array of Expression objects

Required: No

Dimensions

The specific dimension, values, and match type to filter objects with.

Type: DimensionValues object

Required: No

Not

Return results that don't match the `Expression` that you specified.

Type: Expression object

Required: No

Or

Return results that match any of the `Expressions` that you specified. in the array.

Type: Array of Expression objects

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

FreeTierUsage

Service: AWS Free Tier

Consists of a AWS Free Tier offer's metadata and your data usage for the offer.

Contents

actualUsageAmount

Describes the actual usage accrued month-to-day (MTD) that you've used so far.

Type: Double

Required: No

description

The description of the Free Tier offer.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

forecastedUsageAmount

Describes the forecasted usage by the month that you're expected to use.

Type: Double

Required: No

freeTierType

Describes the type of the Free Tier offer. For example, the offer can be `"12 Months Free"`, `"Always Free"`, and `"Free Trial"`.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

limit

Describes the maximum usage allowed in Free Tier.

Type: Double

Required: No

operation

Describes `usageType` more granularly with the specific AWS service API operation. For example, this can be the `RunInstances` API operation for Amazon Elastic Compute Cloud.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

region

Describes the AWS Region for which this offer is applicable

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

service

The name of the AWS service providing the Free Tier offer. For example, this can be Amazon Elastic Compute Cloud.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

unit

Describes the unit of the `usageType`, such as `Hrs`.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

usageType

Describes the usage details of the offer. For example, this might be `Global-BoxUsage:freetrial`.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

MonetaryAmount

Service: AWS Free Tier

The monetary amount of the credit.

Contents

amount

The aggregated monetary amount of credits earned.

Type: Double

Required: Yes

unit

The unit that the monetary amount is given in.

Type: String

Valid Values: USD

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

AWS Invoicing

The following data types are supported by AWS Invoicing:

- AmountBreakdown
- BillingPeriod

- Contact
- CurrencyExchangeDetails
- DateInterval
- DiscountsBreakdown
- DiscountsBreakdownAmount
- EinvoiceDeliveryPreference
- Entity
- FeesBreakdown
- FeesBreakdownAmount
- Filters
- InvoiceCurrencyAmount
- InvoicePDF
- InvoiceProfile
- InvoiceSummariesFilter
- InvoiceSummariesSelector
- InvoiceSummary
- InvoiceUnit
- InvoiceUnitRule
- ProcurementPortalPreference
- ProcurementPortalPreferenceSelector
- ProcurementPortalPreferenceSummary
- PurchaseOrderDataSource
- ReceiverAddress
- ResourceTag
- SupplementalDocument
- TaxesBreakdown
- TaxesBreakdownAmount
- TestEnvPreference
- TestEnvPreferenceInput
- ValidationExceptionField

AmountBreakdown

Service: AWS Invoicing

Details about how the total amount was calculated and categorized.

Contents

Discounts

The discounted amount.

Type: DiscountsBreakdown object

Required: No

Fees

The fee amount.

Type: FeesBreakdown object

Required: No

SubTotalAmount

The total of a set of the breakdown.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

Taxes

The tax amount.

Type: TaxesBreakdown object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

BillingPeriod

Service: AWS Invoicing

The billing period for which you want to retrieve invoice-related documents.

Contents

Month

The billing period month.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 12.

Required: Yes

Year

The billing period year.

Type: Integer

Valid Range: Minimum value of 2005. Maximum value of 2050.

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Contact

Service: AWS Invoicing

Represents contact information for a person or role associated with the procurement portal preference.

Contents

Email

The email address of the contact person or role.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `[a-zA-Z0-9._%+-]+@[a-zA-Z0-9.-]+\.[a-zA-Z]{2,}`

Required: No

Name

The name of the contact person or role.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

CurrencyExchangeDetails

Service: AWS Invoicing

The details of currency exchange.

Contents

Rate

The currency exchange rate.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

SourceCurrencyCode

The exchange source currency.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

TargetCurrencyCode

The exchange target currency.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

DateInterval

Service: AWS Invoicing

The time period that you want invoice-related documents for.

Contents

EndDate

The end of the time period that you want invoice-related documents for. The end date is exclusive. For example, if `end` is `2019-01-10`, AWS retrieves invoice-related documents from the start date up to, but not including, `2018-01-10`.

Type: Timestamp

Required: Yes

StartDate

The beginning of the time period that you want invoice-related documents for. The start date is inclusive. For example, if `start` is `2019-01-01`, AWS retrieves invoices starting at `2019-01-01` up to the end date.

Type: Timestamp

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

DiscountsBreakdown

Service: AWS Invoicing

The discounts details.

Contents

Breakdown

The list of discounts information.

Type: Array of DiscountsBreakdownAmount objects

Required: No

TotalAmount

The discount's total amount.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

DiscountsBreakdownAmount

Service: AWS Invoicing

The discounted amount.

Contents

Amount

The discounted amount.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

Description

The list of discounts information.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

Rate

The details for the discount rate..

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

EinvoiceDeliveryPreference

Service: AWS Invoicing

Specifies the preferences for e-invoice delivery, including document types, attachment types, and customization settings.

Contents

ConnectionTestingMethod

The method to use for testing the connection to the procurement portal.

Type: String

Valid Values: `PROD_ENV_DOLLAR_TEST | TEST_ENV_REPLAY_TEST`

Required: Yes

EinvoiceDeliveryActivationDate

The date when e-invoice delivery should be activated for this preference.

Type: Timestamp

Required: Yes

EinvoiceDeliveryDocumentTypes

The types of e-invoice documents to be delivered.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 10 items.

Valid Values: `AWS_CLOUD_INVOICE | AWS_CLOUD_CREDIT_MEMO | AWS_MARKETPLACE_INVOICE | AWS_MARKETPLACE_CREDIT_MEMO | AWS_REQUEST_FOR_PAYMENT`

Required: Yes

Protocol

The communication protocol to use for e-invoice delivery.

Type: String

Valid Values: `CXML`

Required: Yes

PurchaseOrderDataSources

The sources of purchase order data to use for e-invoice generation and delivery.

Type: Array of PurchaseOrderDataSource objects

Required: Yes

EinvoiceDeliveryAttachmentTypes

The types of attachments to include with the e-invoice delivery.

Type: Array of strings

Valid Values: `INVOICE_PDF | RFP_PDF`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Entity

Service: AWS Invoicing

The organization name providing AWS services.

Contents

InvoicingEntity

The name of the entity that issues the AWS invoice.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

FeesBreakdown

Service: AWS Invoicing

The details of fees.

Contents

Breakdown

The list of fees information.

Type: Array of FeesBreakdownAmount objects

Required: No

TotalAmount

The total amount of fees.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

FeesBreakdownAmount

Service: AWS Invoicing

The fee amount.

Contents

Amount

The fee amount.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

Description

The list of fees information.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

Rate

Details about the rate amount.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Filters

Service: AWS Invoicing

An optional input to the list API. If multiple filters are specified, the returned list will be a configuration that match all of the provided filters. Supported filter types are `InvoiceReceivers`, `Names`, and `Accounts`.

Contents

Accounts

You can specify a list of AWS account IDs inside filters to return invoice units that match only the specified accounts. If multiple accounts are provided, the result is an OR condition (match any) of the specified accounts. The specified account IDs are matched with either the receiver or the linked accounts in the rules.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 1000 items.

Pattern: `\d{12}`

Required: No

BillSourceAccounts

A list of AWS account IDs used to filter invoice units. These are payer accounts from other AWS Organizations that have delegated their billing responsibility to the receiver account through the billing transfer feature.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 1000 items.

Pattern: `\d{12}`

Required: No

InvoiceReceivers

You can specify a list of AWS account IDs inside filters to return invoice units that match only the specified accounts. If multiple accounts are provided, the result is an OR condition (match

any) of the specified accounts. This filter only matches the specified accounts on the invoice receivers of the invoice units.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 1000 items.

Pattern: `\d{12}`

Required: No

Names

An optional input to the list API. You can specify a list of invoice unit names inside filters to return invoice units that match only the specified invoice unit names. If multiple names are provided, the result is an `OR` condition (match any) of the specified invoice unit names.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `(?! )[\p{L}\p{N}\p{Z}-_]*(?<! )`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

InvoiceCurrencyAmount

Service: AWS Invoicing

The amount charged after taxes, in the preferred currency.

Contents

AmountBreakdown

Details about the invoice currency amount.

Type: AmountBreakdown object

Required: No

CurrencyCode

The currency dominion of the invoice document.

Type: String

Length Constraints: Fixed length of 3.

Required: No

CurrencyExchangeDetails

The details of currency exchange.

Type: CurrencyExchangeDetails object

Required: No

TotalAmount

The invoice currency amount.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

TotalAmountBeforeTax

Details about the invoice total amount before tax.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

InvoicePDF

Service: AWS Invoicing

Invoice document data.

Contents

DocumentUrl

The pre-signed URL to download the invoice document.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `.*`

Required: No

DocumentUrlExpirationDate

The pre-signed URL expiration date of the invoice document.

Type: Timestamp

Required: No

InvoiceId

Your unique invoice ID.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `.*`

Required: No

SupplementalDocuments

List of supplemental documents associated with the invoice.

Type: Array of SupplementalDocument objects

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

InvoiceProfile

Service: AWS Invoicing

Contains high-level information about the invoice receiver.

Contents

AccountId

The account ID the invoice profile is generated for.

Type: String

Pattern: `\d{12}`

Required: No

Issuer

This specifies the issuing entity of the invoice.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `\S+`

Required: No

ReceiverAddress

The address of the receiver that will be printed on the invoice.

Type: ReceiverAddress object

Required: No

ReceiverEmail

The email address for the invoice profile receiver.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: \S+

Required: No

ReceiverName

The name of the person receiving the invoice profile.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: \S+

Required: No

TaxRegistrationNumber

Your Tax Registration Number (TRN) information.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: \S+

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

InvoiceSummariesFilter

Service: AWS Invoicing

Filters for your invoice summaries.

Contents

BillingPeriod

The billing period associated with the invoice documents.

Type: BillingPeriod object

Required: No

InvoicingEntity

The name of the entity that issues the AWS invoice.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

TimeInterval

The date range for invoice summary retrieval.

Type: DateInterval object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

InvoiceSummariesSelector

Service: AWS Invoicing

Specifies the invoice summary.

Contents

ResourceType

The query identifier type (`INVOICE_ID` or `ACCOUNT_ID`).

Type: String

Valid Values: `ACCOUNT_ID | INVOICE_ID`

Required: Yes

Value

The value of the query identifier.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `.*`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

InvoiceSummary

Service: AWS Invoicing

The invoice that the API retrieved.

Contents

AccountId

The AWS account ID.

Type: String

Pattern: \d{12}

Required: No

BaseCurrencyAmount

The summary with the product and service currency.

Type: InvoiceCurrencyAmount object

Required: No

BillingPeriod

The billing period of the invoice-related document.

Type: BillingPeriod object

Required: No

DueDate

The invoice due date.

Type: Timestamp

Required: No

Entity

The organization name providing AWS services.

Type: Entity object

Required: No

InvoiceId

The invoice ID.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

InvoiceType

The type of invoice.

Type: String

Valid Values: `INVOICE | CREDIT_MEMO`

Required: No

IssuedDate

The issued date of the invoice.

Type: Timestamp

Required: No

OriginalInvoiceId

The initial or original invoice ID.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

PaymentCurrencyAmount

The summary with the customer configured currency.

Type: InvoiceCurrencyAmount object

Required: No

PurchaseOrderNumber

The purchase order number associated to the invoice.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

TaxCurrencyAmount

The summary with the tax currency.

Type: InvoiceCurrencyAmount object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

InvoiceUnit

Service: AWS Invoicing

An invoice unit is a set of mutually exclusive accounts that correspond to your business entity. Invoice units allow you separate AWS account costs and configures your invoice for each business entity going forward.

Contents

Description

The assigned description for an invoice unit. This information can't be modified or deleted.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 500.

Pattern: `[\S\s]*`

Required: No

InvoiceReceiver

The account that receives invoices related to the invoice unit.

Type: String

Pattern: `\d{12}`

Required: No

InvoiceUnitArn

ARN to identify an invoice unit. This information can't be modified or deleted.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws[-a-z0-9]*:[a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: No

LastModified

The last time the invoice unit was updated. This is important to determine the version of invoice unit configuration used to create the invoices. Any invoice created after this modified time will use this invoice unit configuration.

Type: Timestamp

Required: No

Name

A unique name that is distinctive within your AWS.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `(?! )[\p{L}\p{N}\p{Z}-_]*(?<! )`

Required: No

Rule

An `InvoiceUnitRule` object used the categorize invoice units.

Type: InvoiceUnitRule object

Required: No

TaxInheritanceDisabled

Whether the invoice unit based tax inheritance is/ should be enabled or disabled.

Type: Boolean

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++

- AWS SDK for Java V2
- AWS SDK for Ruby V3

InvoiceUnitRule

Service: AWS Invoicing

This is used to categorize the invoice unit. Values are AWS account IDs. Currently, the only supported rule is `LINKED_ACCOUNT`.

Contents

BillSourceAccounts

A list of AWS account IDs that have delegated their billing responsibility to the receiver account through transfer billing. Unlike linked accounts, these bill source accounts can be payer accounts from other organizations that have authorized billing transfer to this account.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 1000 items.

Pattern: `\d{12}`

Required: No

LinkedAccounts

The list of `LINKED_ACCOUNT` IDs where charges are included within the invoice unit.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 1000 items.

Pattern: `\d{12}`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2

- AWS SDK for Ruby V3

ProcurementPortalPreference

Service: AWS Invoicing

Represents the full configuration of a procurement portal preference, including settings for e-invoice delivery and purchase order retrieval.

Contents

AwsAccountId

The AWS account ID associated with this procurement portal preference.

Type: String

Pattern: `\d{12}`

Required: Yes

BuyerDomain

The domain identifier for the buyer in the procurement portal.

Type: String

Valid Values: `NetworkID`

Required: Yes

BuyerIdentifier

The unique identifier for the buyer in the procurement portal.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `\S+`

Required: Yes

CreateDate

The date and time when the procurement portal preference was created.

Type: Timestamp

Required: Yes

EinvoiceDeliveryEnabled

Indicates whether e-invoice delivery is enabled for this procurement portal preference.

Type: Boolean

Required: Yes

LastUpdateDate

The date and time when the procurement portal preference was last updated.

Type: Timestamp

Required: Yes

ProcurementPortalName

The name of the procurement portal.

Type: String

Valid Values: `SAP_BUSINESS_NETWORK | COUPA`

Required: Yes

ProcurementPortalPreferenceArn

The Amazon Resource Name (ARN) of the procurement portal preference.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws:invoicing::[0-9]{12}:procurement-portal-preference/[-a-zA-Z0-9]+`

Required: Yes

PurchaseOrderRetrievalEnabled

Indicates whether purchase order retrieval is enabled for this procurement portal preference.

Type: Boolean

Required: Yes

SupplierDomain

The domain identifier for the supplier in the procurement portal.

Type: String

Valid Values: `NetworkID`

Required: Yes

SupplierIdentifier

The unique identifier for the supplier in the procurement portal.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `\S+`

Required: Yes

Version

The version number of the procurement portal preference configuration.

Type: Long

Required: Yes

Contacts

List of contact information for portal administrators and technical contacts.

Type: Array of Contact objects

Array Members: Fixed number of 1 item.

Required: No

EinvoiceDeliveryPreference

The configuration settings that specify how e-invoices are delivered to the procurement portal.

Type: EinvoiceDeliveryPreference object

Required: No

EinvoiceDeliveryPreferenceStatus

The current status of the e-invoice delivery preference.

Type: String

Valid Values: `PENDING_VERIFICATION | TEST_INITIALIZED | TEST_INITIALIZATION_FAILED | TEST_FAILED | ACTIVE | SUSPENDED`

Required: No

EinvoiceDeliveryPreferenceStatusReason

The reason for the current e-invoice delivery preference status.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

ProcurementPortalInstanceEndpoint

The endpoint URL where e-invoices are delivered to the procurement portal.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `\S+`

Required: No

ProcurementPortalSharedSecret

The shared secret or authentication credential used for secure communication with the procurement portal.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: \S+

Required: No

PurchaseOrderRetrievalEndpoint

The endpoint URL used for retrieving purchase orders from the procurement portal.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: \S+

Required: No

PurchaseOrderRetrievalPreferenceStatus

The current status of the purchase order retrieval preference.

Type: String

Valid Values: PENDING_VERIFICATION | TEST_INITIALIZED | TEST_INITIALIZATION_FAILED | TEST_FAILED | ACTIVE | SUSPENDED

Required: No

PurchaseOrderRetrievalPreferenceStatusReason

The reason for the current purchase order retrieval preference status.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: [\s\S]*

Required: No

Selector

Specifies criteria for selecting which invoices should be processed using a particular procurement portal preference.

Type: ProcurementPortalPreferenceSelector object

Required: No

TestEnvPreference

Configuration on settings for the test environment of the procurement portal.

Type: TestEnvPreference object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ProcurementPortalPreferenceSelector

Service: AWS Invoicing

Specifies criteria for selecting which invoices should be processed using a particular procurement portal preference.

Contents

InvoiceUnitArns

The Amazon Resource Name (ARN) of invoice unit identifiers to which this preference applies.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 500 items.

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws[-a-z0-9]*:[a-z0-9]+:[-a-z0-9]*:[0-9]{12}:[-a-zA-Z0-9/:_]+`

Required: No

SellerOfRecords

The list of seller of record IDs to which this preference applies.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 100 items.

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `\S+`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++

- AWS SDK for Java V2
- AWS SDK for Ruby V3

ProcurementPortalPreferenceSummary

Service: AWS Invoicing

Provides a summary of a procurement portal preference, including key identifiers and status information.

Contents

AwsAccountId

The AWS account ID associated with this procurement portal preference summary.

Type: String

Pattern: `\d{12}`

Required: Yes

BuyerDomain

The domain identifier for the buyer in the procurement portal.

Type: String

Valid Values: `NetworkID`

Required: Yes

BuyerIdentifier

The unique identifier for the buyer in the procurement portal.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `\S+`

Required: Yes

CreateDate

The date and time when the procurement portal preference was created.

Type: Timestamp

Required: Yes

EinvoiceDeliveryEnabled

Indicates whether e-invoice delivery is enabled for this procurement portal preference.

Type: Boolean

Required: Yes

LastUpdateDate

The date and time when the procurement portal preference was last updated.

Type: Timestamp

Required: Yes

ProcurementPortalName

The name of the procurement portal.

Type: String

Valid Values: `SAP_BUSINESS_NETWORK | COUPA`

Required: Yes

ProcurementPortalPreferenceArn

The Amazon Resource Name (ARN) of the procurement portal preference.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws:invoicing::[0-9]{12}:procurement-portal-preference/[-a-zA-Z0-9]+`

Required: Yes

PurchaseOrderRetrievalEnabled

Indicates whether purchase order retrieval is enabled for this procurement portal preference.

Type: Boolean

Required: Yes

SupplierDomain

The domain identifier for the supplier in the procurement portal.

Type: String

Valid Values: `NetworkID`

Required: Yes

SupplierIdentifier

The unique identifier for the supplier in the procurement portal.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `\S+`

Required: Yes

Version

The version number of the procurement portal preference configuration in this summary.

Type: Long

Required: Yes

EinvoiceDeliveryPreferenceStatus

The current status of the e-invoice delivery preference in this summary.

Type: String

Valid Values: `PENDING_VERIFICATION | TEST_INITIALIZED | TEST_INITIALIZATION_FAILED | TEST_FAILED | ACTIVE | SUSPENDED`

Required: No

EinvoiceDeliveryPreferenceStatusReason

The reason for the current e-invoice delivery preference status in this summary.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

PurchaseOrderRetrievalPreferenceStatus

The current status of the purchase order retrieval preference in this summary.

Type: String

Valid Values: `PENDING_VERIFICATION | TEST_INITIALIZED | TEST_INITIALIZATION_FAILED | TEST_FAILED | ACTIVE | SUSPENDED`

Required: No

PurchaseOrderRetrievalPreferenceStatusReason

The reason for the current purchase order retrieval preference status in this summary.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

Selector

Specifies criteria for selecting which invoices should be processed using a particular procurement portal preference.

Type: ProcurementPortalPreferenceSelector object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

PurchaseOrderDataSource

Service: AWS Invoicing

Specifies the source configuration for retrieving purchase order data.

Contents

EinvoiceDeliveryDocumentType

The type of e-invoice document that requires purchase order data.

Type: String

Valid Values: `AWS_CLOUD_INVOICE | AWS_CLOUD_CREDIT_MEMO | AWS_MARKETPLACE_INVOICE | AWS_MARKETPLACE_CREDIT_MEMO | AWS_REQUEST_FOR_PAYMENT`

Required: No

PurchaseOrderDataSourceType

The type of source for purchase order data.

Type: String

Valid Values: `ASSOCIATED_PURCHASE_ORDER_REQUIRED | PURCHASE_ORDER_NOT_REQUIRED`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ReceiverAddress

Service: AWS Invoicing

The details of the address associated with the receiver.

Contents

AddressLine1

The first line of the address.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

AddressLine2

The second line of the address, if applicable.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

AddressLine3

The third line of the address, if applicable.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

City

The city that the address is in.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

CompanyName

A unique company name.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

CountryCode

The country code for the country the address is in.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

DistrictOrCounty

The district or country the address is located in.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

PostalCode

The postal code associated with the address.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

StateOrRegion

The state, region, or province the address is located.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ResourceTag

Service: AWS Invoicing

The tag structure that contains a tag key and value.

Contents

Key

The object key of your of your resource tag.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: Yes

Value

The specific value of the resource tag.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

SupplementalDocument

Service: AWS Invoicing

Supplemental document associated with the invoice.

Contents

DocumentUrl

The pre-signed URL to download invoice supplemental document.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `.*`

Required: No

DocumentUrlExpirationDate

The pre-signed URL expiration date of invoice supplemental document.

Type: Timestamp

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

TaxesBreakdown

Service: AWS Invoicing

The details of the taxes.

Contents

Breakdown

A list of tax information.

Type: Array of TaxesBreakdownAmount objects

Required: No

TotalAmount

The total amount for your taxes.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

TaxesBreakdownAmount

Service: AWS Invoicing

The tax amount.

Contents

Amount

The tax amount.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

Description

The details of the taxes.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

Rate

The details of the tax rate.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

TestEnvPreference

Service: AWS Invoicing

Contains configuration settings for testing the procurement portal integration in a non-production environment.

Contents

BuyerDomain

The domain identifier for the buyer in the test environment of the procurement portal.

Type: String

Valid Values: `NetworkID`

Required: Yes

BuyerIdentifier

The unique identifier for the buyer in the test environment of the procurement portal.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: \S+

Required: Yes

SupplierDomain

The domain identifier for the supplier in the test environment of the procurement portal.

Type: String

Valid Values: `NetworkID`

Required: Yes

SupplierIdentifier

The unique identifier for the supplier in the test environment of the procurement portal.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: \S+

Required: Yes

ProcurementPortalInstanceEndpoint

The endpoint URL where e-invoices are delivered in the test environment.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: \S+

Required: No

ProcurementPortalSharedSecret

The shared secret or authentication credential used for secure communication with the test environment.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: \S+

Required: No

PurchaseOrderRetrievalEndpoint

The endpoint URL used for retrieving purchase orders in the test environment.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: \S+

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

TestEnvPreferenceInput

Service: AWS Invoicing

Input parameters for configuring test environment preferences for a procurement portal.

Contents

BuyerDomain

The domain identifier to use for the buyer in the test environment.

Type: String

Valid Values: `NetworkID`

Required: Yes

BuyerIdentifier

The unique identifier to use for the buyer in the test environment.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `\S+`

Required: Yes

SupplierDomain

The domain identifier to use for the supplier in the test environment.

Type: String

Valid Values: `NetworkID`

Required: Yes

SupplierIdentifier

The unique identifier to use for the supplier in the test environment.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: \S+

Required: Yes

ProcurementPortalInstanceEndpoint

The endpoint URL where e-invoices will be delivered in the test environment.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: \S+

Required: No

ProcurementPortalSharedSecret

The shared secret or authentication credential to use for secure communication in the test environment.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: \S+

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ValidationExceptionField

Service: AWS Invoicing

The input fails to satisfy the constraints specified by an AWS service.

Contents

message

The input fails to satisfy the constraints specified by an AWS service.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: Yes

name

The input fails to satisfy the constraints specified by an AWS service.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

AWS Price List

The following data types are supported by AWS Price List:

- AttributeValue
- Filter
- PriceList
- Service

AttributeValue

Service: AWS Price List

The values of a given attribute, such as `Throughput Optimized HDD` or `Provisioned IOPS` for the `Amazon EC2` `volumeType` attribute.

Contents

Value

The specific value of an `attributeName`.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Filter

Service: AWS Price List

The constraints that you want all returned products to match.

Contents

Field

The product metadata field that you want to filter on. You can filter by just the service code to see all products for a specific service, filter by just the attribute name to see a specific attribute for multiple services, or use both a service code and an attribute name to retrieve only products that match both fields.

Valid values include: `ServiceCode`, and all attribute names

For example, you can filter by the `AmazonEC2` service code and the `volumeType` attribute name to get the prices for only Amazon EC2 volumes.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: Yes

Type

The type of filter that you want to use.

Valid values are:

- `TERM_MATCH`: Returns only products that match both the given filter field and the given value.
- `EQUALS`: Returns products that have a field value exactly matching the provided value.
- `CONTAINS`: Returns products where the field value contains the provided value as a substring.
- `ANY_OF`: Returns products where the field value is any of the provided values.
- `NONE_OF`: Returns products where the field value is not any of the provided values.

Type: String

Valid Values: `TERM_MATCH | EQUALS | CONTAINS | ANY_OF | NONE_OF`

Required: Yes

Value

The service code or attribute value that you want to filter by. If you're filtering by service code this is the actual service code, such as `AmazonEC2`. If you're filtering by attribute name, this is the attribute value that you want the returned products to match, such as a `Provisioned IOPS` volume.

For `ANY_OF` and `NONE_OF` filter types, you can provide multiple values as a comma-separated string. For example, `t2.micro,t2.small,t2.medium` or `Compute optimized, GPU instance, Micro instances`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

PriceList

Service: AWS Price List

This feature is in preview release and is subject to change. Your use of AWS Price List API is subject to the Beta Service Participation terms of the AWS Service Terms (Section 1.10).

This is the type of price list references that match your request.

Contents

CurrencyCode

The three alphabetical character ISO-4217 currency code the Price List files are denominated in.

Type: String

Pattern: `[A-Z]{3}`

Required: No

FileFormats

The format you want to retrieve your Price List files. The `FileFormat` can be obtained from the `ListPriceList` response.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 255.

Required: No

PriceListArn

The unique identifier that maps to where your Price List files are located. `PriceListArn` can be obtained from the `ListPriceList` response.

Type: String

Length Constraints: Minimum length of 18. Maximum length of 2048.

Pattern: `arn:[A-Za-z0-9][-.A-Za-z0-9]{0,62}:pricing:::price-list/[A-Za-z0-9+_/.-]{1,1023}`

Required: No

RegionCode

This is used to filter the Price List by AWS Region. For example, to get the price list only for the `US East (N. Virginia)` Region, use `us-east-1`. If nothing is specified, you retrieve price lists for all applicable Regions. The available `RegionCode` list can be retrieved from `GetAttributeValues` API.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Service

Service: AWS Price List

The metadata for a service, such as the service code and available attribute names.

Contents

ServiceCode

The code for the AWS service.

Type: String

Required: Yes

AttributeNames

The attributes that are available for this service.

Type: Array of strings

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Tax Settings

The following data types are supported by Tax Settings:

- AccountDetails
- AccountMetaData
- AdditionalInfoRequest

- AdditionalInfoResponse
- Address
- Authority
- BatchDeleteTaxRegistrationError
- BatchPutTaxRegistrationError
- BrazilAdditionalInfo
- CanadaAdditionalInfo
- DestinationS3Location
- EgyptAdditionalInfo
- EstoniaAdditionalInfo
- ExemptionCertificate
- GeorgiaAdditionalInfo
- GreeceAdditionalInfo
- IndiaAdditionalInfo
- IndonesiaAdditionalInfo
- IsraelAdditionalInfo
- ItalyAdditionalInfo
- Jurisdiction
- KenyaAdditionalInfo
- MalaysiaAdditionalInfo
- PolandAdditionalInfo
- RomaniaAdditionalInfo
- SaudiArabiaAdditionalInfo
- SourceS3Location
- SouthKoreaAdditionalInfo
- SpainAdditionalInfo
- SupplementalTaxRegistration
- SupplementalTaxRegistrationEntry
- TaxDocumentMetadata
- TaxExemption

- TaxExemptionDetails
- TaxExemptionType
- TaxInheritanceDetails
- TaxRegistration
- TaxRegistrationDocFile
- TaxRegistrationDocument
- TaxRegistrationEntry
- TaxRegistrationWithJurisdiction
- TurkeyAdditionalInfo
- UkraineAdditionalInfo
- UzbekistanAdditionalInfo
- ValidationExceptionField
- VerificationDetails
- VietnamAdditionalInfo

AccountDetails

Service: Tax Settings

An object with your `accountId` and TRN information.

Contents

accountId

List of unique account identifiers.

Type: String

Length Constraints: Fixed length of 12.

Pattern: \d+

Required: No

accountMetaData

The meta data information associated with the account.

Type: AccountMetaData object

Required: No

taxInheritanceDetails

Tax inheritance information associated with the account.

Type: TaxInheritanceDetails object

Required: No

taxRegistration

Your TRN information. Instead of having full legal address, here TRN information will have jurisdiction details (for example, country code and state/region/province if applicable).

Type: TaxRegistrationWithJurisdiction object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

AccountMetaData

Service: Tax Settings

The meta data information associated with the account.

Contents

accountName

The AWS accounts name.

Type: String

Pattern: `[\s\S]*`

Required: No

address

The details of the address associated with the TRN information.

Type: Address object

Required: No

addressRoleMap

Address roles associated with the account containing country code information.

Type: String to Jurisdiction object map

Valid Keys: `TaxAddress | BillingAddress | ContactAddress`

Required: No

addressType

The type of address associated with the legal profile.

Type: String

Valid Values: `TaxAddress | BillingAddress | ContactAddress`

Required: No

seller

Seller information associated with the account.

Type: String

Pattern: `[\s\S]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

AdditionalInfoRequest

Service: Tax Settings

Additional tax information associated with your tax registration number (TRN). Depending on the TRN for a specific country, you might need to specify this information when you set your TRN.

You can only specify one of the following parameters and the value can't be empty.

> **Note**
>
> The parameter that you specify must match the country for the TRN, if available. For example, if you set a TRN in Canada for specific provinces, you must also specify the `canadaAdditionalInfo` parameter.

Contents

canadaAdditionalInfo

Additional tax information associated with your TRN in Canada.

Type: CanadaAdditionalInfo object

Required: No

egyptAdditionalInfo

Additional tax information to specify for a TRN in Egypt.

Type: EgyptAdditionalInfo object

Required: No

estoniaAdditionalInfo

Additional tax information to specify for a TRN in Estonia.

Type: EstoniaAdditionalInfo object

Required: No

georgiaAdditionalInfo

Additional tax information to specify for a TRN in Georgia.

Type: GeorgiaAdditionalInfo object

Required: No

greeceAdditionalInfo

Additional tax information to specify for a TRN in Greece.

Type: GreeceAdditionalInfo object

Required: No

indonesiaAdditionalInfo

Type: IndonesiaAdditionalInfo object

Required: No

israelAdditionalInfo

Additional tax information to specify for a TRN in Israel.

Type: IsraelAdditionalInfo object

Required: No

italyAdditionalInfo

Additional tax information to specify for a TRN in Italy.

Type: ItalyAdditionalInfo object

Required: No

kenyaAdditionalInfo

Additional tax information to specify for a TRN in Kenya.

Type: KenyaAdditionalInfo object

Required: No

malaysiaAdditionalInfo

Additional tax information to specify for a TRN in Malaysia.

Type: MalaysiaAdditionalInfo object

Required: No

polandAdditionalInfo

Additional tax information associated with your TRN in Poland.

Type: PolandAdditionalInfo object

Required: No

romaniaAdditionalInfo

Additional tax information to specify for a TRN in Romania.

Type: RomaniaAdditionalInfo object

Required: No

saudiArabiaAdditionalInfo

Additional tax information associated with your TRN in Saudi Arabia.

Type: SaudiArabiaAdditionalInfo object

Required: No

southKoreaAdditionalInfo

Additional tax information to specify for a TRN in South Korea.

Type: SouthKoreaAdditionalInfo object

Required: No

spainAdditionalInfo

Additional tax information to specify for a TRN in Spain.

Type: SpainAdditionalInfo object

Required: No

turkeyAdditionalInfo

Additional tax information to specify for a TRN in Turkey.

Type: TurkeyAdditionalInfo object

Required: No

ukraineAdditionalInfo

Additional tax information associated with your TRN in Ukraine.

Type: UkraineAdditionalInfo object

Required: No

uzbekistanAdditionalInfo

Additional tax information to specify for a TRN in Uzbekistan.

Type: UzbekistanAdditionalInfo object

Required: No

vietnamAdditionalInfo

Additional tax information to specify for a TRN in Vietnam.

Type: VietnamAdditionalInfo object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

AdditionalInfoResponse

Service: Tax Settings

Additional tax information associated with your TRN. The Tax Settings API returns country-specific information in the response when any additional information is present with your TRN for the following countries.

Contents

brazilAdditionalInfo

Additional tax information associated with your TRN in Brazil. The Tax Settings API returns this information in your response when any additional information is present with your TRN in Brazil.

Type: BrazilAdditionalInfo object

Required: No

canadaAdditionalInfo

Additional tax information associated with your TRN in Canada.

Type: CanadaAdditionalInfo object

Required: No

egyptAdditionalInfo

Additional tax information to specify for a TRN in Egypt.

Type: EgyptAdditionalInfo object

Required: No

estoniaAdditionalInfo

Additional tax information associated with your TRN in Estonia.

Type: EstoniaAdditionalInfo object

Required: No

georgiaAdditionalInfo

Additional tax information associated with your TRN in Georgia.

Type: GeorgiaAdditionalInfo object

Required: No

greeceAdditionalInfo

Additional tax information to specify for a TRN in Greece.

Type: GreeceAdditionalInfo object

Required: No

indiaAdditionalInfo

Additional tax information in India.

Type: IndiaAdditionalInfo object

Required: No

indonesiaAdditionalInfo

Additional tax information associated with your TRN in Indonesia.

Type: IndonesiaAdditionalInfo object

Required: No

israelAdditionalInfo

Additional tax information associated with your TRN in Israel.

Type: IsraelAdditionalInfo object

Required: No

italyAdditionalInfo

Additional tax information associated with your TRN in Italy.

Type: ItalyAdditionalInfo object

Required: No

kenyaAdditionalInfo

Additional tax information associated with your TRN in Kenya.

Type: KenyaAdditionalInfo object

Required: No

malaysiaAdditionalInfo

Additional tax information associated with your TRN in Malaysia.

Type: MalaysiaAdditionalInfo object

Required: No

polandAdditionalInfo

Additional tax information associated with your TRN in Poland.

Type: PolandAdditionalInfo object

Required: No

romaniaAdditionalInfo

Additional tax information to specify for a TRN in Romania.

Type: RomaniaAdditionalInfo object

Required: No

saudiArabiaAdditionalInfo

Additional tax information associated with your TRN in Saudi Arabia.

Type: SaudiArabiaAdditionalInfo object

Required: No

southKoreaAdditionalInfo

Additional tax information associated with your TRN in South Korea.

Type: SouthKoreaAdditionalInfo object

Required: No

spainAdditionalInfo

Additional tax information associated with your TRN in Spain.

Type: SpainAdditionalInfo object

Required: No

turkeyAdditionalInfo

Additional tax information associated with your TRN in Turkey.

Type: TurkeyAdditionalInfo object

Required: No

ukraineAdditionalInfo

Additional tax information associated with your TRN in Ukraine.

Type: UkraineAdditionalInfo object

Required: No

uzbekistanAdditionalInfo

Additional tax information associated with your TRN in Uzbekistan.

Type: UzbekistanAdditionalInfo object

Required: No

vietnamAdditionalInfo

Additional tax information to specify for a TRN in Vietnam.

Type: VietnamAdditionalInfo object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Address

Service: Tax Settings

The details of the address associated with the TRN information.

Contents

addressLine1

The first line of the address.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 180.

Pattern: `(?!\s*$)[\s\S]+`

Required: Yes

city

The city that the address is in.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `(?!\s*$)[\s\S]+`

Required: Yes

countryCode

The country code for the country that the address is in.

Type: String

Length Constraints: Fixed length of 2.

Pattern: `[a-zA-Z]+`

Required: Yes

postalCode

The postal code associated with the address.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 20.

Pattern: `(?!\s*$)[\s\S]+`

Required: Yes

addressLine2

The second line of the address, if applicable.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 60.

Pattern: `(?!\s*$)[\s\S]+`

Required: No

addressLine3

The third line of the address, if applicable. Currently, the Tax Settings API accepts the `addressLine3` parameter only for Saudi Arabia. When you specify a TRN in Saudi Arabia, you must enter the `addressLine3` and specify the building number for the address. For example, you might enter `1234`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 60.

Pattern: `(?!\s*$)[\s\S]+`

Required: No

districtOrCounty

The district or county the address is located.

> **Note**
>
> For addresses in Brazil, this parameter uses the name of the neighborhood. When you set a TRN in Brazil, use `districtOrCounty` for the neighborhood name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `(?!\s*$)[\s\S]+`

Required: No

stateOrRegion

The state, region, or province that the address is located. This field is only required for Canada, India, United Arab Emirates, Romania, and Brazil (CPF). It is optional for all other countries.

If this is required for tax settings, use the same name as shown on the **Tax Settings** page.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `(?!\s*$)[\s\S]+`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Authority

Service: Tax Settings

The address domain associate with the tax information.

Contents

country

The country code for the country that the address is in.

Type: String

Length Constraints: Fixed length of 2.

Pattern: `[a-zA-Z]+`

Required: Yes

state

The state that the address is located.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `(?!\s*$)[\s\S]+`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

BatchDeleteTaxRegistrationError

Service: Tax Settings

The error object for representing failures in the `BatchDeleteTaxRegistration` operation.

Contents

accountId

The unique account identifier for the account whose tax registration couldn't be deleted during the `BatchDeleteTaxRegistration` operation.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d+`

Required: Yes

message

The error message for an individual failure in the `BatchDeleteTaxRegistration` operation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: Yes

code

The error code for an individual failure in BatchDeleteTaxRegistration operation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 50.

Pattern: `[\s\S]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

BatchPutTaxRegistrationError

Service: Tax Settings

The error object for representing failures in the `BatchPutTaxRegistration` operation.

Contents

accountId

The unique account identifier for the account that the tax registration couldn't be added, or updated during the `BatchPutTaxRegistration` operation.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d+`

Required: Yes

message

The error message for an individual failure in the `BatchPutTaxRegistration` operation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\s\S]*`

Required: Yes

code

The error code for an individual failure in the `BatchPutTaxRegistration` operation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 50.

Pattern: `[\s\S]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

BrazilAdditionalInfo

Service: Tax Settings

Additional tax information associated with your TRN in Brazil.

Contents

ccmCode

The Cadastro de Contribuintes Mobiliários (CCM) code for your TRN in Brazil. This only applies for a CNPJ tax type for the São Paulo municipality.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: \d+

Required: No

legalNatureCode

Legal nature of business, based on your TRN in Brazil. This only applies for a CNPJ tax type.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: \d+

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

CanadaAdditionalInfo

Service: Tax Settings

Additional tax information associated with your TRN in Canada .

Contents

canadaQuebecSalesTaxNumber

The Quebec Sales Tax ID number. Leave blank if you do not have a Quebec Sales Tax ID number.

Type: String

Pattern: `([0-9]{10})(TQ[0-9]{4})?`

Required: No

canadaRetailSalesTaxNumber

Manitoba Retail Sales Tax ID number. Customers purchasing AWS services for resale in Manitoba must provide a valid Retail Sales Tax ID number for Manitoba. Leave this blank if you do not have a Retail Sales Tax ID number in Manitoba or are not purchasing AWS services for resale.

Type: String

Pattern: `([0-9]{6}-[0-9]{1})`

Required: No

isResellerAccount

The value for this parameter must be `true` if the `provincialSalesTaxId` value is provided for a TRN in British Columbia, Saskatchewan, or Manitoba provinces.

To claim a provincial sales tax (PST) and retail sales tax (RST) reseller exemption, you must confirm that purchases from this account were made for resale. Otherwise, remove the PST or RST number from the `provincialSalesTaxId` parameter from your request.

Type: Boolean

Required: No

provincialSalesTaxId

The provincial sales tax ID for your TRN in Canada. This parameter can represent the following:

- Provincial sales tax ID number for British Columbia and Saskatchewan provinces
- Manitoba retail sales tax ID number for Manitoba province
- Quebec sales tax ID number for Quebec province

The Tax Setting API only accepts this parameter if the TRN is specified for the previous provinces. For other provinces, the Tax Settings API doesn't accept this parameter.

Type: String

Length Constraints: Minimum length of 7. Maximum length of 16.

Pattern: `([0-9A-Z/-]+)`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

DestinationS3Location

Service: Tax Settings

The location of the Amazon S3 bucket that you specify to download your tax documents to.

Contents

bucket

The name of your Amazon S3 bucket that you specify to download your tax documents to.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

Pattern: `(?=^.{3,63}$)(?!^(\d+\.)+\d+$)(^(([a-z0-9]|[a-z0-9][a-z0-9\-]*[a-z0-9])\.)*([a-z0-9]|[a-z0-9][a-z0-9\-]*[a-z0-9])$)`

Required: Yes

prefix

The Amazon S3 object prefix that you specify for your tax document file.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 512.

Pattern: `.*\S.*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

EgyptAdditionalInfo

Service: Tax Settings

Additional tax information to specify for a TRN in Egypt.

Contents

uniqueIdentificationNumber

The unique identification number provided by the Egypt Tax Authority.

Type: String

Pattern: `[a-zA-Z0-9]{39}`

Required: No

uniqueIdentificationNumberExpirationDate

The expiration date of the unique identification number provided by the Egypt Tax Authority.

Type: String

Pattern: `(\d{4}-(0[0-9]|1[0-2])-([0-2][0-9]|3[0-1]))`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

EstoniaAdditionalInfo

Service: Tax Settings

Additional tax information associated with your TRN in Estonia.

Contents

registryCommercialCode

Registry commercial code (RCC) for your TRN in Estonia. This value is an eight-numeric string, such as 12345678.

Type: String

Length Constraints: Fixed length of 8.

Pattern: \d+

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ExemptionCertificate

Service: Tax Settings

The exemption certificate.

Contents

documentFile

The exemption certificate file content.

Type: Base64-encoded binary data object

Length Constraints: Minimum length of 1. Maximum length of 4194304.

Required: Yes

documentName

The exemption certificate file name.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 128.

Pattern: `([A-Za-z0-9-_.]+).(pdf|jpg|png)`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

GeorgiaAdditionalInfo

Service: Tax Settings

Additional tax information associated with your TRN in Georgia.

Contents

personType

The legal person or physical person assigned to this TRN in Georgia.

Type: String

Valid Values: `Legal Person | Physical Person | Business`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

GreeceAdditionalInfo

Service: Tax Settings

Additional tax information to specify for a TRN in Greece.

Contents

contractingAuthorityCode

The code of contracting authority for e-invoicing.

Type: String

Pattern: `\d{4}\.[A-Z]\d{5}\.\d{4}`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

IndiaAdditionalInfo

Service: Tax Settings

Additional tax information in India.

Contents

pan

India pan information associated with the account.

Type: String

Pattern: `[A-Z]{5}[0-9]{4}[A-Z]{1}`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

IndonesiaAdditionalInfo

Service: Tax Settings

Additional tax information associated with your TRN in Indonesia.

Contents

decisionNumber

VAT-exempt customers have a Directorate General of Taxation (DGT) exemption letter or certificate (Surat Keterangan Bebas) decision number. Non-collected VAT have a DGT letter or certificate (Surat Keterangan Tidak Dipungut).

Type: String

Pattern: `([a-zA-Z0-9/.\-]{0,200})`

Required: No

ppnExceptionDesignationCode

Exception code if you are designated by Directorate General of Taxation (DGT) as a VAT collector, non-collected VAT, or VAT-exempt customer.

Type: String

Pattern: `(01|02|03|07|08)`

Required: No

taxRegistrationNumberType

The tax registration number type.

Type: String

Valid Values: `NIK | PassportNumber | NPWP | NITKU`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

IsraelAdditionalInfo

Service: Tax Settings

Additional tax information associated with your TRN in Israel.

Contents

customerType

Customer type for your TRN in Israel. The value can be `Business` or `Individual`. Use `Business`for entities such as not-for-profit and financial institutions.

Type: String

Valid Values: `Business | Individual`

Required: Yes

dealerType

Dealer type for your TRN in Israel. If you're not a local authorized dealer with an Israeli VAT ID, specify your tax identification number so that AWS can send you a compliant tax invoice.

Type: String

Valid Values: `Authorized | Non-authorized`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ItalyAdditionalInfo

Service: Tax Settings

Additional tax information associated with your TRN in Italy.

Contents

cigNumber

The tender procedure identification code.

Type: String

Pattern: `([0-9A-Z]{1,15})`

Required: No

cupNumber

Additional tax information to specify for a TRN in Italy. This is managed by the Interministerial Committee for Economic Planning (CIPE) which characterizes every public investment project (Individual Project Code).

Type: String

Pattern: `([0-9A-Z]{1,15})`

Required: No

sdiAccountId

Additional tax information to specify for a TRN in Italy. Use CodiceDestinatario to receive your invoices via web service (API) or FTP.

Type: String

Pattern: `[0-9A-Z]{6,7}`

Required: No

taxCode

List of service tax codes for your TRN in Italy. You can use your customer tax code as part of a VAT Group.

Type: String

Pattern: `([0-9]{11}|[A-Z]{6}[0-9]{2}[A-Z][0-9]{2}[A-Z][0-9]{3}[A-Z])`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Jurisdiction

Service: Tax Settings

The jurisdiction details of the TRN information of the customers. This doesn't contain full legal address, and contains only country code and state/region/province.

Contents

countryCode

The country code of the jurisdiction.

Type: String

Length Constraints: Fixed length of 2.

Pattern: `[a-zA-Z]+`

Required: Yes

stateOrRegion

The state, region, or province associated with the country of the jurisdiction, if applicable.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `(?!\s*$)[\s\S]+`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

KenyaAdditionalInfo

Service: Tax Settings

Additional tax information associated with your TRN in Kenya.

Contents

personType

The legal person or physical person assigned to this TRN in Kenya.

Type: String

Valid Values: `Legal Person | Physical Person | Business`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

MalaysiaAdditionalInfo

Service: Tax Settings

Additional tax information associated with your TRN in Malaysia.

Contents

businessRegistrationNumber

The tax registration number (TRN) in Malaysia.

For individual, you can specify the `taxInformationNumber` in `MalaysiaAdditionalInfo` with NRIC type, and a valid MyKad or NRIC number. For business, you must specify a `businessRegistrationNumber` in `MalaysiaAdditionalInfo` with a TIN type and tax identification number. For business resellers, you must specify a `businessRegistrationNumber` and `taxInformationNumber` in `MalaysiaAdditionalInfo` with a sales and service tax (SST) type and a valid SST number.

For business resellers with service codes, you must specify `businessRegistrationNumber`, `taxInformationNumber`, and distinct `serviceTaxCodes` in `MalaysiaAdditionalInfo` with a SST type and valid sales and service tax (SST) number. By using this API operation, AWS registers your self-declaration that you're an authorized business reseller registered with the Royal Malaysia Customs Department (RMCD), and have a valid SST number.

Type: String

Pattern: `[0-9]{12}`

Required: No

serviceTaxCodes

List of service tax codes for your TRN in Malaysia.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 4 items.

Valid Values: `Consultancy | Digital Service And Electronic Medium | IT Services | Training Or Coaching`

Required: No

taxInformationNumber

The tax information number in Malaysia.

For individual, you can specify the `taxInformationNumber` in `MalaysiaAdditionalInfo` with NRIC type, and a valid MyKad or NRIC number. For business resellers, you must specify a `businessRegistrationNumber` and `taxInformationNumber` in `MalaysiaAdditionalInfo` with a sales and service tax (SST) type and a valid SST number.

For business resellers with service codes, you must specify `businessRegistrationNumber`, `taxInformationNumber`, and distinct `serviceTaxCodes` in `MalaysiaAdditionalInfo` with a SST type and valid sales and service tax (SST) number. By using this API operation, AWS registers your self-declaration that you're an authorized business reseller registered with the Royal Malaysia Customs Department (RMCD), and have a valid SST number.

Type: String

Pattern: `[A-Z]{1,2}[0-9]{1,11}`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

PolandAdditionalInfo

Service: Tax Settings

Additional tax information associated with your TRN in Poland.

Contents

individualRegistrationNumber

The individual tax registration number (NIP). Individual NIP is valid for other taxes excluding VAT purposes.

Type: String

Pattern: `([0-9]{10})`

Required: No

isGroupVatEnabled

True if your business is a member of a VAT group with a NIP active for VAT purposes. Otherwise, this is false.

Type: Boolean

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

RomaniaAdditionalInfo

Service: Tax Settings

Additional tax information to specify for a TRN in Romania.

Contents

taxRegistrationNumberType

The tax registration number type. The value can be `TaxRegistrationNumber` or `LocalRegistrationNumber`.

Type: String

Valid Values: `TaxRegistrationNumber | LocalRegistrationNumber`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

SaudiArabiaAdditionalInfo

Service: Tax Settings

Additional tax information associated with your TRN in Saudi Arabia.

Contents

taxRegistrationNumberType

The tax registration number type.

Type: String

Valid Values: `TaxRegistrationNumber | TaxIdentificationNumber | CommercialRegistrationNumber`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

SourceS3Location

Service: Tax Settings

The Amazon S3 bucket in your account where your tax document is located.

Contents

bucket

The name of your Amazon S3 bucket that your tax document is located.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

Pattern: `(?=^.{3,63}$)(?!^(\d+\.)+\d+$)(^(([a-z0-9]|[a-z0-9][a-z0-9\-]*[a-z0-9])\.)*([a-z0-9]|[a-z0-9][a-z0-9\-]*[a-z0-9])$)`

Required: Yes

key

The object key of your tax document object in Amazon S3.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `.*\S.*`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

SouthKoreaAdditionalInfo

Service: Tax Settings

Additional tax information associated with your TRN in South Korea.

Contents

businessRepresentativeName

The business legal name based on the most recently uploaded tax registration certificate.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: `[0-9\u3130-\u318F\uAC00-\uD7AF,.( )-\\s]*`

Required: Yes

itemOfBusiness

Item of business based on the most recently uploaded tax registration certificate.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `[0-9\u3130-\u318F\uAC00-\uD7AF,.( )-\\s]*`

Required: Yes

lineOfBusiness

Line of business based on the most recently uploaded tax registration certificate.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `[0-9\u3130-\u318F\uAC00-\uD7AF,.( )-\\s]*`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

SpainAdditionalInfo

Service: Tax Settings

Additional tax information associated with your TRN in Spain.

Contents

registrationType

The registration type in Spain.

Type: String

Valid Values: `Intra-EU | Local`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

SupplementalTaxRegistration

Service: Tax Settings

Supplemental TRN details.

Contents

address

The details of the address associated with the TRN information.

Type: Address object

Required: Yes

authorityId

Unique authority ID for the supplemental TRN.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: `[\s\S]*`

Required: Yes

legalName

The legal name associated with your TRN registration.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: `(?!\s*$)[\s\S]+`

Required: Yes

registrationId

The supplemental TRN unique identifier.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: `(?!\s*$)[\s\S]+`

Required: Yes

registrationType

Type of supplemental TRN. Currently, this can only be VAT.

Type: String

Valid Values: `VAT`

Required: Yes

status

The status of your TRN.

Type: String

Valid Values: `Verified | Pending | Deleted | Rejected`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

SupplementalTaxRegistrationEntry

Service: Tax Settings

The supplemental TRN information to provide when adding or updating a supplemental TRN.

Contents

address

The details of the address associated with the TRN information.

Type: Address object

Required: Yes

legalName

The legal name associated with your TRN registration.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: `(?!\s*$)[\s\S]+`

Required: Yes

registrationId

The supplemental TRN unique identifier.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: `(?!\s*$)[\s\S]+`

Required: Yes

registrationType

Type of supplemental TRN. Currently, this can only be VAT.

Type: String

Valid Values: VAT

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

TaxDocumentMetadata

Service: Tax Settings

The metadata for your tax document.

Contents

taxDocumentAccessToken

The tax document access token, which contains information that the Tax Settings API uses to locate the tax document.

> **Note**
>
> If you update your tax registration, the existing `taxDocumentAccessToken` won't be valid. To get the latest token, call the `GetTaxRegistration` or `ListTaxRegistrations` API operation. This token is valid for 24 hours.

Type: String

Pattern: `[\s\S]*`

Required: Yes

taxDocumentName

The name of your tax document.

Type: String

Pattern: `[\s\S]*`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++

- AWS SDK for Java V2
- AWS SDK for Ruby V3

TaxExemption

Service: Tax Settings

The tax exemption.

Contents

authority

The address domain associate with tax exemption.

Type: Authority object

Required: Yes

taxExemptionType

The tax exemption type.

Type: TaxExemptionType object

Required: Yes

effectiveDate

The tax exemption effective date.

Type: Timestamp

Required: No

expirationDate

The tax exemption expiration date.

Type: Timestamp

Required: No

status

The tax exemption status.

Type: String

Valid Values: `None | Valid | Expired | Pending`

Required: No

systemEffectiveDate

The tax exemption recording time in the `TaxSettings` system.

Type: Timestamp

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

TaxExemptionDetails

Service: Tax Settings

The tax exemption details.

Contents

heritageObtainedDetails

The indicator if the tax exemption is inherited from the consolidated billing family management account.

Type: Boolean

Required: No

heritageObtainedParentEntity

The consolidated billing family management account the tax exemption inherited from.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: `[\s\S]*`

Required: No

heritageObtainedReason

The reason of the heritage inheritance.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: `[\s\S]*`

Required: No

taxExemptions

Tax exemptions.

Type: Array of TaxExemption objects

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

TaxExemptionType

Service: Tax Settings

The tax exemption type.

Contents

applicableJurisdictions

The tax exemption's applicable jurisdictions.

Type: Array of Authority objects

Required: No

description

The tax exemption's type description.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: `[\s\S]*`

Required: No

displayName

The tax exemption's type display name.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 50.

Pattern: `[\s\S]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

TaxInheritanceDetails

Service: Tax Settings

Tax inheritance information associated with the account.

Contents

inheritanceObtainedReason

Tax inheritance reason information associated with the account.

Type: String

Pattern: `[\s\S]*`

Required: No

parentEntityId

Tax inheritance parent account information associated with the account.

Type: String

Length Constraints: Fixed length of 12.

Pattern: `\d+`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

TaxRegistration

Service: Tax Settings

Your TRN information.

Contents

legalAddress

The legal address associated with your TRN registration.

Type: Address object

Required: Yes

legalName

The legal name associated with your TRN registration.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: `(?!\s*$)[\s\S]+`

Required: Yes

registrationId

Your tax registration unique identifier.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: `(?!\s*$)[\s\S]+`

Required: Yes

registrationType

Type of your tax registration.

Type: String

Valid Values: `VAT | GST | CPF | CNPJ | SST | TIN | NRIC`

Required: Yes

status

The status of your TRN. This can be either `Verified`, `Pending`, `Deleted`, or `Rejected`.

Type: String

Valid Values: `Verified | Pending | Deleted | Rejected`

Required: Yes

additionalTaxInformation

Additional tax information associated with your TRN.

Type: AdditionalInfoResponse object

Required: No

certifiedEmailId

The email address to receive VAT invoices.

Type: String

Pattern: `[A-Za-z0-9._%+-]+@[A-Za-z0-9.-]+\.[A-Za-z]{2,20}`

Required: No

sector

The industry that describes your business. For business-to-business (B2B) customers, specify Business. For business-to-consumer (B2C) customers, specify Individual. For business-to-government (B2G), specify Government. Note that certain values may not applicable for the request country. Please refer to country specific information in API document.

Type: String

Valid Values: `Business | Individual | Government`

Required: No

taxDocumentMetadatas

The metadata for your tax document.

Type: Array of TaxDocumentMetadata objects

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

TaxRegistrationDocFile

Service: Tax Settings

The tax registration document.

Contents

fileContent

The tax registration document content.

Type: Base64-encoded binary data object

Length Constraints: Minimum length of 1. Maximum length of 5242880.

Required: Yes

fileName

The tax registration document name.

Type: String

Pattern: `[\s\S]*`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

TaxRegistrationDocument

Service: Tax Settings

Tax registration document information.

Contents

file

The tax registration document.

Type: TaxRegistrationDocFile object

Required: No

s3Location

The Amazon S3 location where your tax registration document is stored.

Type: SourceS3Location object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

TaxRegistrationEntry

Service: Tax Settings

The TRN information you provide when you add a new TRN, or update.

Contents

registrationId

Your tax registration unique identifier.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: `(?!\s*$)[\s\S]+`

Required: Yes

registrationType

Your tax registration type. This can be either `VAT` or `GST`.

Type: String

Valid Values: `VAT | GST | CPF | CNPJ | SST | TIN | NRIC`

Required: Yes

additionalTaxInformation

Additional tax information associated with your TRN. You only need to specify this parameter if AWS collects any additional information for your country within AdditionalInfoRequest.

Type: AdditionalInfoRequest object

Required: No

certifiedEmailId

The email address to receive VAT invoices.

Type: String

Pattern: `[A-Za-z0-9._%+-]+@[A-Za-z0-9.-]+\.[A-Za-z]{2,20}`

Required: No

legalAddress

The legal address associated with your TRN.

> **Note**
>
> If you're setting a TRN in Brazil for the CNPJ tax type, you don't need to specify the legal address.
> For TRNs in other countries and for CPF tax types Brazil, you must specify the legal address.

Type: Address object

Required: No

legalName

The legal name associated with your TRN.

> **Note**
>
> If you're setting a TRN in Brazil, you don't need to specify the legal name. For TRNs in other countries, you must specify the legal name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: `(?!\s*$)[\s\S]+`

Required: No

sector

The industry that describes your business. For business-to-business (B2B) customers, specify Business. For business-to-consumer (B2C) customers, specify Individual. For business-to-government (B2G), specify Government.Note that certain values may not applicable for the request country. Please refer to country specific information in API document.

Type: String

Valid Values: `Business | Individual | Government`

Required: No

verificationDetails

Additional details needed to verify your TRN information in Brazil. You only need to specify this parameter when you set a TRN in Brazil that is the CPF tax type.

> **Note**
>
> Don't specify this parameter to set a TRN in Brazil of the CNPJ tax type or to set a TRN for another country.

Type: VerificationDetails object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

TaxRegistrationWithJurisdiction

Service: Tax Settings

Your TRN information with jurisdiction details. This doesn't contain the full legal address associated with the TRN information.

Contents

jurisdiction

The jurisdiction associated with your TRN information.

Type: Jurisdiction object

Required: Yes

legalName

The legal name associated with your TRN information.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: `(?!\s*$)[\s\S]+`

Required: Yes

registrationId

Your tax registration unique identifier.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: `(?!\s*$)[\s\S]+`

Required: Yes

registrationType

The type of your tax registration. This can be either `VAT` or `GST`.

Type: String

Valid Values: `VAT | GST | CPF | CNPJ | SST | TIN | NRIC`

Required: Yes

status

The status of your TRN. This can be either `Verified`, `Pending`, `Deleted`, or `Rejected`.

Type: String

Valid Values: `Verified | Pending | Deleted | Rejected`

Required: Yes

additionalTaxInformation

Additional tax information associated with your TRN.

Type: AdditionalInfoResponse object

Required: No

certifiedEmailId

The email address to receive VAT invoices.

Type: String

Pattern: `[A-Za-z0-9._%+-]+@[A-Za-z0-9.-]+\.[A-Za-z]{2,20}`

Required: No

sector

The industry that describes your business. For business-to-business (B2B) customers, specify Business. For business-to-consumer (B2C) customers, specify Individual. For business-to-government (B2G), specify Government.Note that certain values may not applicable for the request country. Please refer to country specific information in API document.

Type: String

Valid Values: `Business | Individual | Government`

Required: No

taxDocumentMetadatas

The metadata for your tax document.

Type: Array of TaxDocumentMetadata objects

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

TurkeyAdditionalInfo

Service: Tax Settings

Additional tax information associated with your TRN in Turkey.

Contents

industries

The industry information that tells the Tax Settings API if you're subject to additional withholding taxes. This information required for business-to-business (B2B) customers. This information is conditionally mandatory for B2B customers who are subject to KDV tax.

Type: String

Valid Values: `CirculatingOrg | ProfessionalOrg | Banks | Insurance | PensionAndBenefitFunds | DevelopmentAgencies`

Required: No

kepEmailId

The Registered Electronic Mail (REM) that is used to send notarized communication. This parameter is optional for business-to-business (B2B) and business-to-government (B2G) customers. It's not required for business-to-consumer (B2C) customers.

Type: String

Pattern: `[\s\S]*`

Required: No

secondaryTaxId

Secondary tax ID (“harcama birimi VKN”si”). If one isn't provided, we will use your VKN as the secondary ID.

Type: String

Pattern: `([0-9]{10})`

Required: No

taxOffice

The tax office where you're registered. You can enter this information as a string. The Tax Settings API will add this information to your invoice. This parameter is required for business-to-business (B2B) and business-to-government customers. It's not required for business-to-consumer (B2C) customers.

Type: String

Pattern: `[\s\S]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

UkraineAdditionalInfo

Service: Tax Settings

Additional tax information associated with your TRN in Ukraine.

Contents

ukraineTrnType

The tax registration type.

Type: String

Valid Values: `Business | Individual`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

UzbekistanAdditionalInfo

Service: Tax Settings

Additional tax information to specify for a TRN in Uzbekistan.

Contents

taxRegistrationNumberType

The tax registration number type. The tax registration number type valid values are `Business` and `Individual`.

Type: String

Valid Values: `Business | Individual`

Required: No

vatRegistrationNumber

The unique 12-digit number issued to identify VAT-registered identities in Uzbekistan.

Type: String

Pattern: `[0-9]{12}`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ValidationExceptionField

Service: Tax Settings

The information about the specified parameter in the request that caused an error.

Contents

name

The name of the parameter that caused a `ValidationException` error.

Type: String

Pattern: `(?!\s*$)[\s\S]+`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

VerificationDetails

Service: Tax Settings

Required information to verify your TRN.

Contents

dateOfBirth

Date of birth to verify your submitted TRN. Use the `YYYY-MM-DD` format.

Type: String

Length Constraints: Fixed length of 10.

Pattern: `(\d{4}-(0[0-9]|1[0-2])-([0-2][0-9]|3[0-1]))`

Required: No

taxRegistrationDocuments

The tax registration document, which is required for specific countries such as Bangladesh, Kenya, South Korea and Spain.

Type: Array of TaxRegistrationDocument objects

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

VietnamAdditionalInfo

Service: Tax Settings

Additional tax information to specify for a TRN in Vietnam.

Contents

electronicTransactionCodeNumber

The electronic transaction code number on the tax return document. This field must be provided for successful API operation.

Type: String

Pattern: `\d{17}`

Required: No

enterpriseIdentificationNumber

The enterprise identification number for tax registration. This field must be provided for successful API operation.

Type: String

Pattern: `(\d{10}|(\d{10}-\d{3}))`

Required: No

paymentVoucherNumber

The payment voucher number on the tax return payment document. This field must be provided for successful API operation.

Type: String

Pattern: `(\d{17}|[A-Za-z]{3}\d{13})`

Required: No

paymentVoucherNumberDate

The date on the tax return payment document. This field must be provided for successful API operation.

Type: String

Pattern: `(\d{4}-(0[0-9]|1[0-2])-([0-2][0-9]|3[0-1]))`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Common Parameters

The following list contains the parameters that all actions use for signing Signature Version 4 requests with a query string. Any action-specific parameters are listed in the topic for that action. For more information about Signature Version 4, see Signing AWS API requests in the *IAM User Guide*.

Action

The action to be performed.

Type: string

Required: Yes

Version

The API version that the request is written for, expressed in the format YYYY-MM-DD.

Type: string

Required: Yes

X-Amz-Algorithm

The hash algorithm that you used to create the request signature.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Valid Values: `AWS4-HMAC-SHA256`

Required: Conditional

X-Amz-Credential

The credential scope value, which is a string that includes your access key, the date, the region you are targeting, the service you are requesting, and a termination string ("aws4_request"). The value is expressed in the following format: *access_key*/*YYYYMMDD*/*region*/*service*/aws4_request.

For more information, see Create a signed AWS API request in the *IAM User Guide*.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

X-Amz-Date

The date that is used to create the signature. The format must be ISO 8601 basic format (YYYYMMDD'T'HHMMSS'Z'). For example, the following date time is a valid X-Amz-Date value: `20120325T120000Z`.

Condition: X-Amz-Date is optional for all requests; it can be used to override the date used for signing requests. If the Date header is specified in the ISO 8601 basic format, X-Amz-Date is not required. When X-Amz-Date is used, it always overrides the value of the Date header. For more information, see Elements of an AWS API request signature in the *IAM User Guide*.

Type: string

Required: Conditional

X-Amz-Security-Token

The temporary security token that was obtained through a call to AWS Security Token Service (AWS STS). For a list of services that support temporary security credentials from AWS STS, see AWS services that work with IAM in the *IAM User Guide*.

Condition: If you're using temporary security credentials from AWS STS, you must include the security token.

Type: string

Required: Conditional

X-Amz-Signature

Specifies the hex-encoded signature that was calculated from the string to sign and the derived signing key.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

X-Amz-SignedHeaders

Specifies all the HTTP headers that were included as part of the canonical request. For more information about specifying signed headers, see Create a signed AWS API request in the *IAM User Guide*.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

Common Errors

This section lists the errors common to the API actions of all AWS services. For errors specific to an API action for this service, see the topic for that API action.

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

IncompleteSignature

The request signature does not conform to AWS standards.

HTTP Status Code: 400

InternalFailure

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

InvalidAction

The action or operation requested is invalid. Verify that the action is typed correctly.

HTTP Status Code: 400

InvalidClientTokenId

The X.509 certificate or AWS access key ID provided does not exist in our records.

HTTP Status Code: 403

NotAuthorized

You do not have permission to perform this action.

HTTP Status Code: 400

OptInRequired

The AWS access key ID needs a subscription for the service.

HTTP Status Code: 403

RequestExpired

The request reached the service more than 15 minutes after the date stamp on the request or more than 15 minutes after the request expiration date (such as for pre-signed URLs), or the date stamp on the request is more than 15 minutes in the future.

HTTP Status Code: 400

ServiceUnavailable

The request has failed due to a temporary failure of the server.

HTTP Status Code: 503

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationError

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400