Welcome

# AWS Control Catalog

**API Version 2018-05-10**

# AWS Control Catalog: Welcome

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# Welcome

Welcome to the Control Catalog API reference. This guide is for developers who need detailed information about how to programmatically identify and filter the common controls and related metadata that are available to AWS customers. This API reference provides descriptions, syntax, and usage examples for each of the actions and data types that are supported by Control Catalog.

Use the following links to get started with the Control Catalog API:

- Actions: An alphabetical list of all Control Catalog API operations.
- Data types: An alphabetical list of all Control Catalog data types.
- Common parameters: Parameters that all operations can use.
- Common errors: Client and server errors that all operations can return.

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# Actions

The following actions are supported:

- GetControl
- ListCommonControls
- ListControlMappings
- ListControls
- ListDomains
- ListObjectives

# GetControl

Returns details about a specific control, most notably a list of AWS Regions where this control is supported. Input a value for the *ControlArn* parameter, in ARN form. `GetControl` accepts *controltower* or *controlcatalog* control ARNs as input. Returns a *controlcatalog* ARN format.

In the API response, controls that have the value `GLOBAL` in the `Scope` field do not show the `DeployableRegions` field, because it does not apply. Controls that have the value `REGIONAL` in the `Scope` field return a value for the `DeployableRegions` field, as shown in the example.

## Request Syntax

```
POST /get-control HTTP/1.1
Content-type: application/json

{
   "ControlArn": "string"
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

**ControlArn**

The Amazon Resource Name (ARN) of the control. It has one of the following formats:

*Global format*

`arn:{PARTITION}:controlcatalog:::control/{CONTROL_CATALOG_OPAQUE_ID}`

*Or Regional format*

`arn:{PARTITION}:controltower:{REGION}::control/{CONTROL_TOWER_OPAQUE_ID}`

Here is a more general pattern that covers AWS Control Tower and Control Catalog ARNs:

^arn:(aws(?:[-a-z]*)?):(controlcatalog|controltower):[a-zA-Z0-9-]*::control/[0-9a-zA-Z_\\-]+$

Type: String

Length Constraints: Minimum length of 34. Maximum length of 2048.

Pattern: arn:(aws(?:[-a-z]*)?):(controlcatalog|controltower):[a-zA-Z0-9-]*::control/[0-9a-zA-Z_\-]+

Required: Yes

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "Aliases": [ "string" ],
   "Arn": "string",
   "Behavior": "string",
   "CreateTime": number,
   "Description": "string",
   "GovernedResources": [ "string" ],
   "Implementation": {
      "Identifier": "string",
      "Type": "string"
   },
   "Name": "string",
   "Parameters": [
      {
         "Name": "string"
      }
   ],
   "RegionConfiguration": {
      "DeployableRegions": [ "string" ],
      "Scope": "string"
   },
   "Severity": "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.

### Aliases

A list of alternative identifiers for the control. These are human-readable designators, such as `SH.S3.1`. Several aliases can refer to the same control across different AWS services or compliance frameworks.

Type: Array of strings

Pattern: `[a-zA-Z0-9](?:[a-zA-Z0-9_.-]{0,254}[a-zA-Z0-9])`

### Arn

The Amazon Resource Name (ARN) of the control.

Type: String

Length Constraints: Minimum length of 34. Maximum length of 2048.

Pattern: `arn:(aws(?:[-a-z]*)?):(controlcatalog|controltower):[a-zA-Z0-9-]*::control/[0-9a-zA-Z_\-]+`

### Behavior

A term that identifies the control's functional behavior. One of `Preventive`, `Detective`, `Proactive`

Type: String

Valid Values: `PREVENTIVE | PROACTIVE | DETECTIVE`

### CreateTime

A timestamp that notes the time when the control was released (start of its life) as a governance capability in AWS.

Type: Timestamp

### Description

A description of what the control does.

Type: String

### GovernedResources

A list of AWS resource types that are governed by this control. This information helps you understand which controls can govern certain types of resources, and conversely, which resources are affected when the control is implemented. The resources are represented as AWS CloudFormation resource types. If `GovernedResources` cannot be represented by available CloudFormation resource types, it's returned as an empty list.

Type: Array of strings

Pattern: `[A-Za-z0-9]{2,64}::[A-Za-z0-9]{2,64}::[A-Za-z0-9]{2,64}`

### Implementation

Returns information about the control, as an `ImplementationDetails` object that shows the underlying implementation type for a control.

Type: ImplementationDetails object

### Name

The display name of the control.

Type: String

### Parameters

Returns an array of `ControlParameter` objects that specify the parameters a control supports. An empty list is returned for controls that don't support parameters.

Type: Array of ControlParameter objects

### RegionConfiguration

Returns information about the control, including the scope of the control, if enabled, and the Regions in which the control is available for deployment. For more information about scope, see Global services.

If you are applying controls through an AWS Control Tower landing zone environment, remember that the values returned in the `RegionConfiguration` API operation are not related to the governed Regions in your landing zone. For example, if you are governing Regions `A`,`B`,and `C` while the control is available in Regions `A`, `B`, `C`, and `D`, you'd see a response with `DeployableRegions` of `A`, `B`, `C`, and `D` for a control with `REGIONAL` scope, even though you

may not intend to deploy the control in Region `D`, because you do not govern it through your landing zone.

Type: RegionConfiguration object

**Severity**

An enumerated type, with the following possible values:

Type: String

Valid Values: `LOW | MEDIUM | HIGH | CRITICAL`

## 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: 403

**InternalServerException**

An internal service error occurred during the processing of your request. Try again later.

HTTP Status Code: 500

**ResourceNotFoundException**

The requested resource does not exist.

HTTP Status Code: 404

**ThrottlingException**

The request was denied due to request throttling.

HTTP Status Code: 429

**ValidationException**

The request has invalid or missing parameters.

HTTP Status Code: 400

# Examples

## Retrieve information about a control

Use this operation to retrieve information about a control, including a list of Regions in which the control is available for deployment.

### Sample Request

```
aws controlcatalog get-control --control-arn
 arn:aws:controlcatalog:::control/4b0nsxnd47747up54ytdqesxi --region us-east-1
```

```
##Alternatively, a control with regional identifier
```

### Sample Request

```
aws controlcatalog get-control --control-arn arn:aws:controltower:us-east-1::control/
YEHYWYAUIQHZ --region us-east-1
```

### Sample Response

```
{
    "Arn": "arn:aws:controlcatalog:::control/4b0nsxnd47747up54ytdqesxi",
    "Aliases": [
        "CT.CODEBUILD.PR.3"
    ],
    "Name": "Require any AWS CodeBuild project environment to have logging configured",
    "Description": "This control checks whether AWS CodeBuild projects environment has
 at least one logging option enabled.",
    "Behavior": "PROACTIVE",
    "Severity": "MEDIUM",
    "RegionConfiguration": {
        "Scope": "REGIONAL",
        "DeployableRegions": [
            "af-south-1",
            "ap-east-1",
            "ap-northeast-1",
            "ap-northeast-2",
            "ap-northeast-3",
            "ap-south-1",
            "ap-south-2",
```

```
            "ap-southeast-1",
            "ap-southeast-2",
            "ap-southeast-3",
            "ap-southeast-4",
            "ap-southeast-5",
            "ap-southeast-7",
            "ca-central-1",
            "ca-west-1",
            "eu-central-1",
            "eu-central-2",
            "eu-north-1",
            "eu-south-1",
            "eu-south-2",
            "eu-west-1",
            "eu-west-2",
            "eu-west-3",
            "il-central-1",
            "me-central-1",
            "me-south-1",
            "mx-central-1",
            "sa-east-1",
            "us-east-1",
            "us-east-2",
            "us-west-1",
            "us-west-2"
        ]
    },
    "Implementation": {
        "Type": "AWS::CloudFormation::Type::HOOK"
    },
    "Parameters": [],
    "CreateTime": "2022-11-27T16:00:00-08:00",
    "GovernedResources": [
        "AWS::CodeBuild::Project"
    ]
}
```

## 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 V4
- 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

# ListCommonControls

Returns a paginated list of common controls from the AWS Control Catalog.

You can apply an optional filter to see common controls that have a specific objective. If you don't provide a filter, the operation returns all common controls.

## Request Syntax

```
POST /common-controls?maxResults=MaxResults&nextToken=NextToken HTTP/1.1
Content-type: application/json

{
   "CommonControlFilter": {
      "Objectives": [
         {
            "Arn": "string"
         }
      ]
   }
}
```

## URI Request Parameters

The request uses the following URI parameters.

**MaxResults**

The maximum number of results on a page or for an API request call.

Valid Range: Minimum value of 1. Maximum value of 100.

**NextToken**

The pagination token that's used to fetch the next set of results.

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

## Request Body

The request accepts the following data in JSON format.

### CommonControlFilter

An optional filter that narrows the results to a specific objective.

This filter allows you to specify one objective ARN at a time. Passing multiple ARNs in the `CommonControlFilter` isn't supported.

Type: CommonControlFilter object

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "CommonControls": [
      {
         "Arn": "string",
         "CreateTime": number,
         "Description": "string",
         "Domain": {
            "Arn": "string",
            "Name": "string"
         },
         "LastUpdateTime": number,
         "Name": "string",
         "Objective": {
            "Arn": "string",
            "Name": "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.

**CommonControls**

The list of common controls that the `ListCommonControls` API returns.

Type: Array of CommonControlSummary objects

**NextToken**

The pagination token that's used to fetch the next set of results.

Type: String

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

## 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: 403

**InternalServerException**

An internal service error 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: 429

**ValidationException**

The request has invalid or missing parameters.

HTTP Status Code: 400

# Examples

## Filtering common controls by objective

You can use the `ListCommonControls` operation to return a filtered list of common controls. For example, you can see a list of all common controls that have the objective of *Asset inventory management*.

### To filter results by objective

1. Use the `ListObjectives` operation to see the objectives that you can use as filters.
2. Find the objective that you want to use as a filter, and take note of its ARN.
3. Use the `ListCommonControls` operation and include the `ControlObjectives` parameter. For the `ARN` attribute value, specify the objective ARN from step 2.

> **Note**
>
> Keep in mind that you can only filter by one objective at a time. Specifying multiple objective ARNs isn't supported.
> If you want to filter by more than one ARN, we recommend that you run the `ListCommonControls` operation separately for each ARN.

The sample request below uses the following objective ARN as a filter: `arn:aws:controlcatalog:::objective/ad11p1961s8erra9m185wa1nn`. This ARN represents the *Asset inventory management* objective.

The sample response shows the result that the `ListCommonControls` operation might return if seven common controls matched the filter criteria of *Asset inventory management*.

### Sample Request

```
{
    "CommonControlFilter": {
        "Objectives": [{
            "Arn": "arn:aws:controlcatalog:::objective/ad11p1961s8erra9m185wa1nn"
        }]
    }
}
```

## Sample Response


```
{
    "CommonControls": [{
        "Arn": "arn:aws:controlcatalog:::common-control/d4s7ik8fgv8082v3x31hifzcc",
        "CreateTime": 1.710288E9,
        "Description": "Reconcile the organization's asset inventory with other data
 sources, and conduct asset audits to verify the accuracy of the asset inventory.",
        "Domain": {
            "Arn": "arn:aws:controlcatalog:::domain/d4msesd9vvmzmmuvlv06m92uq",
            "Name": "Asset management"
        },
        "LastUpdateTime": 1.710288E9,
        "Name": "Asset inventory reconciliation and audit",
        "Objective": {
            "Arn": "arn:aws:controlcatalog:::objective/ad11p1961s8erra9m185wa1nn",
            "Name": "Asset inventory management"
        }
    }, {
        "Arn": "arn:aws:controlcatalog:::common-control/1ukpmkewk4i92tjmhsvewi4y7",
        "CreateTime": 1.710288E9,
        "Description": "Maintain an asset inventory of organization authorized and
 existing hardware, software, and media. Where possible, utilize automated tools to
 facilitate the discovery and ongoing tracking of such assets.",
        "Domain": {
            "Arn": "arn:aws:controlcatalog:::domain/d4msesd9vvmzmmuvlv06m92uq",
            "Name": "Asset management"
        },
        "LastUpdateTime": 1.710288E9,
        "Name": "Inventory of authorized assets and automated discovery",
        "Objective": {
            "Arn": "arn:aws:controlcatalog:::objective/ad11p1961s8erra9m185wa1nn",
            "Name": "Asset inventory management"
        }
    }, {
        "Arn": "arn:aws:controlcatalog:::common-control/c0qrxhefhmxkbq22tiejp3enn",
        "CreateTime": 1.710288E9,
        "Description": "Take appropriate actions to identify and resolve unauthorized
 assets within the network environment on a periodic and consistent basis. Appropriate
 actions include, but are not limited to, removing the asset from the network,
 quarantining the asset, or denying connectivity to the asset.",
        "Domain": {
            "Arn": "arn:aws:controlcatalog:::domain/d4msesd9vvmzmmuvlv06m92uq",
            "Name": "Asset management"
```

```
        },
        "LastUpdateTime": 1.710288E9,
        "Name": "Unauthorized asset management",
        "Objective": {
            "Arn": "arn:aws:controlcatalog:::objective/ad11p1961s8erra9m185wa1nn",
            "Name": "Asset inventory management"
        }
    }, {
        "Arn": "arn:aws:controlcatalog:::common-control/5u2qgwuw3z1y0lrof60yf6264",
        "CreateTime": 1.710288E9,
        "Description": "Track all physical and digital assets to ensure proper use
and protection. Monitor status of digital assets like systems, devices, software,
applications, and data throughout their lifecycle. Use real-time location tracking for
physical assets through technologies like GPS and RFID where possible.",
        "Domain": {
            "Arn": "arn:aws:controlcatalog:::domain/d4msesd9vvmzmmuvlv06m92uq",
            "Name": "Asset management"
        },
        "LastUpdateTime": 1.710288E9,
        "Name": "Asset tracking",
        "Objective": {
            "Arn": "arn:aws:controlcatalog:::objective/ad11p1961s8erra9m185wa1nn",
            "Name": "Asset inventory management"
        }
    }, {
        "Arn": "arn:aws:controlcatalog:::common-control/1tejgq26c0djpzgskw31uscm4",
        "CreateTime": 1.710288E9,
        "Description": "Regularly analyze hardware and software assets to assess
criticality, usage, value, and other key metrics. Generate comprehensive reports on
the asset inventory.",
        "Domain": {
            "Arn": "arn:aws:controlcatalog:::domain/d4msesd9vvmzmmuvlv06m92uq",
            "Name": "Asset management"
        },
        "LastUpdateTime": 1.710288E9,
        "Name": "Asset inventory analysis and reporting",
        "Objective": {
            "Arn": "arn:aws:controlcatalog:::objective/ad11p1961s8erra9m185wa1nn",
            "Name": "Asset inventory management"
        }
    }, {
        "Arn": "arn:aws:controlcatalog:::common-control/eg1hxxu2e77a7w2wv79quwaxl",
        "CreateTime": 1.710288E9,
```

```
        "Description": "Define asset owners, including who has responsibility for
 managing each asset.",
        "Domain": {
            "Arn": "arn:aws:controlcatalog:::domain/d4msesd9vvmzmmuvlv06m92uq",
            "Name": "Asset management"
        },
        "LastUpdateTime": 1.710288E9,
        "Name": "Asset ownership",
        "Objective": {
            "Arn": "arn:aws:controlcatalog:::objective/ad11p1961s8erra9m185wa1nn",
            "Name": "Asset inventory management"
        }
    }, {
        "Arn": "arn:aws:controlcatalog:::common-control/ec1fxlvgtcxlf2nzremqcca7r",
        "CreateTime": 1.710288E9,
        "Description": "Track and monitor asset status, including whether they are
 operational, in maintenance, or out of service.",
        "Domain": {
            "Arn": "arn:aws:controlcatalog:::domain/d4msesd9vvmzmmuvlv06m92uq",
            "Name": "Asset management"
        },
        "LastUpdateTime": 1.710288E9,
        "Name": "Asset status tracking",
        "Objective": {
            "Arn": "arn:aws:controlcatalog:::objective/ad11p1961s8erra9m185wa1nn",
            "Name": "Asset inventory management"
        }
    }]
}
```


## 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 V4
- 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

# ListControlMappings

Returns a paginated list of control mappings from the Control Catalog. Control mappings show relationships between controls and other entities, such as common controls or compliance frameworks.

## Request Syntax

```
POST /list-control-mappings?maxResults=MaxResults&nextToken=NextToken HTTP/1.1
Content-type: application/json

{
   "Filter": {
      "CommonControlArns": [ "string" ],
      "ControlArns": [ "string" ],
      "MappingTypes": [ "string" ]
   }
}
```

## URI Request Parameters

The request uses the following URI parameters.

**MaxResults**

The maximum number of results on a page or for an API request call.

Valid Range: Minimum value of 1. Maximum value of 1000.

**NextToken**

The pagination token that's used to fetch the next set of results.

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

## Request Body

The request accepts the following data in JSON format.

### Filter

An optional filter that narrows the results to specific control mappings based on control ARNs, common control ARNs, or mapping types.

Type: ControlMappingFilter object

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "ControlMappings": [
      {
         "ControlArn": "string",
         "Mapping": { ... },
         "MappingType": "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.

### ControlMappings

The list of control mappings that the ListControlMappings API returns.

Type: Array of ControlMapping objects

### NextToken

The pagination token that's used to fetch the next set of results.

Type: String

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

## 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: 403

**InternalServerException**

An internal service error 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: 429

**ValidationException**

The request has invalid or missing parameters.

HTTP Status Code: 400

## Examples

### Retrieve information about control mappings

Use this operation to retrieve information about a control, including common controls and compliance frameworks.

**Sample Request**

```
aws controlcatalog list-control-mappings --filter "{\"ControlArns\":
[\"arn:aws:controlcatalog:::control/br8o4lzgtvz3he7f8sxg76k7q\"],\"MappingTypes\":
 [\"FRAMEWORK\"]}" --max-results 2 --region us-east-1
```

### Sample Response


```
    {
        "ControlMappings": [
            {
                "ControlArn": "arn:aws:controlcatalog:::control/
br8o4lzgtvz3he7f8sxg76k7q",
                "MappingType": "FRAMEWORK",
                "Mapping": {
                    "Framework": {
                        "Name": "FedRAMP-r4",
                        "Item": "SC-7"
                    }
                }
            },
            {
                "ControlArn": "arn:aws:controlcatalog:::control/
br8o4lzgtvz3he7f8sxg76k7q",
                "MappingType": "FRAMEWORK",
                "Mapping": {
                    "Framework": {
                        "Name": "ISO-IEC-27001:2013-Annex-A",
                        "Item": "A.9.1.2"
                    }
                }
            }
        ],
        "NextToken": "AAQA-
EFRSURBSGkyaGRScGRQSmM5bnVFTUJMeFlHTHJqajdJSnFvSzkwb2ZscUR5TGs2UzNBR05BUUJZbmJjdEk2Y2tWRC9nWldj
r4eCDqFszhxe-Jtbl9EGekKLY06VXgEgQ=="
    }
```


## 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 V4
- 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

# ListControls

Returns a paginated list of all available controls in the Control Catalog library. Allows you to discover available controls. The list of controls is given as structures of type *controlSummary*. The ARN is returned in the global *controlcatalog* format, as shown in the examples.

## Request Syntax

```
POST /list-controls?maxResults=MaxResults&nextToken=NextToken HTTP/1.1
Content-type: application/json

{
   "Filter": {
      "Implementations": {
         "Identifiers": [ "string" ],
         "Types": [ "string" ]
      }
   }
}
```

## URI Request Parameters

The request uses the following URI parameters.

**MaxResults**

The maximum number of results on a page or for an API request call.

Valid Range: Minimum value of 1. Maximum value of 100.

**NextToken**

The pagination token that's used to fetch the next set of results.

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

## Request Body

The request accepts the following data in JSON format.

### Filter

An optional filter that narrows the results to controls with specific implementation types or identifiers. If you don't provide a filter, the operation returns all available controls.

Type: ControlFilter object

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "Controls": [
      {
         "Aliases": [ "string" ],
         "Arn": "string",
         "Behavior": "string",
         "CreateTime": number,
         "Description": "string",
         "GovernedResources": [ "string" ],
         "Implementation": {
            "Identifier": "string",
            "Type": "string"
         },
         "Name": "string",
         "Severity": "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.

**Controls**

Returns a list of controls, given as structures of type *controlSummary*.

Type: Array of ControlSummary objects

**NextToken**

The pagination token that's used to fetch the next set of results.

Type: String

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

## 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: 403

**InternalServerException**

An internal service error 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: 429

**ValidationException**

The request has invalid or missing parameters.

HTTP Status Code: 400

# Examples

## Retrieve a list of controls

Use this operation to retrieve a paginated list of available controls, by Region.

### Sample Request

```
aws controlcatalog list-controls --max-result 2 --region us-east-1
```

### Sample Response

```
{
    "Controls": [
        {
            "Arn": "arn:aws:controlcatalog:::control/m7a5gbdf08wg2o0en010mkng",
            "Aliases": [
                "BACKUP_RECOVERY_POINT_MINIMUM_RETENTION_CHECK"
            ],
            "Name": "Checks if a recovery point expires no earlier than after the
 specified period",
            "Description": "Checks if a recovery point expires no earlier than after
 the specified period. The rule is NON_COMPLIANT if the recovery point has a retention
 point that is less than the required retention period.",
            "Behavior": "DETECTIVE",
            "Severity": "MEDIUM",
            "Implementation": {
                "Type": "AWS::Config::ConfigRule",
                "Identifier": "BACKUP_RECOVERY_POINT_MINIMUM_RETENTION_CHECK"
            },
            "CreateTime": "2021-07-22T17:00:00-07:00",
            "GovernedResources": []
        },
        {
            "Arn": "arn:aws:controlcatalog:::control/4b0nsxnd47747up54ytdqesxi",
            "Aliases": [
                "CT.CODEBUILD.PR.3"
            ],
            "Name": "Require any AWS CodeBuild project environment to have logging
 configured",
            "Description": "This control checks whether AWS CodeBuild projects
 environment has at least one logging option enabled.",
            "Behavior": "PROACTIVE",
```

```
            "Severity": "MEDIUM",
            "Implementation": {
                "Type": "AWS::CloudFormation::Type::HOOK"
            },
            "CreateTime": "2022-11-27T16:00:00-08:00",
            "GovernedResources": [
                "AWS::CodeBuild::Project"
            ]
        }
    ],
    "NextToken": "..."
}
```

## Retrieve a list of controls with a filter

Use this operation to retrieve a paginated list of available controls, filtered by identifier and implementation type.

### Sample Request

```
aws controlcatalog list-controls --filter "{\"Implementations\":{\"Identifiers\":
[\"CODEPIPELINE_DEPLOYMENT_COUNT_CHECK\"], \"Types\":[\"AWS::Config::ConfigRule\"]}}"
 --region us-east-1
```

### Sample Response

```
{
    "Controls": [
        {
            "Arn": "arn:aws:controlcatalog:::control/8k65jh499ji8qa5tb3it7tdi5",
            "Aliases": [
                "CONFIG.CODEPIPELINE.DT.1"
            ],
            "Name": "Checks if the first deployment stage of AWS CodePipeline performs
 more than one deployment",
            "Description": "Checks if the first deployment stage of AWS CodePipeline
 performs more than one deployment. Optionally checks if each of the subsequent
 remaining stages deploy to more than the specified number of deployments
 (deploymentLimit).",
            "Behavior": "DETECTIVE",
            "Severity": "MEDIUM",
            "Implementation": {
```

```
                "Type": "AWS::Config::ConfigRule",
                "Identifier": "CODEPIPELINE_DEPLOYMENT_COUNT_CHECK"
            },
            "CreateTime": "2018-10-31T17:00:00-07:00",
            "GovernedResources": ["AWS::CodePipeline::Pipeline"]
        }
    ]
}
```

## 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 V4
- 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

# ListDomains

Returns a paginated list of domains from the Control Catalog.

## Request Syntax

```
POST /domains?maxResults=MaxResults&nextToken=NextToken HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

**MaxResults**

The maximum number of results on a page or for an API request call.

Valid Range: Minimum value of 1. Maximum value of 100.

**NextToken**

The pagination token that's used to fetch the next set of results.

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

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "Domains": [
      {
         "Arn": "string",
         "CreateTime": number,
         "Description": "string",
         "LastUpdateTime": number,
         "Name": "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.

**Domains**

The list of domains that the `ListDomains` API returns.

Type: Array of DomainSummary objects

**NextToken**

The pagination token that's used to fetch the next set of results.

Type: String

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

## 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: 403

**InternalServerException**

An internal service error 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: 429

**ValidationException**

The request has invalid or missing parameters.

HTTP Status Code: 400

## Examples

### Returning a list of domains

Use this operation to see a paginated list of all domains that are available in the Control Catalog.

**Sample Request**

```
aws controlcatalog list-domains
```

## 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 V4
- 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

# ListObjectives

Returns a paginated list of objectives from the Control Catalog.

You can apply an optional filter to see the objectives that belong to a specific domain. If you don't provide a filter, the operation returns all objectives.

## Request Syntax

```
POST /objectives?maxResults=MaxResults&nextToken=NextToken HTTP/1.1
Content-type: application/json

{
   "ObjectiveFilter": {
      "Domains": [
         {
            "Arn": "string"
         }
      ]
   }
}
```

## URI Request Parameters

The request uses the following URI parameters.

**MaxResults**

The maximum number of results on a page or for an API request call.

Valid Range: Minimum value of 1. Maximum value of 100.

**NextToken**

The pagination token that's used to fetch the next set of results.

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

## Request Body

The request accepts the following data in JSON format.

### ObjectiveFilter

An optional filter that narrows the results to a specific domain.

This filter allows you to specify one domain ARN at a time. Passing multiple ARNs in the `ObjectiveFilter` isn't supported.

Type: ObjectiveFilter object

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "NextToken": "string",
   "Objectives": [
      {
         "Arn": "string",
         "CreateTime": number,
         "Description": "string",
         "Domain": {
            "Arn": "string",
            "Name": "string"
         },
         "LastUpdateTime": number,
         "Name": "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's used to fetch the next set of results.

Type: String

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

**Objectives**

The list of objectives that the `ListObjectives` API returns.

Type: Array of ObjectiveSummary 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: 403

**InternalServerException**

An internal service error 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: 429

**ValidationException**

The request has invalid or missing parameters.

HTTP Status Code: 400

## Examples

### Filtering objectives by domain

You can use the `ListObjectives` operation to return a filtered list of objectives. For example, you can see all of the objectives that fall under a specific domain such as *Asset management*.

**To filter results by domain**

1. Use the `ListDomains` operation to see the domains that you can use as filters.
2. Find the domain that you want to use as a filter, and take note of its ARN.
3. Use the `ListObjectives` operation and include the `Domains` parameter. For the `ARN` attribute value, specify the domain ARN from step 2.

> **Note**
>
> Keep in mind that you can only filter by one domain at a time. Specifying multiple domain ARNs isn't supported.
> If you want to filter by more than one ARN, we recommend that you run the `ListObjectives` operation separately for each ARN.

The sample request below uses the following domain ARN as a filter: `arn:aws:controlcatalog:::domain/d4msesd9vvmzmmuvlv06m92uq`. This ARN represents the *Asset management* domain.

The sample response shows the result that the `ListObjectives` operation might return if five objectives matched the filter criteria of *Asset management*.

**Sample Request**

```
{
    "ObjectiveFilter": {
        "Domains": [{
            "Arn": "arn:aws:controlcatalog:::domain/d4msesd9vvmzmmuvlv06m92uq"
        }]
    }
}
```

**Sample Response**

```
{
    "Objectives": [{
        "Arn": "arn:aws:controlcatalog:::objective/ad11p1961s8erra9m185wa1nn",
        "CreateTime": 1.710288E9,
```

```
       "Description": "This control objective focuses on maintaining an accurate and
up-to-date inventory of assets, including hardware, software, and data, to protect
organization investments from harm or loss.",
       "Domain": {
           "Arn": "arn:aws:controlcatalog:::domain/d4msesd9vvmzmmuvlv06m92uq",
           "Name": "Asset management"
       },
       "LastUpdateTime": 1.710288E9,
       "Name": "Asset inventory management"
   }, {
       "Arn": "arn:aws:controlcatalog:::objective/90gifwthorhxhxq7m0rtss98u",
       "CreateTime": 1.710288E9,
       "Description": "This control objective focuses on classifying assets based on
their value, sensitivity, and criticality to the organization to manage investment
risk and unauthorized access to assets and information.",
       "Domain": {
           "Arn": "arn:aws:controlcatalog:::domain/d4msesd9vvmzmmuvlv06m92uq",
           "Name": "Asset management"
       },
       "LastUpdateTime": 1.710288E9,
       "Name": "Asset classification"
   }, {
       "Arn": "arn:aws:controlcatalog:::objective/3frxxgl64u9kzttiuheywykf7",
       "CreateTime": 1.710288E9,
       "Description": "This control objective focuses on maintaining the availability
and integrity of assets, including performance management, regular maintenance,
and repairs to protect and extract the maximum value of the organization's IT
investments.",
       "Domain": {
           "Arn": "arn:aws:controlcatalog:::domain/d4msesd9vvmzmmuvlv06m92uq",
           "Name": "Asset management"
       },
       "LastUpdateTime": 1.710288E9,
       "Name": "Asset maintenance"
   }, {
       "Arn": "arn:aws:controlcatalog:::objective/5ve4jodybrg8wnky75fp50sbf",
       "CreateTime": 1.710288E9,
       "Description": "This control objective focuses on managing assets throughout
their entire lifecycle, including acquisition, deployment, use, and retirement. This
helps manage risks associated with asset costs by ensuring optimum asset productivity,
performance, efficiency, and profitability.",
       "Domain": {
           "Arn": "arn:aws:controlcatalog:::domain/d4msesd9vvmzmmuvlv06m92uq",
           "Name": "Asset management"
```

```
        },
        "LastUpdateTime": 1.710288E9,
        "Name": "Asset lifecycle management"
    }, {
        "Arn": "arn:aws:controlcatalog:::objective/ags5wgkyvwriix77zegtwhyo9",
        "CreateTime": 1.710288E9,
        "Description": "This control objective focuses on preventing asset loss, and
 responding to and recovering lost, stolen, or damaged assets to contribute to the
 organization's profitability by reducing losses.",
        "Domain": {
            "Arn": "arn:aws:controlcatalog:::domain/d4msesd9vvmzmmuvlv06m92uq",
            "Name": "Asset management"
        },
        "LastUpdateTime": 1.710288E9,
        "Name": "Asset loss prevention, response, and recovery"
    }]
}
```


## 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 V4
- 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 AWS Control Catalog API contains several data types that various actions use. This section describes each data type in detail.

> **Note**
>
> The order of each element in a data type structure is not guaranteed. Applications should not assume a particular order.

The following data types are supported:

- AssociatedDomainSummary
- AssociatedObjectiveSummary
- CommonControlFilter
- CommonControlMappingDetails
- CommonControlSummary
- ControlFilter
- ControlMapping
- ControlMappingFilter
- ControlParameter
- ControlSummary
- DomainResourceFilter
- DomainSummary
- FrameworkMappingDetails
- ImplementationDetails
- ImplementationFilter
- ImplementationSummary
- Mapping
- ObjectiveFilter
- ObjectiveResourceFilter
- ObjectiveSummary

- RegionConfiguration
- RelatedControlMappingDetails

# AssociatedDomainSummary

A summary of the domain that a common control or an objective belongs to.

## Contents

**Arn**

The Amazon Resource Name (ARN) of the related domain.

Type: String

Length Constraints: Minimum length of 33. Maximum length of 2048.

Pattern: `arn:(aws(?:[-a-z]*)?):controlcatalog:::domain/[0-9a-z]+`

Required: No

**Name**

The name of the related domain.

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

# AssociatedObjectiveSummary

A summary of the objective that a common control supports.

## Contents

**Arn**

The Amazon Resource Name (ARN) of the related objective.

Type: String

Length Constraints: Minimum length of 36. Maximum length of 2048.

Pattern: `arn:(aws(?:[-a-z]*)?):controlcatalog:::objective/[0-9a-z]+`

Required: No

**Name**

The name of the related objective.

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

# CommonControlFilter

An optional filter that narrows the results to a specific objective.

## Contents

### Objectives

The objective that's used as filter criteria.

You can use this parameter to specify one objective ARN at a time. Passing multiple ARNs in the `CommonControlFilter` isn't supported.

Type: Array of ObjectiveResourceFilter 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

# CommonControlMappingDetails

A structure that contains details about a common control mapping. In particular, it returns the Amazon Resource Name (ARN) of the common control.

## Contents

**CommonControlArn**

The Amazon Resource Name (ARN) that identifies the common control in the mapping.

Type: String

Length Constraints: Minimum length of 41. Maximum length of 2048.

Pattern: `arn:(aws(?:[-a-z]*)?):controlcatalog:::common-control/[0-9a-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

# CommonControlSummary

A summary of metadata for a common control.

## Contents

**Arn**

The Amazon Resource Name (ARN) that identifies the common control.

Type: String

Length Constraints: Minimum length of 41. Maximum length of 2048.

Pattern: `arn:(aws(?:[-a-z]*)?):controlcatalog:::common-control/[0-9a-z]+`

Required: Yes

**CreateTime**

The time when the common control was created.

Type: Timestamp

Required: Yes

**Description**

The description of the common control.

Type: String

Required: Yes

**Domain**

The domain that the common control belongs to.

Type: AssociatedDomainSummary object

Required: Yes

**LastUpdateTime**

The time when the common control was most recently updated.

Type: Timestamp

Required: Yes

**Name**

The name of the common control.

Type: String

Required: Yes

**Objective**

The objective that the common control belongs to.

Type: AssociatedObjectiveSummary 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

# ControlFilter

A structure that defines filtering criteria for the ListControls operation. You can use this filter to narrow down the list of controls based on their implementation details.

## Contents

### Implementations

A filter that narrows the results to controls with specific implementation types or identifiers. This field allows you to find controls that are implemented by specific AWS services or with specific service identifiers.

Type: ImplementationFilter 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

# ControlMapping

A structure that contains information about a control mapping, including the control ARN, mapping type, and mapping details.

## Contents

**ControlArn**

The Amazon Resource Name (ARN) that identifies the control in the mapping.

Type: String

Length Constraints: Minimum length of 34. Maximum length of 2048.

Pattern: `arn:(aws(?:[-a-z]*)?):(controlcatalog|controltower):[a-zA-Z0-9-]*::control/[0-9a-zA-Z_\-]+`

Required: Yes

**Mapping**

The details of the mapping relationship, for example, containing framework, common control, or related control information.

Type: Mapping object

**Note:** This object is a Union. Only one member of this object can be specified or returned.

Required: Yes

**MappingType**

The type of mapping relationship between the control and other entities.

Type: String

Valid Values: `FRAMEWORK | COMMON_CONTROL | RELATED_CONTROL`

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

# ControlMappingFilter

A structure that defines filtering criteria for the ListControlMappings operation. You can use this filter to narrow down the list of control mappings based on control ARNs, common control ARNs, or mapping types.

## Contents

**CommonControlArns**

A list of common control ARNs to filter the mappings. When specified, only mappings associated with these common controls are returned.

Type: Array of strings

Array Members: Fixed number of 1 item.

Length Constraints: Minimum length of 41. Maximum length of 2048.

Pattern: `arn:(aws(?:[-a-z]*)?):controlcatalog:::common-control/[0-9a-z]+`

Required: No

**ControlArns**

A list of control ARNs to filter the mappings. When specified, only mappings associated with these controls are returned.

Type: Array of strings

Array Members: Fixed number of 1 item.

Length Constraints: Minimum length of 34. Maximum length of 2048.

Pattern: `arn:(aws(?:[-a-z]*)?):(controlcatalog|controltower):[a-zA-Z0-9-]*::control/[0-9a-zA-Z_\-]+`

Required: No

**MappingTypes**

A list of mapping types to filter the mappings. When specified, only mappings of these types are returned.

Type: Array of strings

Array Members: Fixed number of 1 item.

Valid Values: `FRAMEWORK | COMMON_CONTROL | RELATED_CONTROL`

Required: No

## See Also

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

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ControlParameter

Five types of control parameters are supported.

- **AllowedRegions**: List of AWS Regions exempted from the control. Each string is expected to be an AWS Region code. This parameter is mandatory for the **OU Region deny** control, **CT.MULTISERVICE.PV.1**.

  Example: `["us-east-1","us-west-2"]`
- **ExemptedActions**: List of AWS IAM actions exempted from the control. Each string is expected to be an IAM action.

  Example: `["logs:DescribeLogGroups","logs:StartQuery","logs:GetQueryResults"]`
- **ExemptedPrincipalArns**: List of AWS IAM principal ARNs exempted from the control. Each string is expected to be an IAM principal that follows the format `arn:partition:service::account:resource`

  Example: `["arn:aws:iam::*:role/ReadOnly","arn:aws:sts::*:assumed-role/ReadOnly/*"]`
- **ExemptedResourceArns**: List of resource ARNs exempted from the control. Each string is expected to be a resource ARN.

  Example: `["arn:aws:s3:::my-bucket-name"]`
- **ExemptAssumeRoot**: A parameter that lets you choose whether to exempt requests made with `AssumeRoot` from this control, for this OU. For member accounts, the `AssumeRoot` property is included in requests initiated by IAM centralized root access. This parameter applies only to the `AWS-GR_RESTRICT_ROOT_USER` control. If you add the parameter when enabling the control, the `AssumeRoot` exemption is allowed. If you omit the parameter, the `AssumeRoot` exception is not permitted. The parameter does not accept `False` as a value.

  *Example: Enabling the control and allowing `AssumeRoot`*

  ```
  { "controlIdentifier":
  "arn:aws:controlcatalog:::control/5kvme4m5d2b4d7if2fs5yg2ui",
  "parameters": [ { "key": "ExemptAssumeRoot", "value": true } ],
  "targetIdentifier": "arn:aws:organizations::8633900XXXXX:ou/o-6jmn81636m/
  ou-qsah-jtiihcla" }
  ```

## Contents

### Name

The parameter name. This name is the parameter `key` when you call `EnableControl` or `UpdateEnabledControl`.

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

# ControlSummary

Overview of information about a control.

## Contents

**Arn**

The Amazon Resource Name (ARN) of the control.

Type: String

Length Constraints: Minimum length of 34. Maximum length of 2048.

Pattern: `arn:(aws(?:[-a-z]*)?):(controlcatalog|controltower):[a-zA-Z0-9-]*::control/[0-9a-zA-Z_\-]+`

Required: Yes

**Description**

A description of the control, as it may appear in the console. Describes the functionality of the control.

Type: String

Required: Yes

**Name**

The display name of the control.

Type: String

Required: Yes

**Aliases**

A list of alternative identifiers for the control. These are human-readable designators, such as `SH.S3.1`. Several aliases can refer to the same control across different AWS services or compliance frameworks.

Type: Array of strings

Pattern: `[a-zA-Z0-9](?:[a-zA-Z0-9_.-]{0,254}[a-zA-Z0-9])`

Required: No

**Behavior**

An enumerated type, with the following possible values:

Type: String

Valid Values: `PREVENTIVE | PROACTIVE | DETECTIVE`

Required: No

**CreateTime**

A timestamp that notes the time when the control was released (start of its life) as a governance capability in AWS.

Type: Timestamp

Required: No

**GovernedResources**

A list of AWS resource types that are governed by this control. This information helps you understand which controls can govern certain types of resources, and conversely, which resources are affected when the control is implemented. The resources are represented as AWS CloudFormation resource types. If `GovernedResources` cannot be represented by available CloudFormation resource types, it's returned as an empty list.

Type: Array of strings

Pattern: `[A-Za-z0-9]{2,64}::[A-Za-z0-9]{2,64}::[A-Za-z0-9]{2,64}`

Required: No

**Implementation**

An object of type `ImplementationSummary` that describes how the control is implemented.

Type: ImplementationSummary object

Required: No

**Severity**

An enumerated type, with the following possible values:

Type: String

Valid Values: `LOW | MEDIUM | HIGH | CRITICAL`

Required: No

## See Also

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

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# DomainResourceFilter

The domain resource that's being used as a filter.

## Contents

**Arn**

The Amazon Resource Name (ARN) of the domain.

Type: String

Length Constraints: Minimum length of 33. Maximum length of 2048.

Pattern: `arn:(aws(?:[-a-z]*)?):controlcatalog:::domain/[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

# DomainSummary

A summary of metadata for a domain.

## Contents

**Arn**

The Amazon Resource Name (ARN) that identifies the domain.

Type: String

Length Constraints: Minimum length of 33. Maximum length of 2048.

Pattern: `arn:(aws(?:[-a-z]*)?):controlcatalog:::domain/[0-9a-z]+`

Required: Yes

**CreateTime**

The time when the domain was created.

Type: Timestamp

Required: Yes

**Description**

The description of the domain.

Type: String

Required: Yes

**LastUpdateTime**

The time when the domain was most recently updated.

Type: Timestamp

Required: Yes

**Name**

The name of the domain.

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

# FrameworkMappingDetails

A structure that contains details about a framework mapping, including the framework name and specific item within the framework that the control maps to.

## Contents

**Item**

The specific item or requirement within the framework that the control maps to.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 250.

Required: Yes

**Name**

The name of the compliance framework that the control maps to.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 250.

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

# ImplementationDetails

An object that describes the implementation type for a control.

Our `ImplementationDetails Type` format has three required segments:

- `SERVICE-PROVIDER::SERVICE-NAME::RESOURCE-NAME`

For example, `AWS::Config::ConfigRule` **or** `AWS::SecurityHub::SecurityControl` resources have the format with three required segments.

Our `ImplementationDetails Type` format has an optional fourth segment, which is present for applicable implementation types. The format is as follows:

- `SERVICE-PROVIDER::SERVICE-NAME::RESOURCE-NAME::RESOURCE-TYPE-DESCRIPTION`

For example, `AWS::Organizations::Policy::SERVICE_CONTROL_POLICY` **or** `AWS::CloudFormation::Type::HOOK` have the format with four segments.

Although the format is similar, the values for the `Type` field do not match any AWS CloudFormation values.

## Contents

**Type**

A string that describes a control's implementation type.

Type: String

Length Constraints: Minimum length of 7. Maximum length of 2048.

Pattern: `[A-Za-z0-9]+(::[A-Za-z0-9_]+){2,3}`

Required: Yes

**Identifier**

A service-specific identifier for the control, assigned by the service that implemented the control. For example, this identifier could be an AWS Config Rule ID or a Security Hub Control ID.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

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

# ImplementationFilter

A structure that defines filtering criteria for control implementations. You can use this filter to find controls that are implemented by specific AWS services or with specific service identifiers.

## Contents

**Identifiers**

A list of service-specific identifiers that can serve as filters. For example, you can filter for controls with specific AWS Config Rule IDs or Security Hub Control IDs.

Type: Array of strings

Array Members: Fixed number of 1 item.

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `[a-zA-Z0-9_\.-]+`

Required: No

**Types**

A list of implementation types that can serve as filters. For example, you can filter for controls implemented as AWS Config Rules by specifying AWS::Config::ConfigRule as a type.

Type: Array of strings

Array Members: Fixed number of 1 item.

Length Constraints: Minimum length of 7. Maximum length of 2048.

Pattern: `[A-Za-z0-9]+(::[A-Za-z0-9_]+){2,3}`

Required: No

## See Also

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

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# ImplementationSummary

A summary of how the control is implemented, including the AWS service that enforces the control and its service-specific identifier. For example, the value of this field could indicate that the control is implemented as an AWS Config Rule or an AWS Security Hub control.

## Contents

**Type**

A string that represents the AWS service that implements this control. For example, a value of `AWS::Config::ConfigRule` indicates that the control is implemented by AWS Config, and `AWS::SecurityHub::SecurityControl` indicates implementation by AWS Security Hub.

Type: String

Length Constraints: Minimum length of 7. Maximum length of 2048.

Pattern: `[A-Za-z0-9]+(::[A-Za-z0-9_]+){2,3}`

Required: Yes

**Identifier**

The identifier originally assigned by the AWS service that implements the control. For example, `CODEPIPELINE_DEPLOYMENT_COUNT_CHECK`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

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

# Mapping

A structure that contains the details of a mapping relationship, which can be either to a framework or to a common control.

## Contents

> **Important**
>
> This data type is a UNION, so only one of the following members can be specified when used or returned.

**CommonControl**

The common control mapping details when the mapping type relates to a common control.

Type: CommonControlMappingDetails object

Required: No

**Framework**

The framework mapping details when the mapping type relates to a compliance framework.

Type: FrameworkMappingDetails object

Required: No

**RelatedControl**

Returns information about controls that are related to the specified control.

Type: RelatedControlMappingDetails 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

# ObjectiveFilter

An optional filter that narrows the list of objectives to a specific domain.

## Contents

**Domains**

The domain that's used as filter criteria.

You can use this parameter to specify one domain ARN at a time. Passing multiple ARNs in the `ObjectiveFilter` isn't supported.

Type: Array of DomainResourceFilter 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

# ObjectiveResourceFilter

The objective resource that's being used as a filter.

## Contents

**Arn**

The Amazon Resource Name (ARN) of the objective.

Type: String

Length Constraints: Minimum length of 36. Maximum length of 2048.

Pattern: `arn:(aws(?:[-a-z]*)?):controlcatalog:::objective/[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

# ObjectiveSummary

A summary of metadata for an objective.

## Contents

**Arn**

The Amazon Resource Name (ARN) that identifies the objective.

Type: String

Length Constraints: Minimum length of 36. Maximum length of 2048.

Pattern: `arn:(aws(?:[-a-z]*)?):controlcatalog:::objective/[0-9a-z]+`

Required: Yes

**CreateTime**

The time when the objective was created.

Type: Timestamp

Required: Yes

**Description**

The description of the objective.

Type: String

Required: Yes

**Domain**

The domain that the objective belongs to.

Type: AssociatedDomainSummary object

Required: Yes

**LastUpdateTime**

The time when the objective was most recently updated.

Type: Timestamp

Required: Yes

**Name**

The name of the objective.

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

# RegionConfiguration

Returns information about the control, including the scope of the control, if enabled, and the Regions in which the control is available for deployment. For more information about scope, see Global services.

If you are applying controls through an AWS Control Tower landing zone environment, remember that the values returned in the `RegionConfiguration` API operation are not related to the governed Regions in your landing zone. For example, if you are governing Regions `A`,`B`,and `C` while the control is available in Regions `A`, `B`, `C`, and `D`, you'd see a response with `DeployableRegions` of `A`, `B`, `C`, and `D` for a control with `REGIONAL` scope, even though you may not intend to deploy the control in Region `D`, because you do not govern it through your landing zone.

## Contents

**Scope**

The coverage of the control, if deployed. Scope is an enumerated type, with value `Regional`, or `Global`. A control with Global scope is effective in all AWS Regions, regardless of the Region from which it is enabled, or to which it is deployed. A control implemented by an SCP is usually Global in scope. A control with Regional scope has operations that are restricted specifically to the Region from which it is enabled and to which it is deployed. Controls implemented by Config rules and CloudFormation hooks usually are Regional in scope. Security Hub controls usually are Regional in scope.

Type: String

Valid Values: `GLOBAL | REGIONAL`

Required: Yes

**DeployableRegions**

Regions in which the control is available to be deployed.

Type: Array of strings

Pattern: `[a-zA-Z0-9-]{1,128}`

Required: No

## See Also

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

- AWS SDK for C++
- AWS SDK for Java V2
- AWS SDK for Ruby V3

# RelatedControlMappingDetails

A structure that describes a control's relationship status with other controls.

## Contents

**RelationType**

Returns an enumerated value that represents the relationship between two or more controls.

Type: String

Valid Values: `COMPLEMENTARY | ALTERNATIVE | MUTUALLY_EXCLUSIVE`

Required: Yes

**ControlArn**

The unique identifier of a control.

Type: String

Length Constraints: Minimum length of 34. Maximum length of 2048.

Pattern: `arn:(aws(?:[-a-z]*)?):(controlcatalog|controltower):[a-zA-Z0-9-]*::control/[0-9a-zA-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

# 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: 403

**ExpiredTokenException**

The security token included in the request is expired

HTTP Status Code: 403

**IncompleteSignature**

The request signature does not conform to AWS standards.

HTTP Status Code: 403

**InternalFailure**

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

**MalformedHttpRequestException**

Problems with the request at the HTTP level, e.g. we can't decompress the body according to the decompression algorithm specified by the content-encoding.

HTTP Status Code: 400

**NotAuthorized**

You do not have permission to perform this action.

HTTP Status Code: 401

**OptInRequired**

The AWS access key ID needs a subscription for the service.

HTTP Status Code: 403

**RequestAbortedException**

Convenient exception that can be used when a request is aborted before a reply is sent back (e.g. client closed connection).

HTTP Status Code: 400

**RequestEntityTooLargeException**

Problems with the request at the HTTP level. The request entity is too large.

HTTP Status Code: 413

**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

**RequestTimeoutException**

Problems with the request at the HTTP level. Reading the Request timed out.

HTTP Status Code: 408

**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

**UnrecognizedClientException**

The X.509 certificate or AWS access key ID provided does not exist in our records.

HTTP Status Code: 403

**UnknownOperationException**

The action or operation requested is invalid. Verify that the action is typed correctly.

HTTP Status Code: 404

**ValidationError**

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400