aws

Architecture Diagrams

Change Data Capture Using AWS Database Migration Service

Change Data Capture Using AWS Database Migration Service: Architecture Diagrams

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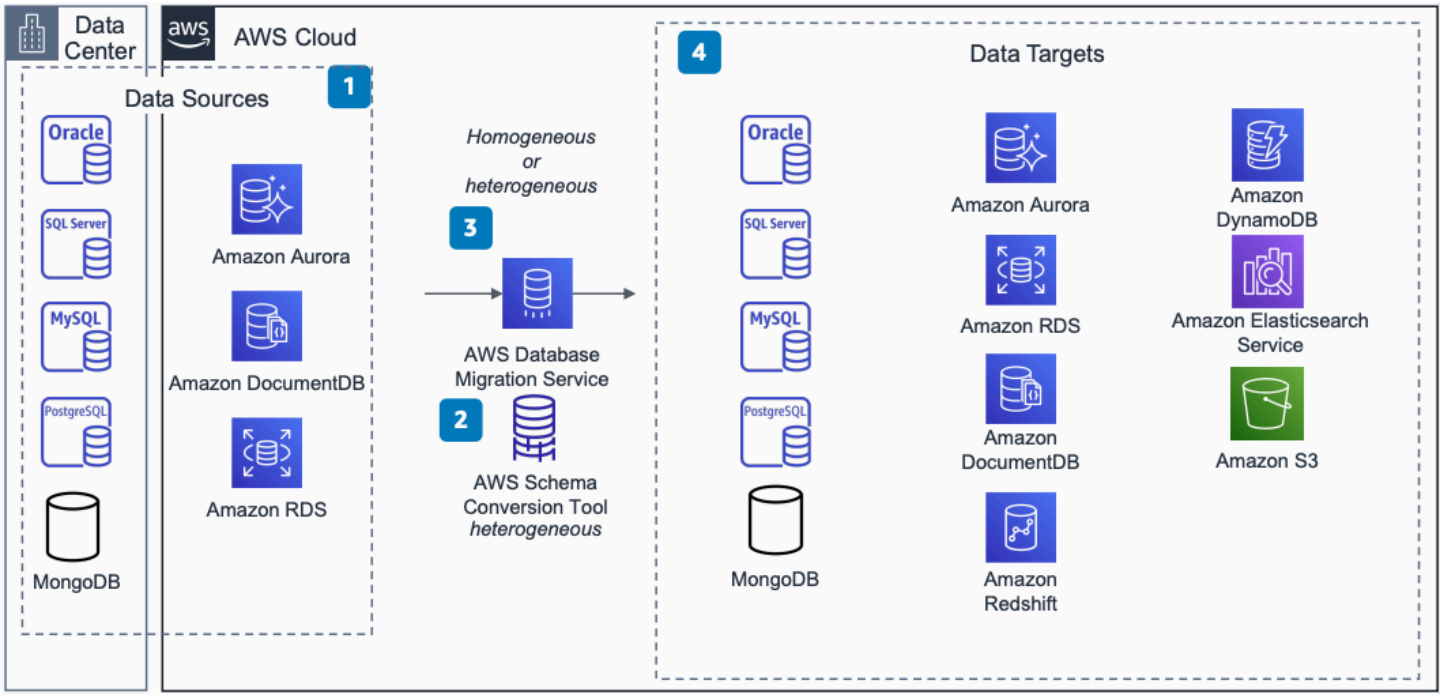
Change Data Capture Using AWS DMS: Migrate and Replicate

Publication date: **August 2, 2021 (Diagram history)**

This architecture shows how to use AWS Database Migration Service (AWS DMS) for change data capture (CDC) to migrate databases using ongoing replication.

Change Data Capture Using AWS DMS: Migrate and Replicate



The following steps describe the architecture:

1. Sources for CDC include Oracle, SQL Server, MySQL, PostgreSQL, MongoDB, Amazon Aurora, Amazon DocumentDB, and Amazon RDS.
2. AWS Schema Conversion Tool makes heterogeneous database migrations predictable by automatically converting the source database schema and a majority of code objects to a format compatible with the target database.
3. AWS DMS helps you with one-time data migration of databases and continuous data replication. AWS DMS captures changes on the source database and applies them in a transactionally consistent way to the target.

4. Targets for CDC include Oracle, SQL Server, MySQL, PostgreSQL, MongoDB, Amazon Aurora, Amazon DocumentDB, Amazon RDS, and Amazon S3.

Further reading

For additional information, refer to the following resources:

- AWS Architecture Icons
- AWS Architecture Center
- AWS Well-Architected

Diagram history

To be notified about updates to this reference architecture diagram, subscribe to the RSS feed.

Change	Description	Date
Initial publication	Reference architecture diagram first published.	August 2, 2021

> **Note**
>
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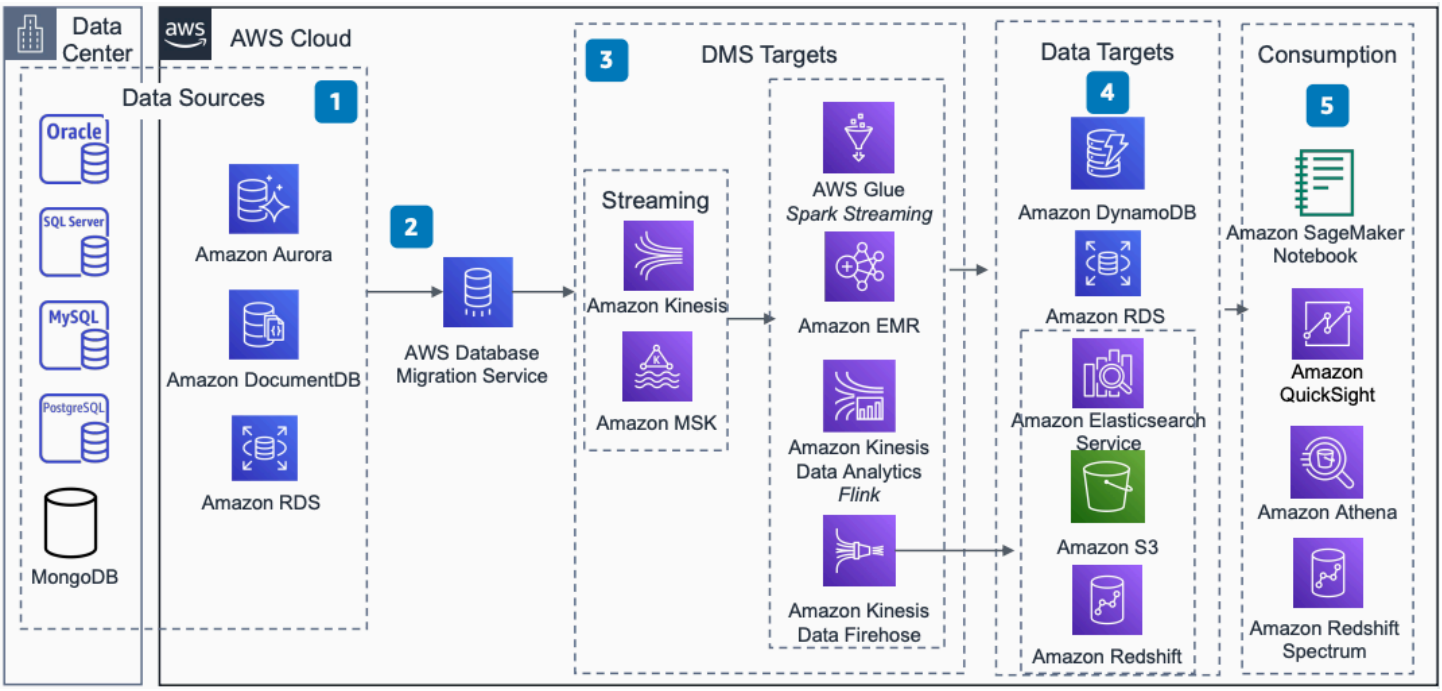
Change Data Capture Using AWS DMS: Streaming

This architecture shows how to use AWS Database Migration Service (AWS DMS) to ingest real-time changes from source databases through streaming services.

Change Data Capture Using AWS DMS: Streaming



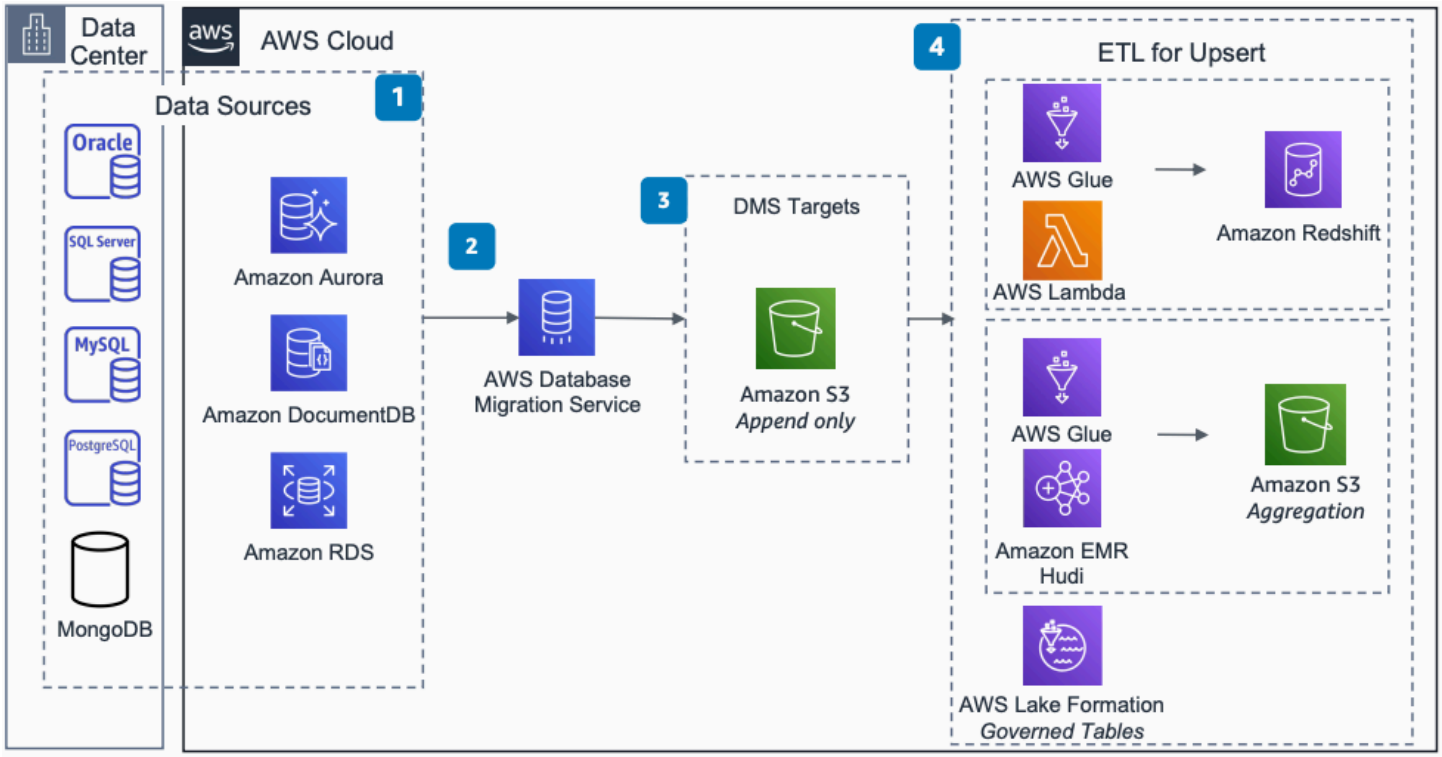
The following steps describe the architecture:

1. Sources for CDC include Oracle, SQL Server, MySQL, PostgreSQL, MongoDB, Amazon Aurora, Amazon DocumentDB, and Amazon RDS.
2. AWS DMS helps you with one-time data migration of databases and continuous data replication. AWS DMS captures changes on the source database and applies them in a transactionally consistent way to the target.
3. Use AWS DMS to stream data to an Amazon Kinesis data stream and Amazon Managed Streaming for Apache Kafka (Amazon MSK) to collect and process large streams of data.
4. Use purpose-built services for analytics in your data lake or data warehouse.
5. Visualize and consume data using Amazon Quick Sight and SageMaker AI Notebooks.

Change Data Capture Using AWS DMS: Amazon S3 with ETL for Upsert

This architecture shows how to use AWS Database Migration Service (AWS DMS) to create data pipelines with change data capture to build transactional data lakes.

Change Data Capture Using AWS DMS: Amazon S3 with ETL for Upsert



The following steps describe the architecture:

1. Sources for CDC include Oracle, SQL Server, MySQL, PostgreSQL, MongoDB, Amazon Aurora, Amazon DocumentDB, and Amazon RDS.
2. AWS DMS helps you with one-time data migration of databases and continuous data replication. AWS DMS captures changes on the source database and applies them in a transactionally consistent way to the target.
3. The target for change data capture is Amazon Simple Storage Service.

4. Use AWS Glue or Amazon EMR for extract, transform, load (ETL) upsert to Amazon S3 and Amazon Redshift.