AWS Cloud DMS

Topics : AWS
Written on December 09, 2023

AWS Database Migration Service (DMS) is a fully managed service provided by Amazon Web Services that allows you to migrate databases to AWS quickly and securely. Here are key features and aspects of AWS DMS:

1. **Database Source and Target Support:**
    - DMS supports a variety of database sources, including on-premises databases, databases hosted on Amazon EC2 instances, and other cloud-based databases.
    - It also supports a wide range of target databases, including Amazon RDS, Amazon Redshift, Amazon DynamoDB, and more.
2. **Supported Database Engines:**
    - DMS supports migration between different database engines, such as Oracle, MySQL, PostgreSQL, Microsoft SQL Server, MongoDB, and others.
3. **Data Replication:**
    - DMS can be used for ongoing data replication between databases, enabling real-time data synchronization between the source and target.
4. **Schema Conversion:**
    - DMS includes schema conversion tools that can help automate the process of converting the source schema to the target schema, facilitating migration between different database engines.
5. **Continuous Data Replication:**
    - DMS supports continuous data replication, allowing you to keep the source and target databases in sync with minimal latency.
6. **Change Data Capture (CDC):**
    - DMS uses CDC to capture changes in the source database so that only incremental changes are replicated to the target. This minimizes the downtime during migration.
7. **Data Validation:**
    - DMS provides features for data validation to ensure that data is migrated accurately and

consistently.

8. **Task Monitoring and Logging:**
    - DMS allows you to monitor the progress of migration tasks and provides detailed logging for troubleshooting and auditing purposes.
9. **Security:**
    - DMS uses AWS Identity and Access Management (IAM) for access control.
    - Data during migration can be encrypted using SSL/TLS.
10. **Network Connectivity:**
    - DMS supports both internet-based and Direct Connect-based network connectivity for migration tasks.
11. **Flexible Scheduling:**
    - You can schedule migration tasks to run at specific times to minimize the impact on production systems.
12. **Homogeneous and Heterogeneous Migration:**
    - DMS supports both homogeneous migrations (e.g., Oracle to Oracle) and heterogeneous migrations (e.g., Oracle to Amazon Aurora).
13. **DMS Replication Instances:**
    - Replication instances in DMS are computing resources that manage the migration tasks. You can choose the instance type based on the performance requirements.

AWS DMS is a versatile service that facilitates database migrations and continuous data replication with minimal downtime. It's commonly used by organizations looking to migrate their databases to AWS or maintain real-time data synchronization between databases.