**Approach on migrate database from MS SQL server to Postgresql**

**Pre planning steps migration from MS SQL server to Postgresql**

MS SQL server instance need to validate all the databases.

If size is more, need to check what the tables can archive to other archive database.

Post database archive activity and need to purge archived records from OLTP database.

Validate databases and do the reindex and fragmentation

Take a backup of databases before start the migration.

**Based on SCT report, need to fix datatype issues while create db objects in postgresql**

**DMS(Data migration service)**

**Method-1**

Setup infrastructure at aws including direct connect from on-premises to aws.

Create Postgresql database instance with estimated memory and storage based on existing MS SQL server database instance.

Connect to DMS in aws and connect to source and target databases.

Create replication instance.

Create DMS migration task for ongoing change/existing data/data changes only.

Monitor the data migration task and fix if any issues and compare the data from source and target.

Fix if any login issues.

Once data synchronized to target, can inform to application to perform db connections changes and sanity testing and can stop replication.

**Issues can expect:**

Issues could be facing in converting datatypes that need to be created manually based target database supported datatypes.

If any functions and stored procedures that need to re-write/modify manually based on syntax related/in-built functions that used in SQL server to be converted to Postgresql

To estimate the data migration, need to do POC on migration with sample data.

**Method-2**

**Using 3rd party tools.**

Below tools we can consider for migration, before proceeding we might need do one POC to estimate the timeline.

sqlserver2pgsql

PGLoader

Best approach to go with DMS, also need to consider on the performance of source database.

Network bandwidth

DMS replication task to be performed in non-peak working hours

As mentioned above need to database indexes rebuild and update statistics should be up to date.

**My experience in database migrations**

I have successfully migrated from MS SQL server to Oracle database using SQL developer which can support up to 25GB of database size.

Migrated MSSQL server databases