Requirement: According to AWS recommendation, it must use SQL 2019 CU5 (15.0.4043.16) or after, but it doesn’t work. I’m using SQL Server 2019 CU26 (15.00.4365.2.v1)

Create RDS SQL Server Instance

Create Policy

Create Role

Create RDS SQL Server Instance

exec msdb.dbo.rds\_restore\_database

@restore\_db\_name='test',

@s3\_arn\_to\_restore\_from='arn:aws:s3:::globaltrail.dev.infogix.com/ClientDataUsage.bak';

Check the restore status till lifecycle indicate till “SUCCESS”.

exec msdb.dbo.rds\_task\_status @db\_name='test'

exec msdb.dbo.rds\_backup\_database

@source\_db\_name='epim\_qbp', @s3\_arn\_to\_backup\_to='arn:aws:s3:::beam-dbbackup/epim\_qbp\_from\_rds\_20231102.bak',

@overwrite\_S3\_backup\_file=1;

Add linked server from Replica database

EXEC master.dbo.sp\_addlinkedserver @server = N'linkserveraccess', @srvproduct=N'', @provider=N'MSOLEDBSQL', @datasrc=N'dms-test-jingsong1.cg66cbzpohi7.us-east-1.rds.amazonaws.com';

EXEC master.dbo.sp\_addlinkedsrvlogin @rmtsrvname=N'linkserveraccess',@useself=N'False',@locallogin=NULL,@rmtuser=N'LinkServerAccess',@rmtpassword='LinkServerAccess';

GO

SELECT \* FROM linkserveraccess.databaseName.dbo.newTblTest

INSERT INTO linkserveraccess.databaseName.dbo.newTblTest(columnName….)

Values(….);

~~Change secondary database to read-only.~~

~~Stop DMS if it’s active.~~

~~On MMC, right click on database and select “Properties”, change the “Database Read-Only” from False to True.~~

~~Start DMS~~

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<https://dba.stackexchange.com/questions/213733/failure-with-ongoing-replication-from-sql-server-rds-using-aws-dms>

Enable CDC on Writer database:

exec msdb.dbo.rds\_cdc\_enable\_db 'database\_name'

exec msdb.dbo.rds\_cdc\_enable\_db 'test'

/\* We must apply this statement For each table, in order to reflect the update statement on target database/table, otherwise it will only show the insert on target database/table \*/

exec sys.sp\_cdc\_enable\_table

@source\_schema = N'dbo'

, @source\_name = N'B\_SNAPSHOT\_10000'

, @role\_name = NULL;

/\* In case we have to delete database, CDC must be disabled , Also DMS must be stopped\*/

exec msdb.dbo.rds\_cdc\_disable\_db 'test'

**The RDS instance stuatus will be at “backing up”, wait till it finishes and go to next step**

**Add CDC job**

**use dbname**

**GO**

EXEC [sys].[sp\_cdc\_add\_job] @job\_type = N'capture';

EXEC [sys].[sp\_cdc\_add\_job] @job\_type = N'cleanup';

**use dbname(This will be the dbname that you will use in the migration)**

**EXEC sys.sp\_cdc\_change\_job @job\_type = 'capture' ,@pollinginterval = 86399**

**exec sp\_cdc\_stop\_job 'capture'**

**exec sp\_cdc\_start\_job 'capture'**

**If we see error “**Could not use view or function 'msdb.dbo.cdc\_jobs\_view' because of binding errors.”, try to drop the view then run “**sys.sp\_cdc\_change\_job” again.**

use msdb;  
go  
drop view dbo.cdc\_jobs\_view;

Setting UP DMS:

Replication instance

SourceEndpoint

TargetEndpoint

DMS

Choose Migration type as “Replicate Change Data only’, when the DMS started, the status will showing “Replication ongoing”

00052214: 2024-05-04T06:14:35 [SOURCE\_CAPTURE ]E: MS-CDC Capture job Polling interval is set to 5 seconds. Please have this value set more than 5 minutes. [1020101] (sqlserver\_log\_queries.c:3390)

On review of the error message your capture jobs polling interval is set at default which is 5 minutes. In order to resolve this issue please note the following :

Set the retention period for changes to be available on the source using the following commands.

**use dbname(This will be the dbname that you will use in the migration)**

**EXEC sys.sp\_cdc\_change\_job @job\_type = 'capture' ,@pollinginterval = 86399**

**exec sp\_cdc\_stop\_job 'capture'**

**exec sp\_cdc\_start\_job 'capture'**

The parameter @pollinginterval is measured in seconds with a recommended value set to 86399. This means that the transaction log retains changes for 86,399 seconds (one day) when @pollinginterval = 86399. The procedure exec sp\_cdc\_start\_job 'capture' initiates the settings.

Note

**With some versions of SQL Server, if the value of pollinginterval is set to more than 3599 seconds, the value resets to the default five seconds**. When this happens, T-Log entries are purged before AWS DMS can read them. To determine which SQL Server versions are affected by this known issue, see this Microsoft KB article

.

**If you are using Amazon RDS with Multi-AZ, make sure that you also set your secondary to have the right values in case of failover.**

**exec rdsadmin..rds\_set\_configuration 'cdc\_capture\_pollinginterval' , 86399**

**If an AWS DMS replication task that captures ongoing changes to your SQL Server source stops for more than one hour, use the following procedure.**

**To maintain the retention period during an AWS DMS replication task**

Stop the job truncating the transaction logs by using the following command.

**exec sp\_cdc\_stop\_job 'capture'**

Find your task on the AWS DMS console and **resume the task**.

Choose the Monitoring tab, and check the **CDCLatencySource** metric.

**After the CDCLatencySource metric equals 0** (zero) and stays there, restart the job truncating the transaction logs using the following command.

**exec sp\_cdc\_start\_job 'capture'**

Remember to start the job that truncates SQL Server transaction logs. Otherwise, storage on your SQL Server instance might fill up.

Please note Im proving a link listed below as reference[1] to detailed information on setting up SQL as a source using AWS DMS.

I do apologies for the inconvenience caused and thank you for your patience around this matter.

References:

[1] [https://docs.aws.amazon.com/dms/latest/userguide/CHAP\_Source.SQLServer.html#CHAP\_Source.SQLServer.OptionalSettings](https://docs.aws.amazon.com/dms/latest/userguide/CHAP_Source.SQLServer.html%23CHAP_Source.SQLServer.OptionalSettings)

<https://learn.microsoft.com/en-us/answers/questions/211923/enable-cdc-in-sql-2019-cu5>

<https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/Appendix.SQLServer.CommonDBATasks.CDC.html>

<https://aws.amazon.com/blogs/database/implement-linked-servers-with-amazon-rds-for-microsoft-sql-server/>