DSS034 - Cannot insert the value NULL into column provision_timestamp, table datasync.provision_marker_dss

Last updated by | Keith Elmore | Apr 5, 2021 at 7:57 AM PDT

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Issue

Cannot insert the value NULL into column provision_timestamp, table DataSync.provision_marker_dss

Note: If the error is "Cannot insert the value NULL into column 'X', table Y'; column does not allow nulls." please check DSS030

Error provisioning the tracking table:

SqlException Error Code: -2146232060 - SqlError Number:515,
Message: Cannot insert the value NULL into column 'provision_timestamp', table
'....DataSync.provision_marker_dss'; column does not allow nulls. INSERT fails.
SqlError Number:3621, Message: The statement has been terminated.

Investigation/Analysis

In a nutshell this issue is caused because the tracking table for a table exists but the record in [DataSync].[provision_marker_dss] for that table does not exist or matches table's object_id.

Issue also happens when tracking table exist but [DataSync].[provision_marker_dss] does not exit.

Example:

- TestTable1 exists
- [DataSync].[TestTable1_dss_tracking] exists

Provision will skip creation of Tracking Table '[DataSync].[TestTable1_dss_tracking]' since it already exists"

and will

```
SELECT TOP 1 @create_timestamp = [provision_timestamp]
FROM [DataSync].[provision_marker_dss]
WHERE [owner_scope_local_id] = 0
AND [object_id] = 1625772849 (Current object_id for the table)
```

But

```
select object_id from sys.tables where name = 'TestTable1'
```

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This means that table was re-created (has a different objectId by now).

This can easily be caused by usage of backup/restore, PITR, geo-replication or even manual modifications on the metadata tables.
Data Sync Health Checker can detect this:

```
WARNING DSS034: ValidateProvisionMarker found some possible issues
This can cause the error: Cannot insert the value NULL into column 'provision_timestamp', table '(...).DataSyn
- Tracking table for [dbo].[TestTable2] exists but there is no provision_marker record with object_id 16257728
```

Or

```
WARNING DSS034: ValidateProvisionMarker found some possible issues
This can cause the error: Cannot insert the value NULL into column 'provision_timestamp', table '(...).DataSyn
- Tracking table for [dbo].[TestTable3] exists but provision_marker_dss table does not exist
```

Mitigation

Data Sync Health Checker will generate a **leftovers cleanup script you can use**. If you run the leftovers cleanup script and try to run sync after, the provision should succeed.

Please note that leftovers are generated based on the comparison between a sync metadata database and a hub/member database. There is a different sync metadata database per region and subscription.

A database can be a member in a multiple sync groups where the hubs can be hosted in another regions or subscriptions. And if any hub is hosted in another region or subscription it means that it's a different sync metadata database for sure. If this happens the generated leftovers script will be invalid, at least partially.

We have no way to understand from the logs if database is part of any other sync group in other regions or subscription. This is why script is saying --ONLY applicable when this database is not being used by any other sync group in other regions and/or subscription.

This needs to be decision made by the customer, only customer knows if the database is being used in any sync group in other regions and/or subscription.

As alternative, you can also:

1. Remove the table from all the sync groups (using the Portal)

2. Cleanup the metadata objects for this table specifically using this script that will find out which sync-related objects for the specific table (SP\trigger\UDTT\tracking table) exist:
   https://raw.githubusercontent.com/vitomaz-msft/DataSyncMetadataCleanup/master/cleanup%20data%20sync%20object%20V2.sql ⧉
   Please note that this script will not remove the objects, will just generate the delete statements.

3. Add the table back to the sync groups

4. Run Sync (provision should run fine now)

Classification

Root cause Tree - DataSync/User issue/error/SyncFail

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