

DSS028 - Sync metadata DB (SyncDB) messed up

Last updated by | Vitor Tomaz | May 17, 2021 at 10:59 AM PDT

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Issue

You are probably here due to the insight you can see in the bottom of this page, if not, please Rerun insights, this may help detect that the SyncDB is messed up.

Sync DB may still be messed up and no Insight detected because, in case there are no sync groups, there is no sync app to dump telemetry into Kusto.

Investigation/Analysis

In case you don't have the Insight, let's confirm SyncDB is messed up:

1. In CMS, run the following query to find out sync groups:

```
select * from sync_groups where sync_account_id in
(select sync_account_id from sync_accounts where customer_subscription_id = 'xxxx')
```

OR

```
select * from sync_groups where sync_account_id in
(select sync_account_id from sync_accounts where logical_server_name = '<HubDB_ServerName>')
```

2. To confirm if the sync db is corrupted, you can run the following Kusto query

```
MonDataSync
| where originalEventTimestamp >= ago(1h)
| where AppName == "{AppName}"
| where Detail contains 'Could not find stored procedure \'TaskHosting\''
or Detail contains 'Could not find stored procedure \'dss\''
or Detail contains 'Invalid object name \'TaskHosting\''
or Detail contains 'Invalid object name \'dss\''
| project originalEventTimestamp, TracingId, TaskType, Detail, EDetail
```

The AppName is the hub app name visible in CMS as well. The Sync Metadata DB is most likely messed-up if query return any result.

Mitigation

a) Use [DSS001 - CMS queries](#) and ASC to find sync group and sync agent information from CMS

If Hub database for every sync group still exists go b1)

If any hub database is already deleted go b2) If you try the REST API when Hub database is deleted you will get

```
{
  "error": {
    "code": "ParentResourceNotFound",
    "message": "Can not perform requested operation on nested resource. Parent resource 'xx/xxx' not found."
  }
}
```

b1)


Update that information in the Sample Customer Ready Message below and ask customer to delete the sync group and/or sync agent (remove any section that does not apply like remove the sync agent instructions in case there is no sync agent)

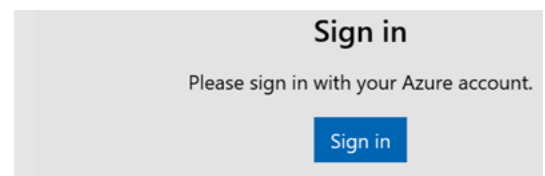
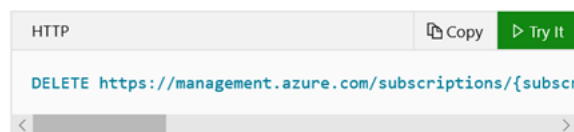
Sample Customer Ready Message : BEGIN

Sync metadata database cannot be deleted or renamed while sync groups or sync agents exist.

We were able to detect that Data Sync related objects are missing from Sync Metadata database, Data Sync cannot run without this objects, Data Sync is broken in this region for this subscription. Due to this, management operations like deleting sync groups or sync agents are only be possible using REST API.

Please follow these instructions to remove the sync groups:

1. Open <https://docs.microsoft.com/rest/api/sql/syncgroups/delete> 
2. Click on Try It in case you cannot see the 'Sign' in or 'REST API Try It' on the right



3. Sign in if needed
4. Pick the right subscription from the list if not already
5. Fill the parameters with the information below
6. Click on Run

You will need to run it for the following sync groups:

resourceGroupName :


serverName :

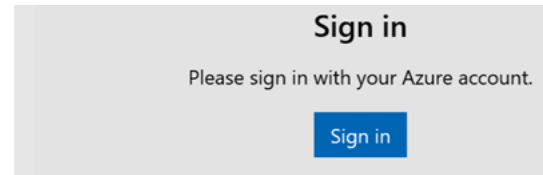
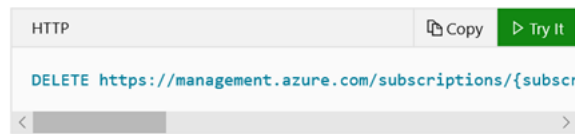
databaseName :

syncGroupName :

resourceGroupName :
 serverName :
 databaseName :
 syncGroupName :

Please follow these instructions to remove the sync agents:

1. Open <https://docs.microsoft.com/en-us/rest/api/sql/syncagents/delete> 
2. Click on Try It in case you cannot see the 'Sign' in or 'REST API Try It' on the right



3. Sign in if needed
4. Pick the right subscription from the list if not already
5. Fill the parameters with the information below
6. Click on Run

You will need to run it for the following sync agents:

resourceGroupName :
 serverName :
 syncAgentName:

resourceGroupName :
 serverName :
 syncAgentName:

After these operations you should be able to delete the database.

Sample Customer Ready Message : END


b2)

Troubleshooting steps

1. Confirm that sync db is messed up
2. Inform customer that objects are missing from sync metadata database and ask customer if we can remove all the sync groups and agents for that region/subscription
3. As soon as you have the OK to remove all the groups & agents raise an IcM Sev3 with DataSync team asking for sync account cleanup.
4. After, *and only after*, IcM is mitigated review the following information and share it with the customer if appropriate:

Your sync account is now cleared from the backend.

Since the sync group was not properly removed from customer side, we need to cleanup any possible leftovers from the databases where Data Sync was used.

If you are sure that the databases are not part of any sync group (even from other region or subscription) and that you haven't created any custom object in 'dss', 'TaskHosting' or 'DataSync' schemas, you can run the following script to have everything cleaned up: <https://raw.githubusercontent.com/vitomaz-msft/DataSyncMetadataCleanup/master/Data%20Sync%20complete%20cleanup.sql> 

This script will actually delete the objects, again, please make sure the databases are not part of any sync group (even from other region or subscription) and that you haven't created any custom object on 'dss', 'TaskHosting' or 'DataSync' schemas you wish to keep. Don't use this script in any other situation unless advised by us.

After cleaning both databases you can re-create the sync group.

You will need to pick an existing one or create a new database to be the sync metadata DB.

Please avoid removing data sync objects from the databases.

The sync metadata database will hold information about all the Sync Groups, Sync Members, Sync Agents, logs, etc. in that region for the subscription. These objects will exist in the 'dss' schema.

Data Sync is a task-based system, different tasks like Provisioning, Sync, etc. will be triggered. The metadata for these tasks is stored in 'TaskHosting' schema.

You can only have one sync metadata database per region and subscription.

Sync metadata database cannot be deleted or renamed while sync groups or sync agents exist. Please do not manually change or remove any of these objects. Manually removing them from the database will not guarantee you can delete or rename the database because links to the Azure backend will remain.

The best practice is to have a dedicated database as sync metadata DB to avoid issues in the future, but it's still possible to have hub and sync metadata DB under the same database if you really wish.

Root Cause Classification

Cases resolved by this TSG should be coded using the best option under Azure SQL v3/DataSync

How good have you found this content?

