

Cannot drop Distribution DB due to missing metadata objects

Last updated by | Holger Linke | Mar 30, 2022 at 4:18 AM PDT

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Issue

The customer has somehow managed to drop the Distribution database from their Managed Instance. Whenever they try to configure Transactional Replication, including disabling replication on that Distributor, it fails with an error similar to this:

```
SQL Server could not disable publishing and distribution on 'servername'.  
An exception occurred while executing a Transact-SQL statement or batch. (Microsoft.SqlServer.ConnectionInfo)  
Could not locate entry in sysdatabases for database 'distribution'. No entry found with that name. Make sure t  
Changed database context to 'master'. (Microsoft SQL Server, Error: 911)
```

Also none of the configuration stored procedures will work and are failing with similar errors:

- [sp_removedbreplication](#) 
- [sp_dropdistpublisher](#) 
- [sp_dropdistributiondb](#) 
- [sp_dropdistributor](#) 

Investigation / Analysis

1. Use SSMS to connect to the Distributor. Check if the Distribution database still exists - it is listed under System Databases .
2. Run the following query in `master` to check if the Distribution database exists and if the `is_distributor` attribute is still enabled:

```
select  
    database_id, db_name(database_id) as database_name, physical_database_name,  
    create_date, is_distributor, is_read_only, state_desc, log_reuse_wait_desc  
from master.sys.databases
```

The default output looks like this - `database_id` 's 1 to 5 are the system databases, with 5 being the Distribution database. Note that the `is_distributor` column should be "1" for the Distribution database, and 0 for all others:

database_id	database_name	physical_database_name	is_distributor	is_read_only	state_desc	log_reu
1	master	replicatedmaster	0	0	ONLINE	NOTHING
2	tempdb	tempdb	0	0	ONLINE	NOTHING
3	model	managed_model	0	0	ONLINE	NOTHING
4	msdb	msdb	0	0	ONLINE	NOTHING
5	distribution	9ce31ebf-d7cb-4f4d-ba73-7dcb9cea1003	1	0	ONLINE	NOTHING
6	TestDB	e92c5b66-b8d4-4edf-bc47-9b7b026e841c	0	0	ONLINE	NOTHING

It is also possible that the Distribution database is not named "distribution" but something else - the name is freely configurable by the user.

Mitigation

These mitigation steps help with fixing the "missing database" scenario.

For other scenarios, you need to research further and might have to open an IcM to get it resolved.

If the Distribution database does not exist, but is still being referenced in the metadata, you can try to recreate it through the following steps. It is a best effort approach though.

1. Check the error messages for the exact name of the Distribution database. The default name is "distribution", but you might have chosen a different name.
2. Create the physical database:

```
CREATE DATABASE [distribution]
```

3. Make sure that `[msdb].[dbo].[MSdistpublishers]` is referring to the correct Distribution database. If it doesn't, you can update the `distribution_db` column.

```
SELECT * FROM [msdb].[dbo].[MSdistpublishers]
```

4. Recover missing Distribution database objects:

```
EXEC [distribution]..sp_MScreate_dist_tables
```


5. Make sure that the `MSrep1servers` metadata table in the Distribution database is properly initialized:

```
USE [distribution]
IF OBJECT_ID('[dbo].[MSreplservers]') IS NULL
    CREATE TABLE [dbo].[MSreplservers] (
        [srvid] [smallint] NULL,
        [srvname] [sysname] NOT NULL
    ) ON [PRIMARY]
GO
INSERT INTO [dbo].[MSreplservers]
    SELECT server_id, name
    FROM sys.servers
    WHERE server_id = 0 and
    name COLLATE DATABASE_DEFAULT NOT IN (SELECT srvname FROM [dbo].[MSreplservers])
GO
```

6. You should now be able to drop the Distributor together with the Distribution database:

```
EXEC sp_dropdistributor @no_checks = 1, @ignore_distributor = 1
```

Public Documentation Reference

The proper way to remove Distribution from a server is described in [Disable Publishing and Distribution](#) .

How good have you found this content?

