

How many undelivered commands are waiting in distribution database

Last updated by | Vitor Tomaz | Jun 8, 2022 at 5:37 AM PDT

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How to find out how many undelivered, unreplicated commands are waiting in the distribution database

Issue

If the Distribution Agent is blocked or failing, there might be a lot of backlog accumulating in the Distribution database. The Log Reader Agent continues to deliver its workload, and if the Publisher is very busy, there might easily be thousands of transactions with millions of commands waiting to be replicated.

There could even be so many changes pending that it might be quicker to reinitialize the subscription(s) instead of waiting for the Distribution Agent(s) to catch up.

This article helps you with finding out how many commands are waiting to be replicated. You may either run a simple SQL query or use the Replication Monitor UI for this.

Transact-SQL query

If the customer can execute queries against the Distribution database, this is the easiest way to see the number of undelivered, unreplicated commands:

```
-- execute in the distribution database
SELECT --*
    ds.DelivCmdsInDistDB, ds.UndelivCmdsInDistDB,
    da.publisher_db, da.publication,
    ma.article, ma.source_owner, ma.source_object, ma.destination_owner, ma.destination_object, da.subscriber_db
FROM
    dbo.MSdistribution_status ds
    INNER JOIN dbo.msdistribution_agents da ON da.id = ds.agent_id
    INNER JOIN dbo.msarticles ma ON ma.publisher_id = da.publisher_id and ma.article_id = ds.article_id
WHERE subscriber_id > 0
ORDER BY UndelivCmdsInDistDB DESC, publication
```

Sample output:

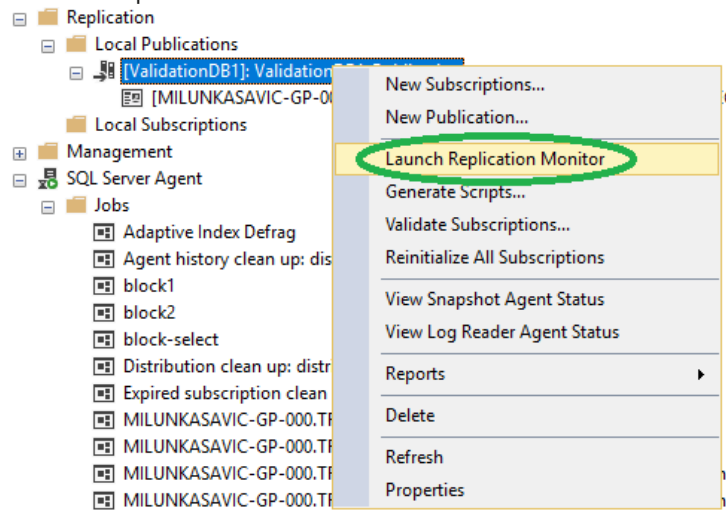
DelivCmdsInDistDB	UndelivCmdsInDistDB	publisher_db	publication	article
86	123	Repl_PUB	Publication_Name	MainTable
3947	987654	Repl_PUB	Publication_Name	SubTable

The value for `DelivCmdsInDistDB` shows you how many commands were replicated already, but haven't been cleaned up yet. The value for `UndelivCmdsInDistDB` shows you the number of unreplicated commands for each article.

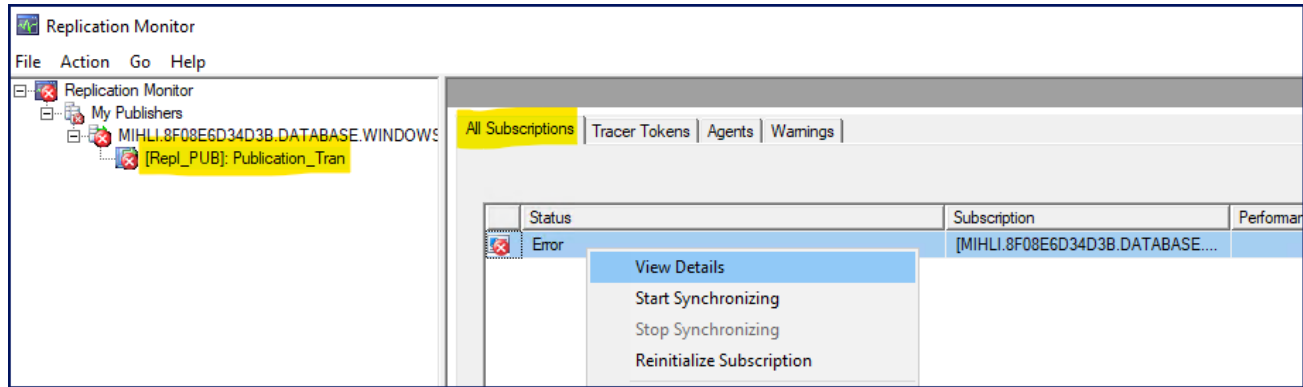
Reference: [MSdistribution status](#) 

Replication Monitor - check subscriptions

1. Connect to the Publisher/Distributor in SSMS and open Replication Monitor by right-clicking on any item on the Replication node:



2. Identify the subscription named by the customer. Cross-check the "Subscription" column to confirm that you are looking at the correct Subscriber database and subscription:



1. View details for the selected Distribution agent and select the `Undistributed Commands` tab:

Subscription MIHLI.8F08E6D34D3B.DATABASE.WINDOWS.NET:Repl_SUB to MIHLI.8F08E6D34D3B.D...

File Action Help

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Publisher To Distributor History | Distributor To Subscriber History | **Undistributed Commands**

Number of commands in the distribution database waiting to be applied to this Subscriber:

Estimated time to apply these commands, based on past performance:

NOTE: The time needed for the Subscriber to catch up to the Publisher is the sum of the following:

- The actual time needed to apply the commands in the distribution database
- The time needed to apply any subsequent commands committed at the Publisher

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