

Add on-prem subscriber when the name of the server does not match

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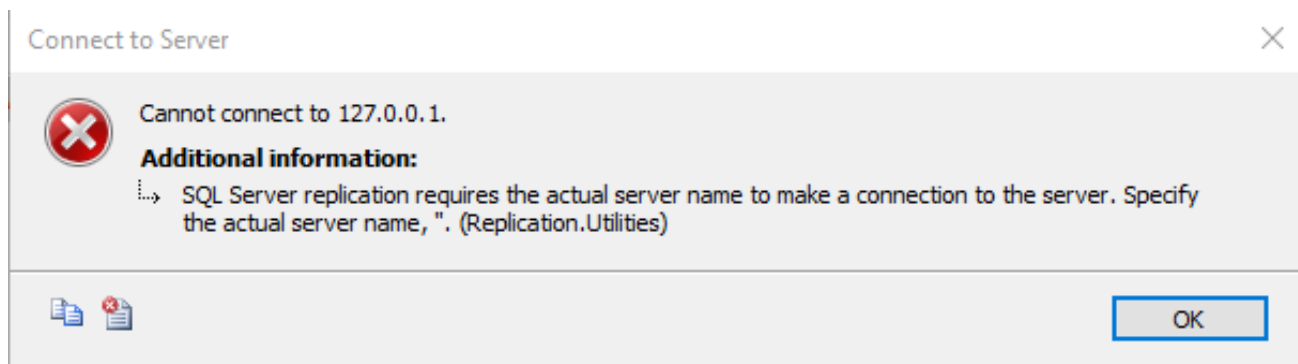
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Issue

When adding a subscription through the Create Subscription wizard in SSMS, the GUI will validate that the provided Subscriber server name is the same as the actual name stored in `sys.servers`.

If there is no match, the wizard will fail with:



Cannot connect to 127.0.0.1

SQL Server replication requires the actual server name to make a connection to the server. Specify the actual server name.

(Replication.Utilities)

Investigation/Analysis

When accessing an on-premise SQL Server instance from Managed Instance, the Azure networking and routing usually requires you to use the Subscriber server's IP address or its Fully-Qualified Domain Name (FQDN). The server name that is registered in `sys.servers` however usually is the local NETBIOS name, which is resolvable only on the local on-premise LAN. Therefore the names often do not match, causing the error message given above.

Use `select @@servername` on the Subscriber server to see its current server name. Compare it to the name of the Subscriber server that the customer is using to create the subscription.

Mitigation

Mitigation 1: Create the subscription through sp_addsubscription - PREFERRED

Use replication stored procedure `sp_addsubscription` instead of the GUI to add the subscription. The stored procedure does not validate the Subscriber name against `sys.servers`, so it allows you to provide either IP address or FQDN:

```
EXEC sp_addsubscription @publication = N'<Publication_Name>',
    @subscriber = N'<Subscriber_IP_Address>', -- e.g. '10.0.0.10' or '11.0.0.11,1433'
    @destination_db = N'<Subscriber_Database_Name>',
    @subscription_type = N'Push'
GO

EXEC sp_addpushsubscription_agent @publication = N'<Publication_Name>',
    @subscriber = N'<Subscriber_IP_Address>', -- same value as provided in a call above
    @subscriber_db = N'<Subscriber_Database_Name>',
    @subscriber_security_mode = 0,
    @subscriber_login = N'<Subscriber_SQL_User>',
    @subscriber_password = N'<Subscriber_Password>',
    @job_login = N'<Distributor_SQL_User>',
    @job_password = N'<Distributor_Password>'
GO
```

Mitigation 2: Change the SQL server name of the Subscriber

Change the server name of the on-premise SQL Server instance to match the name that you are connecting with from MI.

Note that changing the server name might break other features that are using the existing server name of the on-premise SQL instance. If this is the only replication setup on this server and the server is mainly used as the Subscriber, then changing the server name is the preferred mitigation because it will be easier for the customer to add more subscriptions through the GUI.

Use the following commands to change the server name of the on-premise SQL Server instance:

```
exec sp_dropserver '<OriginalServerName>';
exec sp_addserver '<IP Address or FQDN>', local;
```

Then restart the SQL service to apply the change.

How good have you found this content?

