

Distribution Agent failing with requires actual server name

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Issue

The Managed Instance is configured as Publisher and Distributor. The Subscriber is an on-premise SQL Server, created with a Push subscription for which the Distribution Agent is running on the Distributor. This is the supported and recommended configuration.

The Distribution Agent however is consistently unable to connect to the FQDN of the on-premise Subscriber server. It is reporting the following error:

```
SQL Server is unable connect to servername.domainname.com\instancename.  
Cannot connect to servername.domainname.com\instancename.  
SQL Server replication requires the actual server name to make a connection to the server.  
Specify the actual server name, 'servername\instancename'. (Replication.Utilities)
```

The same error might occur when configuring the subscription with the wizard in SSMS.

Investigation / Analysis

Note that the error message is referring to two different server names: the FQDN that you used to create the subscription, and the NETBIOS name of the Subscriber server.

SQL Server executes two queries for retrieving the server names in the error message:

```
SELECT SERVERPROPERTY(N'servername') -- servername.domainname.com\instancename  
SELECT @@SERVERNAME -- servername\instancename
```

The on-premise SQL Server knows itself internally by its Windows name, not by the FQDN. You can verify this by checking sys.servers at the Subscriber server instance. The error occurs because the replication procedures compare the configured Subscriber name with the internal server name of the Subscriber instance. These do not match when using an FQDN name for the subscription.

Mitigation

To resolve this issue, use `sp_dropserver` to remove the Windows name, and re-add it with the FQDN through `sp_addserver '<FQDNname>', local`.

You can use the following script to do this in one step:

```
DECLARE @actualname NVARCHAR(100)
DECLARE @currentname NVARCHAR(100)
SELECT @actualname = CONVERT(NVARCHAR(100), SERVERPROPERTY(N'servername'))
SELECT @currentname = @@SERVERNAME
EXEC sp_dropserver @currentname
EXEC sp_addserver @actualname, local
```

This however would not work if e.g. the same on-premise SQL Server instance is used as Publisher or Subscriber for an on-premise Transactional Replication. Those would require to see the Windows server name in `sys.servers`, and applying this mitigation would break the on-premise-based replication.

How good have you found this content?

