

# On-Prem SQL linked service test connection failed

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## Issue

Customer wants to use on-prem SQL in dataflow, and found test connection failed in linked service.

## Root Cause

Customer not set network configuration correctly.

Customer can trouble shoot according to the error message, for example:

\_Cannot connect to SQL Database: '{FQDN-name}.fareast.corp.microsoft.com,1433', Database: 'test', User: 'sa'. Check the linked service configuration is correct, and make sure the SQL Database firewall allows the integration runtime to access. A network-related or instance-specific error occurred while establishing a connection to SQL Server. The server was not found or was not accessible. Verify that the instance name is correct and that SQL Server is configured to allow remote connections. (provider: TCP Provider, error: 0 - **The remote computer refused the network connection.**), **SqlErrorNumber=1225,Class=20,State=0, The remote computer refused the network connection** Activity ID: d65609a4-027b-45e7-98ac-ebac9e887257.

## Resolution

1. Error message: **SqlErrorNumber=1225,Class=20,State=0, The remote computer refused the network connection**

RCA: No prerouting rule in VM

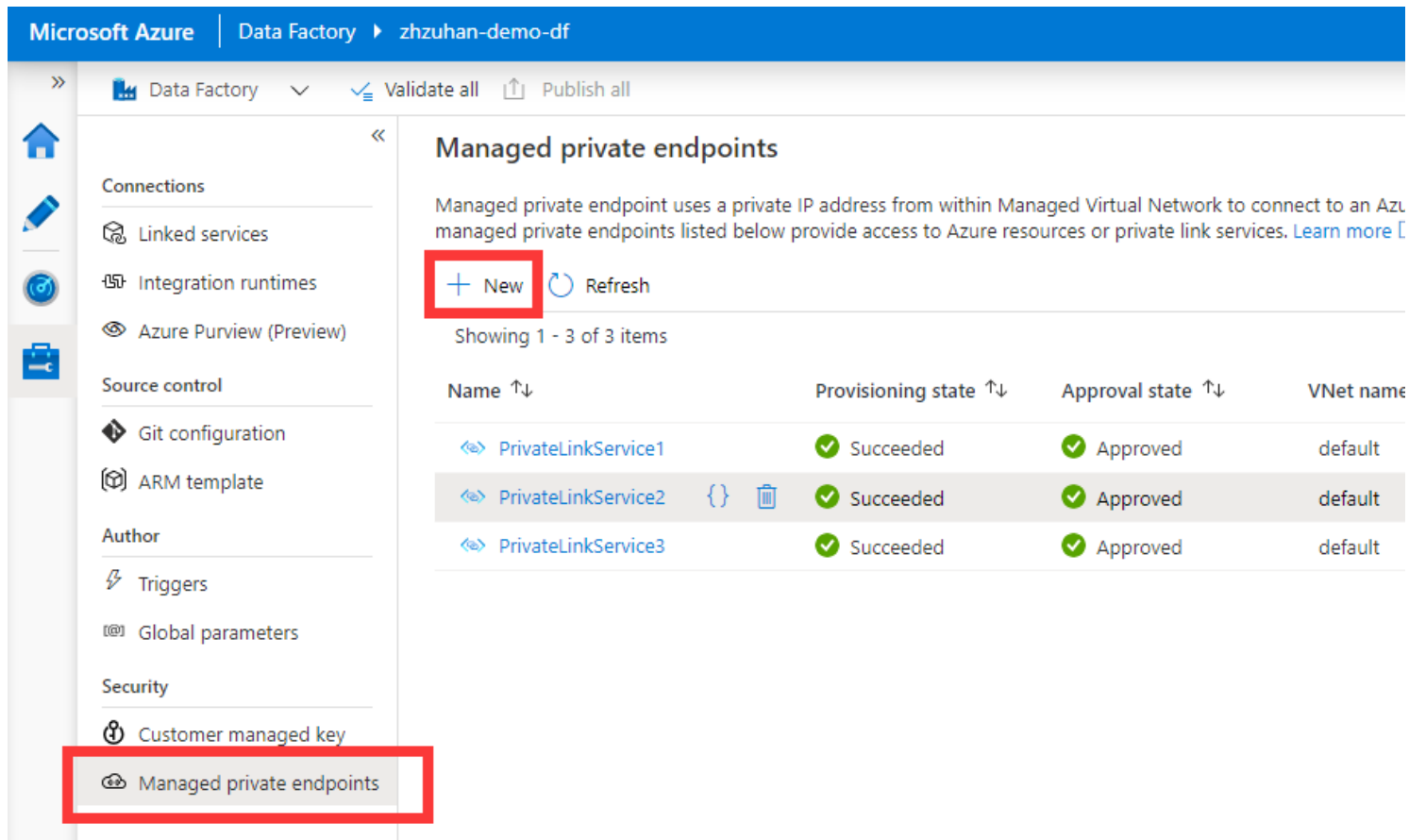
Resolve:

1. check prerouting rule in VM: `sudo iptables -t nat -v -L PREROUTING -n --line-number`
2. add prerouting rule in VM: `sudo ./ip_fwd.sh -i eth0 -f 1433 -a 172.16.0.130 -b 1433`

2. Error message: **SqlErrorNumber=11001,Class=20,State=0, No such host is known**

RCA: PE is not created

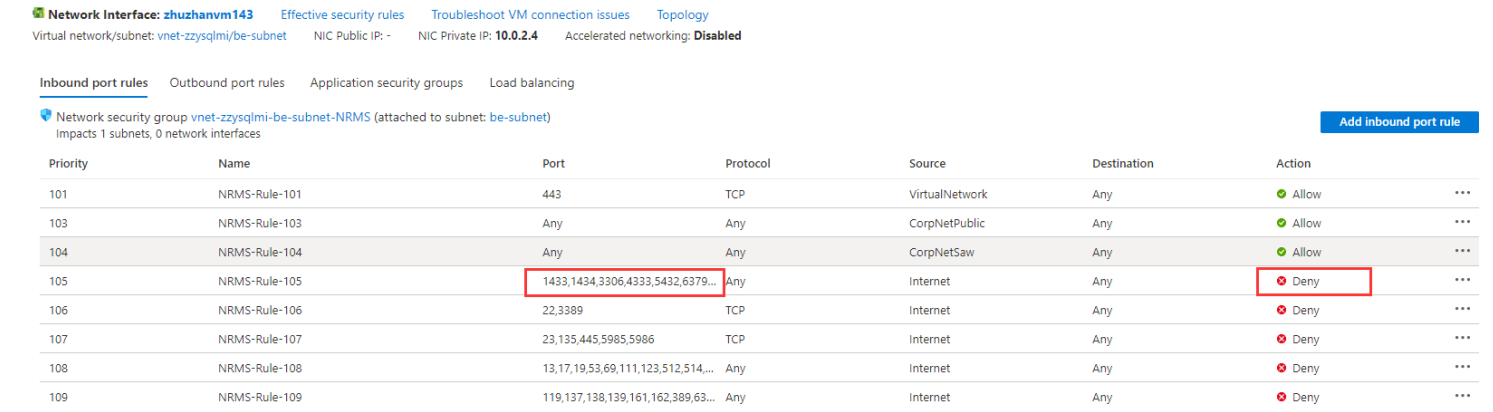
Resolve: Create PE in ADF, and approve it.



3.Error message: **SqlErrorNumber=258,Class=20,State=0, The wait operation timed out**

RCA1: Blocked by NSG of VM(subnet), port 1433 was denied

Resolve1: remove corresponding rule or NSG.



RCA2: PE is not approved.

Resolve2: Approve it in private link service.

RCA3: Load balance rule not set correctly. For example, need to use port 1433, but set 1434.

Resolve3: Correct the setting.

RCA4: VPN disconnect, or local NSG block the port

In VM `sudo iptables -t nat -v -L PREROUTING -n --line-number` , the Accept number will increase which means network from ADF to VM is connected. Then telnet local-ip port (Ex. `telnet 172.16.0.130 1433` ) to check the connection from vm to on-prem network.

Resolve4: Configure the VPN connection between VM network to On-prem network correctly. Set the NSG rule in on-prem env to unblock connection for certain port.

## Additional Information:

- Icm Reference: N/A
- Author: Zhuoyang Zhang
- Reviewer: Zhuoyang Zhang
- Keywords:On-Prem SQL