Use domain name to connect to sql server

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There are couple of options available for SQL Server if customer wants to connect with different name. Following option may also apply when customer uses private endpoint. This article applies to SQL DB and not all options works for MI.

1. DNS Alias

https://docs.microsoft.com/en-us/azure/sql-database/dns-alias-overview ↗

https://docs.microsoft.com/en-us/azure/sql-database/dns-alias-powershell?tabs=azure-powershell ↗

Azure SQL DB supports DNS alias as you can see in above doc. However, the created alias will not be the domain format. It can only be made up of lowercase letters 'a'-'z', the numbers 0-9 and the hyphen. For example, you can only create DNS alias with eeoc instead of eeoc.gov ↗.

When connecting, the alias replaces the first dot-delimited node in the four node server string. For example, we can connect using aaaa.database.windows.net ↗ for my original server yxgri1g2pa.database.windows.net ↗

Private endpoint works in this method. I tested with user as username and username@servername and both works for me.

This option will not work for MI.

2. Host file

C:\Windows\System32\drivers\etc. Edit Host file using notepad.

- • *Connect through private endpoint*

Update the host file and let it points to the privatelink IP.

```
# localhost name resolution is handled within DNS itself.
#       127.0.0.1       localhost
#       ::1             localhost
10.1.1.7 eeoe.com
```

However, the doc says it is only recommended for testing https://docs.microsoft.com/en-us/azure/private-link/private-endpoint-overview#dns-configuration ↗
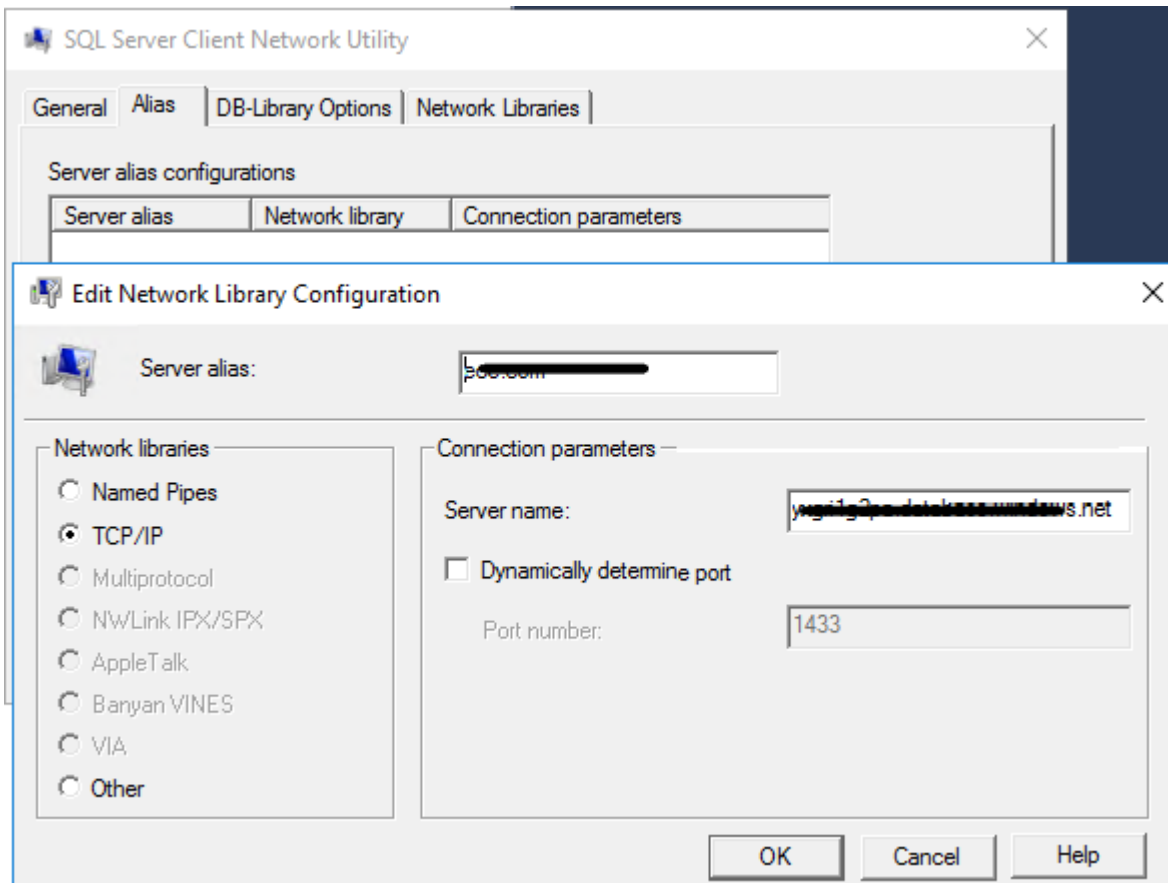
- *Connect through public network*

Update the host file and let it points to the SQL Server gateway IP.

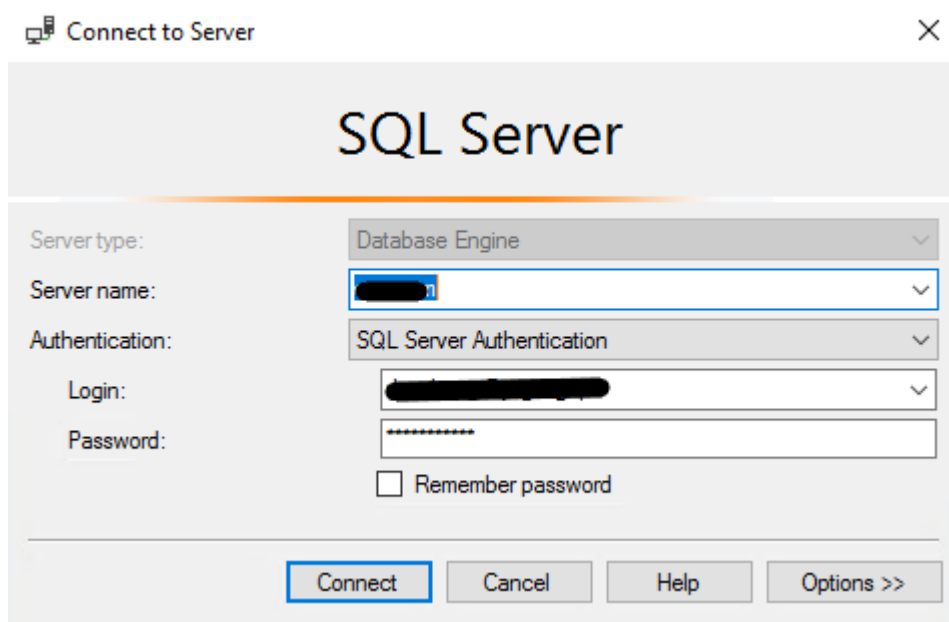I tested with user as username and username@servername and both works for me.

3. Cliconfg

"C:\windows\syswow64\cliconfg.exe" (It has to be the 64bit version if running on 64 bit system. If you are using 32 bit system, you may try with 32 bit version of cliconfg.)

It works in both private connection or public connections.

In this method, I will have to use username@servername to connect

If I only put the username without the servername, I will get error "Cannot open server "ece.com ⤢" requested by the login. The login failed. (Microsoft SQL Server, Error: 40532)"

4. CNAME

Update CNAME record in the DNS server.

- Connect through private endpoint

In https://docs.microsoft.com/en-us/azure/private-link/private-endpoint-overview#dns-configuration ⤢, it says we can use private DNS zone or custom DNS server.

Use a private DNS zone. You can use private DNS zones to override the DNS resolution for a given private endpoint. A private DNS zone can be linked to your virtual network to resolve specific domains. Use your custom DNS server. You can use your own DNS server to override the DNS resolution for a given private link resource. If your DNS server is hosted on a virtual network, you can create a DNS forwarding rule to use a private DNS zone to simplify the configuration for all private link resources.

With private DNS zone, steps are:

1. Create new private DNS zone.

2. Link VNET that the private endpoint belongs to.

3. Add CNAME record to yxgri1g2pa.privatelink.database.windows.net ⤢ or yxgri1g2pa.database.windows.net ⤢

4. Once this is done, I am able to connect to sql (I have to use username@servername to login. Failed to connect without using @servername)

eece.com
Private DNS zone

Search (Ctrl+/)

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- Diagnose and solve problems

Settings

- Virtual network links
- Properties
- Locks
- Export template

Support + troubleshooting

- New support request

+ Record set → Move 🗑 Delete zone 🔄 Refresh

Resource group (change) : westeurope

Subscription (change) : Microsoft Azure Internal Consumption-danzhang

Subscription ID   :

Tags (change)   : Click here to add tags

Search record sets

Name	Type	TTL	Value	Auto registered
@	SOA	3600	Email: azureprivatedns-host.microsoft.com Host: azureprivatedns.net Refresh: 3600 Retry: 300 Expire: 2419200 Minimum TTL: 300 Serial number: 1	-
dmstest	A	10	10.1.1.5	True
testsql	CNAME	3600	yxgri1g2pa.privatelink.database.windows.net	-

🖥 **Connect to Server**   ✕

SQL Server

Server type:	Database Engine
Server name:	
Authentication:	SQL Server Authentication
Login:	danzhang
Password:	••••••••••
	☐ Remember password

[Connect] [Cancel] [Help] [Options >>]

Customer should also be able to use their own DNS server to update the CNAME NAME. But I have not tested this solution.

- Connect through public network

It works based on this wiki page
https://supportability.visualstudio.com/AzureSQLDB/_wiki/wikis/AzureSQLDB.wiki/277674/Connectivity-Using-CNAME-for-the-Server-FQDN

Public blog: https://techcommunity.microsoft.com/t5/azure-database-support-blog/options-to-use-different-name-to-connect-to-azure-sql-server/ba-p/1217805 ⧉

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