

Troubleshoot DNS name resolution errors

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You can use the **nslookup** utility or **netmon** traces to troubleshoot name resolution issues:

The two most common errors that you may encounter using the nslookup command are "Timed-Out" and "Non-existent Domain". The "Timed-Out" message indicates that the server did not respond to a request after a certain amount of time and a certain number of retries. You can set the time-out period with the set timeout subcommand. You can set the number of retries with the set retry subcommand. The "Non-existent Domain" message indicates that the computer or DNS domain name does not exist. There are other errors that you may encounter less frequently such as "No Response from Server", "Connection Refused", "Network is Unreachable", "Server Failure", and "Format Error".


Overall, using the nslookup command to troubleshoot DNS Server and host name resolution issues is generally very helpful as you are removing some of the higher level protocols which can interfere in the troubleshooting process.

Steps

If you're troubleshooting issues related to name resolution like - The remote name could not be resolved sea.frontend.clouddatahub.net 

Refer to the steps below:

Perform NSLookup

- Open an elevated command prompt.
- Run the command: nslookup sea.frontend.clouddatahub.net 
- The output should show you if the name resolution worked successfully or failed.

Example of a name resolution resolved by a DNS server:

```
C:\>nslookup sea.frontend.clouddatahub.net
Server: UnKnown
Address: fe80::1

Non-authoritative answer:
Name: fe-sea-prod-adms-z03.cloudapp.net
Address: [REDACTED]
Aliases: sea.frontend.clouddatahub.net
tm-sea-prod-adms-fe.trafficmanager.net
```

In case of failure, you'll notice something like:

```
Server: UnKnown<br>
Address: XXXXXXXXXXXXXXXX
```

```
*** UnKnown can't find sea.frontend.clouddatahub.net: Non-existent domain
```

Troubleshoot DNS issue using Netmon

- Launch Netmon and apply filter as DNS
- Lookout for the DNS name which is in the error details under Dns Name tab
- Once you find it, right click on it -> Find conversations -> DNS

Refer following example:

Frame Summary - [Conversation Filter], DNS							
Frame Number	Time Date Local Adjusted	Time Offset	Process Name	Source	Destination	Protocol Name	Dns Name
549	12:39:25 PM 16-Sep-20	26.1264020				DNS	alphastroragegeneral.dfs.core.windows.net
551	12:39:25 PM 16-Sep-20	26.1582292				DNS	alphastroragegeneral.dfs.core.windows.net

- You will clearly notice the Name error, which means name resolution failed.
- Further check with the customer if the SHIR is OnPrem or Hosted on a VM in Azure. If OnPrem, he'll have to working with his internal IT team to get the name resolution working, if hosted on a VM in Azure, then you can check if customer is using [Custom DNS](<https://docs.microsoft.com/en-us/azure/virtual-network/virtual-networks-name-resolution-for-vms-and-role-instances#name-resolution-that-uses-your-own-dns-server>) and investigate further, or engage Azure Networking team.

How good have you found this content?

