Connection was denied since Deny Public Network Access is set to Yes

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Why connection denied with DPNA set to Yes?

Issue

External table not able to access via Private links. The issue is related to limitation with Deny Public Network access and Elastic Query,as the DPNA only allow Private link logins.

Error *Msg 46823, Level 16, State 1, Error retrieving data from <servername>.database.windows.net. The underlying error message received was: 'Reason: An instance-specific error occurred while establishing a connection to SQL Server. Connection was denied since Deny Public Network Access is set to Yes (https://docs.microsoft.com/azure/azure-sql/database/connectivity-settings#deny-public-network-access).*

Mitigation

To connect to this server, use the Private Endpoint from inside your virtual network.

Follow - How to setup Private lin for Azure SQL database .'.

Root Cause

There is a known limitation with Deny Public Network Access (DPNA) and Elastic Query. The reason for this is that DPNA only allows Private Link logins to access the server. In order for a login to go over PrivateLink, its TCP connection needs to originate inside the VNet that a PL has been set up for. This doesn't work for Elastic Query since the connection originates from the database itself and databases do not live inside customer VNets.

Next steps & Recommendations

There is an Azure-wide feature in incubation that will allow PaaS-to-PaaS connections like this to be allowed under DPNA. We hope to have some preview in early 2022.

In the meantime, the best solution is to enable Public Network Access and Allow All Azure Resources to connect. A possible solution if Allow All Azure Resources is not secure enough is to create IP firewall rules for

each database. You should be able to catch the firewall errors and get the public IP of the database attempting to log in. You could then add that firewall rule to the destination server and retry the query.

How good have you found this content?