Enable connectivity via public endpoint

Last updated by | Vitor Tomaz | Apr 6, 2022 at 11:15 AM PDT

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Issue

Customer is not able to connect via public endpoint.

Investigation/Analysis

Asking for Azure SQL Connectivity Checker test is a good starting point.

Lack of connectivity is usually caused by a client-side networking issue (like DNS issue or a port being blocked) that customer will need to pursue with their local network administrator.

Some validations you may do together are:

- The host name contains **.public.** and that port used in the connection string is **3342**, format is <mi_name>.public.<dns_zone>.database.windows.net,3342
- You have Public Endpoint enabled, see https://docs.microsoft.com/azure-sql/managed-instance-in-the-azure-instance-in-the-azure-portal ☐
- Network traffic to this endpoint and port is allowed from the source and any networking appliances you may have (firewalls, etc.).
- Routing is properly configured, and asymmetric routing is avoided.

 A route with the 0.0.0.0/0 address prefix instructs Azure how to route traffic destined for an IP address that is not within the address prefix of any other route in a subnet's route table. When a subnet is created, Azure creates a default route to the 0.0.0.0/0 address prefix, with the **Internet** next hop type. Check if this route was overridden. See the details about impact of changes on this default route at https://docs.microsoft.com/azure/virtual-network/virtual-networks-udr-overview#default-route

Routes can be seen in ASC:

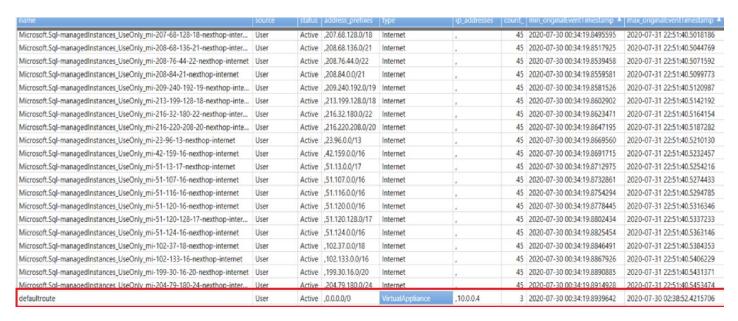
Microsoft.Sql/managedInstances

Properties	Availability	Connectivity	Maintenance	Networkir	ng Provi	sioning	Read So	cale Out	Security
Geo DR	SQL Agent	Data Virtualization	Network Dia	gnostics	Metrics	Troublesh	ooter	Resource	Change Histo
General	DNS Servers	Effective Routes	Test tcp con	nections fron	n node agent	Netv	work Reso	urce Provid	er (NRP)
Check MonEffectiveRoutes telemetry. Management Traffic Routing Changes in Effective Routes									

Alternatively, you may run the following Kusto query:

```
MonEffectiveRoutes
| where subnet_resource_id == "X"
| where TIMESTAMP >= datetime(2020-07-30)
| summarize count(), min(originalEventTimestamp), max(originalEventTimestamp)
by name, source, status, address prefixes, type, ip addresses
```

And verify if customer has a 0.0.0.0/0 pointing to something other than internet, the connectivity will fail and get above error. Ref doc:- https://docs.microsoft.com/en-us/azure/virtual-network/virtual-networks-udr-overview#default-route



Mitigation

If default route was overridden, customer may consider modifying the existing 0.0.0.0/0 address next hop to Internet in Managed Instance route table in Portal. Alternative is to make sure that traffic is allowed on the Virtual Appliance.

OLD Route: Name: defaultroute AddressPrefix:0.0.0.0/0 Next Hop Type: VirtualAppliance Next Hop Ip Address:10.0.0.4

NEW Route: Name: defaultroute AddressPrefix:0.0.0.0/0 Next Hop Type: Internet Next Hop Ip Address: N/A

After changing next hop to internet, customer should be able to connect to MI using Public Endpoint.

Root Cause Classification

Root Cause: Azure SQL DB MI\Availability/Connectivity\User Issue/Error\Login Failures\Network issue

How good have you found this content?



