Failover group creation stuck

Last updated by | Vitor Tomaz | Jun 8, 2022 at 5:37 AM PDT

Contents

Issue

Failover Group creation is in progress for a long time and is not completing. Potentially there is a stuck seeding of one or all databases.

Investigation/Analysis

This often happens if there is a connectivity issue inside failover group, caused by customer incorrectly configuring networking between geo-primary and geo-secondary instance.

Requirements

There are a few requirements that need to be met: https://docs.microsoft.com/en-us/azure/azure-sql/database/auto-failover-group-overview?tabs=azure-powershell#enabling-geo-replication-between-managed-instances-and-their-vnets

The most common issues are:

Subnet/VNET address range overlap between subnets/VNETs of primary and secondary managed instances

In ASC go to VNET hosting geo-primary managed instance and check subnet that is hosting managed instance. Get its address prefix. Do the same thing for geo-secondary managed instance. Compare these two. If they are the same, ex. both geo-primary and geo-secondary managed instance subnet address ranges are 10.0.0.0/24, this is a case of VNET address space overlap. This means traffic to the secondary VNET is always routes inside primary VNET.

Customers are trying to use Global VNet Peering but Virtual Cluster was created before 9/22/2020.

To be able to use global virtual network peering for SQL managed instances from virtual clusters created before 9/22/2020, customers can consider configuring maintenance window on the instances, as it will move the instances into new virtual clusters that support global virtual network peering.

Check if both virtual clusters (primary and secondary) were created after 9/22/2020.

- In ASC you can select the Virtual Cluster in Resource Explorer and see the Create Date.
- Alternatively, run following query in Kusto providing instance name.

  NOTE: All server/instance names in sample queries and screenshots below are lab/test servers.

  ```
  let managedInstanceName = 'xxxxxx';
  MonManagedServers
  | where name == managedInstanceName
  | summarize arg_max(TIMESTAMP,*) by managed_server_id
  | join kind=leftouter ( MonPrivateClusters
  | summarize arg_max(TIMESTAMP,*) by private_cluster_id
  ) on $left.private_cluster_id == $right.private_cluster_id
  | project TIMESTAMP, InstanceName = name, InstanceCreateTime = create_time
  , VC_Id=private_cluster_id1, VC_Name= name1, VC_CreateTime = create_time1
  ```

  VC_CreateTime should be after 9/22/2020.

Ports 5022, and 11000-11999 are blocked

We can use SQL Agent to test connectivity between both instances. See How-to test failover group connectivity between primary and secondary SQL Managed Instances

Mitigation

Subnet/VNET address range overlap between subnets/VNETs of primary and secondary managed instances

Customer needs to drop geo-secondary managed instance and re-create it in a different VNET that does not have overlapping address range as geo-primary managed instance VNET. Check prerequisites Configure an auto-failover group for Azure SQL Managed Instance - Prerequisites

Customers are trying to use Global VNet Peering but Virtual Cluster was created before 9/22/2020.

By configuring maintenance window on the instance, instance will be moved into a new virtual clusters that support global virtual network peering. Please note this is a long running operation and a reconfiguration will happen around the end of the operation.

Ports 5022, and 11000-11999 are blocked

Open the required ports in NSGs or other network devices.
Confirm that connectivity works from MI to MI using How-to test failover group connectivity between primary and secondary SQL Managed Instances

Root Cause Classification

Cases resolved by this TSG should be coded to the following root cause:
Root Cause: Azure SQL v3/GeoDR/AutoDR/Other

How good have you found this content?

☺ ☹