Testing of geo-repl failover via FailoverGroup

Last updated by | Vitor Tomaz | Aug 5, 2020 at 12:41 PM PDT

Contents

Scenario

Customer ran the following workflow to failover all the geo-repl pairs in the FG:

//Create a new failover group named sfelner-prod

1)New-AzureRmSqlDatabaseFailoverGroup -ServerName sfelner-useast -FailoverGroupName sfelner-prod -ResourceGroupName sfelner-useast -PartnerServerName sfelner-uswest -FailoverPolicy Manual -PartnerResourceGroupName sfelner-uswest

//Add 5 databases on server sfelner-useast to the group

2)$databases=Get-AzureRmSqlDatabase -ServerName sfelner-useast -ResourceGroupName sfelner-useast

$databases|Add-AzureRmSqlDatabaseToFailoverGroup -ServerName sfelner-useast -ResourceGroupName sfelner-useast -FailoverGroupName sfelner-prod //Adding 5 app db's to FG config

//Try to failover to sfelner-uswest

3)Switch-AzureRmSqlDatabaseFailoverGroup -ResourceGroupName sfelner-uswest -ServerName sfelner-uswest -FailoverGroupName sfelner-prod -AllowDataLoss

As the result, one geo-repl failed over, the geo-repls of other 4 databases didn't. The process appeared to be hang.

Analysis

In order to identify the correct behavior, I tested on my servers and confirmed that Switch-AzureRmSqlDatabaseFailoverGroup will failover ALL the geo-repl pairs defined in the databases in the FailoverGroup.

Primary:

Server: boyo

Databases: Allscripts, allscriptsBox

Location: West Europe

Secondary:

Server: boyo6

Location: East US

Databases: none.

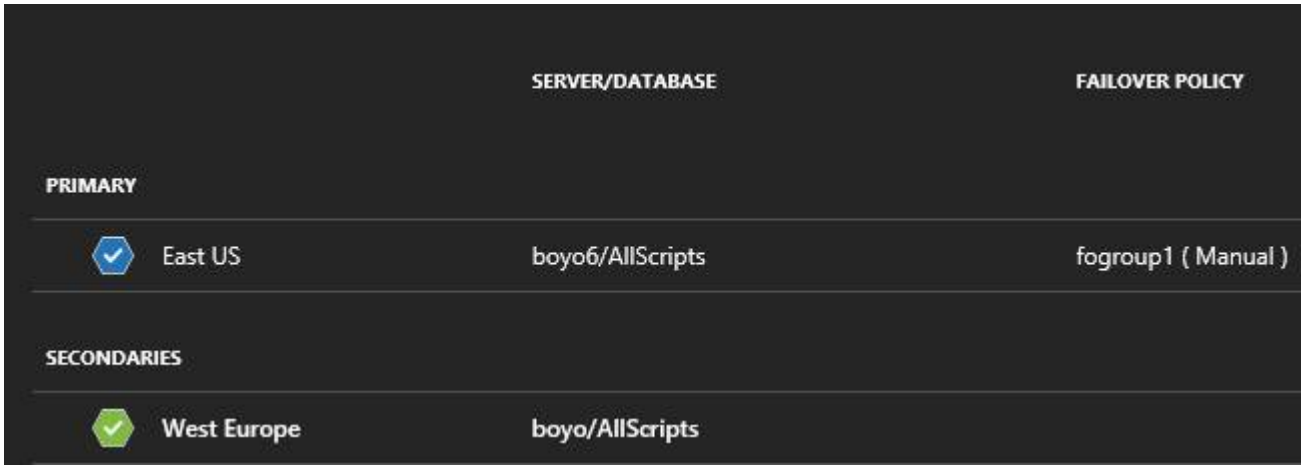
```
//Created a failover group, fogroup1
$failovergroup = New-AzureRMSqlDatabaseFailoverGroup `
    –ResourceGroupName "Group-5" `
    -ServerName "boyo" `
    -PartnerServerName "boyo6"  `
    –FailoverGroupName "fogroup1" `
    –FailoverPolicy Manual

//Added two databases into fogroup1:
$failovergroup = Get-AzureRmSqlDatabase `
  -ResourceGroupName "Group-5"`
  -ServerName "boyo" `
  -DatabaseName "AllScripts" | `
  Add-AzureRmSqlDatabaseToFailoverGroup `
  -ResourceGroupName "Group-5" ` `
  -ServerName "boyo" `
  -FailoverGroupName "fogroup1"
$failovergroup

$failovergroup
# Add database to failover group
```

```
$failovergroup = Get-AzureRmSqlDatabase `
  -ResourceGroupName "Group-5"`
  -ServerName "boyo" `
  -DatabaseName "allscriptsBox" | `
  Add-AzureRmSqlDatabaseToFailoverGroup `
  -ResourceGroupName "Group-5" ` `
  -ServerName "boyo" `
  -FailoverGroupName "fogroup1"
$failovergroup
```

// try to failover, the command was successful

```
Switch-AzureRMSqlDatabaseFailoverGroup `
  -ResourceGroupName "Group-5" `
  -ServerName "boyo6" `
  -FailoverGroupName "fogroup1"
```

//checked the result on portal, seems all right, both databases were created on boyo6, and they are primarys after failover:



Mitigation

Customer re-run the script and waited until all the geo-repl failed over.

Classification

Root Cause: Azure SQL DB v2\GeoDR/AutoDR

How good have you found this content?