Exchange Server 2016 DAG Cluster Troubles Disaster Recovery Steps –

A perfectly running Exchange server 2016 with a Database Availability Group (DAG) cluster can go horribly wrong for many prevented since we have a DAG cluster UPS system and a regular backup. There are various items that can hinder the delic have a non-healthy or issues with the Active Directory or network. The most obvious culprit always remain the failure of a l RAID controller or any other item in between like fibre switch, cable, etc.Other major reason would be sudden loss of powe supply. Things that may cripple your Exchange Server can also be non-material such as an interrupted Windows Update, a application aware, and viruses, malware or ransomware. All these not only hinder the operational feature of Exchange but

Steps to Deal with Disaster Recovery Scenario

Let's take the example of an Exchange DAG with two servers on the primary side and two on the secondary side, with a wit normal scenario, where there is a hardware failure or a planned maintenance or upgrade, you should failover to the secon

You need to check the status of the DAG by using the *Get-ClusterNode* which will show that the servers in the primary site

```
[PS] C:\Windows\system32>Get-ClusterNode

Name                 ID    State
----                 --    -----
EX0                  1     Up
EX1                  2     Down
EX2                  3     Down
EX3                  4     Up
```

The next move would be to stop the partially or totally failed server from the Database Availability Group by using the *Stop* the below parameters.

Stop-DatabaseAvailabilityGroup -Identity DAG01 -MailboxServer EX1 –ConfigurationOnly

This must be done for all servers which are down. In this case,you need to run one for EX1 and one for EX2. Once confirme the DAG in your setup. To see that the selected servers have been stopped,use the Get-DatabaseAvailabilityGroup comma

```
[PS] C:\Windows\system32>Get-DatabaseAvailabilityGroup dag01 | fl Name,st*,prima*,oper*,*wit*

Name                          : DAG01
StoppedMailboxServers         : {EX1.lab.com, EX2.lab.com}
StartedMailboxServers         : {EX0.lab.com, EX3.lab.com}
PrimaryActiveManager          :
OperationalServers            :
WitnessServer                 : dc1.lab.com
WitnessDirectory              : c:\DAG01
AlternateWitnessServer        : dc2.lab.com
AlternateWitnessDirectory     : c:\DAG1
WitnessShareInUse             :
DxStoreWitnessServers         :
```

The next step is to stop the cluster service on the nodes which are still up(In this example, these are EX0 and EX3). The Exal

With this,you remove the faulty servers from the DAG, and stop the cluster service.

The next step is to restore the DAG and start the cluster with healthy databases and cluster.

So, after you have stopped the cluster services, you need to rest the DAG with the *Restore-DatabaseAvailabilityGroup* comı

Restore-DatabaseAvailabilityGroup -Identity DAG02

Depending on the resources of servers, connectivity between servers and network speed, this process might take some tim

Now, you need to remove restriction and activate the databases to start the replication process. This is the most crucial pa mounted and resume the database copy.For this, use the *Get-MailboxDatabaseCopyStatus* | *ResumeDatabaseCopy* and the the database status.

```
[PS] C:\Windows\system32>Get-MailboxDatabaseCopyStatus | Resume-MailboxDatabaseCopy
[PS] C:\Windows\system32>Get-MailboxDatabaseCopyStatus -Server ex3 | Resume-MailboxDatabaseCopy
WARNING: The Microsoft Exchange Replication service hasn't responded to the request to resume. The service might not be
running. To stop waiting for the service to respond, press CTRL+C. Use the Get-MailboxDatabaseCopyStatus cmdlet to
check whether the service has resumed.
[PS] C:\Windows\system32>Get-MailboxDatabaseCopyStatus

Name                                    Status      CopyQueue ReplayQueue LastInspectedLogTime   ContentIndex
                                                    Length    Length                             State
----                                    ------      --------- ---------- -------------------   ------------
DB15\EX3                                Mounted     0         0                                  Healthy
```

If all goes well and you've validated the status of databases and all databases are automatically mounted and healthy,you *ClusterNode* command.

The result should show that both EX0 and EX3 are 'Up' with no issues. If you are planning to restore the failed servers, you Windows Cluster Services and configuration of the network on new servers. Then,use the *Start-DatabaseAvailabilityGroup* part of the DAG.

Start-DatabaseAvailabilitygroup -Identity DAG02 -mailboxServer EX01
Start-DatabaseAvailabilitygroup -Identity DAG02 -mailboxServer EX02

The next command i.e. *Set-DatabaseAvailabilityGroup* will make the member server an effective part of the cluster.

Set-DatabaseAvailabilityGroup -Identity DAG02

The above command must be executed on all the new members.In this example, these are EX01 and EX02.

Of course, this could be the ideal scenario where during the servers going offline, there was no damage to the databases. mount. You will have to use the *EseUtil* with the */mh* parameter to identify the problem and checking if the databases a

If this is the case, you need to perform the soft recovery. If it doesn't work, the only way possible is to restore database fro