Preparing for switchback in a mixed configuration (recovery during transition)

ONTAP MetroCluster

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You must perform certain tasks in order to prepare the mixed MetroCluster IP and FC configuration for the switchback operation. This procedure only applies to configurations that encountered a failure during the MetroCluster FC to IP transition process.

This procedure should only be used when performing recovery on a system that was in mid-transition when the failure occurred.

In this scenario, the MetroCluster is a mixed configuration

- One DR group consists of fabric-attached MetroCluster FC nodes.

  You must perform the MetroCluster FC recovery steps on these nodes.

- One DR group consists of MetroCluster IP nodes.

  You must perform the MetroCluster IP recovery steps on these nodes.

Perform the steps in the following order.

1. Prepare the FC nodes for switchback by performing the following tasks in order:
   a. Verifying port configuration (MetroCluster FC configurations only)
   b. Configuring the FC-to-SAS bridges (MetroCluster FC configurations only)
   c. Configuring the FC switches (MetroCluster FC configurations only)
   d. Verifying the storage configuration (only perform these steps on replaced drives on the MetroCluster FC nodes)
   e. Powering on the equipment at the disaster site (only perform these steps on replaced drives on the MetroCluster FC nodes)
   f. Assigning ownership for replaced drives (only perform these steps on replaced drives on the MetroCluster FC nodes)
   g. Perform the steps in Reassigning disk ownership for root aggregates to replacement controller modules (MetroCluster FC configurations), up to and including the step to issue the mailbox destroy command.
   h. Destroy the local plex (plex 0) of the root aggregate: `aggr destroy plex-id`
   i. If the root aggr is not online, online it.
2. Boot the MetroCluster FC nodes.

   You must perform these steps on both of the MetroCluster FC nodes.

   a. Display the boot menu: `boot_ontap menu`
   b. From the boot menu, select option 6, **Update flash from backup config**.
   c. Respond y to the following prompt:This will replace all flash-based configuration with the last backup to disks. Are you sure you want to continue?: y

      The system will boot twice, the second time to load the new configuration.

If you did not clear the NVRAM contents of a used replacement controller, then you might see a panic with the following message: PANIC: NVRAM contents are invalid…

If this occurs, repeat these substeps to boot the system to the ONTAP prompt. You will then need to perform a root recovery. Contact technical support for assistance.

3. Mirror the root aggregate on plex 0:

   You must perform these steps on both of the MetroCluster FC nodes.

   a. Assign three pool0 disks to the new controller module.
   b. Mirror the root aggregate pool1 plex: `aggr mirror root-aggr-name`
   c. Assign unowned disks to pool0 on the local node
4. Return to Maintenance mode.

   You must perform these steps on both of the MetroCluster FC nodes.

   a. Halt the node: `halt`
   b. Boot the node to Maintenance mode:`boot_ontap maint`
5. Delete the contents of the mailbox disks: `mailbox destroy local`

   You must perform these steps on both of the MetroCluster FC nodes.

6. Halt the nodes: `halt`
7. After the nodes boot up, verify the status of the node: `metrocluster node show`

```
siteA::*> metrocluster node show
DR                               Configuration  DR
Group Cluster Node               State          Mirroring Mode
----- ------- ------------------ -------------- ---------
--------------------
1     siteA
              wmc66-a1           configured     enabled   waiting for
switchback recovery
              wmc66-a2           configured     enabled   waiting for
switchback recovery
      siteB
              wmc66-b1           configured     enabled   switchover
completed
              wmc66-b2           configured     enabled   switchover
completed
2     siteA
              wmc55-a1           -              -         -
              wmc55-a2           unreachable    -         -
      siteB
              wmc55-b1           configured     enabled   switchover
completed
              wmc55-b2           configured
```

8. Prepare the MetroCluster IP nodes for switchback by performing the tasks in Preparing for switchback in a MetroCluster IP configuration up to and including Deleting failed plexes owned by the surviving site (MetroCluster IP configurations).
9. On the MetroCluster FC nodes, perform the steps in Performing aggregate healing and restoring mirrors (MetroCluster FC configurations).
10. On the MetroCluster IP nodes, perform the steps in Performing aggregate healing and restoring mirrors (MetroCluster IP configurations).
11. Proceed through the remaining tasks of the recovery process starting with Reestablishing object stores for FabricPool configurations.

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