



Performing a negotiated switchover

ONTAP MetroCluster

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A negotiated switchover cleanly shuts down processes on the partner site, and then switches over operations from the partner site. You can use a negotiated switchover to perform maintenance on a MetroCluster site or to test the switchover functionality.

- All previous configuration changes must be completed before performing a switchback operation.

This is to avoid competition with the negotiated switchover or switchback operation.

- Any nodes that were previously down must be booted and in cluster quorum.

The *System Administration Reference* has more information about cluster quorum in the “Understanding quorum and epsilon” section.

System administration

- The cluster peering network must be available from both sites.
- All of the nodes in the MetroCluster configuration must be running the same version of ONTAP software.
- The option `replication.create_data_protection_rels.enable` must be set to ON on both of the sites in a MetroCluster configuration before creating a new SnapMirror relationship.
- For a two-node MetroCluster configuration, a new SnapMirror relationship should not be created during an upgrade when there are mismatched versions of ONTAP between the sites.
- For a four-node MetroCluster configuration, the mismatched versions of ONTAP between the sites are not supported.

The recovering site can take a few hours to be able to perform the switchback operation.

The `metrocluster switchover` command switches over the nodes in all DR groups in the MetroCluster configuration. For example, in an eight-node MetroCluster configuration, it switches over the nodes in both DR groups.

While preparing for and executing a negotiated switchover, you must not make configuration changes to either cluster or perform any takeover or giveback operations.

For MetroCluster FC configurations:

- Mirrored aggregates will remain in normal state if the remote storage is accessible.
- Mirrored aggregates will become degraded after the negotiated switchover if access to the remote storage is lost.
- Unmirrored aggregates that are located at the disaster site will become unavailable if access to the remote storage is lost. This might lead to a controller outage.

For MetroCluster IP configurations:

- For ONTAP 9.4 and earlier:
 - Mirrored aggregates will become degraded after the negotiated switchover.
- For ONTAP 9.5 and later:
 - Mirrored aggregates will remain in normal state if the remote storage is accessible.

- Mirrored aggregates will become degraded after the negotiated switchover if access to the remote storage is lost.
- For ONTAP 9.8 and later:
 - Unmirrored aggregates that are located at the disaster site will become unavailable if access to the remote storage is lost. This might lead to a controller outage.
 1. Use the `metrocluster check run`, `metrocluster check show` and `metrocluster check config-replication show` commands to make sure no configuration updates are in progress or pending. Issue these commands from the site that will remain up and operational.
 2. From the site that will remain up and operational, implement the switchover: `metrocluster switchover`

The operation can take several minutes to complete.

3. Monitor the completion of the switchover: `metrocluster operation show`

```
cluster_A::*> metrocluster operation show
Operation: Switchover
Start time: 10/4/2012 19:04:13
State: in-progress
End time: -
Errors:

cluster_A::*> metrocluster operation show
Operation: Switchover
Start time: 10/4/2012 19:04:13
State: successful
End time: 10/4/2012 19:04:22
Errors: -
```

4. Reestablish any SnapMirror or SnapVault configurations.

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