



Start here - Choose your procedure

ONTAP MetroCluster

NetApp

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Start here - Choose your procedure

Start here: Choose between controller upgrade, system refresh, or expansion

Depending on the scope of the equipment upgrade, you chose a controller upgrade procedure, a system refresh procedure, or an expansion procedure.

- Controller upgrade procedures apply only to the controller modules. The controllers are replaced with a new controller model.

The storage shelf models are not upgraded.

- In switchover and switchback procedures, the MetroCluster switchover operation is used to provide nondisruptive service to clients while the controller modules on the partner cluster are upgraded.
 - In an ARL-based controller upgrade procedure, the aggregate relocation operations are used to nondisruptively move data from the old configuration to the new, upgraded configuration.
- Refresh procedures apply to the controllers and the storage shelves.

In the refresh procedures, new controllers and shelves are added to the MetroCluster configuration, creating a second DR group, and then data is nondisruptively migrated to the new nodes.

The original controllers are then retired.

- Expansion procedures add additional controllers and shelves to the MetroCluster configuration without removing any.

The procedure you use depends on the type of MetroCluster and number of existing controllers.

| Upgrade type | Go to... |
|--------------------|---|
| Controller upgrade | Choose a controller upgrade procedure |
| System refresh | Choose a system refresh procedure |
| Expansion | <ul style="list-style-type: none">• Two-node MetroCluster to four• Four-node MetroCluster FC to eight• Four-node MetroCluster IP to eight |

Choose a controller upgrade procdure

The controller upgrade procedure you use depends on the platform model, scope of the upgrade, and type of MetroCluster configuration.

Choosing a procedure that does not use aggregate relocation

| Type of upgrade or refresh | MetroCluster type | First ONTAP version support | Procedure |
|--|-------------------|-----------------------------|---|
| <ul style="list-style-type: none"> Scope: Platform (controller modules) only Method: Automated switchover/switchback | FC | 9.10.1 | Upgrading controllers in a four-node MetroCluster FC configuration using switchover and switchback with "system controller replace" commands (ONTAP 9.10.1 and later) |
| <ul style="list-style-type: none"> Scope: Platform (controller modules) only Method: Automated switchover/switchback | IP | 9.10.1 | Upgrade controllers from AFF A700 to AFF A900 in a MetroCluster IP configuration using switchover and switchback (ONTAP 9.10.1 and later) |
| <ul style="list-style-type: none"> Scope: Platform (controller modules) only Method: Switchover/switchback | FC | 9.8 | Upgrading controllers in a MetroCluster FC configuration using switchover and switchback |
| <ul style="list-style-type: none"> Scope: Platform (controller modules) only Method: Switchover/switchback | IP | 9.8 | Upgrading controllers in a MetroCluster IP configuration using switchover and switchback (ONTAP 9.8 and later) |

Choosing a procedure using aggregate relocation

| Aggregate relocation procedure | MetroCluster type | First ONTAP version support | Procedure |
|---|-------------------|-----------------------------|--|
| Using system controller replace commands and swapping the controller module and NVM | FC | 9.10.1 and later | Use "system controller replace" commands to upgrade AFF A700 to AFF A900 running ONTAP 9.10.1 RC2 or later |
| Using system controller replace commands | FC | 9.8 and later | Using "system controller replace" commands to upgrade controller hardware running ONTAP 9.8 and later |
| Using system controller replace commands | FC | 9.5 through 9.7 | Using "system controller replace" commands to upgrade controller hardware running ONTAP 9.5 to ONTAP 9.7 |

| Aggregate relocation procedure | MetroCluster type | First ONTAP version support | Procedure |
|--------------------------------|-------------------|-----------------------------|--|
| Using manual ARL commands | FC | 9.8 | Manually upgrade controller hardware running ONTAP 9.8 and later |
| Using manual ARL commands | FC | 9.7 and earlier | Manually upgrade controller hardware running ONTAP 9.7 and earlier |

Choosing a system refresh method

The system refresh procedure you use depends on the platform model, scope of the upgrade, and type of MetroCluster configuration.

| Scope | Config type | ONTAP support | Go to... |
|---|-------------|---------------|--|
| <ul style="list-style-type: none"> • Scope: Platform (controller modules) and storage shelves • Method: Expand the MetroCluster configuration and then remove the old nodes | FC | 9.6 and later | Refreshing a four-node MetroCluster FC configuration |
| <ul style="list-style-type: none"> • Scope: Platform (controller modules) and storage shelves • Method: Expand the MetroCluster configuration and then remove the old nodes | IP | 9.8 | Refreshing a four-node MetroCluster IP configuration (ONTAP 9.8 and later) |

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