



HP EVA storage arrays

ONTAP FlexArray

NetApp
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HP EVA storage arrays

You must meet certain requirements when configuring storage arrays to work with ONTAP systems. These requirements include setting configuration parameters on storage arrays and deploying only supported configurations.

Required parameters for HP EVA arrays with ONTAP systems

Certain parameter settings are required on the storage array for the storage array to work successfully with ONTAP systems.

System parameter settings are provided in the following table:

Parameter	Setting
Redundancy	Any RAID level except VRAID0
Preferred path/mode	No preference (default)
Host type	SUN Solaris

Requirements for configuring the HP EVA Storage Management Server

Sharing FC initiator ports present on an ONTAP system and initiator ports present on an HP EVA Storage Management Server with common EVA target ports causes compatibility issues.

The compatibility issues result from the different host settings for the FC initiator ports present on an ONTAP system and the EVA Storage Management Server initiator ports.

HP recommends that any HP EVA Storage Management Server that resides in a fabric be configured in a zone that is separate from all operating systems.

Preparing HP EVA storage arrays for NDU

HP EVA storage arrays have a tendency to bring target ports offline during a firmware upgrade. ONTAP provides commands that increase ONTAP resiliency so that the ONTAP system is not disrupted if target ports go offline during the firmware upgrade. These commands can be used only with storage systems running ONTAP.

You must follow the guidelines provided by HP for performing the firmware upgrade, including guidelines about the load recommendation (HP EVA). You can upgrade only to firmware that HP supports. This procedure pertains to the HP EVA firmware upgrade type *online upgrade*.



During the firmware upgrade, both HP EVA controllers are rebooted.

This procedure instructs you to use ONTAP commands that increase ONTAP resiliency throughout the firmware upgrade. After the firmware upgrade is complete, you use the ONTAP commands again to return the ports to their normal operating mode.

Steps

1. On the ONTAP system, set the privilege level of the command session to advanced: **set -privilege advanced**
2. Set the `is-upgrade-pending` parameter to **true** for the HP EVA storage array that is undergoing a firmware upgrade: **storage array modify -name array_name -is-upgrade-pending true**
3. On the storage array, start the firmware upgrade.
4. After the firmware upgrade is complete, set the privilege level to advanced again, if necessary, and then on the ONTAP system, set the `is-upgrade-pending` parameter to **false** to return the storage array ports to normal operation: **storage array modify -name array_name -is-upgrade-pending false**

If you did not exit advanced mode in Step 2 you do not need to access it again.

The `is-upgrade-pending` parameter contains the following features to ensure proper use of the command:

- If you attempt to set `is-upgrade-pending` to **false** while the upgrade is in progress on the storage array, the command fails and an EMS message is returned.
- If the `is-upgrade-pending` status is not returned to **false** within 60 minutes from the time it is set to **true**, EMS messages are logged hourly until `is-upgrade-pending` is returned to **false**.

ALUA support for HP EVA storage arrays

Support has been added for asymmetric logical unit access (ALUA) with HP EVA arrays.

By default, support for ALUA is enabled in ONTAP as well as on all the HP EVA storage arrays.

HP EVA storage array families

ONTAP does not support mixing some types of storage in aggregates. To help you determine the array LUNs that can be mixed in an aggregate, the storage arrays from each vendor are grouped into families. When you create aggregates, you cannot mix array LUNs from different vendors and from different storage array families in the same aggregate.

Storage arrays in the same family share the same performance and failover characteristics. For example, members of the same family all perform active-active failover, or they all perform active-passive failover. More than one factor might be used to determine storage array families. For example, storage arrays with different architectures would be in different families even though other characteristics might be the same.

The following list shows the HP EVA storage arrays organized by family:

- Family 1: P6xxxx

- Family 2: HP EVA x100
- Family 3 : HP EVA x400

The Interoperability Matrix is the final authority for information about the storage arrays supported for each vendor.

Related information

[NetApp Interoperability Matrix Tool](#)

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