



**Hewlett Packard  
Enterprise**

## **Cache Upgrade**

**HPE Alletra 5010, 5030, 5050, 2120**

**HPE Nimble Storage HFxx, ES3**

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## Support

All documentation and knowledge base articles are available on HPE InfoSight at <https://infosight.hpe.com>. To register for HPE InfoSight, click the *Create Account* link on the main page.

Email: [support@nimblestorage.com](mailto:support@nimblestorage.com)

For all other general support contact information, go to <https://www.hpe.com/us/en/services/nimble-storage.html>.

# Upgrade Cache

Use this procedure to add SSDs to your HPE storage array or expansion shelves. This procedure applies to the following models:

- HPE Alletra 5010, 5010H, 5030, 5050
- HPE Alletra 2120
- HPE Nimble Storage HF20, HF20C, HF20H, HF40, HF40C, HF60, HF60C
- HPE Nimble Storage ES3

Time required:	Up to 30 minutes
Parts required:	New 2-pack or 3-pack of SSDs ordered from HPE
Information required:	Array name or serial number. The array serial number can be found on the back of Controller A.
Tools required:	ESD (electrostatic discharge) strap or appropriate grounding device
Support contact:	<a href="http://www.hpe.com/us/en/services/nimble-storage.html">www.hpe.com/us/en/services/nimble-storage.html</a> <a href="mailto:support@nimblestorage.com">support@nimblestorage.com</a>

HPE recommends using the Maintenance Window functionality within the HPE InfoSight portal to inform HPE Support of upcoming maintenance windows.

Go to **HPE InfoSight** > **HPE Alletra 6000, Alletra 5000, Nimble Storage** > **Wellness** > **Manage Maintenance Windows** for more information.

You can disable automated support case generation during planned maintenance from the Manage Maintenance Windows page. After a maintenance window is set, no further communication with HPE Support is required.

**Note:** If cache drives being upgraded require removing existing cache, best practice is to replace one SSD drive in a 24-hour period. This is especially recommended for VDI environments workloads that have repetitive requests. Doing so significantly decreases the impact of performance in the environment.

**Note:** You do not have to shut down the array to upgrade drives.



## CAUTION:

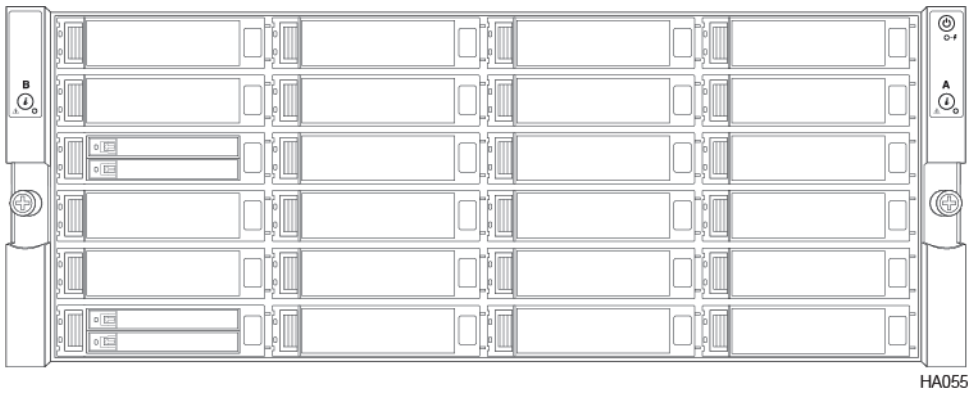
Before you install the new drives:

- All Drive A sleds must be fully populated before installing SSDs in Drive B sleds.
- The pack of SSDs must all be the same capacity.

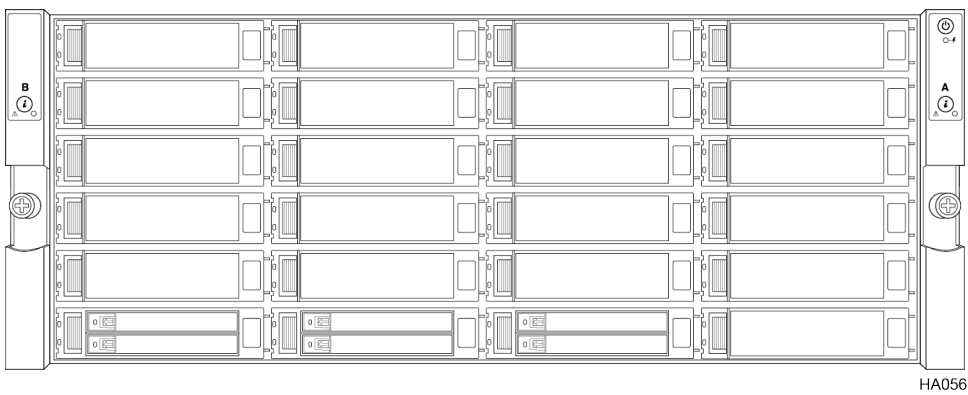
**Note:** The SSDs in Drive B can be different capacities than the SSDs already installed in Drive A.

Pending completion of the cache upgrade, the array model number is reported as unknown and health checks may fail. This is normal and expected behavior.

The image below depicts an HPE Alletra 5010H or HPE Nimble Storage HF20H array. These array models have two SSD cache slots at the left side of the third row, and two SSD cache slots at the left side of the bottom row.

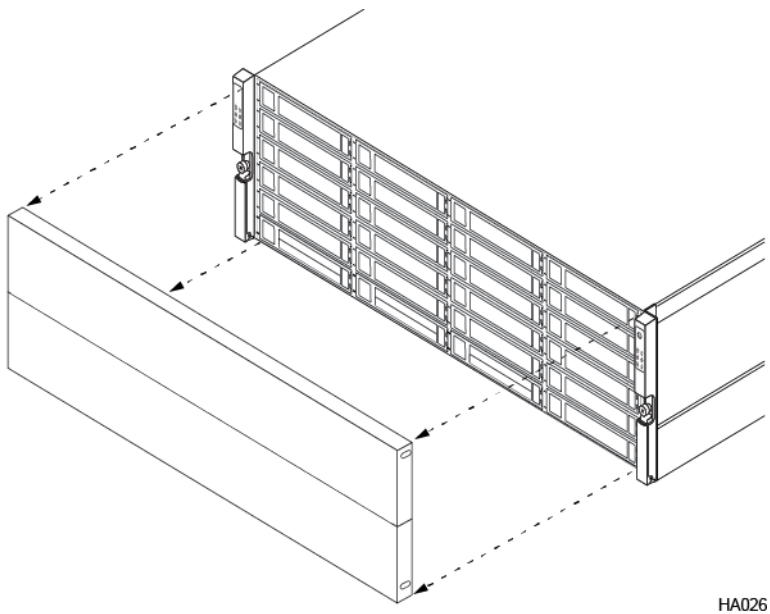


The image below depicts HPE Alletra 5000 arrays (except the 5010H model) and HPE Nimble Storage HFxx arrays (except the HF20H model), and the HPE Alletra 2120 and Nimble Storage ES3 expansion shelf. These arrays and expansion shelves have six SSD cache slots at the lower left.



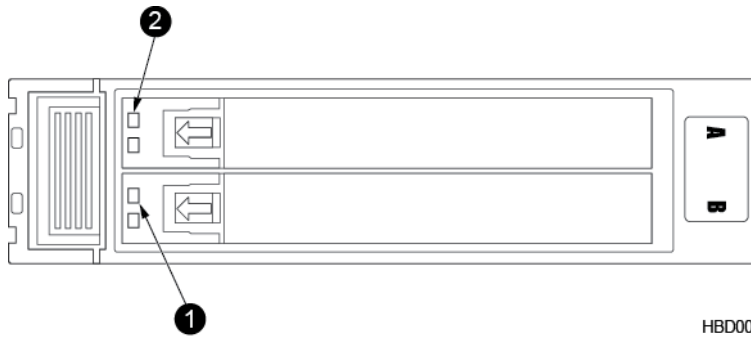
- 1 Gently pull the front bezel away from the array chassis.

The bezel includes power connection pins on both sides.



- 2 Identify the empty drive.

The empty drive sled in an SSD drive carrier should be for Drive B (bottom) with Drive A (top) already populated. (Do not remove the sled for Drive A or the drive carrier.)



HBD001

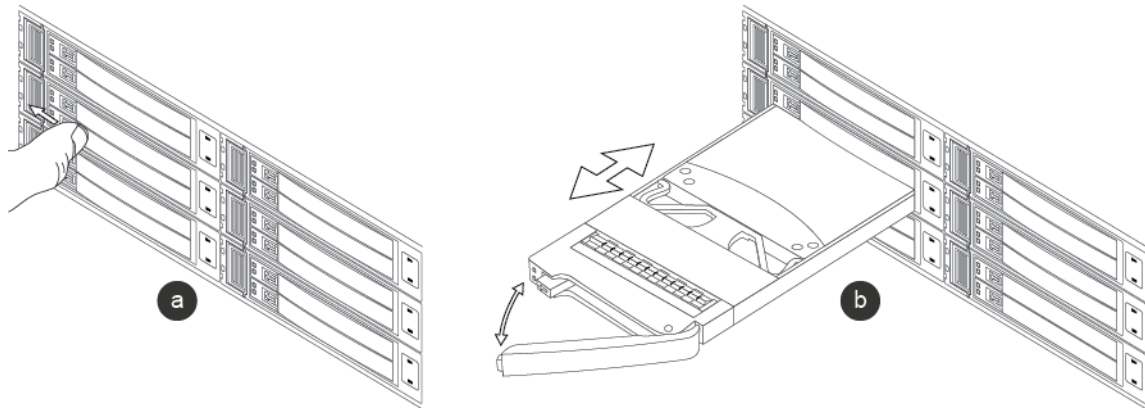
- 1 Drive B (empty)
- 2 Drive A operation (populated)

3 Release and remove the empty drive sled B from the drive carrier.

- a To release the handle, slide the green tab in the direction of the arrow. The sled handle springs open.
- b Pull the sled handle to remove the empty sled from the drive carrier. Use firm, steady pressure.

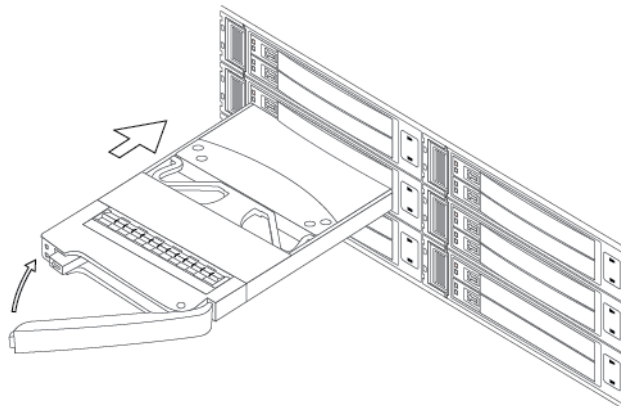


**Important:** Do not press the lever for the drive carrier itself. Only open the individual sled (B) for the drive to be added.



HBD006

4 Insert the new drive sled (with drive) into drive bay (B) of the drive carrier.



HBD012

5 Close the sled handle.

Push the handle until it fully engages with the release tab.

- 6 Repeat steps 2-5 for each additional drive to install.
- 7 Replace the bezel.

Hold the bezel in place and then firmly press the bezel until you feel the keepers lock.