

Replacing a Solid State Disk (SSD)

P/N 300-012-221
REV 02

This document describes how to replace a solid state disk (SSD) in a VNXe3100 or VNXe3150 disk processor enclosure (DPE).

Before you start

Before you start the procedure, refer to your EMC® VNXe™ online help (**Service your system > Adding or replacing faulted hardware components > Replace a faulted hardware component**) for instructions on how to identify failures, order new parts, and handle hardware components.

Tasks to replace a solid state disk (SSD)

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Task 1: Preparing the storage processor (SP) for service

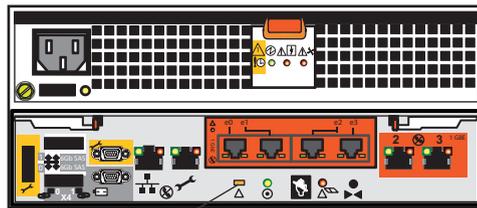
IMPORTANT

To protect your VNXe system from accidental data loss while you replace an SSD in an SP, you must prepare the SP for service before you replace the SSD. You prepare an SP for service by putting it in Service mode.

1. Open Unisphere™ and select **Settings**, then **Service System**.
2. Log in with your service password.
3. In the **System Components** column, select storage processor (SP A or SP B) associated with the faulted component.
4. Under **Service Actions**, select **Enter Service Mode**, then **Execute service action**.
5. In the **Service Confirmation** dialog box click **OK**.

Putting an SP into Service mode takes about 10 minutes to complete. The storage processor fault LED will flash alternating amber and blue while the SP remains in Service mode and is receiving active power.

6. Wait until the SP fault LED is flashing alternating amber and blue before continuing to the next task.



SP fault

Task 2: Remove the SP assembly

To remove the solid state disk, you must remove the SP assembly:

⚠ CAUTION

DO NOT REMOVE an SP assembly while the “Unsafe to remove SP” LED is on. The light indicates that you may interrupt a vital system or data-caching process.



If your system has a single SP, DO NOT REMOVE the storage processor if the “Unsafe to remove” LED for the cache protection module is on.

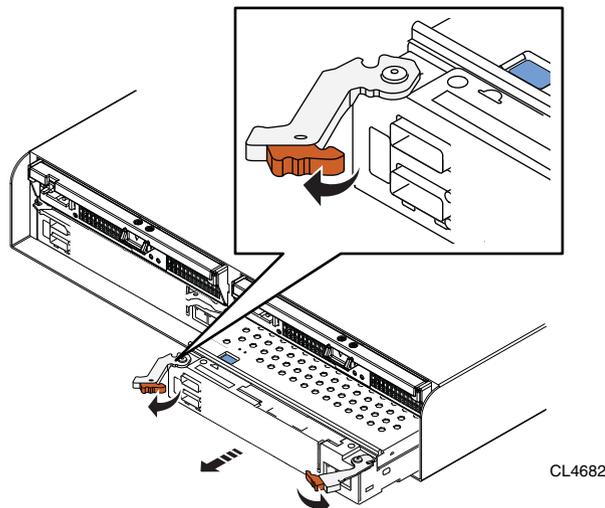
1. Disconnect the network and all other cables from the back of the assembly that will include the faulted solid state disk. *Do not remove* any cables from the other storage processor assembly.

Mark the cables with the port numbers from which you removed them.

⚠ CAUTION

The SP assembly comes completely out of the chassis. In addition to holding the latches, be prepared to support the SP assembly to avoid dropping it.

2. Locate the left and right latches.
3. Pinch the orange tabs and pull the latches to the sides to eject the SP assembly from the chassis.
4. Pull out the latches until they are fully extended and the SP assembly is released from the enclosure.
5. Use the latches to slide the assembly about *half-way* out of the enclosure.
6. Use both hands to support the assembly and pull it fully out of the enclosure.



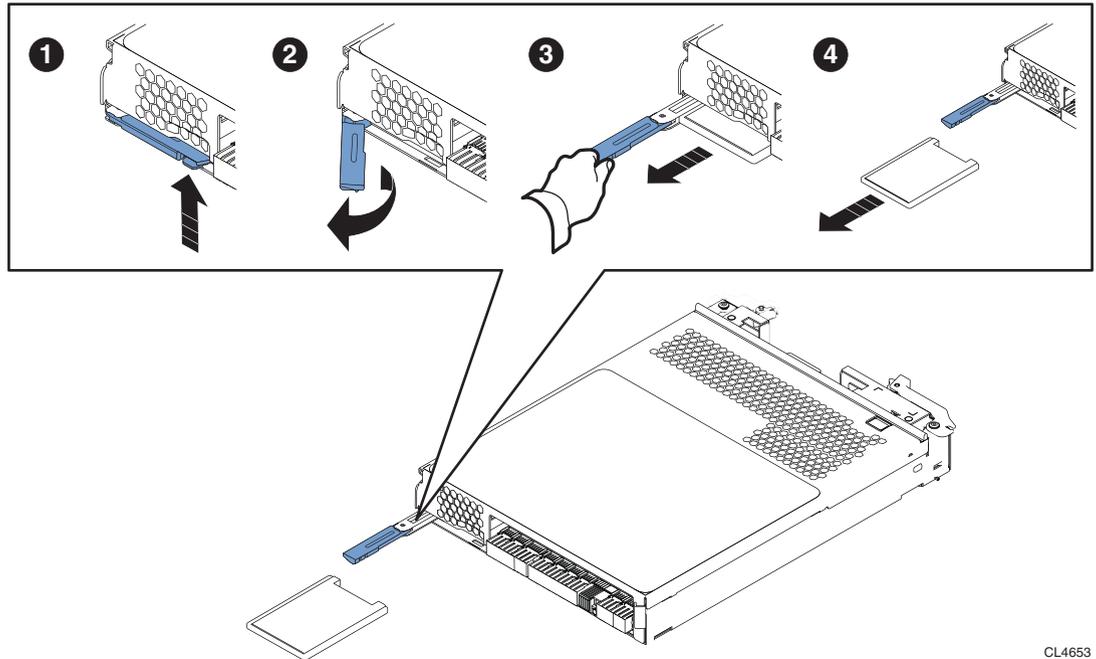
CL4682

7. Place the assembly on a clean, flat static-free work surface.

Task 3: Replace the solid state disk

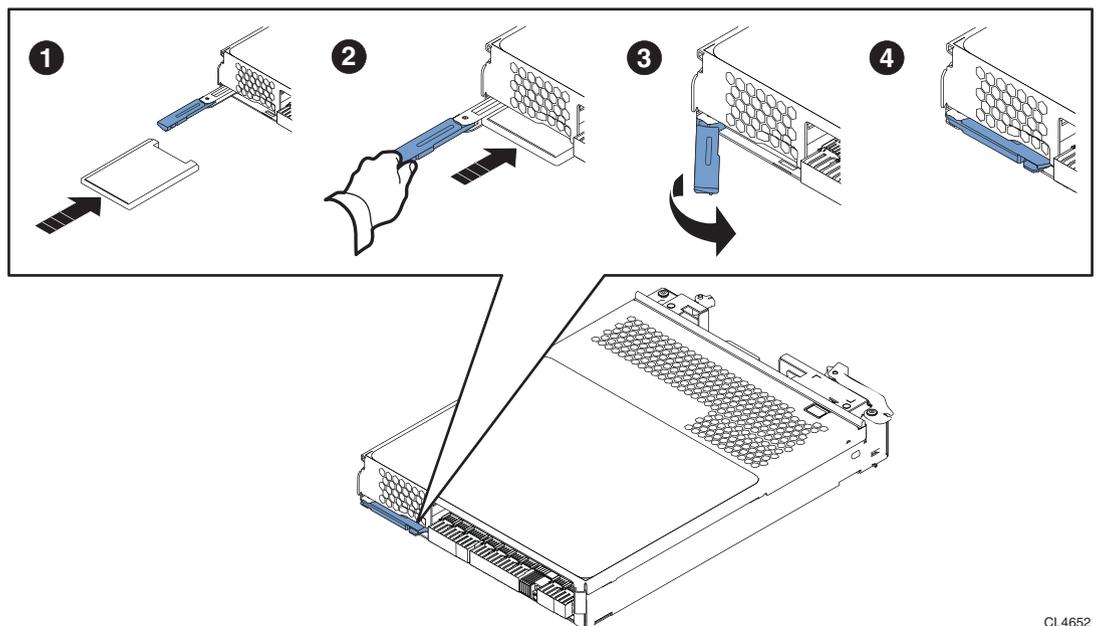
The solid state disk is located at the back of the SP assembly.

1. Unlatch the solid state disk by pulling the blue tab away from the bottom of the SP.
2. Pull the solid state disk out of the slot.



CL4653

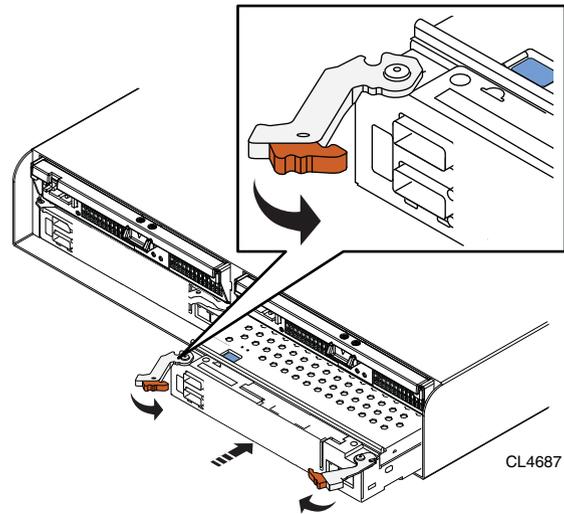
3. Unpack the replacement solid state disk.
Save the packaging material to return the faulted disk.
4. Slide the replacement solid state disk into the slot in the SP, making sure that the latch snaps in place.



CL4652

Task 4: Replace the SP assembly

1. Pull out the latches on each side of the SP assembly and make sure they stay in the open position.
2. Align the SP assembly with the chassis opening and push it straight into the chassis. The latches begin to close when they contact the chassis edges.
3. Close the right and left latches to fully seat the SP assembly in the chassis. An audible click indicates that the latches are secure.



4. Reconnect the cables to the back of the SP assembly being sure to connect all cables to the same ports from which you removed them. The SP begins powering up immediately after connection to an active AC power source.

Task 5: Reboot the SP

Once you have installed the replacement solid state disk and returned the SP assembly to the chassis, reboot the recently serviced SP to ensure that it leaves Service mode:

1. From Unisphere, select **Settings**, then **Service System**.
2. Log in with your service password.
3. In the **System Components** column, select the storage processor (SP A or SP B) associated with the replacement solid state disk.
4. Under **Service Actions**, select **Reboot**, then **Execute service action**.

It may take up to 12 minutes for the system to complete its reboot to return to Normal mode and restart the servers.

5. Refresh your browser, or follow the on-screen instructions, to bring the software out of Service mode and restore full-function Unisphere.

Task 6: Verify the operation of the replacement solid state disk

Verify that the replacement solid state disk is recognized by your system, and operating correctly:

1. In Unisphere™, select **System**, then **System Health**.
2. Select the solid state disk in the Component list or the graphical view:
 - In the Component list, the solid state disk should be marked with a status OK icon:

 - In the graphical view, the solid state disk should be highlighted green.

If the system health monitor shows the replacement solid state disk as faulted, contact your service provider.

Task 7: Return the faulted solid state disk

1. Package the faulted solid state disk in the shipping box that contained the replacement disk, and seal the box.
2. From Unisphere, click **Support** > **Need more Help?** > **Customer replaceable parts** > **Return a customer replaceable part** to enter the EMC Online Support website. The site includes detailed instructions on how to return faulted parts.

If your screen does not show the **Return a customer replaceable part** option, contact your service provider for instructions on what to do next.

3. Follow the on-screen instructions. The website includes a printable return label and box pickup information.
4. Attach the shipping label, and contact the appropriate person to pick up the parts.

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