Spare Fan Instructions

This document describes how to remove and replace a fan in a SnapServer DX2 appliance, SnapScale X2 node, or a SnapExpansion DX chassis.

⚠ **WARNING:** To reduce the risk of electric shock or damage to equipment, always remove any power cords while working with the unit.

⚠ **AVERTISSEMENT:** Pour réduire le risque de choc électrique ou endommagement de l'équipement, retirez toujours les cordons électriques en travaillant avec l'appareil.

⚠ **CAUTION:** While working with the unit, observe standard Electrostatic Discharge (ESD) precautions to prevent damage to micro-circuitry or static-sensitive devices.

Prepare the Unit

Power Off and Disconnect

1. Power off the **unit** or **cluster**:
   - **SnapServer DX2**: Press the Power button on the right flange to cleanly shutdown the unit.
   - **SnapScale X2 Node**: There are two power-off options available.
     - Shut off the **entire cluster** by using the Web Management Interface (**Maintenance > Shutdown/ Restart > Shutdown**).
       By shutting down the entire cluster, no peer sets will need to be rebuilt when it is reactivated. However, the cluster will be offline and unavailable during the repairs. This option is recommended when all nodes are having fans replaced.
     - Shut off just the **affected node** by briefly pressing the **Power button** on the node.
       By shutting down only the node, the cluster remains online and active. However, some peer sets will be operating with either less (3x replication) or no (2x replication) redundancy while the node is down and afterwards when the peer sets are being rebuilt. This option is recommended when only one node is having its fan replaced.
   - **SnapExpansion DX**: Since the SnapExpansion DX will always be connected to either a SnapServer DX2 appliance or a SnapScale X2 node, choose the shutdown procedure above that matches your configuration.

2. When **all** the front LEDs are off, disconnect the **power cords** of the unit being repaired.
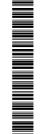
3. Disconnect all the **cables** from the unit.

X2 Node   **Power Button**   **X4 Node**

SnapServer DX2

Power Sockets   **Cable Ports**

Remove the Front Bezel

Carefully take hold of the front bezel and pull it straight out from the appliance until the magnets release. Set it aside.

Remove the Drives

> **IMPORTANT:** Overland recommends that you remove the disk drives to reduce the unit's weight prior to removal.

> **IMPORTANT:** Disk drives in the **SnapServer DX2** appliance must be replaced in the same bays when done.

NOTE: Do not remove the disk drives from their carriers. Doing so voids the drive warranty.

Remove all the drive carriers. **SnapServer DX2** users should note from which bay they were removed. Blank carriers can be left in place.

1. Press the release **button** on the right side of the carrier.
2. Using the built-in **handle**, pull the drive carrier out.
3. Set the **carrier** on a secure surface.
4. Repeat Steps 1–3 for **all** the remaining drive carriers.

Remove Unit from Rack

> ⚠ **WARNING:** It is recommended that a mechanical lifter (or at least two people) be used during rack installation or removal to prevent injury.

> ⚠ **AVERTISSEMENT:** Pour éviter toute blessure il est recommande qu'un monte-charge (ou deux personnes au moins) soit utilisé lors de l'installation ou de l'enlèvement du support.

1. Release the two **captive screws** on the front flanges, and slide the chassis out until it stops.
2. Position the lifter in front of the unit, release the rail **locks**, and slide the chassis out onto the lifter.
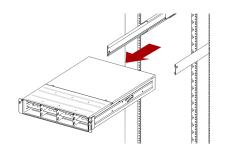3. Move the chassis onto a secure **surface**.

Remove Top Panel
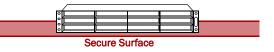
1. Remove and retain the **four screws** on the sides and **two screws** on the top securing the rear top panel.
2. Slide the panel toward the rear about **one-half inch** (1.25cm) and lift it off.
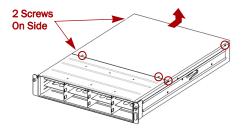3. Set the **top panel** on a safe surface.

Replace the Fan

Remove Old Fan

1. Locate the fan being replaced and unplug its **cable**
   - **SnapServer DX2** appliance and **SnapScale X2** node fan cables unplug from the motherboard.
   - **SnapExpansion DX** chassis fan cables unplug from the backplane.
2. Carefully cut the **cable ties** holding the cable to the chassis.
   - **SnapServer DX2** appliance and **SnapScale X2** node fan cables 1 and 2 are tied down together. Carefully pull the **cable** out through the fan bulkhead.
   - **SnapExpansion DX** chassis fan cables are routed from the backplane, so there is no need to pull them through the bulkhead.
3. Squeeze the two fan **clamps** on the bulkhead toward the center to release the fan.
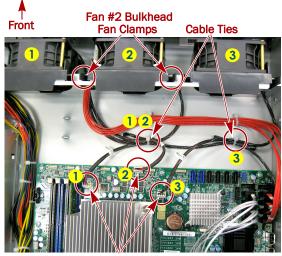4. Pull the **fan** up and out of the chassis.

Install New Fan

1. Slide the **new fan** down into the fan bulkhead slot.
2. Push the fan down until the **clamps** lock (click).
   - For **SnapExpansion DX** chassis, skip to Step 4.
3. Carefully run the fan cable through the **fan bulkhead** into the chassis.
4. Connect the fan **cable** onto the same socket from which it was removed:
   - For **SnapServer** appliances and **SnapScale** nodes, connect the cable to the motherboard. Position the cable above the bridge lance (metal loop) on the chassis floor and use a **new tie-down** to secure the cable to the bridge lance.
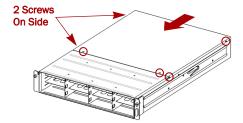   - For **SnapExpansion DX** chassis, connect the cable to the backplane.

Reinstall Top Panels

1. At the new chassis, position the top panel with no more than **one-half inch** (1.25cm) extending out over the rear of the unit.
2. Slide the panel **forward** until it is fully seated.
3. Using the **six retained screws**, secure the panel.

(The numbering below is only to show the fan, cable tie-down, and motherboard socket relationships in SnapServer DX2 appliance and SnapScale X2 nodes.)

Return Unit to Rack

Reinstall the Chassis

1. Using the mechanical lifter, position the **chassis** in front of the rack rails.

2. Pull the **middle** rails out of the rack, connect those rails to the server rails, and slide the **chassis** all the way into the rack.

3. Secure the unit using the **two captive screws** on the front flanges.
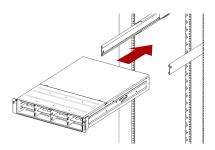
Reinstall the Drives

Return the drive carriers to their original bays:

1. Position a **drive carrier** in front of its **empty bay**.

2. Slide the **carrier** in until the **latch** locks (clicks).

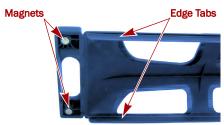3. Repeat Steps 1–2 for **all** remaining drive carriers.

> **IMPORTANT:** To maintain proper airflow and cooling, a drive carrier or a blank carrier must be installed in *every* bay. No empty bays are allowed.

Reattach the Bezel

1. Position the **bezel** with the tabs aligned inside the top and bottom edges of the chassis.

2. Move the bezel toward the appliance until the **magnets** make contact.

3. Verify that the bezel is **aligned** properly, all the LEDs are visible, and the Power panel is cleanly centered in its slot on the right flange.

Magnets   Edge Tabs

SnapScale X2 (Inside View)

Reattach Cables and Power Cords

1. Reattach the data **cables** to the same connections previously used.

2. Attach the **power cords**.

3. At the front, press the **power switch** to power it ON.

   • **SnapServer**: Press the Power button on the right flange.

   • **SnapScale**: Depending on the shutdown procedure used:

      • For an entire cluster shutdown, at the front of each node in the cluster, press the **power switch** to power each node ON.

      • For shutdown of the affected node only, press the **power switch** to power ON that node. When it finishes booting, the node rejoins the cluster and rebuilds peer sets. Let all peer sets complete their rebuilding process before reconfiguring any additional nodes.

   • **SnapExpansion DX**: Choose the power-on procedure above that matches your configuration.

   Refer to the unit's user guide to verify that the fan is working and to put the unit back into service.

SnapScale X2

Power Sockets   Cable Ports

SnapExpansion DX

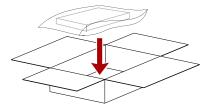Power Sockets   Cable Ports

Return Old Parts to Overland

1. Place the **old part** in the anti-static bag and put it in the replacement part's box.

2. Use an RMA to return the part to **Overland Storage**.

   For return shipping details and RMA number, go to: http://docs.overlandstorage.com/return-instructions