

BlackArmor® NAS 440/420 Hard Drive Replacement Procedures

Follow these steps to replace a hard drive in the BlackArmor® NAS 440/420 server. You may also use these instructions to replace a damaged hard drive carrier.

NOTE: Only Seagate hard drives can be used for replacement. Failure to use Seagate replacement parts can and will forfeit the warranty period of the BlackArmor NAS 440/420.

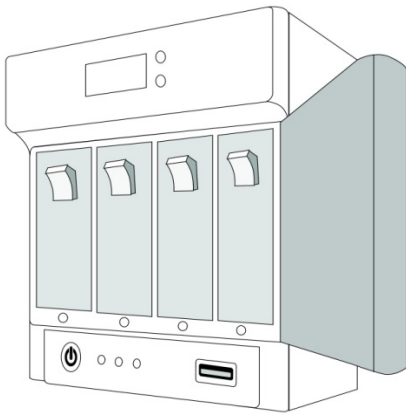
WARNING: ESD Precautions

Electrostatic discharge (ESD) can damage the processor, hard drives, main board, memory modules (RAM), and other BlackArmor components. Always observe the following precautions before replacing a hard drive:

- Do not remove a component from its protective packaging until you are ready to install it.
- Do not touch the component pins, leads, or circuitry.
- Wear a wrist grounding strap and attach it to a metal part of the system before handling components. If a wrist strap is not available, maintain contact with the system throughout any procedure requiring ESD protection.
- Keep the work area free of nonconductive materials, such as ordinary plastic assembly aids and foam packing.

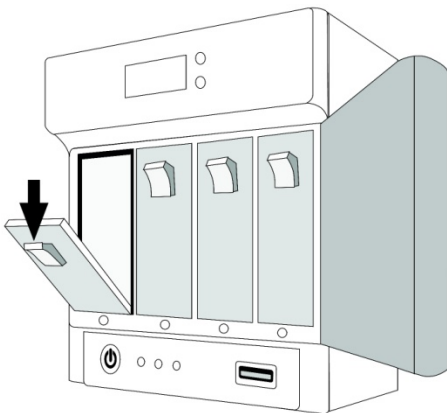
Removing a Hard Drive

1. Open the BlackArmor Manager Web interface.
2. In the menu bar, select **Storage**, and then click **Disk Manager**.
3. Beside the failed disk drive, click the **Safely Remove Disk** icon, and then click **OK**.
1. Open the front panel of the server.

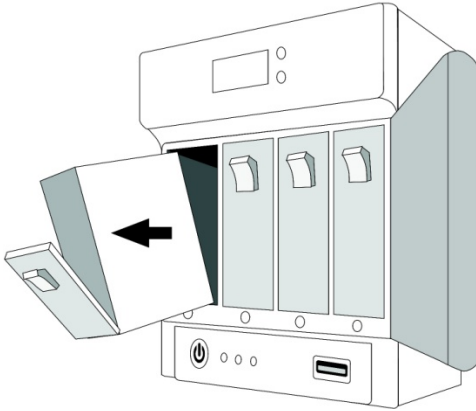


2. Locate the failed hard drive. Ensure that there is no activity on the drive by checking its LED—it should not be illuminated.

WARNING: Never remove more than one drive at a time. Failure to do so will result in data loss.



3. Press down on the orange button to release the failed drive from the server. If the server is powered on, wait until the drive stops spinning (approximately one minute) before continuing.
4. Holding the handle, gently slide the hard drive partially out of the server until you can get a firm grip on the drive itself, and then remove the drive from the server. Because the hard drive is heavy, do not completely remove it or carry it by the plastic handle. Hold the drive firmly on the top and bottom.



Caution: The hard drive may be hot when removed.

5. Position (hold) the hard drive/carrier so that the drive label is facing up and the text is readable (not upside down).
6. Carefully bend the left side of the plastic carrier outward to release the failed drive from the carrier.
7. Remove the failed hard from the plastic carrier enclosure.

Replacing a Hard Drive

1. Place the new hard drive into the carrier, ensuring that the four pins hold the drive securely in place. If you are replacing a damaged hard drive carrier, place the drive removed from the damaged carrier into the replacement carrier.
2. Carefully slide the new drive into the server. Push firmly to install it completely, and then close the handle to lock the drive in place.
The hard drive's LED should turn green.
3. Close the front panel of the server.
4. In BlackArmor Manager, the drive's status changes to **Foreign**.
5. Click the **Claim Disk** icon, and then click **OK**. The drive's status changes to **Good**.
6. Click the **Recover** icon, and then click **OK**.

At this point the RAID is recovered. Depending on the size of the RAID volume, this process may take several hours to complete. When finished, both the Disk Manager and Volumes pages report the drive/volume as **Good**. The procedure is complete.