

Topic: Removing and Replacing Hard Drives on Blades
Component(s) Affected: Blades
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OVERVIEW / ENVIRONMENT

Replacing hard drives in computer systems is a routine task. The unique ClearCube hardware architecture greatly simplifies this task. This Technical Bulletin describes the necessary steps to perform this task.

DETAILED DESCRIPTION

Occasionally, hard drives in ClearCube Blades may need to be replaced. Possible reasons include:

- Upgrade to a larger drive
- Replacement of a failed drive
- Exchange of a freshly imaged drive
- Blade-to-Blade swap of a drive

Because the ClearCube Blade architecture allows almost instant access to hardware components, removing and replacing a hard drive is a simple task requiring only a few minutes to perform. Follow these steps to remove and replace a hard drive on a Blade.

Note: This task should be performed only by trained technicians. Perform all hardware maintenance tasks on ClearCube hardware at a suitable workstation, following appropriate anti-static procedures. Avoid subjecting drives to bumps or other mechanical shock.

1. Power down the Blade.
2. Remove the Blade from the Cage and take it to your workstation. Observe anti-static procedures.
3. Remove the three Phillips screws that mount the drive to the chassis.

Note: R1100 Blades (now out of production) and R2100 Blades use four screws to retain hard drives.

4. Remove the two cables to the drive, power and data. Observe their location and orientation.
5. Replace the two cables into the new drive. These cables are keyed so that they cannot be inserted incorrectly, and the short cable length prevents connecting them to a drive that is incorrectly positioned.
6. Position the replacement hard drive in the Blade chassis, according to the orientation of the old drive.
7. Replace the three (or four) screws that retain the drive. Do not overtighten.
8. Replace the Blade in the Cage.

The Blade can now be returned to service. You may need to re-install software.

These considerations should be observed:

- Hard drive mechanisms are very sensitive to mechanical shock, and are most vulnerable when handled as an unmounted unit. Handle them gently, especially when setting them down on a work surface.
- Drive cables should be removed by pulling on the connector, not the cable. Pull the connector straight out, not at an angle.
- When replacing either drive on an R2100, it may be easier to unscrew both drives from the chassis to gain easier access to the drive cables.
- R2100 drives are configured for Cable Select, and the drive at the end of the cable is the master.
- The default image configuration for R2100 drives is to place the boot volume C: and the recovery volume D: on the master drive, and volume E: on the slave drive. The slave drive uses the middle connector.
- Imaged drives exchanged between dissimilar models of Blades will not function correctly.
- Store unused drives in an anti-static bag in a climate-controlled area.
- If returning equipment to ClearCube, re-use the shipping container and packing materials used to deliver your replacement hardware.

To contact ClearCube technical support:

support@clearcube.com Email address for ClearCube Technical Support
support.clearcube.com ClearCube Support Website
(866) 652-3400 Direct line in the US
+1 (512) 652-3400 Direct line from outside the US