



 **WARNING:** A WARNING indicates a potential for property damage, personal injury, or death.

Replacing a RAID Controller Module in a Single-Controller MD3000i

This document describes how to replace a failed RAID controller module in a single-controller MD3000i. After replacing the RAID controller, you will also need to update its controller and NVSRAM firmware. These steps are described in "Updating RAID Controller and NVSRAM Firmware on the Replacement RAID Controller Module" later in this document.

Replacing the RAID Controller Module

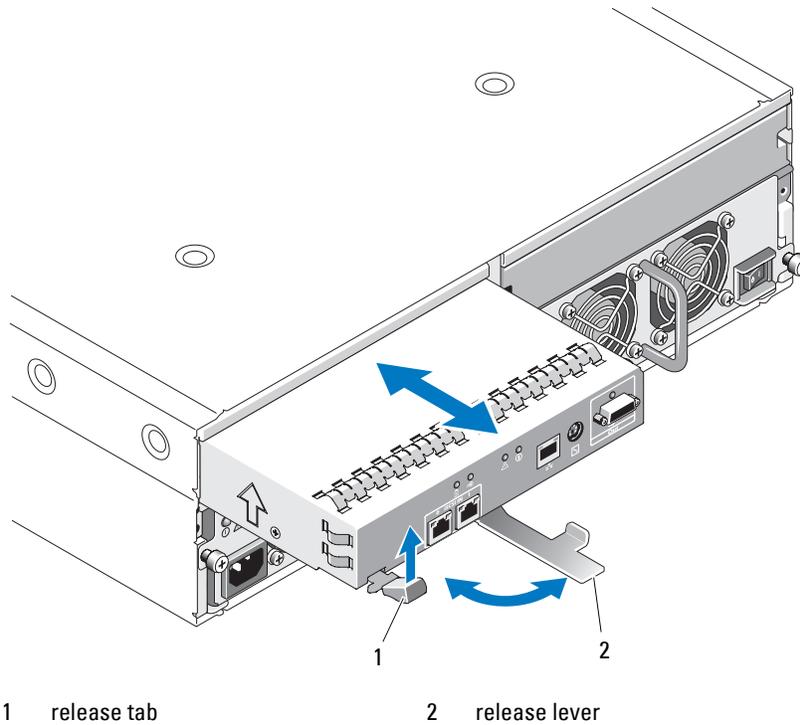
 **WARNING:** Always wear a wrist grounding strap when handling equipment with static-sensitive components. See your *Product Information Guide* for safety information.

Removing the RAID Controller Module

- 1 Power down the MD3000i enclosure.
- 2 Disconnect all cables from the failed RAID controller module.
- 3 Push up on the release tab on the left side of the module (see Figure 1).
- 4 At the same time, pull out on the release lever. When the lever is pulled out, the controller module partially ejects from the enclosure.
- 5 Remove the module from the enclosure and place it on a flat, secure surface.

 **CAUTION:** To avoid damage to the sensitive EMI (ElectroMagnetic Interference) contacts on the bottom of the controller module, do not stack or place the module on a hard surface.

Figure 1. Removing and Installing a RAID Controller Module



Installing a Replacement RAID Controller Module

- 1** Carefully insert the replacement RAID controller module into the empty module slot.
- 2** Push the module into the back of the slot until it is firmly seated in the backplane connector (see Figure 1).
- 3** Push the release lever in (towards the enclosure) until the module is retracted into the slot and is secure.

Proceed to the next section to update the RAID controller and NVSRAM firmware on the new controller.

Updating RAID Controller and NVSRAM Firmware on the Replacement RAID Controller Module

The following procedure is required only if a single controller storage array enters lockdown mode after replacement of a failed controller.

To update the RAID controller module and NVSRAM firmware, the following items will be required:

- Server, workstation, or laptop computer with access to the management port of the RAID controller module
- Single Controller Replacement Utility

Using the Single Controller Replacement Utility

 **NOTE:** The Single Controller Replacement Utility will not update any RAID controller that is not in lockdown mode. If your RAID controller is not in lockdown mode, use the update procedure described in the *Dell™ PowerVault™ MD3000i User's Guide*.

 **NOTE:** In order to update the firmware, the RAID enclosure must contain at least two disk drives.

The Single Controller Replacement Utility should be run after replacing a failed controller in a single-controller system. The utility ensures that the firmware version in the replacement controller is in sync with the firmware expected by the virtual disks. After running the utility, the storage array should return to the configuration it was in prior to the controller failure.

The utility can be run from any computer with access to the management port of the storage array by following these steps:

- 1 Extract all files and folders from the utility .zip file to a temporary location.
- 2 Navigate to the location of the extracted files.

If you are using a Windows system, run the `simplex.bat` file.

If you are using a Linux system, execute the `simplex.sh` file.

A GUI-based wizard will guide you through the remaining steps necessary to update the controller.

- 3 When the wizard completes, click **Finish**.

The update process is complete.

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