

HP StorageWorks MSA2000 3.5-inch LFF Drive Enclosure Firmware Release Notes



Legal and notice information

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Firmware version: O300B28

Description

These release notes are for the firmware indicated above, which adds improvements and corrects issues found during use and additional qualification testing after initial product release.

Firmware can be installed from any computer running a supported operating system with an Ethernet connection to the storage array system. For supported operating systems, see [Operating systems](#).

Installation procedures vary, depending on connection environment and user preference. For details, see [Installation instructions](#).

[Update recommendation](#) Recommended

[Supersedes](#) All previously released firmware versions.

Product models

HP StorageWorks MSA2000 3.5-inch LFF Drive Enclosure

Operating systems

Operating systems supported for use with the HP StorageWorks MSA2000 disk enclosure and the binary firmware package:

- Microsoft Windows Server 2008 and 2008 R2 IA32, x64, IA64 (Standard, Enterprise, Datacenter)
- Microsoft Windows Server 2008 x64 Hyper-V
- Microsoft Windows 2003 and 2003 R2 IA32, x64, IA64
- Red Hat Enterprise Linux 4 x86, x64, IA64
- Red Hat Enterprise Linux 5 x86, x64, IA64
- SuSE Linux Enterprise Server 10 x86, x64, IA64
- VMware ESX 3.0.1, 3.0.2, 3.5, 4.0 Editions
- Citrix XenServer HP Enterprise Edition
- Red Hat Virtualization
- HP-UX 11i V3 Integrity, HP9000
- HP-UX 11i V2 Integrity, HP9000
- OpenVMS 8.3. OpenVMS 8.3-1H1

Operating systems supported for use with the Smart Component firmware package:

- Microsoft Windows Server 2003 x86, x64, IA64
- Microsoft Windows Server 2008 x86, x64, IA64
- Red Hat Enterprise Linux 4 x86, x64, IA64
- Red Hat Enterprise Linux 5 x86, x64, IA64
- SuSE Linux Enterprise Server 10 x86, x64, IA64

Enhancements

- Added support for the P2000 G3 MSA Array System.
- In systems operating on a single power supply, performance was improved by implementing a staggered spin-up for the disk drives in the enclosures. (Do not perform system updates or operate the enclosure for an extended period of time on one power supply; replace failed components as soon as possible.)
- Improved event log reporting to include older entries from the event buffer in the log.
- Added support for additional power supply monitoring.

Fixes

- Fixed an issue where drive LEDs may not be turned off after the issue that turned the light on has been corrected.
- Fixed SMU Show Expander Status display to correctly show logical and physical mappings.

Installation instructions

When planning for a firmware upgrade, select and schedule an appropriate time to perform an online upgrade.

- For single domain systems, I/O must be halted.
- For dual domain systems, selecting the appropriate time is essential. Because the online firmware upgrade is performed while host I/Os are being serviced, the I/O load can impact the upgrade process. Selecting a period of low I/O activity will ensure the upgrade completes as quickly as possible and will avoid disruptions to hosts and applications due to timeouts.

WARNING!

Do not cycle power or restart devices during a firmware update. If the update is interrupted or there is a power failure, the module could become inoperative. If this occurs, contact technical support. The module may need to be returned to the factory for reprogramming.

CAUTION:

Before upgrading firmware, ensure that the storage system configuration is stable and is not being reconfigured or changed in any way. If configuration changes are in progress, monitor them and wait until they are completed before proceeding with the upgrade.

IMPORTANT:

As with any firmware upgrade, it is a recommended best practice to ensure that you have a full backup prior to the upgrade.

 **NOTE:**

To install this firmware, you must download the firmware package from the HP website and save the file to your local filesystem.

Smart Component installation instructions for Windows environments

This is a self-extracting executable module. You can execute this module from the Windows graphical user interface (GUI) or the command line console (CLI).

GUI option

1. Place the downloaded firmware package in a temporary directory.
2. Using Windows Explorer, navigate to the directory containing the download.
3. Double click the executable file.
4. Follow onscreen instructions.

 **NOTE:**

When prompted for logon information, enter credentials for an account with management access rights.

CLI option

Execute the Smart Component by entering the following command: `CPxxxxxxx.exe /target <ip_address> /user <username> /passwd <password> /s`

where:

- `ip_address` is the management IP address of the array controller
- `username` is the username account with management rights
- `password` is the password associated with the username account

Instead of command line parameters you can use the following DOS environment variables:

- `oa_address`: set this variable for the IP address of the array controller
- `oa_username` : set this variable for the username of the account for the array controller
- `oa_password` : set this variable for the password for the username account

 **NOTE:**

When prompted for logon information, enter credentials for an account with management access rights.

Smart Component installation instructions for Linux environments

1. Place the downloaded firmware package in a temporary directory.
2. Open a Linux command console.
3. From the directory containing the downloaded file, enable execute access by entering `chmod +x CPxxxxxx.scexe`, where `CPxxxxxx.scexe` represents the downloaded file.
4. Execute the Smart Component by entering a command similar to the following: `./CPxxxxxx.scexe --target <ip_address> --user <username> --passwd <password>`



NOTE:

- Use the `-e` or `-f` option when flashing a device, even if it is up to date.
- Use the `-g` option when downgrading.
- For details on supported command options, see the online help by executing the command `./CPxxxxxx.scexe` or `./CPxxxxxx.scexe -h`.
- If the user name or password contains an exclamation mark (!), enclose the string in single quotes or enter a backslash (\) before the exclamation point. For example, `'!manage'` or `\!manage`.

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5. Follow onscreen instructions.



NOTE:

When prompted for logon information, enter credentials for an account with management access rights.

Instructions using Storage Management Utility (SMU) — MSA2000 G1 environments

WARNING!

Do not cycle power or restart devices during a firmware update. If the update is interrupted or there is a power failure, the module could become inoperative. If this occurs, contact technical support. The module may need to be returned to the factory for reprogramming.

1. Place the downloaded firmware package in a temporary directory.
2. *If using a Smart Component*, extract the contents of the Smart Component.
In Windows — Click **Extract** on the first screen of the Smart Component.
In Linux — Enter `./CPxxxxxx.scexe --unpack=<folder name>` to extract the contents of the Smart Component to the `<folder name>` folder. For example, `./CP001123.scexe --unpack=extract_here`
3. Locate the firmware file in the extracted folder. The firmware filename is in the following format:
`mercurysw-0300B28-01.bin`
4. If the system has a single controller, stop I/O to vdisks before starting the firmware update.
5. Login to the SMU and select **Manage > Update Software > Enclosure Firmware > Update Firmware**.
6. Select the type of expansion modules to update. Expansion modules that have the same manufacturer, model, and firmware revision are considered the same type. For example, two identical expansion modules with different firmware revisions are considered to be different types.
7. Click **Select Type And Continue**.
Enclosure processors of the selected type are listed, with the following information displayed for each enclosure:
 - Device WWN : The drive enclosure's node World Wide Name.
 - Address : The channel and loop ID of the expansion module.
 - Manufacturer : The expansion module manufacturer.
 - Model : The expansion module model number.
 - Rev : The revision code for the firmware currently in the expansion module.If more than two enclosure modules are listed, a **Select All** check box is displayed.
8. Select the enclosure modules to update.

NOTE:

All enclosures in an array configuration must use the same firmware version.

9. Click **Continue**.
10. Click **Browse** and select the firmware file to install.
11. Click **Load Device Firmware File**.
12. In the SMU display, verify that the proper firmware version appears for each updated module.

Installation instructions using Storage Management Utility (SMU) — MSA2000 G2 and P2000 G3 environments

⚠ WARNING!

Do not cycle power or restart devices during a firmware update. If the update is interrupted or there is a power failure, the module could become inoperative. If this occurs, contact technical support. The module may need to be returned to the factory for reprogramming.

1. Place the downloaded firmware package in a temporary directory.
2. *If using a Smart Component*, extract the contents of the Smart Component.
In Windows — Click **Extract** on the first screen of the Smart Component.
In Linux — Enter `./CPxxxxxx.scexe --unpack=<folder name>` to extract the contents of the Smart Component to the `<folder name>` folder. For example, `./CP001123.scexe --unpack=extract_here`
3. Locate the firmware file in the extracted folder. The firmware filename is in the following format:
`mercurysw-0300B28-01.bin`
4. In single-domain environments, I/O to vdisks before starting the firmware update.
5. Login to the SMU and, in the Configuration View panel, right-click the system and select **Tools > Update Firmware**.
A table displays currently installed firmware versions.
6. Select the modules to update.
7. Click **Browse** and select the firmware file to install.
8. Click **Install Expansion-Module Firmware File**.
Wait for progress messages to specify that the update is complete.
9. In the SMU display, verify that the proper firmware version appears for each module.

Installation instructions using FTP

⚠ WARNING!

Do not cycle power or restart devices during a firmware update. If the update is interrupted or there is a power failure, the module could become inoperative. If this occurs, contact technical support. The module may need to be returned to the factory for reprogramming.

1. Place the downloaded firmware package in a temporary directory.
2. *If using a Smart Component*, extract the contents of the Smart Component.
In Windows — Click **Extract** on the first screen of the Smart Component.
In Linux — Enter `./CPxxxxxx.scexe --unpack=<folder name>` to extract the contents of the Smart Component to the `<folder name>` folder. For example, `./CP001123.scexe --unpack=extract_here`
3. Locate the firmware file in the extracted folder. The firmware filename is in the following format:
`mercurysw-0300B28-01.bin`
4. Do one of the following:
 - To update all modules, proceed to step 5.
 - To update specific modules, do the following to determine the address of each module to update:
In the CLI, display the addresses by entering the `show enclosures` command. The needed data is displayed in the columns labeled `EMP A CH:ID Rev` and `EMP B CH:ID Rev`.
5. In the SMU, prepare to use FTP:
 - a. Determine the network-port IP addresses of the system controllers.
 - b. Verify that the system FTP service is enabled.
 - c. Verify that the user you will log in as has permission to use the FTP interface and has management access rights.
6. In single-domain environments, I/O to vdisks before starting the firmware update.
7. Open a command prompt (Windows) or a terminal window (UNIX), and navigate to the directory containing the firmware file to load.
 - a. Enter `ftp <controller-network-address>`. (For example: `ftp 10.1.0.9`)
 - b. Log in as an FTP user (`user = ftp`, `password = flash`).
 - c. Enter one of the following commands:
 - To update all detected modules, enter: `put <firmware-file> encl flash`. For example: `put 0300B28.bin encl flash`
 - To update a specific module, enter: `put <firmware-file> encl:<channel-ID>:<EMP-number> flash`. For example: `put 0300B28.bin encl:0:15 flash`
8. If needed, repeat these steps to load the firmware on additional modules.
9. Quit the FTP session.
10. In the SMU display, verify that the proper firmware version appears for each module.

Effective date

February 2010