

# HP-UX 11i v2 to 11i v3 Mass Storage Stack Update Guide



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# Introduction

HP-UX 11i v3 introduces a new representation of mass storage devices called the agile view. The central idea of the agile view is that disk and tape devices are identified by the actual object via its World Wide Identifier (WWID) and not by a path to the device. Paths to a device can change dynamically, and multiple paths to a single device can be transparently treated as a single virtualized path, with I/O distributed across those multiple paths. This representation increases the reliability, adaptability, performance, and scalability of the mass storage stack, all without the need for operator intervention.

This white paper provides the necessary information for system administrators to update to HP-UX 11i v3, in particular to the Mass Storage Stack more easily. The key areas addressed in this white paper are:

- Comprehensive set of links to other MUST READ documents.
- Considerations for Mass Storage Stack update from 11i v2 to 11i v3.

## “Read before Updating” to HP-UX 11i v3

Read and become familiar with the following HP-UX 11i v3 documentation before updating from HP-UX 11i v2.

- For a description of all that has changed or has been added between HP-UX 11i v2 and HP-UX 11i v3, refer to the HP-UX 11i v3 Release Notes at <http://docs.hp.com/en/oshpux11iv3.html>
- For important information for HP-UX 11i v3, refer to the “Read before Installing or Updating HP-UX 11i v3” document available on the HP Technical Documentation Web Site, <http://docs.hp.com/en/oshpux11iv3.html>.
- For details on migration to the HP-UX 11i v3 persistent device files, refer to the “[HP-UX 11i v3 Persistent DSF Migration Guide](#)” white paper.
- For Ignite-UX related documentation, refer to <http://docs.hp.com/en/IUX/>
- For an overview of the mass storage stack changes, list of enhanced IO commands and details on the agile view available in HP-UX 11i v3, refer to the “[The Next Generation Mass Storage Stack](#)” white paper.
- For an overview of LVM migration from legacy to agile naming model, refer to the “LVM Migration from Legacy to Agile Naming Model HP-UX 11i v3” white paper at <http://docs.hp.com/en/oshpux11iv3.html#LVM%20Volume%20Manager>. See also the “HP-UX System Administrator’s Guide: Logical Volume Management”
- For the list of supported of I/O cards, refer to the “HP-UX Supported I/O Cards Matrix” document listed under the I/O Cards product listing section at <http://www.docs.hp.com/en/netcom.html>
- For the most current information on I/O cards support details, see the set of Support Matrices available on the I/O Cards and Networking Software Web page at <http://www.docs.hp.com/en/netcom.html>. At the top of the page, click the link for the card technology you are interested in, and then scroll down to the “Support Matrixes” heading. If a support matrix for your card technology is unavailable, check the card’s user guide or release notes.
- For a list of system firmware for I/O adapters with HP-UX 11i v3 boot support, as well as the minimum firmware requirements for HP-UX 11i v3, refer to the documents for HP-UX 11i v3 at <http://docs.hp.com/en/hw.html#System%20Firmware> or the Business Support Center Web Site at <http://www.hp.com/go/bizsupport>.

- For the most current information on supported Mass Storage Devices, refer to the “HP-UX Supported Mass Storage Devices Matrix” document listed under the Mass Storage Product listing section at <http://www.docs.hp.com/en/netcom.html>
- For up-to-date status and recommended firmware versions for HP StorageWorks components supported with HP-UX 11i v3, refer to the HP-UX 11i v3 and HP StorageWorks Compatibility section at <http://h18006.www1.hp.com/storage/oshpux.html>.
- For an up-to-date list of third-party storage devices which have completed interoperability validation under the guidance of HP and have been qualified as interoperable with HP-UX 11i v3, refer to the following web site at [http://www.hp.com/products1/serverconnectivity/mass\\_storage\\_devices.html](http://www.hp.com/products1/serverconnectivity/mass_storage_devices.html).
- For a comprehensive set of software, hardware, and network support information and tools to help managing multi-vendor computing environment, refer to <http://itrc.hp.com>.

## Updating to HP-UX 11i v3

This section outlines key information needed by the system administrator before updating from HP-UX 11i v2 to HP-UX 11i v3.

### Tools and Utilities Available on HP-UX 11i v2

The tool below is designed to run on HP-UX 11i v2 and to provide customers with a smooth experience for updating from HP-UX 11i v2 to HP-UX 11i v3.

- msv2v3check

The “msv2v3check” tool may be run on the HP-UX 11i v2 system prior to the update to HP-UX 11i v3. It performs an automated system readiness check from a Mass Storage perspective of the system.

The tool performs various HP-UX commands on the system running HP-UX 11i v2, such as ioscan, machinfo, swlist, including interface driver specific commands (like mptutil, fcmsutil) and gathers data from the system to perform the following key checks.

- Is the Platform Supported with HP-UX 11i v3
- Is the System Configuration Supported with HP-UX 11i v3
- Is there enough Memory to update to HP-UX 11i v3
- Are all Host Bus Adapters Supported with HP-UX 11i v3
- Are all Peripheral Devices Supported with HP-UX 11i v3
- Are the HP software products Supported/Impacted
- Are Third Party software products Supported/Impacted

The tool offers several options allowing users to choose what to display on the screen and/or in a log file. Refer to the msv2v3check (1M) man page for additional details.

This HP-UX 11i v2 tool is available as part of the MSV2V3Check package and can be obtained online from <http://software.hp.com> by searching for the keyword “MSV2V3Check”.

Note: If the tool returns any WARNINGS or ERRORS, you may use the section below “[List of Impacted Mass Storage Related Hardware](#)” to help you get more details on the required or recommended actions.

## List of Impacted Mass Storage Related Hardware

The list of impacted mass storage hardware is divided into two different categories, Host Bus Adapters (HBAs) and Peripheral devices. The sub-sections below detail out the impacted list of hardware in each category. If you have any questions about the lists, contact your HP Support Representative.

- Unsupported HBAs

The table below lists the HBAs that are supported with HP-UX 11i v2 but not supported with HP-UX 11i v3.

Unsupported HBA	Description	Recommended Replacement
A5149A	1-port Ultra2 SCSI	A7173A (2-Port U320 SCSI)
A5150A	2-port Ultra2 SCSI	A7173A (2-Port U320 SCSI)
A5838A	2-port Ultra2 SCSI + 2-port 100T	AB290A (2-Port U320 SCSI + 2-Port GIGE)

If peripheral devices are connected to any of above listed HBAs, replace the HBA with a supported one before migrating to HP-UX 11i v3 (or make sure that this card will not be used with HP-UX 11i v3).

For the most current information on supported I/O cards, refer to the "HP-UX Supported I/O Cards Matrix" document listed under the I/O Cards product listing section at <http://www.docs.hp.com/en/netcom.html>.

Also, HP recommends that the following Host Bus Adapters be updated to the following firmware revisions prior to HP-UX 11i v3 update to ensure proper operation.

Card	Description	Recommended Firmware Rev.
A7173A	PCI-X Dual-Channel Ultra320 SCSI Adapter	1.03.35.69 (or later)
AB290A	HP PCI-X Ultra320 SCSI-Gigabit Ethernet multifunction adapter	1.03.35.69 (or later)

For a matrix of system firmware for PCI I/O adapters and HP-UX 11i boot support, as well as the minimum firmware requirements for HP-UX 11i v3, refer to the documents at <http://docs.hp.com/en/hw.html#System%20Firmware>. For the latest HP-UX 11i firmware updates, go to the IT Resource Center (ITRC) Web site at <http://itrc.hp.com> or the Business Support Center Web site at <http://www.hp.com/go/bizsupport>.

- Supported Storage Peripheral Devices

For the most current information on supported Mass Storage Devices, refer to the "HP-UX Supported Mass Storage Devices Matrix" document listed under the Mass Storage Product listing section at <http://www.docs.hp.com/en/netcom.html>.

- HP StorageWorks Compatibility with HP-UX 11i v3

For up-to-date status and recommended firmware versions for HP StorageWorks components supported with HP-UX 11i v3, refer to the HP-UX 11i v3 and HP StorageWorks Compatibility section at:

<http://h18006.www1.hp.com/storage/oshpux.html>

- Third Party Storage Compatibility with HP-UX 11i v3

For an up-to-date list of third-party storage devices which have completed interoperability validation under the guidance of HP and have been qualified as interoperable with HP-UX 11i v3, refer to the following web site:

[http://www.hp.com/products1/serverconnectivity/mass\\_storage\\_devices.html](http://www.hp.com/products1/serverconnectivity/mass_storage_devices.html)

For support of all other storage devices on HP-UX 11i v3, HP recommends that you contact your third party storage vendor to determine compatibility of third-party (non-HP) storage with HP-UX 11i v3.

## List of Unsupported Mass Storage Device Drivers

- Unsupported Kernel Drivers

The following drivers are not supported with HP-UX 11i v3 and will be removed from the system automatically during an update to HP-UX 11i v3.

- ssrfc (Surface Driver)
  - Surface Device is no longer supported with HP-UX 11i v3.
- sflop (Floppy Drives)
  - Floppy drive device is no longer supported with HP-UX 11i v3.

## Other Impacted Mass Storage Related Products

- Impacted HP-UX Software Products

If the HP-UX 11i v2 system has any of the following products installed, HP recommends obtaining and reading the latest documentation about these products from <http://docs.hp.com>.

- iSCSI

The HP-UX iSCSI software initiator is not supported in the initial release of HP-UX 11i v3 and will be automatically removed from the system during update.

- SecurePath/AutoPath

This product is no longer supported with HP-UX 11i v3 as the features provided by this product are now built into the new HP-UX 11i v3 Mass Storage Stack.

Also refer to the migration from Secure Path white paper, "Migrating from HP Storage Works Secure Path for Active-Active Disk Arrays to Native Multipathing in HP-UX 11i v3" available on <http://docs.hp.com>.

- HP CIC (DataTap)

The HP-UX CIC software initiator is not supported in the initial release of HP-UX 11i v3 and will be automatically removed from the system during update.

- Impacted Third Party Software

For an up-to-date list of third-party storage devices which have completed interoperability validation under the guidance of HP and have been qualified as interoperable with HP-UX 11i v3, refer to the following web site:

[http://www.hp.com/products1/serverconnectivity/mass\\_storage\\_devices.html](http://www.hp.com/products1/serverconnectivity/mass_storage_devices.html)

For impact on VERITAS Volume Manager Product, refer to the "VERITAS Volume Manager" section under the "Disk and File Management" chapter in the HP-UX 11i v3 Release Notes at <http://docs.hp.com/en/oshpux11iv3.html>.

For support of all other storage devices on HP-UX 11i v3, HP recommends that you contact your third party storage vendor to determine compatibility of third-party (non-HP) storage with HP-UX 11i v3.

## Next Steps

Note that once you have updated to HP-UX 11i v3, you can take advantage of the agile naming model provided as part of the next generation mass storage stack. For details, refer to the “The Next Generation Mass Storage Stack HP-UX 11i v3” and the “HP-UX 11i v3 Persistent DSF migration” White Papers available on <http://docs.hp.com/en/netsys.html#Storage%20Area%20Management>.

## Conclusion

HP recommends that the following checklist be followed prior to an update to HP-UX 11i v3

- Visit the [HP-UX 11i v3 release page](#) and read carefully all the recommended documents (see the Read before Updating section).
- Execute the “msv2v3check” utility on your HP-UX 11i v2 system to ensure system readiness for the HP-UX 11i v3 Mass Storage Stack.
- Use the list of I/O adapters and Peripheral devices supported with HP-UX 11i v3 to fix the warnings and errors reported by the tool as required.
- Take all actions required or recommended by the “msv2v3check” tool, including updating the required firmware revisions for all HBAs and attached Peripheral Devices.

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