

SerialSCSI-00 (sasd) B.11.23.1003 Mass Storage Driver Release Notes HP-UX 11i v2

HP Part Number: 5990-5084
Published: March 2010
Edition: 1



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This document provides information about the March 2010 release of the SerialSCSI-00 bundle for HP-UX 11i v2.

1 SerialSCSI-00 (sasd) Overview

The SerialSCSI-00 bundle contains the `sasd` driver for the AH303A PCIe SC44Ge SAS Host Bus Adapter, and the core-only HP 8 Internal Port SAS Controller and HP Multi Port Internal SAS Controller. The `sasd` driver is always installed.

1.1 Driver Versions

Table 1 lists the `sasd` driver version that corresponds to each HP-UX release:

Table 1 SerialSCSI-00 Driver Versions By Release

Release	HP-UX Version	Driver Name/Version	Bundle Name
Application Release 0609	HP-UX 11i v2	<code>sasd</code> B.11.23.02.01	SerialSCSI-00
Application Release 0612		<code>sasd</code> B.11.23.03	
Web Release 0612		<code>sasd</code> B.11.23.03.01	
Application Release 0706		<code>sasd</code> B.11.23.04	
Application Release 0712		<code>sasd</code> B.11.23.0712	
Application Release 0803		<code>sasd</code> B.11.23.0803	
Application Release 0806		<code>sasd</code> B.11.23.0806	
Application Release 0809		<code>sasd</code> B.11.23.0809	
Web Release 0812		<code>sasd</code> B.11.23.0812	
Application Release 0903		<code>sasd</code> B.11.23.0903	
Application Release 0909		<code>sasd</code> B.11.23.0909	
Application Release 1003		<code>sasd</code> B.11.23.1003	

2 New and Changed Features in This Release

2.1 New Features

There are no new features included in SerialSCSI-00 at the time of this publication.

2.2 Changed Features

There are no changed features included in SerialSCSI-00 at the time of this publication.

3 Problems Fixed in This Version

Table 2 lists the problems fixed in this version of SerialSCSI-00.

Table 2 HP-UX 11i v2 March 2010 Fixes — SerialSCSI-00 B.11.23.1003

SR Number	Description
QXCR1000930169	The <code>what</code> command returns an incorrect version number string for the <code>sasd</code> driver.
QXCR1000977547	The <code>sasmgr (1M)</code> command fails to replace a defective disk device online when there is a pending I/O operation.

Problems Fixed in Recent Versions

Table 3 HP-UX 11i v2 September 2009 Fixes — SerialSCSI-00 B.11.23.0909

SR Number	Description
QXCR1000940381	System panic when the data cable is disconnected from an HP StorageWorks MSA60 or MSA70 enclosure.

Table 4 HP-UX 11i v2 March 2009 Fixes — SerialSCSI-00 B.11.23.0903

SR Number	Description
QXCR1000813841	System panic during boot.

Table 5 HP-UX 11i v2 December 2008 Fixes — SerialSCSI-00 B.11.23.0812

SR Number	Description
QXCR1000876175	Delayed MCA with the USB driver on the stack.

Table 6 HP-UX 11i v2 September 2008 Fixes — SerialSCSI-00 B.11.23.0809

SR Number	Description
QXCR1000766541	System panic when Scatter/Gather elements exceed the limit.

4 Known Problems and Limitations

This section provides a list of problems and limitations known to HP when these release notes were published. If workarounds are available, they are included.

4.1 HP 8 Internal Port SAS Controller and HP Multi-Port Internal SAS Controller

- **Updating the adapter firmware to version 1.23.33 or later might change the target ID of disk devices.**

This occurs on HP Integrity rx2660, rx3600, and rx6600 servers when an Integrated RAID volume is configured on the controller and you perform one of the following actions:

- Update the adapter firmware offline using `sasflash.efi`.
- Boot to an HP-UX or Ignite-UX disk containing the `sasd` driver from one of the following releases, which download firmware version 1.23.33 to the adapter during boot:
 - B.11.23.0712
 - B.11.31.0712

Changing the target ID might cause physical disks, including the OS boot disk, to become inaccessible. If some of the disks from the IR volume are inaccessible, the volume can become degraded or fail.



NOTE: The target ID change does not occur on systems without a RAID-1 volume. It also does not occur on HP Integrity B1860c servers with the HP Multiport SAS Controller.

For detailed information on how to avoid or correct this problem, see *Updating Internal SAS Controller Firmware to Version 1.23.33 Or Later* at:

<http://docs.hp.com/en/netcom.html>

- **Before replacing a failed disk, note its Device Special File (DSF) information.**

If you shut down a server to replace a failed disk offline, the DSF of the failed disk is not visible in `ioscan` when the server restarts. The DSF is required by the `replace_tgt` command to rebuild the array with the new disk.

Corrective Action: Before you shut down the server, run `ioscan` and note the DSF information for the failed disk.

For more information on replacing disks, see the *HP 8 Internal Port SAS Controller and HP Multi-Port Internal SAS Controller Support Guide* at:

<http://docs.hp.com/en/netcom.html>

4.2 AH303A PCIe SC44Ge SAS Host Bus Adapter

- **Virtual Partitions do not boot in multi-initiator configurations under vPars A.4.05.**

Virtual Partitions (vPars) version A.4.05 using an HP StorageWorks MSA60 or MSA70 enclosure do not boot if AH303A cards assigned to multiple virtual partitions are connected to the same JBOD. Under the vPars I/O resource assignment rules, a host bus adapter cannot be shared among multiple virtual partitions.

Corrective Action: This issue is corrected in vPars A.04.06 (B.11.23.0809).

- **Virtual Partitions do not boot if hardware reconfiguration changes the hardware path under vPars A.4.05.**

Virtual Partitions (vPars) using an HP StorageWorks MSA50/MSA60/MSA70 enclosure do not boot if hardware paths change due to hardware reconfiguration. For more information on the impacts of hardware reconfiguration, see the *Ignite-UX and SAS Devices* white paper at:

<http://www.hp.com/go/ignite-ux-docs>

Corrective Action: This issue is corrected in vPars A.04.06 (B.11.23.0809).

- **There is a `setboot` command issue on specific servers.**

The `setboot -p/-a/-h` command fails when issued on an AH303A adapter installed in slots 3 or 4 on HP Integrity rx3600 and rx6600 systems.

Corrective Action: Install AH303A adapters in nonswitched slots. This issue is corrected in patch PHKL_37869. You can download patches from the IT Resource Center at:

<http://itrc.hp.com/>

4.3 All Controllers Supported by SerialSCSI-00

- **System panic when downgrading the `sasd` driver.**



CAUTION: Installing version B.11.23.0712 or earlier of the `sasd` driver downgrades the adapter firmware. This can cause RAID volumes in the system to become degraded. Back up important data before downgrading the adapter firmware.

If you install an older version of the `sasd` driver and version B.11.23.0712 is installed, the system panics with the following stack trace:

```
panic: post_hndlr(): Unresolved kernel interruption
```

Stack Trace:

IP	Function Name
0xe0000000005a95e0	post_hndlr+0xcc0
0xe0000000005a8460	vm_hndlr+0x220
0xe000000000d90780	bubbledown
0xe000000000713610	spp_remove_from_list+0xf0
0xe000000000713240	spp_alloc+0xd0
0xe0000000007137a0	kmem_lpc_alloc+0x100
0xe000000000713a00	kalloc_internal+0x90
0xe00000000073bbf0	alloc_mem+0x90
0xe00000000073bf10	get_kmem+0x130
0xe00000000073c260	kmem_arena_refill+0x110
0xe0000000006ebf70	kmem_arena_varalloc+0x1f0
0xe00000000118eba0	ipmi_init+0x1c0
0xe0000000009e28b0	isc_table_traverse+0x1e0
0xe0000000009dbfa0	wsio_init_end+0x40
0xe000000000c7d320	io_virt_mode_config+0x1c0
0xe0000000017716b0	DoCalllist+0x3a0

End of Stack Trace

This problem happens on HP Integrity rx2600, rx3600, rx6600, BL860c systems, and on rx7640 and rx8640 systems with AH303A adapters installed.

Corrective Action: Reboot the system to recover from the panic.

5 Compatibility and Installation Requirements

This section describes the compatibility information and installation requirements for this release. For specific installation instructions, see the *HP 8 Internal Port SAS Controller and HP Multi-Port Internal SAS Controller Support Guide* or the *AH303A PCIe SC44Ge SAS Host Bus Adapter for Integrity Servers Support Guide*, at:

<http://docs.hp.com/en/netcom.html>

5.1 Required Software

The SerialSCSI-00 bundle depends on SAS-COMMON, which is delivered as a part of the CommonIO bundle. Before installing SerialSCSI-00, be sure that version B.11.23.0803 or later of CommonIO is installed.

This version of SerialSCSI-00 requires Fusion 0806 or later of Ignite-UX.

You can download these products from the Software Depot website at:

<http://www.hp.com/go/softwaredepot>

Search for **CommonIO** and **Ignite-UX**.

5.2 Operating System and Version Compatibility

This release is specific for HP-UX 11i v2 (B.11.23).

5.3 Hardware Requirements

This version of SerialSCSI-00 runs on HP Integrity servers with the HP-UX 11i v1 (B.11.23) operating system. For more information on supported systems, see the *SAS Host Bus Adapters Support Matrix* at:

<http://docs.hp.com/en/netcom.html>

6 Related Information

The latest documentation for CommonIO and SAS host bus adapters is available in English at:

<http://docs.hp.com/en/netcom.html>

Available documents include:

- *HP CommonIO Release Notes*
- *HP 8 Internal Port SAS Controller and HP Multi-Port Internal SAS Controller Support Guide*
- *AH303A PCIe SC44Ge SAS Host Bus Adapter for Integrity Servers Support Guide*
- *SAS Host Bus Adapters Support Matrix*

7 Software Availability in Native Languages

The SerialSCSI-00 product is available only in the English language.