

HP-UX iSCSI Software Initiator Release Notes

Revision B.11.11.03f for HP-UX 11i v1

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1 HP-UX iSCSI Software Initiator Release Notes

Announcement

The HP-UX iSCSI Software Initiator is a software implementation of the iSCSI protocol (RFC 3720) based on the HP-UX host TCP/IP stack. The iSCSI protocol defines a mass storage transport wedge between TCP and the SCSI Services layer. The HP-UX iSCSI Software Initiator is compliant with RFC 3720. To access the IETF iSCSI Specification RFC 3720, go to:

<http://www.ietf.org/rfc/rfc3720.txt>

The HP-UX iSCSI Software Initiator consists of the following modules:

- iSCSI Transport Driver
The Session management module.
- iSCSI Software Interface Driver
This module interfaces with the host based TCP/IP module.

The following information is for revision B.11.11.03f of the HP-UX iSCSI Software Initiator:

- The HP-UX iSCSI Software Initiator requires no changes to applications that access mass storage devices.
- The HP-UX iSCSI Software Initiator revision B.11.11.03f is supported on HP 9000 servers running HP-UX 11i v1.

Network interface cards (NICs) and network infrastructure components currently supported with 11i v1 are required. NICs with 1 Gigabit or greater transfer rates are strongly recommended.

- For instructions on locating, downloading and installing the HP-UX iSCSI Software Initiator, see the *HP-UX iSCSI Software Initiator Support Guide*.

Availability of Documentation

The latest documentation for iSCSI is available in English in the **iSCSI (SCSI Over TCP/IP)** section of:

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

Available documents include:

- *HP-UX iSCSI Software Initiator Support Guide*
- *HP-UX iSCSI Software Initiator Release Notes*
- *HP-UX iSCSI Software Initiator Support Matrix*

What's New

- Resolved a system panic due to an "Instruction TLB Miss Fault/Instruct Page Fault" (QXCR1000588845).

In previous releases, during processing of a response to a login PDU, the system panicked when dereferencing a null function pointer. This problem has been resolved.

Limitations

The following information is for revision B.11.11.03f of the HP-UX iSCSI Software Initiator:

- iSCSI usage of IPsec is supported on HP-UX, however, the HP-UX iSCSI Software Initiator has not been tested with IPsec due to the lack of iSCSI targets that support IPsec.
Support of IPsec with the HP-UX iSCSI Software Initiator is dependent on the availability of iSCSI targets that support IPsec and target vendor testing of the HP-UX iSCSI Software Initiator with those targets.
- The HP-UX iSCSI Software Initiator does not support IPv6 addresses.
- The HP-UX iSCSI Software Initiator does not support the definition of the boot, root, primary swap, dump, or var volumes on iSCSI physical volumes.

Known Problems and Workarounds

- **Problem:** Kernel Registry Service states that information will be available prior to I/O initialization. However, kernel modules that use the Kernel Registry Service to store driver information are not available until after I/O initialization.
Workaround: Patches PHKL_27321 and PHKL_27096 must be installed to provide early access to the Kernel Registry Services.
- **Problem:** `ioscan` displays the device state as `NO_HW` when nodes that have hardware paths beginning with 255 are scanned.
Workaround: Install patch PHKL_28209.
- **Problem:** The `shutdown` command is blocked when the iSCSI Software Initiator is installed. During shutdown, `/sbin/umountall` is unable to determine the status of the file system, because the `killall` script has killed the iSCSI Software Initiator daemons needed to access devices.
Workaround: Install patch PHCO_28319. This patch will modify the `killall` script to prevent it from killing the `iswd`, `iradd`, and `iscsi_resolvd` iSCSI Software Initiator daemons.
- **Problem:** Data page fault seen with transfer of data using iSCSI Software Initiator.
Workaround: Install patch PHNE_26939 to resolve data page fault issue.
- **Problem:** SAM does not support iSCSI.
Workaround: Install patch PHCO_27374 to provide access to iSCSI volumes from SAM.
- **Problem:** If SLP is being used by iSCSI, and the SLP daemon (`slpd`) is terminated, the `islpd` iSCSI daemon is killed.
Workaround: No patch available. If a user starts or restarts the SLP daemon (`slpd`), the `islpd` daemon must be restarted using the command line.
- **Problem:** Operations (for example, `ioscan`, `vgcreate`, `diskinfo`, and `insf`), that require a device open of an SPC-2 compliant target are delayed, due to extra retries that delay the device open of the SPC-2 compliant target.
Workaround: Install patch PHKL_30510.
- **Problem:** If Event Monitoring Services (EMS) and Support Tool Manager (STM) are used for diagnostic logging and monitoring, some new events generated by the HP-UX iSCSI Software Initiator are not processed by the iSCSI EMS Monitor. Also, incorrect event messages can be produced because the HP-UX iSCSI Software Initiator and the iSCSI EMS Monitor are out of sync.
Workaround: Install patch PHSS_30888 after installing the HP-UX 11i v1 Hardware Enablement bundle: HWE0406.

- Problem:** LVM Volume Group (VG) activation failure error messages are displayed during system startup.
 iSCSI Physical Volumes (PVs) are network dependent devices, which are not accessible until the network subsystem is initialized. Attempts during system startup (prior to network initialization) to activate VGs that include an iSCSI PV, generate VG activation failure error messages. The iSCSI Software Chapter HP-UX iSCSI Software Initiator returns the errno ENETUNREACH (Network is unreachable), when iSCSI devices are accessed prior to the completion of network initialization. After the network subsystem is initialized, the iSCSI Software Initiator no longer returns the errno ENETUNREACH. Any errno that is returned after network initialization is the same as if the iSCSI Software Initiator were not installed on the system.
Workaround: Install patches PHKL_32854 and PHCO_29379.
- Problem:** For HFS file systems residing on LVM Logical Volumes that are defined on iSCSI Physical Volumes, `fsck` retries the open for the PV to become available, on 10 second intervals, for a total of 360 seconds. This prolongs the system startup time, depending on the number of HFS file systems configured.
Workaround: Install patches PHKL_32854 and PHCO_29379.
- Problem:** File system commands executed against iSCSI devices display error messages.
 During system startup, file system commands (for example, `fsck`, `fsck`, `fsck`, and `mountall`) executed against iSCSI raw devices, or LVM Logical Volumes that are defined on iSCSI Physical Volumes, generate error messages because iSCSI devices are inaccessible prior to network initialization.
Workaround: Install the following patches:

PHCO_33203	Makes <code>fsck</code> (1m) iSCSI aware.
PHCO_33205	Makes <code>mountall</code> (1m) iSCSI aware, and performs required actions while trying to mount or <code>fsck</code> iSCSI devices.
PHCO_33221	Makes HFS <code>bcheckrc</code> aware of the <code>fsck</code> (1m) error code for iSCSI devices.
PHCO_33226	Makes VxFS <code>bcheckrc</code> aware of the <code>fsck</code> (1m) error code for iSCSI devices.
PHCO_33236	Makes VxFS <code>mount</code> (1m) iSCSI aware.
PHCO_33237	Makes VxFS <code>fsck</code> (1m) iSCSI aware.
PHCO_33242	Makes HFS <code>fsck</code> (1m) iSCSI aware.
PHCO_33327	Makes <code>mount</code> (1m) iSCSI aware.
- Problem:** The Veritas Volume Manager™ (VxVM) support with the iSCSI Software Initiator requires the VxVM patch.
Workaround: Install VxVM patch PHCO_30850.

Installation Requirements

You must install the following patches, or any superseding patches, along with revision B.11.11.03f of the HP-UX iSCSI Software Initiator:

- PHCO_27374
- PHCO_28319
- PHCO_29379
- PHCO_30850
- PHCO_33203
- PHCO_33205
- PHCO_33221
- PHCO_33226

- PHCO_33236
- PHCO_33237
- PHCO_33242
- PHCO_33327
- PHKL_27096
- PHKL_27321
- PHKL_28209
- PHKL_30510
- PHKL_30622
- PHNE_26939
- PHSS_30888

(Requires installation of the HP-UX 11i v1 Hardware Enablement bundle: HWE0406.)

HP-UX iSCSI Software Initiator Support Matrix



NOTE: The following support matrix reflects the support status of Revision B.11.11.03f of the HP-UX iSCSI Software Initiator, at the time these Release Notes were published. The HP-UX iSCSI Software Initiator Support Matrix located at <http://www.docs.hp.com>, is regularly updated with the latest support status on all supported revisions of this product.

Table 1-1 HP-UX iSCSI Software Initiator Support Matrix

HP-UX iSCSI Software Initiator Revision	Supported Operating System Versions	Supported Systems	Patches	Supported Targets ¹
Revision B.11.11.03f	HP-UX 11i v1	All 64-bit HP 9000 Servers	PHCO_27374 PHCO_28319 PHCO_29379 PHCO_30850 PHCO_33203 PHCO_33205 PHCO_33221 PHCO_33226 PHCO_33236 PHCO_33237 PHCO_33242 PHCO_33327 PHKL_27096 PHKL_27321 PHKL_28209 PHKL_30510 PHKL_30622 PHNE_26939 PHSS_30888	HP StorageWorks IP Storage Router 2122-2 ² Cisco MDS 9000 IP Services Module ³

1 Information on additional iSCSI targets is available at: http://www.hp.com/products1/unixserverconnectivity/mass_storage_devices.html

2 Detailed support information for the HP StorageWorks IP Storage Router 2122-2 is available at: <http://www.hp.com/support/iprouter>

3 Detailed support information for the Cisco MDS 9000 IP Services Module is available at: <http://h18006.www1.hp.com/products/storageworks/cmds9000ipsm/index.html>

Software Availability in Native Languages

HP-UX iSCSI Software Initiator information is only available in the English language.