

# **HP-UX iSCSI Software Initiator Release Notes**

**Revision B.11.11.03a for HP-UX 11i v1**  
**Revision B.11.23.03a for HP-UX 11i v2**



**Manufacturing Part Number : 5990-8516**  
**E0404**

U.S.A.

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# HP-UX iSCSI Software Initiator Release Notes

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## Announcement

The HP-UX iSCSI Software Initiator is a software implementation of the iSCSI protocol based on the HP-UX host TCP/IP stack. iSCSI defines a mass storage transport wedge between TCP and the SCSI Services layer. The HP-UX iSCSI Software Initiator is compliant with the final draft version of the IETF iSCSI specification. For more information on the IETF iSCSI specification, go to:

<http://ietf.org/html.charters/ips-charter.html> and click on iSCSI.

The HP-UX iSCSI Software Initiator consists of two modules, the iSCSI Transport Driver and the iSCSI Software Interface Driver.

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

The following information is for revisions B.11.11.03a and B.11.23.03a 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.11.11.03a is supported on any of the 64 bit HP 9000 series servers running HP-UX 11i v1.

Network interface cards (NICs) and network infrastructure components currently supported with HP-UX 11i v1 are required. Gigabit NICs are strongly recommended.

- The HP-UX iSCSI Software Initiator revision B.11.23.03a is supported on any of the HP Integrity servers running HP-UX 11i v2.

Network interface cards (NICs) and network infrastructure components currently supported with HP-UX 11i v2 are required. Gigabit NICs are strongly recommended.

- The HP-UX iSCSI Software Initiator introduces the "iscsiutil" management tool to the system.
- For instructions on locating, downloading and installing the HP-UX iSCSI Software Initiator, see the *HP-UX iSCSI Software Initiator Support Guide*.

**Table 1**                      **HP-UX iSCSI Software Initiator Documentation Availability**

<b>Document Title</b>	<b>Part Number</b>	<b>url</b>
HP-UX iSCSI Software Initiator Support Guide	5990-7213	<a href="http://www.docs.hp.com">http://www.docs.hp.com</a> See: “iSCSI (SCSI Over TCP/IP)” in the “Networking & Communications” section.
HP-UX iSCSI Software Initiator Release Notes	5990-8516	<a href="http://www.docs.hp.com">http://www.docs.hp.com</a> See: “iSCSI (SCSI Over TCP/IP)” in the “Networking & Communications” section.
HP-UX iSCSI Software Initiator Support Matrix	N/A	<a href="http://www.docs.hp.com">http://www.docs.hp.com</a> See: “iSCSI (SCSI Over TCP/IP)” in the “Networking & Communications” section.

## **Limitations**

The following information is for revisions B.11.11.03a and B.11.23.03a 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 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.
- Challenge-Handshake Authentication Protocol (CHAP) Bi-directional authentication is not supported.

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## HP-UX iSCSI Software Initiator Support Matrix

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**NOTE** The following HP-UX iSCSI Software Initiator Support Matrix reflects support status 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 information as support status changes.

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**Table 2 HP-UX iSCSI Software Initiator Support Matrix**

<b>HP-UX iSCSI Software Initiator Revision</b>	<b>Supported Operating System Versions</b>	<b>Supported Systems</b>	<b>Patches</b>	<b>Supported Targets</b>
Revision B.11.11.03a	HP-UX 11i v1 (64 bit only)	All 64 bit HP 9000 Series Servers	PHCO_27374 PHCO_28319 PHCO_29379 PHKL_27096 PHKL_27321 PHKL_28209 PHKL_29047 PHKL_30622 PHNE_26939 PHSS_30456	HP StorageWorks™ IP Storage Router 2122-2
Revision B.11.23.03a	HP-UX 11i v2	All HP Integrity Servers	PHSS_30457	HP StorageWorks™ IP Storage Router 2122-2
Detailed support information for the HP StorageWorks™ IP Storage Router 2122-2 is available at: <a href="http://www.hp.com/support/iprouter">http://www.hp.com/support/iprouter</a>				
Information on additional iSCSI targets is available at: <a href="http://www.hp.com/products1/unixserverconnectivity/mass_storage_devices.html">http://www.hp.com/products1/unixserverconnectivity/mass_storage_devices.html</a>				

## What's New

### What's New In Revision B.11.11.03a of the HP-UX iSCSI Software Initiator

- **Initial Release on HP-UX 11i v1** - This is the initial product release of the HP-UX iSCSI Software Initiator (revision B.11.11.03a) on HP-UX 11i v1.

### What's New In Revision B.11.23.03a of the HP-UX iSCSI Software Initiator

- **Default Initiator Name** - An Initiator Name must be configured prior to issuing the first iSCSI Login request. If an Initiator Name has not been previously configured, or if the HP-UX iSCSI Software Initiator is being configured for the first time, the Initiator Name will be set to `iqn.1986-03.com.hp:<hostname>.<unique id>` by default.
- **Support for Configuring iSCSI SLP Scope** - The SLP scope string for the iSCSI SLP User Agent (islpd) can be configured using `iscsiutil`. If no string is configured "default" is used.

## Known Problems and Workarounds

### Known Problems and Workarounds for the HP-UX iSCSI Software Initiator Revision B.11.11.03a

- **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 iSCSI Software Initiator daemons; “iswd”, “iradd”, and “iscsi\_resolvd”.
- **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 iSCSI `islpd` daemon will be 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:** Extra retries associated with the SCSI commands result in a noticeable delay in `diskinfo` execution time.  
**Workaround:** Install patch PHKL\_29047.



- **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 will not be processed by the iSCSI EMS Monitor. Also, incorrect event messages will be produced, because the HP-UX iSCSI Software Initiator and the iSCSI EMS Monitor are out of sync.

**Workaround:** Install patch PHSS\_30456.

- **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, will generate VG activation failure error messages. The iSCSI Software Initiator will return the errno “ENETUNREACH” (Network is unreachable), when iSCSI devices are accessed prior to the completion of network initialization. Once the network subsystem is initialized, the iSCSI Software Initiator will no longer return the errno “ENETUNREACH”. Any errno that is returned after network initialization will be the same as if the iSCSI Software Initiator were not installed on the system.

**Workaround:** Install patches PHKL\_30622 and PHCO\_29379.

- **Problem:** For HFS file systems residing on LVM Logical Volumes that are defined on iSCSI Physical Volumes, `fsclean` retries the open for the PV to become available, on 10 second intervals, for a total of 360 seconds. This will prolong the system startup time, depending on the number of HFS file systems configured.

**Workaround:** Install patches PHKL\_30622 and PHCO\_29379.

- **Problem:** File system commands executed against iSCSI devices display error messages.

During system startup, file system commands (such as `fsck`, `fsclean` and `mountall`) executed against iSCSI raw devices, or LVM Logical Volumes that are defined on iSCSI Physical Volumes, will generate error messages, because iSCSI devices will be inaccessible prior to network initialization.

**Workaround:** Patches to resolve this problem are not available yet. No user intervention is required. Ignore the error messages displayed. The file system commands executed during system startup (prior to network initialization) will be retried by the iSCSI Software Initiator startup script. The startup script is executed after the network subsystem is initialized. The file system commands will succeed once the iSCSI devices are accessible. After the iSCSI Software Initiator startup script is executed, the error messages will no longer be seen.

**Known Problems and Workarounds**

- **Problem:** Challenge-Handshake Authentication Protocol (CHAP) Bi-directional authentication is not supported. A problem has been encountered in the use of CHAP Bi-directional authentication. However, CHAP Uni-directional authentication is supported.

**Workaround:** None.

- **Problem:** The Veritas Volume Manager (VxVM) is not supported with the iSCSI Software Initiator.

**Workaround:** None.

## Known Problems and Workarounds for the HP-UX iSCSI Software Initiator Revision B.11.23.03a

- **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 will not be processed by the iSCSI EMS Monitor. Also, incorrect event messages will be produced, because the HP-UX iSCSI Software Initiator and the iSCSI EMS Monitor are out of sync.

**Workaround:** Install patch PHSS\_30457.

- **Problem:** Challenge-Handshake Authentication Protocol (CHAP) Bi-directional authentication is not supported. A problem has been encountered in the use of CHAP Bi-directional authentication. However, CHAP Uni-directional authentication is supported.

**Workaround:** None.

- **Problem:** The Veritas Volume Manager (VxVM) is not supported with the HP-UX iSCSI Software Initiator.

**Workaround:** None.

## Installation Requirements

### Installation Requirements for the HP-UX iSCSI Software Initiator Revision B.11.11.03a

The following patches, or any superseding patches, should be installed along with the HP-UX iSCSI Initiator. The absence of any of these patches will not prevent the HP-UX iSCSI Initiator from executing correctly, but there will be problems as detailed in “Known Problems and Workarounds for the HP-UX iSCSI Software Initiator Revision B.11.11.03a” on page 8 of these release notes.

- PHCO\_27374
- PHCO\_28319
- PHCO\_29379
- PHKL\_27096
- PHKL\_27321
- PHKL\_28209
- PHKL\_29047
- PHKL\_30622
- PHNE\_26939
- PHSS\_30456

### Installation Requirements for the HP-UX iSCSI Software Initiator Revision B.11.23.03a

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- PHSS\_30457

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## **Software Availability in Native Languages**

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