

HP-UX Ultra320 SCSI mpt Driver Release Notes

Version 11i v2 Revision B.11.23.0612



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HP-UX Ultra320 SCSI mpt Driver Release Notes

What's in This Release Note

This release note contains information pertaining to the B.11.23.0612 version of the scsiU320-00 (mpt) driver provided with HP-UX 11i v2. The mpt driver supports the following SCSI products:

- The HP-UX Ultra320 SCSI (mpt) Driver supports the HP A7173A PCI-X Dual Channel Ultra320 SCSI Host Bus Adapter, and the HP AB290A PCI-X 2-Port U320 SCSI and 2-Port Gigabit Ethernet Combination Card. Additionally, the mpt driver supports multiple servers using U320 SCSI Core I/O solutions.
- See the *HP-UX A7173A PCI-X Dual Channel Ultra320 SCSI Host Bus Adapter Support Matrix* for supported HP systems and storage devices.
- See the *AB290A PCI-X 2-Port U320 SCSI and 2-Port Gigabit Ethernet Combination Card Support Matrix* for supported HP systems and storage devices.

Compatibility Information and Installation Requirements

Software Requirements

The mpt driver is used by the A7173A and AB290A host-bus adapters in all supported HP-UX systems. The mpt driver is available on the application release CD or at the HP Software Depot <http://www.software.hp.com>. The scsiU320-00 bundle, which includes the mpt driver, also includes the mptconfig and mptutil utilities for on-line configuration and troubleshooting.

Patches are available from either: <http://www.software.hp.com> or <http://itresourcecenter.hp.com>

Driver Versions

The following table lists the `mpt` driver version that corresponds to each HP-UX release:

Table 1 HP-UX `mpt` Driver Version History

Release	HP-UX Version	Driver Name/Version	Bundle Name
Application Release 1203	HP-UX 11i v1 (B.11.11)	<code>mpt / B.11.11.00</code>	<code>scsiU320-00</code>
Application Release 0304	HP-UX 11i v2 (B.11.23)	<code>mpt / B.11.23.00</code>	<code>scsiU320-00</code>
Application Release 0604	HP-UX 11i v1 (B.11.11)	<code>mpt / B.11.11.01</code>	<code>scsiU320-00</code>
Application Release 0409	HP-UX 11i v2 (B.11.23)	<code>mpt / B.11.23.01</code>	<code>scsiU320-00</code>
Application Release 1204	HP-UX 11i v1 (B.11.11)	<code>mpt / B.11.11.02</code>	<code>scsiU320-00</code>
Application Release 0505	HP-UX 11i v2 (B.11.23)	<code>mpt / B.11.23.02</code>	<code>scsiU320-00</code>
Web Release 0509	HP-UX 11i v2 (B.11.23)	<code>mpt / B.11.23.03</code>	<code>scsiU320-00</code>
Application Release 0512	HP-UX 11i v2 (B.11.23)	<code>mpt / B.11.23.03 (B.11.23.0512)</code>	<code>scsiU320-00</code>
Application Release 0603	HP-UX 11i v2 (B.11.23)	<code>mpt / B.11.23.0603</code>	<code>scsiU320-00</code>
Application Release 0606	HP-UX 11i v2 (B.11.23)	<code>mpt / B.11.23.0606</code>	<code>scsiU320-00</code>
Application Release 0609	HP-UX 11i v2 (B.11.23)	<code>mpt / B.11.23.0609</code>	<code>scsiU320-00</code>
Web Release 0612	HP-UX 11i v2 (B.11.23)	<code>mpt / B.11.23.0612</code>	<code>scsiU320-00</code>

Files Contained in the `scsiU320-00` Bundle for `mpt` Revision B.11.23.0612

The `scsiU320-00` bundle is composed of several files that the Software Distributor (SD) will copy to the appropriate directories on the host system.

If you are concerned that the installation is not complete, use the `swverify` command to confirm the software has been properly installed. The `swlist` command can be used to display the files that have been installed. It is not necessary to run these commands, unless you need to troubleshoot the A7173A adapter installation.

The SD will add the following files to an HP-UX host configuration:

- **`/opt/mpt/bin/mptconfig`**
This is the command line configuration tool. `mptconfig` is an abbreviation for “MPT Configuration Utility”.
- **`/opt/mpt/bin/mptinfo`**
This is the command line tool to collect `mpt` information.

- **/opt/mpt/bin/mptutil**
This is the support tool. `mptutil` is an abbreviation for “MPT Support Utility”.
- **/sbin/init.d/mpt**
`mpt` is a startup script to make device files for A7173A adapters.
- **/sbin/rc2.d/S900mpt**
`S900mpt` (Run-2; start script) is a symbolic link pointing to `/sbin/init.d/mpt`.
- **/usr/conf/lib/libmpt.a**
This is the library of 64 bit object modules that must be linked into the HP-UX kernel.
- **/usr/sbin/mptconfig**
This is a link to `/opt/mpt/bin/mptconfig`, which allows `mptconfig` to be run in single user mode.
- **/usr/sbin/mptinfo**
This is a link to `/opt/mpt/bin/mptinfo`, which allows `mptinfo` to be run in single user mode.”
- **/usr/sbin/mptutil**
This is a link to `/opt/mpt/bin/mptutil`, which allows `mptutil` to be run in single user mode.
- **/usr/sbin/olrad.d/mpt**
This is the script for OLAR.
- **/usr/share/man/man1m.Z/mptconfig.1m**
The manpages for `mptconfig` are located here.
- **/usr/share/man/man1m.Z/mptutil.1m**
The manpages for `mptutil` are located here.

Known Problems Fixed in This Version

The following defect fixes are included in the B.11.23.0612 version of the `scsiU320-00` (`mpt`) driver. These fixes are available in the December 2006 depot. To view the entire details of each defect fix, refer to the HP IT Resource Center at <http://itrc.hp.com>.

Table 2 **HP-UX 11i v2 December 2006 Fixes**

SR Number	Description
8606455441	Enhanced I/O handling has been added to the Ultra320 SCSI <code>mpt</code> driver which will prevent SCSI I/O's from timing out prematurely on systems which have been online longer than 400-days without a system reboot.

Table 3 HP-UX 11i v2 September 2006 Fixes

SR Number	Description
8606437859	The <code>mpt</code> driver has been updated to return the full 256-bytes of sense data from a SCSI device when a check condition is encountered.
8606435427	The <code>mpt</code> driver has added support for PCI Error Handling functionality.
8606439899	Driver timer handling has been improved which will avoid several unnecessary and non-critical messages in the system log.

Table 4 HP-UX 11i v2 June 2006 Fixes

SR Number	Description
8606429245	An enhancement has been added to the 11.23 <code>mpt</code> driver, which improves <code>mpt</code> controller supportability on newer HP hardware platforms.

Table 5 HP-UX 11i v2 March 2006 Fixes

SR Number	Description
8606418654	The <code>scsiU320-00</code> bundle containing the <code>mpt</code> driver resolves I/O timeout and bus reset issues in mixed-speed disk configurations with MSA30 enclosures.

Table 6 HP-UX 11i v2 December 2005 Fixes

SR Number	Description
8606385716	The <code>mpt</code> driver does not appropriately consider certain I/O card firmware limits when calculating the max I/O size.
8606415757	The HPVM environment uses the U320 SCSI <code>mpt</code> driver for all mass storage I/O operations within the Virtual Machine. As a result, I/O timeout values in the <code>mpt</code> driver had to be adjusted for the I/O latency of the Virtual Machine to prevent unnecessary and excessive I/O timeouts within the SCSI system.
8606406991	The <code>mpt</code> driver calculates the size of the largest I/O it can handle based on information provided by the A7173A firmware. If a large I/O arrives and exceeds the <code>MAX_IO_SIZE</code> limit of the <code>mpt</code> driver, the I/O will be rejected. An issue has been found with the <code>MAX_IO_SIZE</code> calculation algorithm. As a result, the fix within the driver changes the <code>MAX_IO_SIZE</code> calculation to correctly determine the maximum I/O size.
8606411435	The <code>mptutil</code> U320 <code>mpt</code> utility is designed to help HP customers better manage their U320 products. Specifically, <code>mptutil</code> enables a user to issue a "target reset" to a given device on a SCSI bus. A system panic occurs when a user tried to issue a target reset to a device ID on their bus which is not a valid SCSI device ID. The fix corrects <code>mptutil</code> and the <code>mpt</code> driver to check for valid SCSI device ID's before issuing a reset command.
8606415003	The <code>mpt</code> driver logs specific information about the SCSI I/O subsystem in a system diagnostic log. The diagnostic log was filling quickly with unimportant log information from the <code>mpt</code> driver. As a result, the <code>mpt</code> driver was fixed to only log the most important and critical information regarding the SCSI subsystem. This will prevent the 'diag2' diagnostic log/buffer from filling so quickly with unnecessary warnings and messages.

Availability of Documentation

The following table identifies the documentation that is available for the HP A7173A PCI-X Dual Channel Ultra320 SCSI Host Bus and AB290A PCI-X 2-Port U320 SCSI and 2-Port Gigabit Ethernet Combination Card Adapters.

Go to <http://www.docs.hp.com>, click on “browse by topic”, then click on “I/O Cards and Networking Software” and select the “SCSI Host Bus Adapters” category to locate these documents online.

Table 7 Driver and A7173A Adapter Documentation Availability

Document Title	Part Number	url
<i>HP A7173A PCI-X Dual Channel Ultra320 SCSI Host Bus Adapter Support Guide</i>	J6373-90008	Go to http://www.docs.hp.com Click on “browse by topic” Click on “I/O Cards and Networking Software” Click on “SCSI Host Bus Adapters”
<i>HP-UX Ultra320 SCSI mpt Driver Release Notes, Version 11i v1, Revision B.11.11.0612</i>	J6373-90019	
<i>HP-UX Ultra320 SCSI mpt Driver Release Notes, Version 11i v2, Revision B.11.23.0612</i>	J6373-90021	
<i>HP A7173A PCI-X Dual Channel Ultra320 SCSI Host Bus Adapter Installation Guide</i>	A7173-90005	
<i>AB290A PCI-X 2-Port U320 SCSI and 2-Port Gigabit Ethernet Combination Card Installation Guide</i>	AB290-90001	
<i>HP AB290A Ultra320 SCSI-Gigabit Ethernet Combination Card Support Matrix</i>	N/A	

Software Availability in Native Languages

The HP-UX U320 SCSI mpt software is available in the English language.

