



Hewlett Packard
Enterprise

FibrChanl-03 (fcoc) Fibre Channel Mass Storage Driver for HP-UX 11i v3 Release Notes

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This document provides information about the B.11.31.1705 release of the FibrChanl-03 (fcoc) Fibre Channel Mass Storage Driver for HP-UX 11i v3.

FibrChanl-03 (fcoc) Fibre Channel Mass Storage Driver for HP-UX 11i v3 overview

This release of the document for the FibrChanl-03 (fcoc) Fibre Channel Mass Storage Driver for HP-UX 11i v3 (version B.11.31.1705) documents defect fixes and version changes.

New and changed features in this release

New features

There are no new features in this release.

Changed features

There are no changed features in this release.

Known problems fixed in this version

The following issues are fixed in the FibrChanl-03 (fcoc) Fibre Channel Mass Storage Driver for HP-UX 11i v3 for these releases:

Table 1: HP-UX June 2017 (AR1705) Fixes

Defect ID	Description
QXCR1001482558	This fix resolves the conflict in driver versions with <code>swlist</code> and <code>fcmsutil</code> command output with the fcoc driver.

Table 2: HP-UX March 2016 (AR1603) Fixes

Defect ID	Description
QXCR100141707 1	<p>This fix provides login distribution support on FCOC driver.</p> <p>In a blade server environment with the FCoE Mezzanine adapter configured with HP Virtual Connect (VC) FlexFabric module, the FCOC driver loses LUN paths through the PFC and NPIV VFC interfaces on link failures, when Fibre Channel Logins are distributed among multiple uplink ports within a Storage Area Network (SAN) Fabric from the Virtual Connect Manager (VCM). This fix resolves this issue.</p> <hr/> <p>NOTE:</p> <p>In a SAN Fabric with multiple uplinks such as above, if all the VC uplinks go down, the fabric connectivity would be lost. Subsequently, it may be necessary to bring up all uplinks of the SAN Fabric for the configuration to be functional again.</p> <hr/>
QXCR100140682 0	This driver fix prevents system boot hang by gracefully handling certain invalid responses from misbehaving HBA firmware.

Table 3: HP-UX May 2015 (WEB1505) Fixes

Defect ID	Description
QXCR100132427 6	<p>This driver fix is applicable for HBA Firmware(s) 4.9.416.12 or later. Intermittent link offline issues observed across multiple resets of the Virtual Connect FlexFabric module with HBA Firmware version 4.9.416.12. Upgrade to fcoc driver version B.11.31.1505 fixes this issue.</p> <hr/> <p>NOTE:</p> <p>HBA Firmware version 4.9.416.12 or later fixes the issue where disable of Inter Switch Link (ISL) to remote site also results in loss of storage access on local site. Upon disabling of ISL, storage behind the remaining SAN can become inaccessible though HBA port maintains physical connectivity. ISL changes can result in changes to the Principal Switch configurations, that were not getting properly updated with older Firmware versions.</p> <hr/>

Table 4: HP-UX March 2015 (AR1503) Fixes

Defect ID	Description
QXCR100134786 9	Fix for the issue where system crash is seen with fcoc driver while running PCI error injection in loop with IO's.
QXCR100138870 5	hpvmstart command should not succeed when the HBA is not ONLINE.

Table 5: HP-UX July 2014 (WEB1407) Fixes

Defect ID	Description
QXCR100133499 0	This fixes the issue where VFCs move to UNINIT state when FW encounters an internal recoverable error.

Table 6: HP-UX March 2014 (AR1403) Fixes

Defect ID	Description
QXCR100126098 5	This fixes an issue in the FCOC driver where Tape IO is failing on AT111 when the host cable connected to the Tape device is unplugged and plugged in again within 2 seconds.

Table 7: HP-UX October 2013 (WEB1310) Fixes

Defect ID	Description
QXCR100127018 4	This fixes the issue where system hang is seen because of a memory leak on SD2 systems during continuous driver load and unload in a loop.
QXCR100129525 2	This fixes the issue where the description for the LOM on BL8xxc i4 servers as part of the ioscan output has an "N/A" string in the middle.
QXCR100127563 2	This fixes the issue where devices configured under AVIO Stor HBA for an HP-UX 11i v3 guest cannot be deleted if the guest is online.

Table 8: HP-UX March 2013 (AR1303) Fixes

Defect ID	Description
QXCR100122979 2	This fixes a boot failure where server fails to boot with "-tm" option from a SAN device managed by FCOC driver.
QXCR100123385 2	This fixes a FCOC dump failure where compressed or concurrent dump may fail when three or more devices are configured for OS crash dump.
QXCR100120863 6	This fixes an issue where system may panic during port reset or cable pull sequence.
QXCR100124758 8	This corrects an issue where system may panic due to race condition in handling of multiple ELS requests.
QXCR100117437 4	This fixes an issue where the FCOC driver may hang during repeated dynamic load and unload (DLKM) sequence.
QXCR100120750 6	This corrects an issue where HBA port may fail to come online after VC FlexFabric resets.

Table 9: HP-UX September 2012 (AR1209) Fixes

Defect ID	Description
QXCR100117985 1	Installing or updating the FCOC driver no longer requires a reboot if the driver is not in use.
QXCR100121714 0	This fixes a memory leak in the FCOC driver that occurs when a dynamic module unload is executed.
QXCR100120590 8	This fixes the issue where the FCOC driver hangs during dynamic loading (DLKM) when the system is low in memory.
QXCR100120909 3	This fixes a timing-related issue in the FCOC driver when an fcmsutil option is run while the driver is being reset that may result in the driver hanging during unload.
QXCR100120537 9 QXCR100121520 9 QXCR100120862 9	This fixes a timing-related issue in the FCOC driver that may cause a system panic if ELS requests are in progress, especially when the driver is being reset or cable is being disconnected.

Table 10: HP-UX March 2012 (AR1203) Fixes

Defect ID	Description
QXCR100114434 0	This fixes a timing-related hang issue in the FCOC driver that may occur when the driver is being unloaded.
QXCR100114691 5	This fixes fcocutil to print correct SFP information or print appropriate error message.
QXCR100112615 8	This corrects a resource issue that may result in the FCOC driver never coming online after repeated disables, enables, and resets, and subsequently being stuck in "AUTHENTICATION/DISCOVERY" state as reported by fcmsutil
QXCR100110376 7	This corrects a resource issue that may result in a system panic during FCOC driver unload.
QXCR100115868 6	This corrects an issue that may result in a system panic during FCOC driver unload.
QXCR100115901 7	This fixes a FCOC dump failure when crossing every 4GB page boundary.
QXCR100111514 4	This corrects an issue that may result in the FCOC driver hanging during unload.

Table Continued

Defect ID	Description
QXCR100115973 0	This fixes an issue where the modload fails to unload fc module because it is busy.
QXCR100117164 6	This corrects a system panic that may occur when a target path goes offline.
QXCR100117501 3	This change corrects a driver issue that intermittently caused an HBA hang during a reset sequence.
QXCR100117722 6	This corrects a system panic that may occur when a target controller becomes less responsive.
QXCR100118090 4	This corrects an FCOC driver issue that may result in a system panic when a target controller becomes less responsive.
QXCR100111960 7	This fixes the issue where fcmsutil would incorrectly display the Previous Topology as UNINITIALIZED when the link goes down for the first time after the system was booted or after the driver was reloaded.

Table 11: HP-UX August 2011 (WEB1108) Fixes

WEB1108 supersedes the AR1109 release.	
Defect ID	Description
QXCR100113761 0	This addresses issues in the driver's IO state machine.
QXCR100112436 9	This enhances the driver's interrupt handling capabilities.
QXCR100114163 0	This fixes a failure case in dma mapping.
QXCR100114680 1	This fixes the dump driver's incorrect what string.
QXCR100117444 7	Added Fibre Channel support for the CN1100E HBA.
QXCR100117444 9	Added Fibre Channel support for the NC553M HBA.

Table 12: HP-UX September 2011 (AR1109) Fixes

Defect ID	Description
QXCR100112237 7	This fixes the issue where the fcoc driver may panic with “Bad News!” when a fcmsutil command is being executed while DLKM unload operation is in progress.
QXCR100112947 4	This fixes the issue where the fcoc driver may panic with “Bad News!” when concurrent <code>fcmsutil stat</code> commands are being run.
QXCR100108164 1	This fixes the issue where, after performing a port disable/enable sequence with fcmsutil, the fcmsutil <code>get remote all</code> command would not display the correct data.
QXCR100108309 8	The System Management Homepage will now display the correct SLI version in the HBA Adapter Firmware Version field.
QXCR100111560 1	The maximum IO size supported by the controller has been set at 1MB.
QXCR100107520 2	This fixes the issue where ioscan may not show the fcoc driver’s device special files (DSFs) when a reboot is followed after FibrChanI-03 depot installation.
QXCR100108887 5	This corrects a problem wherein a change to the allocated link bandwidth in the server profile in the Virtual Connect Manager (VCM) failed to be displayed correctly in fcmsutil output without either rebooting, resetting, or disabling then enabling the FC HBA. In addition to the changes made in the FCOC driver, this fix is dependent upon specific firmware versions in the FC HBA. For the FlexFabric Adapter NC551m (580151-B21), the minimum firmware version required to access this fix is 2.704.322.0.

Table 13: HP-UX March 2011 (WEB1103) Fixes

Defect ID	Description
QXCR1001070 913	This release fixes a problem in which when a port is disabled, SNIA does not display any port or adapter attributes for other enabled ports.

Table 14: HP-UX March 2011 (AR1103) Fixes

Defect ID	Description
N/A	This is the first general release.

Table 15: HP-UX November 2010 (WEB1011) Fixes

Defect ID	Description
N/A	There are no known problems fixed in this version.

NOTE:

WEB1011 is the initial controlled availability release of FibrChanI-03 (fcoc) on HP-UX 11i v3.

Known problems and limitations

This section provides a list of known problems and limitations as known to Hewlett Packard Enterprise at time of publication. If workarounds are available, they are included.

- **VFC deletion time**

While executing “hpvmsstop” command the time taken to delete a single Integrity VM VFC depends on total number of targets mapped to the VFC. Each target node port deletion takes approximately 2 seconds. The greater the number of targets, the higher the time taken for total target deletion.

- **Incorrect speed display**

On a vPars and Integrity VM Guest with NPIV VFCs configured on FC adapters, FC Provider enumeration of FC ports (NPIV VFC ports) will display “MaxSpeed”, “Speed” values as 0.

- **FCoE Boot from SAN failure**

Boot from SAN intermittently fails during EFI bootstrap of a FCoE device that is busy (QXCR1001236772). The workaround is to repeat the boot process by resetting the system. This problem has been solved in firmware version 4.1.450.6301 or later.

- **FlexFabric and Converged Network Adapters Must Be Disconnected From All Boot Devices Before Flashing Latest Firmware**

Integrity FlexFabric and Converged Network Adapters must be updated offline to firmware version 3.704.356.3 for 613431-B21 and AT111A and firmware version 2.704.356.3 for 580151-B21 or later before putting in use. Additionally, the user must unload the FCOC UEFI driver prior to performing the firmware update or the system may crash.

For additional information, please refer to HPE customer advisory document ID c0314831.

- **HPE Virtual Connect FlexFabric 10Gb/24-Port Module firmware version**

A fix in AR1203 exposes an issue with the HPE VC FlexFabric 10Gb/24-Port Module (QXCR1001194681) that causes fcmsutil to incorrectly display the Previous Topology as UNINITIALIZED whenever the link goes down. Please see QXCR1001194681 for more information and the minimum firmware version required for the Virtual Connect FlexFabric 10Gb/24-Port Module when the fix becomes available.

- Up to a total of eight NC551m and/or NC553m HBAs are supported in a BL890c i2 system. Up to a total of 140 Fibre Channel ports, which can be any combination of CN1100E and AT094A HBAs, are supported in a Superdome2 system.

- The HP-UX boot path is lost during un-assign and re-assign of the BL8x0C i2 (Blade) profile. The scenario that leads to this is:

1. Create a profile and assign it to the blade. Install a SAN disk connected from HBA with HP-UX on it.
2. Power off the blade.
3. Un-assign the profile from the blade.
4. Power on the blade to EFI shell (bare-metal state).
5. Power off the blade.
6. Re-assign the profile back to the same blade.
7. Power on the blade again.

At this point, the blade should be booted from HP-UX and be up and running. However, the blade remains in Ignite-UX and waits to be re-installed again.

NOTE:

In order to reproduce the problem, a power cycle is necessary between the un-assign and re-assign profile steps. Without the power cycle between the un-assign and re-assign profile, the problem does not occur.

- **FCoE Boot From SAN for Firmware version 4.1.450.7 or higher**

In a non-Virtual Connect FlexFabric configuration, a system configured with a FCoE device in the EFI Boot Manager should be able to boot by selecting the FCoE Boot Entry. If the system does not have a FCoE device in EFI Boot Manager, the “Set boot from SAN” controls the FCoE boot device mapping behavior. The “Set boot from SAN” should be set to “Enable” to allow booting from the FCoE boot device.

In a Virtual Connect FlexFabric configuration, a system with the Fibre Channel HBA boot parameters defined on the server profile will configure the FCoE boot device in EFI. A FCoE Boot Entry is required to boot the device from the EFI Boot Manager. If the system does not have the Fibre Channel HBA boot parameters defined, the boot behavior is similar to a non-VC FlexFabric configuration above. For additional information about setting the Fibre Channel HBA boot parameters with Virtual Connect FlexFabric, refer to the Virtual Connect FlexFabric Cookbook (Part Number c02616817).

- **FCoE Boot From SAN for Firmware version 4.356.3 or lower**

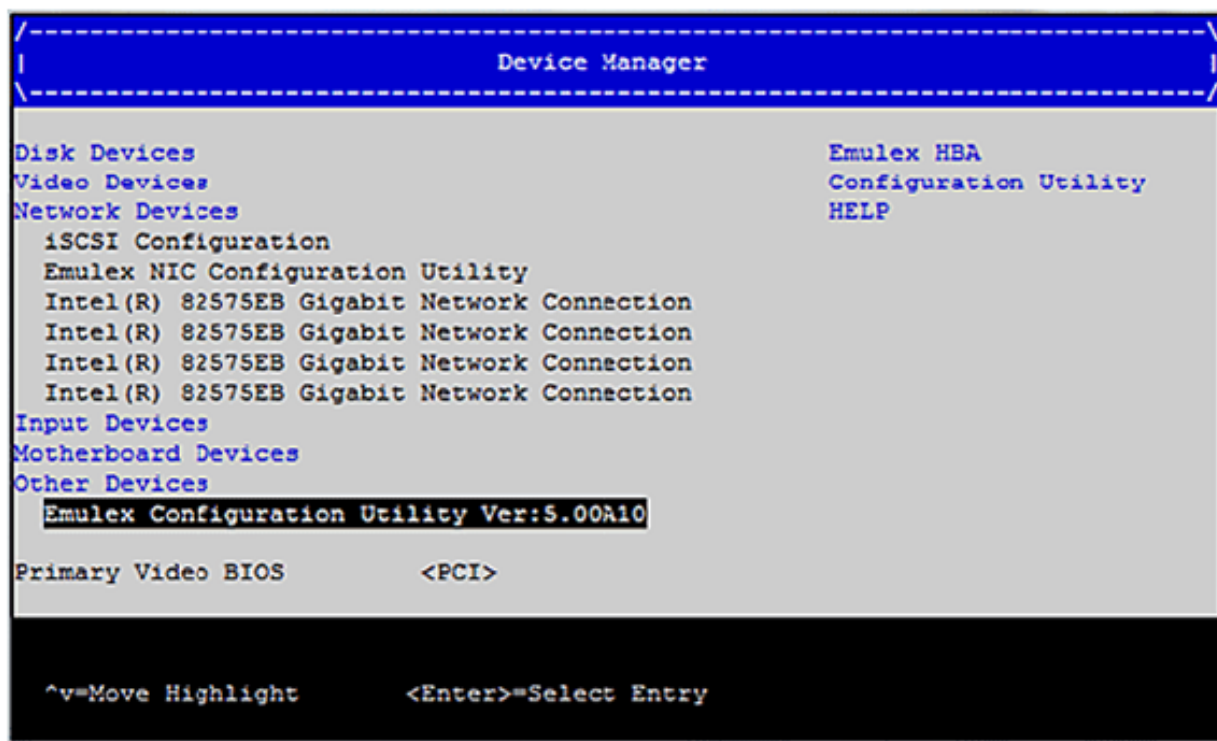
To enable booting through the fcoc driver, the following steps need to be performed once.

To start the

Emulex Configuration Utility

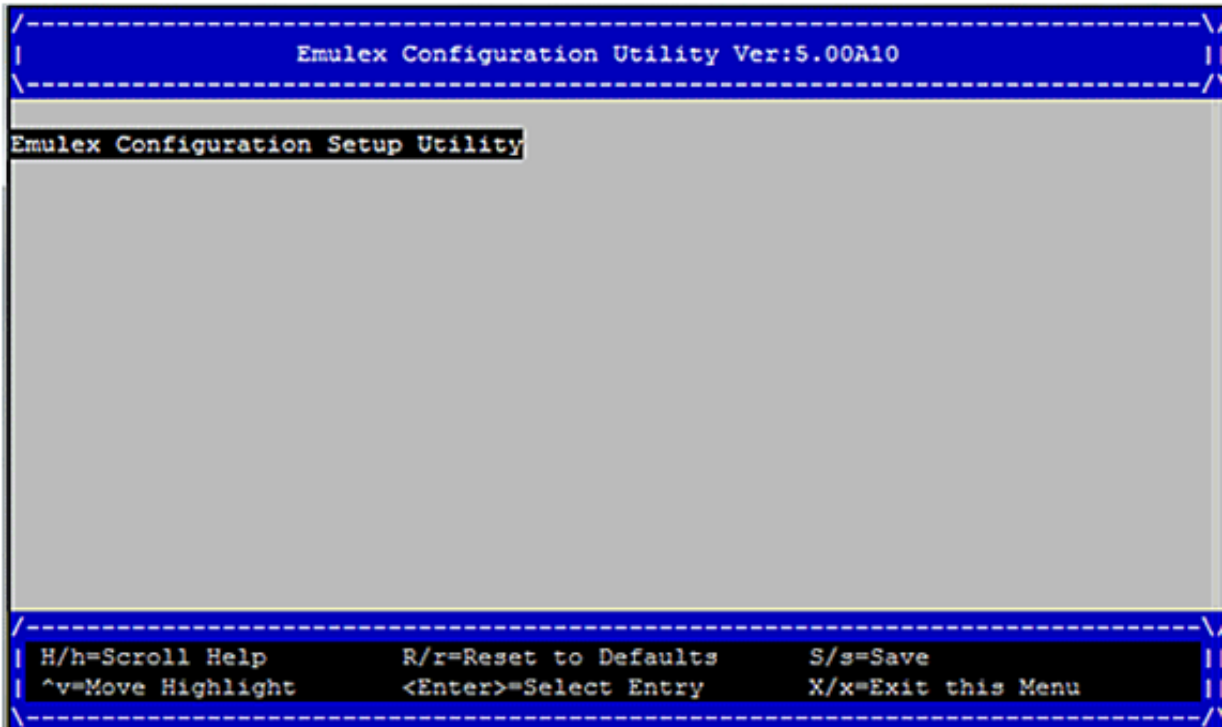
via the Human Interface Infrastructure (HII):

1. Launch the Device Manager. A front page is displayed.



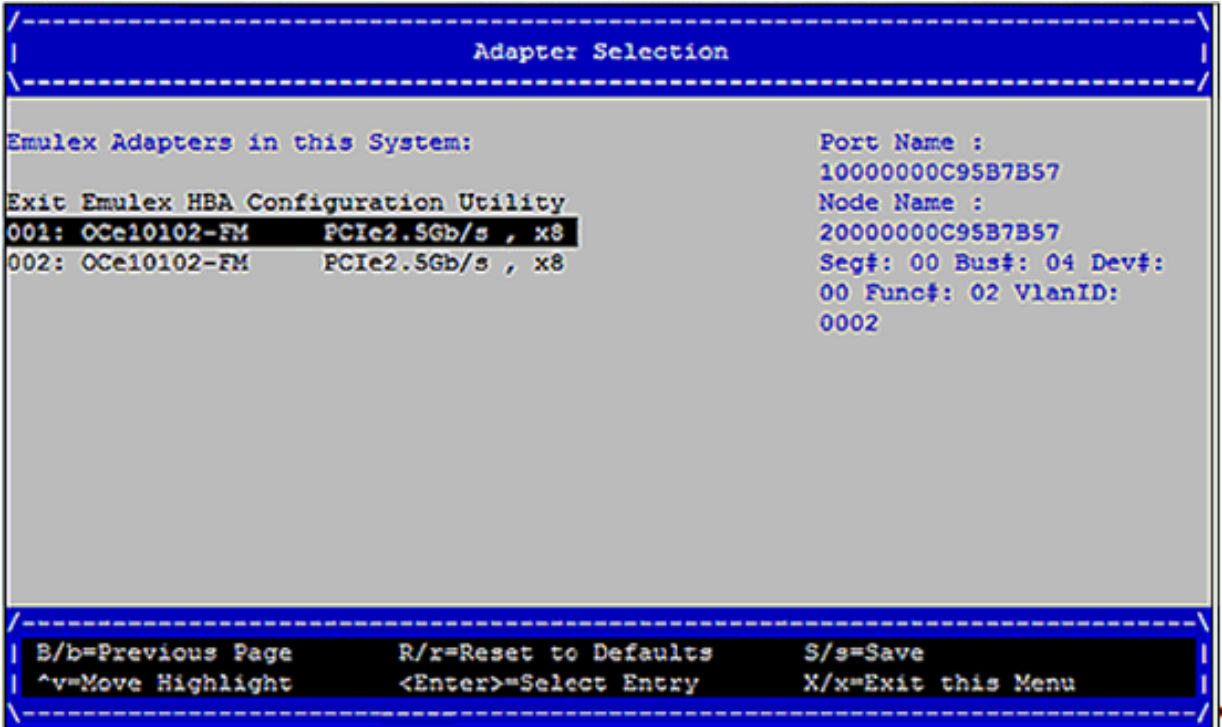
2. Select **Emulex Configuration Utility Ver:X.XXXXXX** and press **Enter**.
3. When the **Emulex Configuration Utility** screen is displayed with **Emulex Configuration Setup Utility** selected, press **Enter**.

Emulex Configuration Setup Utility Screen



4. A list of all the adapters in the system is displayed. Your list may vary depending on the installed adapters. Locate the adapter you want to configure. Use the up/down arrows on your keyboard to select it, and press **Enter**.

Adapter Selection Screen



5. The **Emulex Adapter Configuration Main Menu** screen comes up. Select **Set Boot From SAN**. A **Disable Enable** menu is displayed. Use the arrow keys to select the **Enable** option and press **Enter**. The selection is updated to NVRAM and the current setting is displayed.

```

Emulex Adapter Configuration Main Menu

001: OCe10102-FM      PCIe2.5Gb/s , x8      Set to Enable to SCAN
Seg#: 00 Bus#: 04 Dev#: 00 Func#: 02 VlanID: 0002      Fabric.
OCe10102-FM Node Name : 20000000C95B7B57              NOTE: Your selection
                                                       will be AUTO saved to
                                                       NVRAM

Back to Display Adapters and RECONNECT DEVICES
Set Boot from SAN          <Enabl-----\
Configure DCBX Mode       <CEE> | Disable
Configure CEE FCF Parameters | Enable
Configure CIN FCF Parameters |-----\
Scan for Fibre Devices
Add Boot Device
Delete Boot Device
Change Boot Device Order
Configure HBA and Boot Parameters
Set Emulex Adapter to Default Settings

^v=Move Highlight      <Enter>=Complete Entry

```

6. On the same **Emulex Adapter Configuration Main Menu** screen, select **Back to Display Adapters and RECONNECT DEVICES** and press **Enter**.
7. Type **s** to save the changes.
8. Exit the Emulex utility. **Control B** to go into **cm** and type **rs** to reset the system.

Compatibility and installation requirements

This section describes the compatibility information and installation requirements for this release. For specific installation instructions, refer to the installation guide specific to your FibreChannel card.

Operating system and version compatibility

The following software (or later versions) must be installed before installing the FibrChanI-03 (foc) driver, version B.11.31.1505, into a system:

- BL8x0c i4 System Firmware 02.61 or higher
- rx2800 i4 System Firmware 02.61 or higher
- BL8x0c i2 System Firmware 15.05 or higher
- Superdome2 System Firmware 2.26 or higher
- rx2800 i2 System Firmware s26.21 or higher
- C7000 OA Firmware 3.20 or higher
- VCSU FW 1.6.0 or higher
- VC-Enet FW Version 3.15 or higher (for profile migration, 3.17 or higher is required)
- BL8x0c i4 LOM Firmware version 4.2.401.2212 or higher
- NC551m Firmware version 2.104.356.3 or higher
- NC553m Firmware version 3.104.356.3 or higher
- CN1100E Firmware version 3.104.356.3 or higher
- HP-UX 11i v3 OS Fusion version B.11.31.1103 or higher
- HP-UX CommonIO 11.31.1103 or higher

For current recommended firmware versions, see the HP-UX fibre channel (fcd, fc1p) and FlexFabric FCoE (fcoc) host bus adapter support matrix at <http://www.hpe.com/info/hpux-iocards-docs>, by clicking on **HPE Fibre Channel Host Bus Adapters**.

NOTE:

The FC-COMMON.FC-SNIA fileset is part of the CommonIO bundle. If FC-COMMON.FC-SNIA (1103 or later) is not present on a system, `swinstall` of the FC-FCOC product will display errors. If you ignore the errors and proceed with the `swinstall`, the FC-FCOC.FC-FCOC-RUN fileset will not be installed.

Driver versions

The following table lists all the driver versions of the fcoc driver on HP-UX 11i v3 with their associated release names and dates.

Table 16: Table of Driver Versions

Release Name	Driver Version	Release Date
Web Release 1011	B.11.31.1011	November 2010
Application Release 1103	B.11.31.1103	March 2011
Web Release 1103	B.11.31.1103.01	March 2011
Application Release 1109	B.11.31.1109.01	September 2011
Web Release 1108 (supersedes AR1109)	B.11.31.1109.02	August 2011
Application Release 1203	B.11.31.1203	March 2012
Application Release 1209	B.11.31.1209	September 2012
Application Release 1303	B.11.31.1303	March 2013
Web Release 1310	B.11.31.1310	October 2013
Web Release 1311	B.11.31.1311	November 2013
Web Release 1407	B.11.31.1407	July 2014
Application Release 2015	B.11.31.1503	March 2015
Web Release 1505	B.11.31.1505	May 2015
Application Release 1705	B.11.31.1705	June 2017

Hardware Requirements

This version of the FibrChanl-03 (fcoc) Fibre Channel Mass Storage Driver for HP-UX 11i v3 runs on HPE Integrity BL8x0c i2, BL8x0c i4, rx2800 i2, rx2800 i4, Superdome2 and Superdome2 i4 servers with the HP-UX 11i v3 (B.11.31) operating system. It supports Fibre Channel hardware products such as:

- BL8x0c i4 LOM Embedded CNIC Dual Port 10Gb FlexFabric Converged Network Adapter
- 580151-B21 HPE NC551m Dual Port 10Gb FlexFabric Converged Network Adapter
- 613433-001 HPE NC553m Dual Port 10Gb FlexFabric Converged Network Adapter
- AT111-60001 Integrity CN1100E PCIe 2-Port Converged Network Adapter

Software availability in native languages

This product is available only in the English language.

Documentation Feedback

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