

OneConnect UCNA Firmware Release Notes

Versions: Firmware Version 4.6.142.10

Date: May 2013

Purpose and Contact Information

These release notes describe resolved known issues, and current known issues associated with this OneConnect™ universal converged network adapter (UCNA) firmware/boot code release.

For the latest product documentation, go to www.Emulex.com. If you have questions or require additional information, contact an authorized Emulex® technical support representative at tech.support@emulex.com, 800-854-7112 (US/Canada toll free), +1 714-885-3402 (US/International), or +44 1189-772929 (Europe, Middle East, and Africa).

Resolved Issues from Firmware Version 4.4.249.3

OneConnect UCNA Firmware Resolved Issues

1. **Corrected an issue with the “In Range” error counter incrementing without encountering a valid “In Range” error.**
2. **Corrected an issue with iSCSI boot failing from the secondary target when the provided primary target was incorrect.**

PXESelect Version 4.6.144.6 Resolved Issues

There are no resolved issues for this release.

PXE NIC UEFI Version 4.6.144.6 Resolved Issues

There are no resolved issues for this release.

PXE NIC FCode/OpenBoot Version 4.6.13.0 Resolved Issues

There are no resolved issues for this release.

PXE BootBIOS Version 4.6.144.6 Resolved Issues

1. **Corrected an issue with the Emulex PXE BIOS utility displaying an incorrect controller firmware version if the controllers had different firmware versions.**

iSCSI Select Version 4.6.144.6 Resolved Issues

There are no resolved issues for this release.

iSCSI UEFI Version 4.6.144.6 Resolved Issues

1. **Boot LUN is no longer automatically reconfigured to the first available LUN if the Boot LUN is unavailable.**
2. **Added support for HII initialization for each iSCSI function.**

3. System no longer hangs on LUN Configuration screen when 256 LUNs are mapped to an iSCSI initiator using the iSCSI UEFI BIOS utility.
4. Added support for links greater than 10 Gb/s.

iSCSI BootBIOS Version 4.6.144.6 Resolved Issues

1. Corrected an issue with an iSCSI target not booting after operating system installation.

NIC UEFI Version 4.6.144.6 Resolved Issues

1. Switch Configuration displays the correct information after erasing the configuration and rebooting.
2. Added support for links greater than 10 Gb/s.
3. Enabled support for Multicast Trivial File Transfer Protocol (MTFTP).

FCoE Universal Boot Version 7.06a7 Resolved Issues

There are no resolved issues for this release.

FCoE x86 BootBIOS Version 4.03a6 Resolved Issues

There are no resolved issues for this release.

FCoE FCode/OpenBoot Version 4.01a2 Resolved Issues

There are no resolved issues for this release.

FCoE UEFIBoot Version 5.20a2 Resolved Issues

There are no resolved issues for this release.

Known Issues

General OneConnect UCNA Firmware Known Issues

1. In some cases, one of the components on the OneConnect adapter may not be reset automatically after a firmware update performed by an Emulex application other than OneCommand Manager or the OneCommand Manager CLI (also known as HBACMD).

Workaround

If you use an Emulex application other than OneCommand Manager or the OneCommand Manager CLI to update firmware, you must perform a cold restart after updating the firmware.

2. “Unhandled exception has occurred” error message displays when an FCoE Boot from SAN is attempted on a non-zero LUN on RHEL 5.8 systems.

Workaround

None.

3. With the default mode for Advanced Mode now set to enabled, older inbox drivers accompanying certain operating systems and older out-of-box drivers may experience issues.

- On RHEL 5.6 systems using the 2.102.518r inbox driver, installing the new firmware may cause the system to stop responding when powering down the server.
- On Citrix XenServer 5.6 systems using the 2.104.277.1 inbox driver, MAC addresses may be incorrect after installing the new firmware.
- On Windows Server 2008 R2 and Windows Server 2008 systems using the 2.102.517.0 out-of-box driver, NIC cannot be initialized and a warning message is presented after installing the new firmware.
- On the following operating systems using the indicated drivers, NIC cannot be initialized after installing the new firmware:
 - RHEL 6.0 and 2.102.426r inbox driver
 - RHEL 6.1 and 2.103.298r inbox driver
 - SLES 10 SP4 and 2.102.453s inbox driver
 - SLES 11 SP1 and 2.102.147s inbox driver
 - SLES 11 SP2 and 4.1.277u inbox driver
 - XenServer 6 and 6.02 and 2.104.277.1 inbox driver
 - XenServer 6.1 Tampa RC1 and 4.1.450.7 inbox driver

Workaround

Either disable Advanced Mode after installing the new firmware, or install the latest out-of-box driver.

4. An OCe11100-series UCNA port may go offline after running the OneCommand Manager application's loopback tests (DMA, PHY, and MAC).

Workaround

Do not use the OCM application's DMA, PHY, and MAC loopback tests with OCe11100-series UCNAs.

5. After disabling and re-enabling a UMC channel, the displayed speed is 10G but the actual bandwidth available is 100 Mb/s.

Workaround

Either reconfigure the UMC bandwidth or reboot the server. See the *Boot for NIC, iSCSI, and FCoE Protocols User Manual* for information on configuring UMC bandwidth.

6. Installing an OCe11101-EX/EM or OCe11102-EX/EM UCNA into a system with existing OneConnect adapters may cause the firmware on the existing OCeConnect adapters to fail to load.

Workaround

Ensure that the firmware on the existing adapters is updated to the same version as the OCe11101-EX/EM or OCe11102-EX/EM UCNA firmware.

Technical Tips

1. Under SLES 11, the bond 5 and 6 modes must be configured properly to work with the firmware. When configuring the bond mode, change the default setting to include "updelay=100". For example, the correct setting for bond 6 is `BONDING_MODULE_OPTS='mode=6 miimon=100 updelay=100'`.
2. For Cisco switches, the access mode must be set in trunk mode, and native VLAN cannot be FCoE VLAN, that is, the FCoE VLAN must be in the allowed list.
For example, if VLAN 2 is the FCoE VLAN and VLAN 1 is the Ethernet VLAN, you would enter the following:
 - `Switchport mode trunk`
 - `Switchport trunk native vlan 1`
 - `Switchport trunk allowed vlan 1-2`
3. For Brocade switches, trunk mode must be set in converged mode.
For example, if VLAN 2 is the FCoE VLAN, you would enter the following:
 - `Switchport mode converged`
 - `Switchport converged allowed vlan add 2`
4. For best performance, disable the Spanning Tree Protocol (STP) on all networked switches if you are using the following:
 - Adapter fault tolerance (AFT)
 - Automatic load balancing (ALB)
 - Static link aggregation teaming
5. The OCe11102 UCNA may not establish a link with an Extreme Networks Summit x650 switch when a 5-meter Cisco DAC cable is used. Emulex recommends using a different vendor cable (if a 5m cable length is desired) or using a different length Cisco DAC cable.
6. BIOS target scan may not report any assigned targets because Emulex adapters only report direct access block devices.