

IBM Firmware and Boot Code Release Notes for Emulex OneConnect OCe11100-series Adapters

Affected Products: Emulex Virtual Fabric Adapters for IBM System x

Version: 10.2.261.36

Date: June 2014

Purpose and Contact Information

These release notes describe the new features, resolved known issues, and current known issues associated with this release of the firmware and boot code for Emulex OneConnect™ OCe11100-series adapters.

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).

Recommended Driver Versions

- All Linux NIC: 10.2.261.0
- Windows NIC: 10.2.261.11
- Windows NIC Teaming: 2.8.5
- ESXi 5.0/5.1 NIC: 10.2.254.0
- ESXi 5.5 NIC: 10.2.261.4

- RHEL6/SLES11 iSCSI: 10.2.261.1
- RHEL5/SLES10 iSCSI: 10.0.719.1009
- Windows iSCSI: 10.2.254.0
- ESXi 5.0/5.1/5.5 iSCSI: 10.2.250.0

- All Linux FC/FCoE: 10.261.0
- Windows FC/FCoE: 10.2.261.4
- ESXi 5.0/5.1 FC/FCoE: 10.2.242.0
- ESXi 5.5 FC/FCoE: 10.2.261.7

Resolved Issues from Firmware Version 10.0.803.13

1. Corrected an issue with excessive “lpfc 0000:16:00.3: 1:3061 Last IDX 1” warning messages displaying in the logs when the adapter was in vNIC2 mode under the FCoE personality.
2. Corrected an issue with intermittent traffic stall occurring while running on HS23.
3. Corrected an issue where the boot option could not be enabled through the iSCSISelect utility after adding a target.
4. Corrected an issue with virtual NIC links displaying as operational even though the bandwidth settings had not been assigned.
5. Corrected an issue with changes made in the PXE BIOS utility were not persistent after a reboot.
6. Corrected an issue with the PXE BIOS utility displaying invalid quality of service (QOS) settings after enabling UFP mode.
7. Corrected an issue where, while running in UFP mode, the PXE BIOS utility would force a system reboot even though no changes were made in the configuration.
8. Corrected an issue where erasing the configuration using the UEFI NIC BIOS utility did not enable any previously disabled ports.
9. Corrected an issue where changing the personality from NIC to iSCSI in the UEFI BIOS utility caused the operating system to not boot up properly.
10. Corrected an issue where configuring UMC mode using the OCM application resulted in the system not booting.
11. Corrected an issue with non-zero LUNs that were available were not displayed in the “Boot Device Order” list and could not be configured in FCoE UEFIBoot for OCe11100-series adapters.
12. Corrected an issue with the PXESelect utility displaying invalid bandwidth and SVID values.
13. Corrected an issue where HS23 LOM ports were not functional while in UFP multichannel mode.
14. Corrected an issue when NIC traffic was run on all eight vNICs, the vNICs of the first port were not honoring the assigned bandwidth.
15. Corrected an issue where a port was not linking up on Linux systems.

Known Issues

1. **After making changes to any options in the Controller Configuration sub-menus in the Emulex UEFI NIC configuration utility and returning to the previous menu, there is no prompt to save the changes.**

Note: This issue applies to some legacy rack and blade servers.

Workaround

Ensure that you select “Save” before exiting the configuration menu.

2. **When changing the multichannel mode, the system does not automatically reboot after exiting the F1 UEFI setup and continues through POST.**

Note: This issue applies to some legacy rack and blade servers.

Workaround

Manually reboot the server after exiting UEFI Setup to ensure that all changes are applied.

3. **When using a Cisco Nexus 4001i Switch Module, intermittently the 10Gb link may come up as 1Gb link speed.**

Workaround

An internal switch port bounce typically establishes a 10Gb link, or you can set the switch port speed to a fixed value of 10000, which also allows a guaranteed 10Gb connection. Additional information is available in the Cisco Nexus 4001i Switch Module firmware release notes.

4. **VMware configurations with more than eight Emulex Ethernet interfaces may produce unexpected results.**

Workaround

Increase driver heap size by typing the following command:

```
# esxcfg-module -s heap_max=20971520 be2net
```

Up to 32 Ethernet interfaces are supported with this command.

5. **When operating in pNIC mode, the forwarding data base of the switch lists the Ethernet port base MAC address and also lists the port's MAC+1 address value.**

Workaround

None. This is expected behavior.

6. **A CRC error may occur when the transmitted jumbo packet size is larger than the jumbo packet receive size setting on the adapter.**

Workaround

Ensure the transmitted jumbo packet size is equal to the jumbo packet receive size set on the adapter. Refer to the specific operating system driver manual for additional information.

7. **SAN paths may not recover after the reboot or power cycle of an upstream switch.**

Workaround

The following options are available:

- Check multi-path configuration.

- Manually re-scan for targets.

8. IPv6 address is not visible through the IMM GUI for IBM Option 90Y6456.

Workaround

Use IPv4 instead of IPv6.

9. Selecting “RECONNECT DEVICES” in the UEFI utility causes the selected storage port to move to the bottom of the list in System Settings.

Workaround

None.

10. Parameters (such as bandwidth, vlan tag, and personality) configured using OneCommand or the Emulex legacy BIOS configuration utilities (PXESelect, iSCSISelect, and so on) can be overwritten when using ASU on IBM System x.

Workaround

Configure these parameters exclusively using ASU.

11. UEFI iSCSI BIOS fails to discover targets when more than 64 targets are added per port.

Workaround

None.

12. The FCoE UEFI utility may hang, either when attempting to reconnect devices or scan for fibre devices, when the fabric or target configuration changes while you are using the utility.

Workaround

None.

13. Adapter names are not displayed properly under the PXESelect utility’s Controller Selection Menu and Port Selection Menu screens when multichannel is enabled.

Workaround

None.

14. The server may hang at “Connecting Boot Devices and Adapters” if both FCoE ports have boot targets configured when using a 10 GbE Pass-Thru Module for IBM BladeCenter.

The server will not hang if only a single port is configured with a boot target.

Workaround

None.

15. In FCoE configurations with an OCe111000-series adapter in UFP mode on System x3690 X5 servers, a UEFI rescan is required to boot to the operating system, which renders UFP not supportable in UFP and FCoE configurations.

Workaround

None.

16. In systems with multiple servers, when 255 vPorts are created on more than one server, connections on the second server may go down intermittently due to the adapter not transmitting VN_Port KeepAlive packets.

Workaround

None.

- 17. PXE boot to RHEL 6.5 with inbox drivers on IBM x3650 M4 systems may fail.**

Workaround

Use the appropriate driver update disk (DUD) for the be2net driver when loading the RHEL6.5 image.

- 18. The target login session and LUNs may not be persistent and CHAP discovery may fail for both one-way and mutual CHAP settings.**

Workaround

None.

- 19. On IBM systems that are UEFI 2.1 compliant, changes to any settings configured using the Emulex FC/FCoE BIOS, PXESelect, and iSCSISelect utilities may not be persistent across reboots.**

This is a Unified Configuration Management (UCM) issue that results in the system resetting twice every time changes are made in these utilities.

Workaround

Changes to configuration settings must be performed using the UEFI configuration utilities or the IBM ASU or Config Patterns tools.

- 20. "Configurations have changed" message may be displayed in the UEFI setup screen when no changes have been made.**

Workaround

None. This pop-up can be ignored.

- 21. The PXESelect utility may display incorrect MAC address, bandwidth, and SVID values.**

This bug is a cosmetic issue and only impacts the PXESelect utility.

Workaround

The values that are not displayed correctly in the PXESelect utility can be viewed in the UEFI configuration utilities, OneCommand Manager application, and on the switch.

- 22. The server may hang at "Connecting Boot Devices and Adapters" if both FCoE ports have boot targets configured when using a 10Gb Ethernet Pass-Thru Module for IBM BladeCenter.**

Workaround

The server will not hang if only a single port is configured with a boot target.

- 23. FCoE VLAN ID is being displayed incorrectly as hexadecimal in the UEFI menu.**

This is a cosmetic issue only. The correct VLAN is properly assigned, so there is no functional impact.

Workaround

The actual VLAN ID can be observed in other utilities or applications.

- 24. RHEL 6.x and SLES 11 SPx inbox drivers may not boot when the adapter is in the iSCSI personality.**

Note: The driver update disk or package (DUD or DUP) must be used if the operating system is being installed while the adapter is in the iSCSI personality.

Workaround

- Install the latest out-of-box Linux iSCSI driver before using the iSCSI port.

-or-

- For the inbox Linux iSCSI driver, edit the grub menu during boot or in /boot/grub/menu.lst or /boot/efi/EFI/redhat/grub.conf:
add "maxcpus=4" at the line starting with "kernel".

Technical Tip

1. To disable boot from SAN (BFS) after IBM BladeCenter Open Fabric Manager (BOFM) or IBM Fabric Manager (IFM) have been enabled, it must be done by setting BFS manually in the EFIBoot configuration utility or sending a BOFM default command to the port.

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