

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

Affected Products: Emulex Virtual Fabric Adapters for Lenovo System x

Versions: 10.2.377.18
10.2.377.23
10.2.377.29

Date: November 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: 10.2.363.0 and 10.2.377.26
- Windows NIC: 10.2.370.18 and 10.2.413.1
- Windows NIC Teaming: 2.8.5
- ESXi 5.0/5.1 NIC: 10.2.293.0
- ESXi 5.5 NIC: 10.2.298.5

- RHEL6/RHEL7/SLES11 iSCSI: 10.2.365.0 and 10.2.377.25
- RHEL5 iSCSI: 10.0.719.1009
- Windows iSCSI: 10.2.370.9 and 10.2.421.0
- ESXi 5.0/5.1/5.5 iSCSI: 10.2.250.0

- All Linux FC/FCoE: 10.2.375.0 and 10.2.377.27
- Windows FC/FCoE: 10.2.370.8
- ESXi 5.0/5.1 FC/FCoE: 10.2.292.0
- ESXi 5.5 FC/FCoE: 10.2.340.18 and 10.2.426.0

New Feature

1. Adds support for the Intel Xeon E5-2600 V3 processor family.

Resolved Issues from Firmware Version 10.2.261.36

1. Corrected an issue with adapter names not being displayed properly under the PXESelect utility's Controller Selection Menu and Port Selection Menu screens when multichannel was enabled.
2. Corrected an issue where the target login session and LUNs were not persistent and CHAP discovery would fail for both one-way and mutual CHAP settings.
3. "Configurations have changed" message is no longer displayed in the UEFI setup screen when no changes have been made.
4. Corrected an issue with the PXESelect utility displaying incorrect MAC address, bandwidth, and SVID values.
5. Corrected an issue with the FCoE VLAN ID being displayed incorrectly as hexadecimal in the UEFI menu.

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

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

Workaround

None.

13. 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.

14. PXE boot to RHEL 6.5 with inbox drivers on Lenovo x3650 M4 systems may fail.**Workaround**

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

15. On Lenovo 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 Lenovo ASU or Config Patterns tools.

16. 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".

17. iSCSI boot from SAN may fail after operating system installation has completed when multichannel is enabled and UFP mode is selected in rack server environments, which renders UFP not supportable in UFP and iSCSI configurations.**Workaround**

None.

18. The system may take an extended amount of time to boot when any one of the storage ports is down during system boot (when "Connecting boot devices and adapters" is displayed).**Workaround**

Ensure that all ports configured for SAN boot are properly connected to the storage target. If the target is no longer available, remove the SAN boot configuration from the ports.

19. OneConnect Offline Flash ISO may intermittently fail with the message "No signature found" when remotely mounted with AMM Remote Control.

If you are attempting to boot to the OneConnect Offline Flash ISO while it is remotely mounted through the AMM Remote Control utility, it may intermittently fail with the

message “No signature found”. This issue is related to network congestion between the AMM and the client where the ISO is remotely mounted.

Workaround

If this failure is encountered, another attempt can be made once network congestion has lessened. The ISO can also be burned to physical media and attached to the server via USB.

Alternate flash methods besides the ISO are also available. See the following documentation for information on using these alternate flash methods:

- *Boot for NIC, iSCSI, FCoE, and RoCE Protocols User Manual* (available on the Emulex website)
- *OneCommand™ Manager Application User Manual* (available on the Emulex website)
- *Offline and Online Adapter Management Utilities User Manual* (available on the Emulex website)
- *Lenovo UpdateXpress Manual* (available on the Lenovo website)

Technical Tip

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

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