Emulex Drivers for Windows Release Notes

Versions: FC and FCoE Version 10.0.720.0
NIC Version 10.0.718.26
iSCSI Version 10.0.732.0

Date: February 2014

Purpose and Contact Information

These release notes describe the resolved known issues and current known issues associated with this Emulex drivers for Windows 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

1. **When MPIO is installed, the set queue depth no longer fails.**
2. **The FC driver now detects when a LUN disappears and then reappears in a directory view even though the target was always present.**

Known Issues

1. **Only a maximum of 64 targets can be discovered using the Add Portal option in the iSCSI Target Discovery dialog box.**

   Workaround

   Targets can be added manually or discovered through iSNS.

2. **Crash Dump on Windows iSCSI Boot From storage area network (SAN) fails when the boot target is not among the first 7 targets configured in iSCSISelect or Unified Extensible Firmware Interface Basic Input/Output System (UEFI BIOS).**

   When an iSCSI Boot From SAN configuration has many iSCSI targets configured and the iSCSI boot target is not among the first 7 targets configured from iSCSISelect or UEFI BIOS, the crash dump function fails to complete successfully. This is a known limitation of the Emulex iSCSI driver on Windows.

   Workaround

   From iSCSI Select or UEFI BIOS, the boot target must be configured before the other persistent targets are set up so that they are within the first 7 targets.

3. **In a Boot From SAN configuration of Windows 2008 R2 and Windows 7, if multipath input/output (MPIO) is enabled and the pagefile is configured on a direct-attached storage (DAS) volume, updating the boot driver causes a system crash.**

   The MPIO driver, claiming the boot LUN, incorrectly allows the boot LUN to be disabled during a driver update. This leads to a system crash.

Workaround

Microsoft has released a hotfix that remedies this problem. Download and install information for the hotfix at http://support.microsoft.com/?id=2591462

4. **While Emulex drivers for Windows 7 and Windows 8/8.1 are supported, they are Emulex-signed only. You must accept the Emulex certificate to install the client kits.**

   Support is provided by Emulex, but not by Microsoft.

   Workaround

   None

5. **Powershell reports RSS driver capabilities using the registry entries rather than querying the driver.**

   If the RSS feature has not been enabled in the driver, but a value is present in the registry, an erroneous feature state may be reported for the driver when using the Powershell command | *fl. This occurs for the "Get-NetAdapterRss" command.

   Workaround

   None

6. **Tx Ethernet traffic unfairness may be observed on OCe14000-series adapters.**

   Workaround

   None.

7. **Low performance can result when the Emulex NIC driver is installed on a system meeting the following requirements before installing Microsoft KB2846837.**

   - A Windows 8-based or Windows Server 2012-based computer with multi-core processors is in use.
   - Three or more Ethernet ports are installed on the computer.
   - Receive Side Scaling (RSS) is enabled and sets the RSS profile to use the "Closest" parameter for the Ethernet adapters.

   Microsoft states, "The first two Ethernet ports are assigned processors correctly. However, other Ethernet ports are not assigned correctly." Emulex has also observed lowered application and system performance.

   Workaround

   Install KB2846837 before installing the Emulex NIC driver.

8. **After disabling a UMC channel by specifying a minimum bandwidth of 0 and then rebooting your system, the UMC channel does not have a link down status.**

   When specifying 0 bandwidth to disable a UMC channel, the link goes down. However, after you reboot the system, the UMC channel does not have a link down status.

   Workaround

   After rebooting your system, from OneCommand Manager manually disable the port and then re-enable it. The links of the affected ports will appear down.

9. **Changing from UMC to a non-UMC configuration or from NPar to a non-NPar configuration does not restore the correct value in the registry key: *NumRssQueues\Default value.**

   Because the correct value is not restored, the RestoreToDefault values operation does not result in correct settings for NumRssQueues.

   Workaround

   None. Once configuration is changed from UMC to non-UMC or NPar to non-NPar mode, you should not rely on the default value setting for the NumRssQueues registry key. Instead, set the NumRSSQueues value manually.

10. **If you configure the link speed in a BIOS utility, the speed may be overridden by the Windows operating system according to its own configuration settings.**

    Workaround

    Configure the Link Speed in both the operating system driver and the Boot BIOS or UEFI driver.

Technical Tips

1. **SR-IOV and Hyper-V**

   Windows Sever 2012 Hyper-V supports SR-IOV only with Windows Server 2012 and Windows 8/8.1 guest operating systems. Microsoft has designed SR-IOV as an optional feature in the guest OS, where the SR-IOV virtual function is always paired with an emulated NIC interface, which is similar to any non-SR-IOV virtual NIC.

   The virtual PCI function may be added and removed dynamically from the guest OS without interrupting the network traffic. With this design, Microsoft is able to support key features like Live Migration and snapshots, even with SR-IOV enabled. These features do not depend on the existence of the SR-IOV hardware; they only save the state of the emulated network interface. When the virtual machine is restored, it will try to recreate the SR-IOV virtual NIC, but if the hardware is not available it can continue using the emulated NIC seamlessly.

2. **If Device Manager is used to uninstall Emulex devices on Windows 2008 and Windows 2008 SP2 (not Windows 2008 R2), you must do one of the following before installing the Windows driver package. Otherwise, the driver will not be installed.**

   - Run “Scan for hardware changes” from the Device Manager.

   -or-

   - Reboot the system.

Note: References to OCe11100 series products also apply to OCe11100R series products.