

Emulex OneConnect NIC Teaming and Multiple VLAN Driver and Application Release Notes

Version (Kit): 2.8.5

Date: July 2015

Purpose and Contact Information

These release notes describe the installation information, new features, resolved known issues, current known issues, and technical tips associated with this Emulex[®] OneConnect[™] NIC Teaming and Multiple VLAN Driver and Application 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-elx@avagotech.com, 800-854-7112, or +1 714-885-3402.

Installation Notes and Warnings

You can update the base NIC driver, NIC firmware, and NIC teaming code in any order because the NIC teaming code is independent of the base NIC driver and firmware. However, when you upgrade the base driver, ensure it is an update, and not an uninstall or re-install. If the base NIC driver is uninstalled or re-installed, all of the NIC teams will be assigned new GUIDs, which will cause all of the current NIC team definitions to be invalid.

Use the version 2.8.5 Emulex-provided kit to install, update, or uninstall the NIC teaming software. Do not use a previous version of the teaming utilities to install, update, or uninstall the OneCommand[™] NIC Teaming driver and NIC Teaming and VLAN Manager. If you do, unpredictable results will occur.

Do not update or uninstall the OneCommand NIC Teaming driver and NIC Teaming and VLAN Manager while I/O traffic is running. If you do, unpredictable results may occur. The best way to stop the I/O traffic is to down the switch ports that are connected to the adapter. Do not disable any adapter ports when performing an upgrade.

Supported Operating Systems

The NIC Teaming driver supports the following operating systems:

- Windows Server 2012 x64
- Windows Server 2012 Server Core x64
- Windows Server 2008 x64 SP2
- Windows Server 2008 x64 R2
- Windows Server 2008 x64 R2 Server Core
- Windows Server 2008 x64 R2 with Hyper-V
- Windows Server 2008 x64 R2 SP1
- Windows Server 2008 x64 R2 SP1 Server Core
- Windows Server 2008 x64 R2 SP1 with Hyper-V

Note: For Windows Server 2012 R2 support, use the Microsoft NIC teaming driver.

New Features

1. Added support for OCe14000B-series adapters
2. Discontinued support for the LPe11000-series and OCe10100-series adapters

Resolved Issues

There are no resolved issues in this release.

Known Issues

1. When using more than eight NIC instances, virtual or physical, the teaming manager GUI or teaming manager CLI may not list all available adapters for team creation. Non-teamed adapter instances may be incorrectly bound to the teaming protocol driver.

Workaround

When using more than eight NIC instances in the system prior to creating any teams, virtual or physical, in a system, the Intra-Site Automatic Tunnel Addressing Protocol (ISTAP) service must be disabled prior to installing the hardware. If the hardware is installed and cannot be removed, Multichannel must be disabled prior to the operating system installation. The ISATAP service must be disabled prior to enabling Multi-channel.

2. If Smart Load Balancing teams are used with IPv6, transmission control protocol (TCP) sessions that exist when a link status change occurs could be subject to timeouts, including delays of many seconds, or be reset by the peer. For this reason, using Smart Load Balancing teams in an environment using IPv6 is not recommended.

Workaround

None.

3. Earlier releases of NIC Teaming may not be installed on systems that had NIC Teaming 2.7 or 2.8 previously installed.

Workaround

None.

4. During the creation or deletion of teams, or adding or removing virtual local area networks (VLANs) to teams or adapters, the Microsoft server module may generate error 2505 messages in the event log. These messages can be generated when a single machine has more than one connection to the same subnet.

Workaround

None.

5. When adding VLANs to teams, the NetBIOS over TCP/IP (NetBT) module may generate event log entries with an event ID of 4311.

Workaround

None.

6. **Microsoft Networking bridging should not be used to bridge teams or VLANs.**

Workaround

None.

7. **For configuration changes, disabling adapters, teams, or VLANs using the Windows Device Manager or Network Connection Property sheet is not supported.**

For the purpose of making teaming configuration changes, the disabling of adapters, teams, or VLANs using the Windows Device Manager or Network Connection Property sheet is not supported. However for the purpose of testing the data path of established teams, such disabling is supported. Remember to re-enable any disabled adapters, teams, or VLANs before changing the team's configuration.

Workaround

None.

8. **Teams cannot be uninstalled from the Windows Device Manager.**

Workaround

Use the Emulex OneConnect NIC Teaming and Multiple VLAN Driver and Application GUI or CLI to uninstall teams. Refer to the *OneCommand NIC Teaming and VLAN Manager Version 2.8 User Manual* for instructions.

9. **Differences in BIOS and motherboard versions can cause servers with identical model numbers to have different PCI slot addresses.**

Restoration of backup files cannot be performed on these systems.

Workaround

Manually duplicate the NIC teaming configurations.

10. **When upgrading a configuration containing VLANs over teams from NIC Teaming 2.5 or NIC Teaming 2.6 to NIC Teaming 2.7 or 2.8, the team instance will be visible in Network Manager.**

Workaround

Do not change the bindings of such an instance.

11. **When upgrading from NIC Teaming 2.6 to NIC Teaming 2.7 or 2.8, a reboot is required. You must log back into the system after the reboot for the reboot to complete.**

Workaround

None.

12. **When adapters are deleted from teams created with NIC Teaming versions prior to 2.7, they may display incorrect MAC addresses.**

Workaround

Use the adapter's Property Sheets in Windows Device Manager to reset the MAC addresses after the team is deleted.

13. Windows Server 2008 SP2 systems fail to display team MAC addresses.

While the Emulex NIC Teaming and VLAN Manager GUI and CLI are displaying detailed information on a team, the team's MAC address field is blank.

Workaround

Use the GUI or CLI to view the details of the team's primary adapter. Its MAC address is the same as the team's MAC address.

14. The *OneCommand NIC Teaming and VLAN Manager Version 2.8 User Manual* has an error on page 16.

The "Uninstalling the Driver and the NIC Teaming and VLAN Manager" section has an error. This instruction should state:

To uninstall the driver and NIC Teaming and VLAN Manager on Windows Server 2008 and Windows Server 2008 R2 systems, select **Start>Control Panel>Programs and Features**.

Technical Tips

1. **Alternative Routing-ID Interpretation (ARI) is not supported for the NIC Teaming driver.**
2. **When using third party adapters as members of teams, all TCP offload settings, such as TCP/UDP/IP checksum offload, TCPv6/UDPv6/IPv6 checksum offload, etc. must be configured identically.**
The third party adapter documentation must be consulted to determine how these settings are configured. Mismatches of settings may cause packet loss, connection timeouts, and even data corruption.
3. **When using non-Emulex adapters as team members, LSO v1 and LSO v2 must be disabled for teaming to work correctly.**
4. **Emulex recommends that you do not make any configuration changes while I/O traffic is running. Various issues, including system lockups and I/O disconnection, may occur.**
5. **To view online help using the Google Chrome browser, you must disable Chrome's security check using the "--allow-file-access-from-files" option.**
 - a) Create a copy of the Chrome shortcut on the desktop and rename it RH Chrome Local (or something similar).
 - b) Right-click on the new Chrome icon and choose **Properties**.
 - c) Add the "--allow-file-access-from-files" text to the end of the path appearing in Target. You must leave a space between the original string and the tag you are adding to the end of it.
 - d) Click **OK** to save your settings.
 - e) Close any open instances of Chrome.
 - f) To open a local copy of the online help, use the new shortcut to open Chrome, then press **Ctrl + O** and browse to the start page; or open Chrome with the new shortcut, then right-click the start page and click **Open With > Google Chrome**.

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