

# Emulex® HBA Manager Application for Windows

**Release 12.6.215.0-1**

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## Purpose and Contact Information

These release notes describe the supported operating systems, new features, resolved issues, known issues, and technical tips associated with this release of the Emulex® HBA Manager application for Windows.

For the latest product documentation and for supported driver versions, go to [www.broadcom.com](http://www.broadcom.com). If you have questions or require additional information, contact an authorized Broadcom® Technical Support representative at [ecd-tech.support@broadcom.com](mailto:ecd-tech.support@broadcom.com).

**NOTE:** The Emulex OneCommand® Manager application has been renamed as the Emulex HBA Manager application. However, the following items within the application continue to use OneCommand:

- Kit names
- Script names
- Directory names
- Command names

## Supported Operating Systems

- Windows Server 2019
- Windows Server 2016

## New Features

1. This release adds commands for displaying vPorts with NVMe subsystems.
2. This release adds private loop topology support on LPe31000-series and LPe32000-series adapters.
3. This release adds Reliability Availability Serviceability (RAS) Acquisition and Control Query Executive (ACQE) support.
4. This release discontinues support for the Emulex HBA Manager application `SetPassword` CLI command.
5. This release adds support for two-socket AMD Epyc 7002-series processors.
6. This release makes the Emulex HBA Manager application source files available on [www.broadcom.com](http://www.broadcom.com).

## Resolved Issues

Erroneous pending WWPN change messages no longer appear when trunking is enabled and disabled before rebooting the system.

## Known Issues

1. If you use the Emulex HBA Manager application on the Windows operating system to manage adapters installed on the ESXi 6.7 Update 1 operating system, the features listed in [Table 1](#) are unavailable.

**Table 1: Unavailable Features**

Feature Description	GUI Element	CLI Command
Set port speed	<b>Firmware Parameters</b> tab (for non-LPe12000 adapters). For LPe12000-series adapters, the port speed is configured with a driver parameter that is available.	SetPortSpeed
Enable or disable a port	<b>Port Information</b> tab	SetPortEnabled
Enable or disable boot code	<b>Boot from SAN Configuration</b> dialog	EnableBootCode
Run diagnostics tests	<b>Diagnostics</b> tab	GetXcvrData PciData
WWN management	<b>Maintenance</b> tab	ChangeWWN GetWWNCap ReadWWN RestoreWWN
Create and delete diagnostic dump files	<b>Diagnostics</b> tab (LPe12000-series adapters) <b>Firmware</b> tab (all other adapters)	Dump commands are not supported.
Get the IPL file name	<b>Adapter Information</b> tab	HbaAttributes
Firmware download	<b>Maintenance</b> tab (LPe12000-series adapters) <b>Firmware</b> tab (all other adapters)	Download
Firmware parameters	<b>Firmware Parameters</b> tab	getfwparams setfwparam

The features listed in [Table 2](#) are available using the Emulex HBA Manager application on the Windows operating system to manage adapters installed on the ESXi 6.7 Update 1 operating system.

**Table 2: Available Features**

Feature Description	GUI Element	CLI Command
Perform discovery	<b>Discovery Information</b> tab	ListHBAs
View adapter information	<b>Adapter Information</b> tab	HbaAttributes
View port information	<b>Port Information</b> tab	PortAttributes
View port statistics	<b>Statistics</b> tab	PortStatistics
View server attributes	N/A	ServerAttributes

**Table 2: Available Features (Continued)**

Feature Description	GUI Element	CLI Command
Configure driver parameters	<b>Host Driver Parameters</b> tab <b>Driver Parameters</b> tab	DriverConfig GetDriverParams GetDriverParamsGlobal SaveConfig SetDriverParam SetDriverParamDefaults
View transceiver information	<b>Transceiver Data</b> tab	GetXcvrData
View PCI register information	<b>Diagnostics</b> tab	PciData

**Workaround**

Use the `esxcli` management tool or the Emulex HBA Manager for VMware vCenter application to manage adapters installed on the ESXi 6.7 Update 1 operating system. The issue is resolved in ESXi 6.7 Update 2.

- Revision A of the FOIT AFCT-57F3TMZ-ELX (16GFC longwave optic transceiver) does not support D\_Port for MDS diagnostics for Cisco switches.
- Neither Revision A nor Revision B of the FOIT AFCT-57F3TMZ-ELX (16GFC longwave optic transceiver) supports D\_Port for Brocade® switches.
- Beginning with software release 11.2, FC HBAs and OneConnect® CNAs have independent software kits. Before updating earlier drivers and applications to the software in release 12.6.x, refer to the *Emulex Software Kit Migration User Guide* for special instructions and considerations for using the 11.2 and later software kits for FC HBAs and OneConnect CNAs.
- The Emulex HBA Manager GUI and CLI cannot manage OneConnect CNAs on hosts that are installed with the 12.6.x kit. Remove all CNAs from the system prior to installing the 12.6.x kit.
- The Emulex HBA Manager application does not display updated driver parameters after a batch update.

**Workaround**

None.

- Enabling and disabling a Fabric Assigned Port World Wide Name (FA-PWWN) might cause an adapter port's WWPN to change. The Emulex HBA Manager application discovery-tree might not display the port's newly assigned WWPN.

**Workaround**

Stop and restart the Emulex HBA Manager application services and daemons when prompted by the Emulex HBA Manager application.

- Windows driver parameters do not persist after a reboot if they are set with FA-PWWN enabled.

**Workaround**

Perform the following steps:

- Disable FA-PWWN.
- Reset the port.
- Change the driver parameters using the Emulex HBA Manager GUI.
- Enable FA-PWWN.

- e. Reboot the system.
  - f. Reconfigure the driver parameters.
  - g. Verify that the correct driver parameters are used.
9. The **Target Mapping** tab allows you to create duplicate target bindings with different bus and target IDs. The first target binding is used after a reboot.

**Workaround**

You can change target bindings using the **Target Mapping** tab.

10. Except on LPe12000-series HBAs, resetting or disabling HBA ports turns off beaconing.

**Workaround**

Enable beaconing after resetting or disabling HBA ports.

11. Brocade switches that use Fabric OS® (FOS) version 8.2.1B and earlier might encounter the following issues with DH-CHAP authentication:
- You might not be able to configure the secret pair between the switch and the HBA.
  - When authentication is enabled on the switch and authentication is disabled on the HBA, the switch disables the port, but it does not issue the expected status messages.
  - The Brocade switch authenticates the HBA port when authentication is disabled on the switch or when a frame is dropped.
12. If HBACMD is used to set a hash priority to a single value on the HBA port, ensure that the same hash priority value is set on the switch. A difference between the hash priority values causes an authentication failure.
13. Boot from SAN is not supported if FC-SP-2 authentication (DH-CHAP) is enabled.
14. The Emulex HBA Manager CIM client does not manage HBAs on ESXi 6.7 U1 systems.

**Workaround**

Use Emulex HBA Manager for VMware vCenter to manage HBAs on ESXi 6.7 U1 systems.

15. After deleting authentication, you must reload the driver or reboot the system to view the new settings in the Emulex HBA Manager GUI.
16. Transceiver data retrieval is disabled when trunking is active.
17. After Dynamic D\_Port is transitioned from being enabled to being disabled, Emulex HBA Manager might fail D\_Port diagnostics.

**Workaround**

Reset the port.

18. Using the Brocade `Portdporttest` command with the `stop` option causes the HBA to stop responding when running D\_Port from the switch. Disabling a port while running D\_Port tests from the switch can cause the switch port to get stuck in D\_Port mode.

**Workaround**

Do not stop D\_Port tests while they are running from the switch. Do not disable a port while D\_Port tests are running from the switch.

If the HBA stops responding, remove the D\_Port configuration from the switch port using the `portdisable p#`; `portcfgdport --disable p#`; `portenabale p#` commands. Refer to the Brocade switch documentation for more information.

If the switch port is stuck in D\_Port mode, use the `Portdporttest --exit` command to clear the configuration.

19. The DHCHAP authentication status displays the direction as `Bi-directional` even when Bi-directional authentication is disabled.

**Workaround**

None.

## Technical Tips

1. Performing a core dump command might fail if a WWPN is specified.

When performing a core dump operation in the Emulex HBA Manager CLI and specifying an FC WWPN to indicate which adapter to dump, the command fails if the adapter is in a down state.

**Workaround**

None.

2. Some management functions are unavailable through the CIM interface with the Emulex HBA Manager application kits.

The following management functions are unavailable through the CIM interface with the Emulex HBA Manager application kits (Emulex HBA Manager application GUI and Emulex HBA Manager CLI):

- Boot from SAN
- Get and clear event logs

**Workaround**

None.

3. When you manage a host using the CIM interface and you initiate a batch download process, all adapters of the CIM-managed host are displayed because the required validation logic is not available in the CIM Provider.

**Workaround**

Clear the adapters that you do not want to include in the batch download before starting the download. If you start the download without clearing the nonmatching adapters, the firmware download is initiated and results in an error for nonmatching adapters.

4. If the CLI (HBACMD) is used to perform a firmware download to a local adapter and the Emulex HBA Manager GUI is running while the firmware download is occurring, the Emulex HBA Manager GUI might experience problems displaying information on various window tabs after the download is completed. The value displayed for most of the fields on the affected tabs or dialogs is N/A.

**Workaround**

Perform one of the following procedures:

- When a firmware download has been performed using the Emulex HBA Manager CLI, if **N/A** is shown for most of the Emulex HBA Manager GUI display fields, exit the GUI, and then restart it. The fields are displayed correctly.
- Ensure that the Emulex HBA Manager GUI is stopped or is not running prior to performing a firmware download using the Emulex HBA Manager CLI.
- Perform the firmware download using the Emulex HBA Manager GUI instead of the CLI.

5. To manage a remote ESXi 6.5 host using the Emulex HBA Manager application, set the configuration parameter `enableSSLv3` to `true` in the SFCB configuration file (`/etc/sfcb/sfcb.cfg`). By default, this parameter is not present in the configuration.

To add or update the `enableSSLv3` parameter, perform these steps:

- a. Stop the `sfcb-watchdog` application by entering the following command:  
`etc/init.d/sfcbd-watchdog stop`
- b. Add or update the following lines in the `/etc/sfcb/sfcb.cfg` file:

```
enableSSLv3: true  
sslCipherList: HIGH
```

c. Start the `sfcdb-watchdog` application by entering the following command:

```
etc/init.d/sfcdb-watchdog start
```

6. Start a command shell with the Run as Administrator option for Emulex HBA Manager CLI commands and batch files, if User Account Control (UAC) is enabled.

If you do not start the command shell with the Run as Administrator option, Windows displays a dialog that prompts you to allow UAC. After you agree to allow UAC, the output from a command is displayed in a separate window, but it vanishes immediately.

7. If you change the volatile World Wide Name (WWN) on an LPe16000-series adapter, a reboot is required.

8. Emulex HBA Manager CLI commands might fail in Windows PowerShell.

Emulex HBA Manager CLI commands with parameters that contain embedded commas, such as `SetDCBPriority`, fail execution in Windows PowerShell.

#### Workaround

Enclose embedded commas in quotation marks. For example, the following command:

```
hbacmd SetDCBPriority 10:00:00:00:c9:3c:f7:88 3 0,1,2,4,5,6,7 3 0 0 0 0 0 0
```

must be formatted as follows to run successfully in Windows PowerShell:

```
hbacmd SetDCBPriority 10:00:00:00:c9:3c:f7:88 3 "0,1,2,4,5,6,7" 3 0 0 0 0 0 0
```

9. If a switch-connected port speed is configured to autonegotiate and the adapter port speed is also configured to autonegotiate (the default), the **Port Information** tab displays **8 Gb/s** as the port speed. If the speed of the adapter is changed without the Emulex HBA Manager application GUI, the port speed does not change on the **Port Information** tab.

#### Workaround

When possible, use the Emulex HBA Manager application GUI to change the port speed of the adapter.

10. The Emulex HBA Manager application does not display the OS Device Name for LUNs attached to vPorts.

In the **LUN Information** tab, under **Mapping Information**, the **OS Device Name** field displays **N/A** instead of the device name. All other information on the **LUN Information** tab is displayed correctly.

11. When you install the Emulex HBA Manager application on a guest operating system, answers to the installer prompts are ignored.

When you install the Emulex HBA Manager application on a guest operating system, you are presented with management mode options (for example, local only, full-management, read-only, and so on). Answers to these questions are ignored; all installations on guest operating systems are set to local only, read-only, and remote management.

12. A set-link speed issue occurs after an SFP hot swap.

LPe16000-series adapters do not support an SFP hot swap if the replacement SFP is not the same model as the original SFP. Two consequences occur in the Emulex HBA Manager application:

- The **Port Attributes** tab in the Emulex HBA Manager application or the Emulex HBA Manager CLI `PortAttributes` command might display incorrect data for the **Supported Link Speeds** attribute. This issue is cosmetic.
- Boot from SAN Management might be unable to set the `Boot Code Link Speed` parameter to 16 Gb/s.

#### Workaround

After changing the SFP, reset the LPe16000 port or reboot the server.

13. When using an Internet Explorer 11 browser, navigating to the **Index** or **Search** pages in the online help results in those pages being blank.

#### Workaround

Click **Contents** and refresh the browser, or load the help URL in a different browser.

14. On an ESXi host, when FA-PWWN is enabled or disabled and an adapter port is reset using the `esxcli elxmgmt` plug-in, operations performed on the adapter using the Emulex HBA Manager application might not work as expected.

#### Workaround

To discover the adapter ports with the new WWPN, restart the Small Footprint CIM Broker (SFCB) on the ESXi host and refresh the Emulex HBA Manager application.

15. LPe31000-series and LPe32000-series adapters might experience a link-down condition after running a cable link diagnostics test when they are connected to Brocade switches that are running FOS versions prior to v8.1.2.

#### Workaround

Manually reset the switch port using the `portdporttest --exit` command.

16. Roles-based Secure Management mode is available.

Secure Management mode is a roles-based security implementation. During the Emulex HBA Manager application installation, you are asked if you want to run in Secure Management mode. When the Emulex HBA Manager application is installed in this mode, the following operational changes occur:

- A nonroot or nonadministrator user can run the Emulex HBA Manager application.
- The Emulex HBA Manager application host uses a user's credentials for authentication.
- A user has the Emulex HBA Manager application configuration privileges according to the Emulex HBA Manager application group to which the user is assigned.
- In Secure Management mode, a root or administrator user is provided full privileges on the local machine (the Emulex HBA CLI does not require credentials) but no remote privileges.

**NOTE:** Refer to the *Emulex HBA Manager Application User Guide* for additional information on Secure Management mode.

17. Emulex HBA Manager Secure Management mode requires Emulex HBA Manager user groups to be configured on the domain or, if the host is not running on a domain, on the host machine.

Emulex HBA Manager Secure Management must be able to get the Emulex HBA Manager application group to which the user belongs from the host's domain (Active Directory or LDAP) or, if the host is not part of a domain, the host's local user accounts. This access is associated with user groups, not with specific users. Administrators set up user accounts such that a user belongs to one of the following four Emulex HBA Manager application user groups.

**Table 3: Secure Management User Privileges**

User Group	Emulex HBA Manager Capability
ocmadmin	Allows full active management of local and remote adapters.
ocmlocaladmin	Allows full active management of local adapters only.
ocmuser	Allows read-only access of local and remote adapters.
ocmlocaluser	Allows read-only access of local adapters.

These four groups must be created and configured on the host machine or network domain. Emulex HBA Manager Secure Management uses the C-library API calls `getgrnam` and `getgrid` to retrieve the Emulex HBA Manager Secure Management group information. The equivalent to these can be obtained on the shell command line by typing the

`getent group` command. If the four Emulex HBA Manager application groups are listed, along with their member users, this is an indication that the host machine is sufficiently configured to work with Emulex HBA Manager Secure Management.

18. 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 to RH Chrome L.
  - b. Right-click the new **Chrome** icon and select **Properties**.
  - c. Add the `--allow-file-access-from-files` text to the end of the path that appears in the target. You must leave a space between the original string and the tag that you are adding.
  - d. Click **OK** to save your settings. Close any open instances of Chrome.
  - e. To open a local copy of the online help, either use the new shortcut to open Chrome, and then press **Ctrl+Open** and browse to the start page, or open Chrome with the new shortcut, and then right-click the start page and click **Open With > Google Chrome**.
19. The 32-bit or 64-bit `libcurl` file is required and must be copied to the Windows system when downloading firmware using HTTP or HTTPS services with the Windows Management Instrumentation (WMI) CIM Studio tool.
20. Dynamic D\_Port is enabled by default and cannot be simultaneously enabled with FA-PWWN or DH-CHAP.  
**Workaround**  
Disable Dynamic D\_Port before enabling FA-PWWN or DH-CHAP.
21. Neither FA-PWWN nor Dynamic D\_Port can coexist with the trunking feature on LPe35000-series adapters. If trunking is enabled, the firmware automatically disables FA-PWWN and Dynamic D\_Port.
22. When managing adapters on ESXi hosts that use the Emulex HBA Manager for Windows, if a nonroot user is used, the CIMOM might reject the request and return no data. This could happen even if the nonroot user has root privileges.  
**Workaround**  
Be the root user when executing commands using HBACMD or when adding the host to the Emulex HBA Manager GUI.



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