BROADCOM®

Emulex® HBA Manager Application
for Windows
Release 14.0.326.13-1

Purpose and Contact Information

These release notes describe the 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 source files and documentation, and for supported driver versions, go to www.broadcom.com. If you have questions or require additional information, contact an authorized Broadcom® Technical Support representative at ecd-tech.support@broadcom.com.

New Features

1. Support for the Windows Server 2022 operating system is added.

2. Support for the following operating systems is deprecated:
   – Windows Server 2012
   – Windows Server 2012 R2
   – Windows 8

3. Support for the CIM provider in Windows is frozen at the revision 14.0 level.

4. Support for the following Emulex HBAs is deprecated:
   – LPe12000-series HBAs:
     • LPe12000-M8
     • LPe12002-M8
     • LPe12002-X8
     • LPe12004
     • LPe1250
   – LPe16000-series HBAs:
     • LPe16000B
     • LPe16002B
     • LPe16004
     • LPe15004

5. The HBACMD LoopBackTest command now allows you to specify a loop test data pattern using either of the following formats:
    – Up to 8 ASCII characters, such as **ABCDEFGH**
    – Up to 8 hexadecimal bytes of data, which must be prefixed with **0x**, such as **0x1a2b3c4d**

6. Emulex HBA Manager files for Windows are now digitally signed.

Resolved Issues

The automapping and persistent binding features are no longer available when NVMe over FC is enabled. NVMe over FC does not support these features.

Known Issues

1. For an NVMe port, do not use the Emulex HBA Manager CLI utility to discover the host remotely. Otherwise, the port type is displayed as `FC` instead of `FC+NVMe`.

    Workaround

    Use local management instead of remote management on NVMe ports.

2. The Emulex HBA Manager GUI does not display an added ESXi host with a password that begins with a # character.

    Workaround

    Modify the password on the ESXi host to begin with a different character, and then add the host with the new credentials to the Emulex HBA Manager application.

3. If the Emulex HBA Manager application is updated from release 12.6.*x* to release 14.0.326.13 or later, existing CIM hosts are no longer discovered.

    Workaround

    Remove the existing CIM hosts before updating the Emulex HBA Manager application, and then add them back after the application is updated.

4. Launching **Help > Contents** from the Emulex HBA Manager GUI in a Firefox browser results in an unresponsive page, and the help contents are not seen.

    Workaround

    Turn off the strict cross-origin policy (enabled by default) in the Firefox configuration by performing the following steps:
    a. Open a new tab and enter `about:config` in the address bar.
    b. Search for the **strict_origin_policy** preference.
    c. Toggle the **security.fileuri.strict_origin_policy** value to **false** (off).
    d. Close the browser.

5. The Emulex HBA Manager application does not display updated driver parameters after a batch update.

    Workaround

    None.

6. If HBACMD is used to set a hash priority to a single value on an 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.

Technical Tips

1. The Emulex HBA Manager application CLI commands might fail in Windows PowerShell.

   The 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`

2. 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.

3. If User Account Control (UAC) is enabled, start a command shell with the `Run As Administrator` option for Emulex HBA Manager application CLI commands and batch files.

   If you do not start the command shell with the `Run as Administrator` option, Windows shows 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 disappears immediately.

4. 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.

5. 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 (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.

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

   Workaround

   Manually deselect the adapters that you do not want included in the batch download before starting the download. If you start the download without deselecting the nonmatching adapters, the firmware download is initiated and results in an error for nonmatching adapters.

7. 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.

8. 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.

9. 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.

10. 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 Fabric OS® versions prior to v8.1.2.

    Workaround

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

11. 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.

12. Dynamic D_Port cannot coexist with the trunking feature on LPe35000-series adapters. If trunking is enabled, the firmware automatically disables Dynamic D_Port.

13. 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 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 but no remote privileges. (The Emulex HBA Manager application CLI does not require credentials.)

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

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

    Secure Management must be able to retrieve the 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, from 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 1: Secure Management User Privileges

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

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

15. 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 appearing 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**.

16. 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. Type 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 `sfcb-watchdog` application. Type the following command:

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

17. When managing adapters on ESXi hosts using the Emulex HBA Manager application on Windows, if a nonroot user is used, the CIMOM might reject the request and return no data. This situation could happen even if the nonroot user has root privileges.

    Workaround

    Specify a root user name when executing commands using HBACMD or when adding the host to the Emulex HBA Manager application GUI.

18. You must first update the Emulex HBA Manager application to version 12.6.*x* before using it to update the firmware to version 12.6.*x* or later.

19. Enabling and disabling an 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.

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

    Workaround

    a. Disable FA-PWWN, reset the port, and change the port's WWPN using the Emulex HBA Manager application GUI.

    b. Enable FA-PWWN and reboot the system.

    c. Verify that the correct WWPN is used.

21. Resetting or disabling HBA ports turns off beaconing.

    Workaround

    Enable beaconing after resetting or disabling HBA ports.

22. 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.

23. 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 following commands. Refer to the Brocade switch documentation for more information.

    ```
    portdisable <portnumber>
    portcfgdport --disable <portnumber>
    portenable <portnumber>
    ```

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

24. When using the Emulex HBA Manager application CLI for Windows on remote ESXi hosts, the CLI does not immediately display changes to the `enable-auth` driver parameter.

    Workaround

    Set the `enable-auth` driver parameter on the remote ESXi host using the `L` option instead of the `G` option to display the changes immediately.

25. Enabling ExpressLane™ on LUNs assigned to vPorts with nonzero LUN IDs results in an error.

    Workaround

    None.