



Marvell® ESXCLI Plug-in for VMware vSphere®

2600, 2700, and 2800 Series Marvell QLogic Fibre Channel Adapters
3400, 41000, and 45000 Series Marvell FastLinQ Intelligent Ethernet Adapters
41000 and 45000 Series Marvell FastLinQ Converged Network Adapters

User's Guide

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Table of Contents

Preface

Intended Audience	xii
What Is in This Guide	xii
Related Materials	xiii
Documentation Conventions	xiii
Technical Support.	xv
Downloading Updates and Documentation	xv

1 Introduction

Hardware Requirements	1
Software Requirements	1
Supported Operating Systems	1
User Privilege Requirements.	1

2 Installation, Update, and Removal

Overview	2
Installing the Marvell ESXCLI VMware Plug-in	3
Updating the Marvell ESXCLI VMware Plug-in	4
Removing the Marvell ESXCLI VMware Plug-in	4

3 Ethernet CLI Command Extensions

Extending ESXCLI Commands	7
Extension Command Format	8
Syntax	8
Format	9
Extension Module Functional Specification	9
QCC Namespace-level Commands and Sub-namespaces	10
Namespace Commands and Sub-namespaces.	10
List Adapters	11
Update Adapters	12
Adapter Information.	13
Get Adapter Information	13
Adapter Mode	14
Get Adapter Mode	15

Set Adapter Mode	15
Adapter Default Configuration	16
Get Default Configuration	17
Set Default Configuration File	18
Set Default Configuration	20
Adapter NPAR Configuration	21
Get NPAR Configuration	21
Set NPAR Port Configuration	23
Set NPAR Function Configuration	25
Set NPAR Configuration	29
Adapter SR-IOV Configuration	31
Get SR-IOV Information	31
Set SR-IOV File	32
Set SR-IOV	35
Adapter VPD	36
Get VPD	36
Adapter Port Mode Configuration	38
Get Port Mode Configuration	38
Set Port-Mode Configuration	39
Adapter QinQ Configuration	40
Get QinQ Configuration	41
Set QinQ Port Configuration	43
Set QinQ Function Configuration	45
Set QinQ Configuration	47
Adapter Port Namespace Commands and Sub-namespaces	49
Adapter Port List	50
Adapter Port Information	51
Get Port Information	51
Adapter Port FCoE Boot Configuration (2400, 2500, 2600, and 2700 Series Fibre Channel Adapters 41000, and 45000 Series Converged Network Adapters).	52
Get FCoE Boot Configuration	53
Set FCoE Boot Configuration General Parameters	55
Set FCoE Boot Configuration Target Parameters	57
Set FCoE Boot Configuration	58
Adapter Port FCoE Boot Configuration (41000/45000 Series)	60
Get FCoE Boot Configuration	60
Set FCoE Boot Configuration General Parameters	62
Set FCoE Boot Configuration Target Parameters	63
Set FCoE Boot Configuration	65

Adapter Port iSCSI Boot Configuration (3400/8400 Series)	66
Get iSCSI Boot Configuration	67
Set iSCSI Boot Configuration General Parameters	69
Set iSCSI Boot Configuration Initiator Parameters	71
Set iSCSI Boot Configuration Target Parameters	74
Set iSCSI Boot Configuration MPIO Parameters	77
Set iSCSI Boot Configuration	79
Adapter Port iSCSI Boot Configuration (41000/45000 Series)	81
Get iSCSI Boot Configuration	82
Set iSCSI Boot Configuration General Parameters	83
Set iSCSI Boot Configuration Initiator Parameters	86
Set iSCSI Boot Configuration Target Parameters	89
Set iSCSI Boot Configuration	91
Adapter Port MBA Boot Configuration Namespace Commands and Sub-namespaces	93
Get MBA Boot Configuration	94
Set MBA Boot Configuration	95
Adapter Port Diagnostics Namespace Commands and Sub-namespaces	97
Run Port Diagnostics Test	97
Adapter Port DCBX Namespace Commands and Sub-namespaces	98
Get DCBX Port Information	98
Adapter Port Link Settings (SmartAN) Namespace Commands and Sub-namespaces	100
Get Port Link Settings Information	101
Set Port Link Settings Information	101
Adapter Port DMI Namespace Commands and Sub-namespaces	103
Get Port DMI Information	103
Adapter NIC Namespace Commands and Sub-namespaces	108
List NIC Ports	108
Adapter NIC Information	109
Get NIC Information	109
Adapter NIC Statistics	110
Get NIC Statistics	110
Adapter NIC Advanced Parameters Namespace Commands and Sub-namespaces	111
Get NIC Advanced Parameter Information	112
Set NIC Advanced Parameter Information	113
Adapter FCoE Namespace Commands and Sub-namespaces	114
List FCoE Ports	114

Adapter FCoE Info Namespace Commands and Sub-namespaces . .	115
Get FCoE Information.	115
Adapter FCoE VN_Port Namespace Commands and Sub-namespaces	116
List VN_Ports	116
Adapter FCoE VN_Port Info Namespace Commands and Sub-namespaces	117
Get FCoE VN_Port Info	117
View FCoE VN_Port Statistics	118
Get FCoE VN_Port Statistics	118
Adapter FCoE Target Namespace Commands and Sub-namespaces	119
List FCoE Targets	120
Adapter FCoE Target Information Namespace Commands and Sub-namespaces	120
Get FCoE Target Information	120
Adapter FCoE LUN Namespace Commands and Sub-namespaces .	121
List FCoE LUNs	122
Adapter FCoE LUN Info Namespace Commands and Sub-namespaces	122
Get FCoE LUN Information	123
Adapter iSCSI Namespace Commands and Sub-namespaces	123
List iSCSI Ports	124
Adapter iSCSI Info Namespace Commands and Sub-namespaces . .	124
Get iSCSI Info.	125
Adapter iSCSI Portal Namespace Commands and Sub-namespaces	126
List iSCSI Portals	127
iSCSI Portal Info	127
Get iSCSI Portal Info	127
Adapter iSCSI Target Namespace Commands and Sub-namespaces	130
List iSCSI Targets	130
Adapter iSCSI Target Info Namespace Commands and Sub-namespaces	131
Get iSCSI Target Info	131
Adapter iSCSI LUN Namespace Commands and Sub-namespaces .	132
List iSCSI LUNs	133
Adapter iSCSI LUN Info Namespace Commands and Sub-namespaces	133
Get iSCSI LUN Info	133
4 Fibre Channel CLI Command Extensions	
Extension Command Format	136

Usage Guidelines	136
Syntax	136
Format	137
Extension Module Functional Specification	138
QCC Namespace-level Commands and Sub-namespaces	138
Adapter Namespace Commands and Sub-namespaces	139
List Adapters	139
Update Adapters	140
Adapter Information	141
Get Adapter Information	142
Adapter Personality	143
Get Adapter Personality	143
Set Adapter Personality	144
Adapter Flash Information	145
Get Adapter Flash Information	146
Adapter Port Namespace Commands and Sub-namespaces	147
Adapter Port List	149
Adapter Port Update NVRAM	149
Adapter Port Information	150
Get Port Information	150
Adapter Port Statistics	152
Get Port Statistics	152
Reset Port Statistics	154
Adapter Port SFP DMI Information	155
Get Port SFP DMI Information	155
Get Port Raw SFP DMI Information	162
Save Port SFP DMI Information	163
Adapter Port VPD Information	165
Get Port VPD	165
Adapter Port HBA Parameters Configuration	166
Get Port HBA Parameters	166
SetFile Port HBA Parameters	168
Set Port HBA Parameters	171
Restore Default Port HBA Parameters	172
Save Port HBA Parameters	173
Adapter Port Buffer-To-Buffer Credit Recovery Configuration	174
Get Port BBCR Configuration	174
SetFile Port BBCR Configuration	175
Set Port BBCR Configuration	176

Adapter Port Forward-Error-Correction Configuration	177
Get Port FEC Configuration	178
Set Port FEC Configuration	178
Adapter Port Boot Configuration	179
Get Port Boot Configuration	180
SetFile Port Boot Configuration	182
Set Port Boot Configuration	185
Adapter Port Boot Configuration (Extended)	187
Get Port Boot Configuration (Extended)	188
SetFile Port Boot Configuration (Extended)	192
Set Port Boot Configuration (Extended)	197
Adapter Port Firmware Dump Information	200
Get Port Firmware Dump Information	201
Adapter Port Beacon Configuration	201
Get Port Beacon Configuration	202
Set Port Beacon Configuration	202
Adapter Port Diagnostics (DPort) Configuration	203
Get DPort Configuration	204
Set DPort Configuration	204
Run DPort Diagnostics	205
Adapter Port Common Pass-thru (CT) Diagnostics	207
Run Port CT Diagnostics	207
Adapter Port Echo ELS Diagnostics	208
Run Port Fibre Channel Echo ELS Diagnostics	209
Adapter Port Ping Diagnostics	210
Run Port Fibre Channel Ping Diagnostics	211
Adapter Port Read Port Diagnostics (RDP) Information	212
Get Read Port Diagnostics Information	212
Adapter Port Loopback Diagnostics	216
Run Port Loopback Diagnostics	216
Adapter Port Read and Write Buffer Diagnostics	218
Run Port Read and Write Buffer Diagnostics	218
Adapter Port Universal SAN Congestion Mitigation Status	220
Get Initiator Port USCM Status	220
Adapter Port Universal SAN Congestion Mitigation Statistics	223
Get Initiator Port USCM Statistics	224
Clear Initiator Port and Connected Targets USCM Statistics	227
Adapter Port Universal SAN Congestion Mitigation Profile	228
Get Port Universal SAN Congestion Mitigation Profile	228

	Set Port Universal SAN Congestion Mitigation Profile	229
	Adapter Port NVMe Host NQN Registration	233
	Get Port NVMe Host NQN	233
	Register Port NVMe Host NQN	234
	Deregister Port NVMe Host NQN	235
	Adapter Target Namespace Commands and Sub-namespaces	236
	Adapter Target List	237
	Adapter Target Information	237
	Get Target Information	237
	Adapter Target Universal SAN Congestion Mitigation Status	240
	Get Target USCM Status	240
	Adapter Target Universal SAN Congestion Mitigation Statistics	242
	Get Target USCM Statistics	242
	Adapter Target iiDMA Configuration	245
	Get Target iiDMA Configuration	246
	Set Target iiDMA Configuration.	246
	Target Link Statistics	248
	Get Target Link Statistics	248
	Adapter LUN Namespace Commands and Sub-namespaces	249
	Adapter LUN List	250
	Adapter LUN Information	250
	Get LUN Information.	250
A	USCM Virtual Lanes	
	Prerequisites	253
B	USCM FPIN-LI/MPIO with FC-NVMe Storage	
	Prerequisites	256
C	Revision History	

List of Figures

Figure		Page
2-1	Installing Marvell ESXCLI VMware Plug-in for Fibre Channel and Ethernet	2
3-1	ESXCLI Extension Module Flow Chart	7

List of Tables

Table	Page
4-1 USCM Initiator Port Status	221
4-2 USCM Initiator Port Congestion Mitigation Statistics	226
4-3 USCM Adapter Port Profiles	230
4-4 USCM Target Port Status	241
4-5 USCM Target Port Congestion Mitigation Statistics	244

Preface

This user's guide provides information on installing and using the Marvell® ESXCLI VMware® Plug-in. The ESXCLI plug-in extends the capabilities of the ESX® command line interface to manage the following adapters installed in VMware ESX/ESXi hosts.

- Marvell FastLinQ® 3400 (578xx-based), 41000, and 45000 Series Ethernet Adapters
- Marvell QLogic® 2600/2700/2800 Series Fibre Channel Adapters

These adapters are collectively referred to as *Marvell Adapters* throughout this guide.

Intended Audience

This guide is intended for use by administrators who are planning to deploy or have deployed one of the supported Marvell adapters in their VMware ESX/ESXi environments.

What Is in This Guide

This user's guide contains information you need to install and use the Marvell ESXCLI VMware Plug-in. This preface explains the purpose of the plug-in, identifies this guide's intended audience, describes the typographic conventions used in this guide, refers you to the license agreements, and provides technical support and contact information.

The remainder of this user's guide is organized into the following chapters:

- [Chapter 1 Introduction](#) provides the hardware and software required for using the Marvell ESXCLI VMware Plug-in.
- [Chapter 2 Installation, Update, and Removal](#) provides instructions for installing, updating, and removing the Marvell ESXCLI VMware Plug-in on VMware ESX/ESXi.
- [Chapter 3 Ethernet CLI Command Extensions](#) describes the functions of the various software components added to extend the capabilities of the Marvell ESXCLI VMware Plug-in software for Marvell Adapters.

- [Chapter 4 Fibre Channel CLI Command Extensions](#) describes the functions of the various software components added to extend the capabilities of the Marvell ESXCLI VMware Plug-in software for Marvell Adapters.
- [Appendix A USCM Virtual Lanes](#) describes the virtual lane feature and how it is implemented.
- [Appendix B USCM FPIN-LI/MPIO with FC-NVMe Storage](#) provides information for USCM multipath switching based on marginal links.
- [Appendix C Revision History](#) contains a list of changes made to this guide since the last revision.

Related Materials

For information about downloading documentation from the Marvell Web site, see [“Downloading Updates and Documentation” on page xv](#).

Documentation Conventions

This guide uses the following documentation conventions:

- **NOTE** provides additional information.
- **CAUTION** without an alert symbol indicates the presence of a hazard that could cause damage to equipment or loss of data.
- Text in [blue](#) font indicates a hyperlink (jump) to a figure, table, or section in this guide, and links to Web sites are shown in [underlined blue](#). For example:
 - ❑ [Table 9-2](#) lists problems related to the user interface and remote agent.
 - ❑ See [“Installation Checklist” on page 3-6](#).
 - ❑ For more information, visit www.marvell.com.
- Text in **bold** font indicates user interface elements such as a menu items, buttons, check boxes, or column headings. For example:
 - ❑ Click the **Start** button, point to **Programs**, point to **Accessories**, and then click **Command Prompt**.
 - ❑ Under **Notification Options**, select the **Warning Alarms** check box.
- Text in `Courier` font indicates a file name, directory path, or screen output. For example:
 - ❑ To return to the root directory from anywhere in the file structure:
Type `cd /root` and press ENTER.

Text in **Courier bold** font indicates a command. For example:

- ❑ Issue the following command: **sh ./install.bin**
- Key names and key strokes are indicated with UPPERCASE:
 - ❑ Press CTRL+P.
 - ❑ Press the UP ARROW key.
- Text in *italics* indicates terms, emphasis, variables, or document titles. For example:
 - ❑ For a complete listing of license agreements, refer to the applicable *Software End User License Agreement*.
 - ❑ What are *shortcut keys*?
 - ❑ To enter the date type *mm/dd/yyyy* (where *mm* is the month, *dd* is the day, and *yyyy* is the year).
- Topic titles between quotation marks identify related topics either within this guide or in the online help, which is also referred to as *the help system* throughout this document.
- Command line interface (CLI) command syntax conventions include the following:
 - ❑ Plain text indicates items that you must type as shown. For example:
 - `qaucli -pr nic -ei`
 - ❑ `< >` (angle brackets) indicate a variable whose value you must specify. For example:
 - `<serial_number>`

NOTE

For CLI commands only, variable names are always indicated using angle brackets instead of *italics*.

- ❑ `[ ]` (square brackets) indicate an optional parameter. For example:
 - `[<file_name>]` means specify a file name, or omit it to select the default file name.
- ❑ `|` (vertical bar) indicates mutually exclusive options; select one option only. For example:
 - `on|off`
 - `1|2|3|4`

- ❑ . . . (ellipsis) indicates that the preceding item may be repeated. For example:
 - $x \dots$ means *one* or more instances of x .
 - $[x \dots]$ means *zero* or more instances of x .
- ❑ Vertical ellipses within command example output indicate where portions of repetitious output data have been intentionally omitted.
- ❑ () (parentheses) and { } (braces) are used to avoid logical ambiguity. For example:
 - $a|b\ c$ is ambiguous
 - $\{ (a|b)\ c \}$ means a or b , followed by c
 - $\{ a|(b\ c) \}$ means either a , or $b\ c$

Technical Support

Customers should contact their authorized maintenance provider for technical support of their Marvell QLogic and FastLinQ products.

Downloading Updates and Documentation

The Marvell Web site provides periodic updates to product firmware, software, and documentation.

To download firmware, software, and documentation:

1. Go to www.marvell.com.
2. Click **Support**, and then under **Tools & Resources**, click **Driver Downloads**.
3. In the Marvell Drivers window:
 - a. (MUST) Under CATEGORY, select either FIBRE CHANNEL ADAPTERS or CONVERGED NETWORK ADAPTERS.
 - b. (optional) Under PLATFORM/OS, select the platform/OS that matches your system.
 - c. (optional) Under PART NUMBER, select the part number for your adapter.
 - d. (optional) Under KEYWORDS, type a keyword describing what you are looking for.
4. Click **Apply**.

5. Locate the firmware (boot code), software (drivers, management tools), or document (documentation for user's guides) you need, and then do one of the following:
 - a. Click the [blue](#) text in the DESCRIPTION column.
 - b. Click the arrow in the DOWNLOAD column.

NOTE

Marvell recommends downloading the associated Read Me and Release Notes for more information. To find them, enter either **Read Me** or **Release Notes** in the KEYWORDS search box.

A message may appear asking you to review and accept the Marvell Limited Use License Agreement.

6. If applicable, read the agreement, select the check box, and then click **I ACCEPT** to accept the end license agreement and start the download.

1 Introduction

This chapter provides the hardware and software required for using the Marvell ESXCLI VMware Plug-in.

Hardware Requirements

The Marvell ESXCLI VMware Plug-in requires a VMware ESX/ESXi server with one or more of the following installed:

- Marvell FastLinQ 3400 (578xx-based), 41000, 45000 Series Ethernet Adapters
- Marvell QLogic 2600/2700/2800 Series Fibre Channel Adapters

Software Requirements

The VMware ESX/ESXi server requires one of the following VMware vSphere® ESX/ESXi versions:

- VMware vSphere 7.0 or later
- VMware vSphere 8.0 or later

For remote operation, install the VMware vSphere CLI software on the local workstation. For more information about obtaining, installing, and operating the VMware software, see the VMware documentation for your system.

Supported Operating Systems

For 2600, 2700, and 2800 Series Marvell QLogic® Fibre Channel Adapters:

- ESXi 7.0 U3, ESXi 8.0, ESXi 8.0 U1, ESXi 8.0 U2, and ESXi 8.0 U3

For 41000 and 45000 Series Marvell Converged Network Adapters:

- ESXi 7.0 U3, ESXi 8.0, ESXi 8.0 U1, ESXi 8.0 U2, and ESXi 8.0 U3

User Privilege Requirements

Root privileges are required on the ESX/ESXi server to install the Marvell ESXCLI VMware Plug-in, and optionally, the VMware vSphere CLI for remote plug-in operation.

2 Installation, Update, and Removal

Overview

The Marvell ESXCLI VMware Plug-in comes as a vSphere installation bundle (VIB) file. The VIB file contains the set of files and binaries required to install the provider on VMware ESX/ESXi. The `offline-bundle.zip` file contains the VIB and the necessary metadata to install the plug-in on VMware ESX/ESXi.

The Marvell ESXCLI VMware Plug-in installation has CLI stacked components, which differ for Fibre Channel and Ethernet, as shown in [Figure 2-1](#) and described in the following paragraphs.

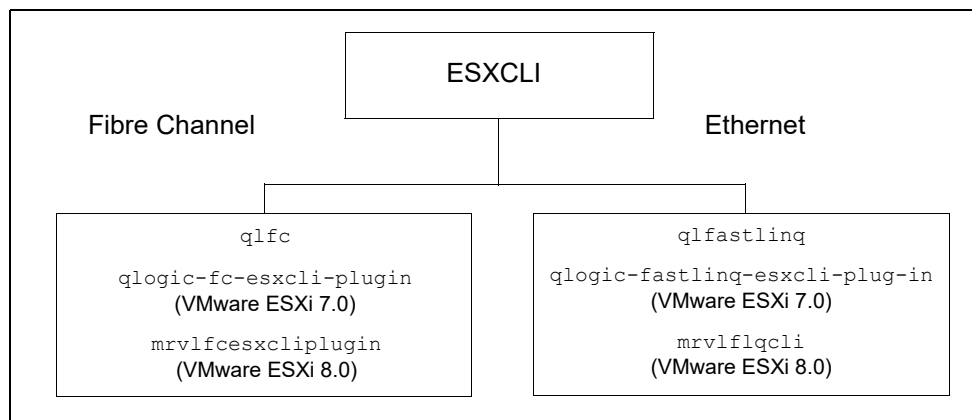


Figure 2-1. Installing Marvell ESXCLI VMware Plug-in for Fibre Channel and Ethernet

Fibre Channel

- ESXCLI Namespace: `qlfc`
 - ❑ VIB package `qlogic-fc-esxcli-plugin` (ESXi 7.0)
 - ❑ VIB package `mrvlfcexcliplugin` (ESXi 8.0)

Ethernet

- ESXCLI Namespace: qlfastlinq
 - ❑ VIB package qllogic-fastlinq-esxcli-plugin (ESXi 7.0)
 - ❑ VIB package mrvlflqcli (ESXi 8.0)

Installing the Marvell ESXCLI VMware Plug-in

To install the Marvell ESXCLI VMware Plug-in:

1. Download the Marvell ESXCLI VMware Plug-in from the Marvell Web site:
www.Marvell.com
For instructions, see “Downloading Updates and Documentation” on page xv.
2. Copy the appropriate file into a directory on the ESXi server. Following are example file names.
 - ❑ Fibre Channel Adapters
MRVL-QLogic-FC-Esxcli-Plugin_<Version>-10EM.700.
1.0.15843807_<number>.zip (VMware ESXi 7.0) or
MRVL-QLogic-FC-ESXCLI-Plugin_<Version>-10EM.800.1.0.20143090_
<number>.zip (VMware 8.0)
 - ❑ Ethernet Adapters
qllogic-fastlinq-esxcli-plugin.zip
3. Issue the appropriate command, where <dir> is the directory in which the plug-in zip file resides.
 - ❑ Fibre Channel and Ethernet Adapters

```
# esxcli software vib install -d  
/<path-to-package>/<package-name-zip-file>  
(All VMware ESXi OSs) or  
  
# esxcli software component apply -d  
/<path-to-package>/<package-name-zip-file>  
(VMware ESXi 7.0 and later)
```
4. Reboot the system.

Updating the Marvell ESXCLI VMware Plug-in

To update the Marvell ESXCLI VMware Plug-in:

1. Remove the existing installation (see [“Removing the Marvell ESXCLI VMware Plug-in” on page 4](#)).
2. Download and install the new version (see [Installing the Marvell ESXCLI VMware Plug-in](#)).

Removing the Marvell ESXCLI VMware Plug-in

To remove the Marvell ESXCLI VMware Plug-in:

1. Find the name of the plug-in by issuing one of the following commands to show the VIB or component list:

```
# esxcli software vib list  
(All VMware ESXi OSs) or
```

```
# esxcli software component list  
(VMware ESXi 7.0 and later)
```

The `component list` command output indicates either
`MRVL-FastlinQ-Esxcli-Plugin` for Ethernet adapters or
`MRVL-QLogic-FC-Esxcli-Plugin` for Fibre Channel adapters

2. Using the name that you found in [Step 1](#)
(`qlogic-fastlinq-esxcli-plugin`, `qlogic-fc-esxcli-plugin`, or
`mrvlfc-esxcli-plugin`), issue the appropriate command to remove the
Marvell ESXCLI VMware Plug-in:

❑ Fibre Channel Adapters

```
# esxcli software vib remove --vibname qlogic-fc-esxcli-plugin -f  
(VMware ESXi 7.0) or
```

```
# esxcli software component remove -n  
MRVL-QLogic-FC-Esxcli-Plugin  
(VMware ESXi 7.0 and later) or
```

```
# esxcli software vib remove --vibname mrvlfc-esxcli-plugin -f  
(VMware ESXi 8.0)
```

❑ Ethernet Adapters

```
# esxcli software vib remove --vibname  
qlogic-fastlinq-esxcli-plugin -f  
(VMware ESXi 7.0) or
```

```
# esxcli software component remove -n  
MRVL-FastlinQ-Esxcli-Plugin  
(VMware ESXi 7.0 and later) or
```

```
# esxcli software vib remove --vibname mrvlflqcli -f  
(VMware ESXi 8.0 )
```

3 Ethernet CLI Command Extensions

This chapter describes the functions of the various software components added to extend the capabilities of the Marvell ESXCLI VMware Plug-in software for the Marvell FastLinQ Ethernet Adapters.

Sections provided in this chapter include the following:

- [“Extending ESXCLI Commands” on page 7](#)
- [“Extension Command Format” on page 8](#)
- [“Extension Module Functional Specification” on page 9](#)
- [“QCC Namespace-level Commands and Sub-namespaces” on page 10](#)
- [“Namespace Commands and Sub-namespaces” on page 10](#)
- [“Adapter Port Namespace Commands and Sub-namespaces” on page 49](#)
- [“Adapter NIC Namespace Commands and Sub-namespaces” on page 108](#)
- [“Adapter FCoE Namespace Commands and Sub-namespaces” on page 114](#)
- [“Adapter iSCSI Namespace Commands and Sub-namespaces” on page 123](#)

Figure 3-1 shows the Marvell ESXCLI extension module block diagram.

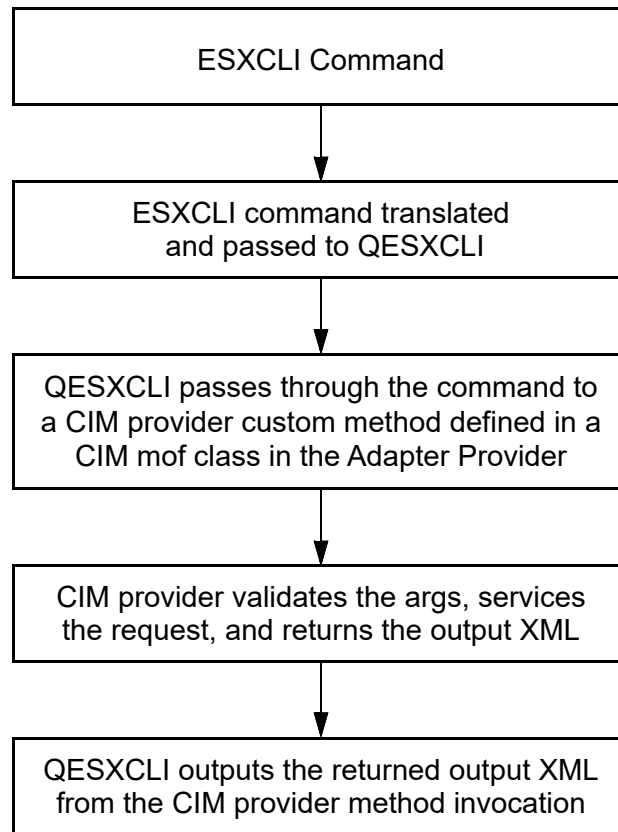


Figure 3-1. ESXCLI Extension Module Flow Chart

Extending ESXCLI Commands

The ESXCLI command line tool infrastructure allows ESXi to provide an extensible set of commands. The ESXCLI infrastructure builds each ESXCLI command using metadata that describe the input, output, and other properties for that command. Using the metadata, the infrastructure builds a set of commands that users can execute on a local or remote prompt. The Marvell ESXCLI VMware Plug-in extension is a wrapper around a standard command line executable.

The ESXCLI infrastructure presents ESXCLI commands on a local or remote prompt. Users can execute commands using predefined command line options. All Marvell ESXCLI VMware Plug-in commands are defined by metadata for input, output, and execution properties for that command. The infrastructure builds a full set of commands using the metadata for each command.

For details on how to extend ESXCLI commands, conventions, and guidelines, refer to the “Extending ESXCLI Commands Using the vCLI” section in the *VMware Host Extensions Developer’s Guide*. Access to this guide requires a VMware {code} login:

https://vdc-repo.vmware.com/vmwb-repository/dcr/915b8e00-9d0d-4ca5-ab50-de4b6ece4067/fbd6c4c0-cbb0-4e39-b97d-7e5e616b2066/HostExtensionsDevGuide.pdf?vdcDownload=1412034785_274c3924a6a76a77c987cb3ebdcaca28

Extension Command Format

The ESXCLI commands are organized as a hierarchy of *namespaces*. If you are a VMware partner, and you are creating your own ESXCLI commands, organize the commands in a consistent, logical manner to improve usability of your own commands and of ESXCLI as a whole.

Syntax

ESXCLI commands in this chapter have the following syntax:

```
esxcli [dispatcher options] <namespace1 [namespace2] ...>  
<command> [input parameters]
```

- **Dispatcher options.** Predefined options for connection information such as target host, user name, and so on. Extension developers have no control over dispatcher options and do not need to be concerned about them.
- **Namespace.** Organizational structure that groups a quantity of ESXCLI objects. One namespace is required; additional namespaces are possible.

Examples of namespaces include:

- ☐ `nmp`
VMware native multipathing commands.
- ☐ `swiscsi`
Commands in the software iSCSI namespace.
- ☐ `corestorage`
VMware core storage commands.
- **Command.** The command reports on or modifies the state on the system. Commands are the leaf nodes in the ESXCLI syntax. Commands are the verbs that act on the objects defined by the namespaces.
- **Input parameters.** Multiple input parameters are supported.

All ESXCLI commands in this section have examples of command usage with both a local host and a remote host. The remote host in the examples has the following credentials:

- IP address: 172.27.9.144
- Password: password
- User name: root

Format

For a local host, command syntax is as follows:

```
esxcli qlfastling qcc <namespace> <command> <options>
```

For a remote host, the command syntax is as follows:

```
esxcli --server <ip_address> --username <username> --password  
<password> qlfastling qcc namespace [command] [options]
```

where `<ip_address>`, `<username>`, and `<password>` are the IP address and credentials for the remote host. The keywords `--server`, `--username`, and `--password` can be abbreviated `-s`, `-u`, and `-p` respectively.

To obtain detailed information for a specific command, type the command without arguments or with the `--help` option.

NOTE

For remote operation, the VMware vSphere CLI software must be installed on the local workstation. For more information about obtaining, installing, and operating the VMware software, see the VMware documentation for your system.

Extension Module Functional Specification

QESXCLI is the standard command line executable module invoked by the Marvell ESXCLI VMware Plug-in plug-in extension wrapper. The QESXCLI command line executable module supports multiple sets of input arguments for different commands and produces XML output for the Marvell ESXCLI VMware Plug-in extension wrapper to consume.

The non-interactive commands that are supported by QESXCLI must be published to the ESXCLI plug-in extension wrapper using an extension XML file that adheres to the metadata specification. Together, the QESXCLI and the extension XML file enable users to view and execute commands through ESXCLI (both locally as well as remotely). All of the commands are published as part of the `qlfastling.qcc` sub-namespace (ESXCLI namespace).

QCC Namespace-level Commands and Sub-namespaces

At the top-most level—the Marvell QConvergeConsole® (QCC) namespace level—the following commands and sub-namespaces are exposed:

```
~ # esxcli qlfastling qcc
```

Syntax

```
esxcli qlfastling qcc {cmd} [cmd options]
```

Namespaces

Available namespaces include the following:

<u>Namespace</u>	<u>Description</u>
adapter	QCC CLI for operations on adapters
fcoe	QCC CLI for operations on FCoE functions
iscsi	QCC CLI for operations on iSCSI functions
nic	QCC CLI for operations on NIC functions
port	QCC CLI for operations on port functions

Namespace Commands and Sub-namespaces

```
~# esxcli qlfastling qcc adapter
```

Syntax

```
esxcli qlfastling qcc adapter {cmd} [cmd options]
```

Namespaces

Available namespaces include the following:

<u>Namespace</u>	<u>Description</u>
defCfg	QCC CLI for adapter default configuration information
info	QCC CLI for adapter information
mode	QCC CLI for adapter mode information
nparCfg	QCC CLI for adapter NPAR information
portmode	QCC CLI for splitting the adapter in various port modes
qinq	QCC CLI for VLAN QinQ information
sriov	QCC CLI for adapter SR-IOV information
vpd	QCC CLI for VPD information

Available Commands

`list`

Lists identifiers for the Marvell Adapters discovered on the host. See [List Adapters](#).

`update`

Updates the flash on a Marvell Adapter. See [Update Adapters](#).

List Adapters

To list all supported 3400/8400 Series and 41000/45000 Series Adapters, issue the `list` command as follows on the local host:

```
~ # esxcli qlfastling qcc adapter list
```

The following example shows the `list` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc adapter list
```

The output for both commands is:

```
Adapters
-----
Adapter_17_0
Adapter_27_0
```

The output contains the PCI bus and device number in decimal format as part of the adapter identifier.

Update Adapters

To update the flash on a Marvell Adapter, issue the `adapter update` command as follows:

```
~ # esxcli qlfastling qcc adapter update
```

Syntax

```
esxcli qlfastling qcc adapter update [cmd options]
```

Keywords

`-f|--flashfile <str>` = Flash file (required)
`-i|--identifier <str>` = Adapter identifier (required). Obtain the identifier from the `adapter list` output.

Example

The following example shows the `adapter update` command on a local host:

```
~ # esxcli qlfastling qcc adapter update -i Adapter_10_0 -f  
/scratch/dell_ah_100020.bin
```

The flash file must be on the remote host before issuing the `adapter update` command as described in the following steps.

1. Determine the name of the volume on the remote host in which to store the flash file. You will use the volume name and VMFS UUID in subsequent steps.

```
# esxcli -s 172.27.9.144 -u root -p password storage vmfs extent list
```

Volume Name	VMFS UUID	Extent Number	Device Name
datastore1 (3)	4d435b11-2d3d0b17-a566-000af73e458c	0	

2. Create a temporary directory on the remote host in which to store the flash file using the name of the volume that you obtained in [Step 1](#). The following command creates a directory called `tmp` on the volume `datastore1 (3)`. You will specify this directory when you update the flash in [Step 4](#).

```
# vifs.pl --server 172.27.9.144 --username root --password password  
--mkdir "[datastore1 (3)] tmp"
```

3. Upload the flash file to the remote host.

```
# vifs.pl --server 172.27.9.144 --username root --password password  
--put ql_mbi_8712.bin "[datastore1 (3)] tmp/ql_mbi_8712.bin"
```

4. Update the adapter flash on the remote host. The flash file path is indicated in `/vmfs/volumes/<vmfs_uuid>/tmp/ql_mbi_8712.bin`, where the value for `<vmfs_uuid>` comes from [Step 1](#).

The following example shows the `adapter update` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc adapter  
update -i Adapter_10_0 -f /vmfs/volumes/  
4d435b11-2d3d0b17-a566-000af73e458c/tmp/dell_ah_100020.bin
```

The output for both commands is:

```
Message: Success  
Reboot Required: true
```

Adapter Information

To obtain information about a specific Marvell Adapter, issue the `info` command as follows:

```
~ # esxcli qlfastling qcc adapter info
```

Syntax

```
esxcli qlfastling qcc adapter info {cmd} [cmd options]
```

Available Commands

`get`

Shows information about the adapter. See [Get Adapter Information](#).

Get Adapter Information

To obtain information about a Marvell Adapter, issue the `get` command as follows:

```
~# esxcli qlfastling qcc adapter info get
```

Syntax

```
esxcli qlfastling qcc adapter info get [cmd options]
```

Keywords

`-i|--identifier <str>` = Adapter identifier (required). Obtain the identifier from the `adapter list` output.

Example

The following example shows the `adapter info get` command on a local host:

```
~# esxcli qlfastling qcc adapter info get -i Adapter_17_0
```

The following example shows the `adapter info get` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc adapter  
info get -i Adapter_17_0
```

The output for both commands is:

Adapter Information:

General Parameters:

```
Asic Version: QL41401S A2  
Bus Width: PCI-E (8X)  
Description: HPE StoreFabric CN1300R 10/25Gb CNA  
Device Id: 0x8070  
Fw Versions: Bootcode Version:8.37.6.0,  
PXE Boot Version:PCI30 MBA 2.0.18;EFI x64 4.1.5.6,  
MBI Version:8.37.7  
Manufacturer: QLogic Corporation  
Port Mode: NA  
Serial Number: REE1740B20939  
Subsystem Device Id: 0x21b  
Subsystem Vendor Id: 0x1590  
Temperature In Celsius: 63  
Title: HPE StoreFabric CN1300R 10/25Gb CNA  
Vendor Id: 0x1077
```

Message: Success

Adapter Mode

To display and set the adapter's current mode (Single-Function or Multi-Function), issue the `adapter mode namespace` command as follows:

```
~# esxcli qlfastling qcc adapter mode
```

Syntax

```
esxcli qlfastling qcc adapter mode {cmd} [cmd options]
```

Available Commands

`get`

Shows mode information for the specified Marvell Adapter. See [Get Adapter Mode](#).

`set`

Sets the mode for the specified Marvell Adapter. See [Set Adapter Mode](#).

Get Adapter Mode

To read the mode of a Marvell Adapter, issue the `adapter mode get` command as follows:

```
~# esxcli qlfastling qcc adapter mode get
```

Syntax

```
esxcli qlfastling qcc adapter mode get [cmd options]
```

Keywords

`-i|--identifier <str>` = Adapter identifier (required). Obtain the identifier from the `adapter list` output.

Example

The following example shows the `adapter mode get` command on a local host:

```
~# esxcli qlfastling qcc adapter mode get -i Adapter_17_0
```

The following example shows the `adapter mode get` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc adapter mode get -i Adapter_17_0
```

The output for both commands is:

```
Message: Success
      Mode: Single-Function
```

Set Adapter Mode

To set the mode of a Marvell Adapter to Single-Function or Multi-Function, issue the `adapter mode set` command as follows:

```
~# esxcli qlfastling qcc adapter mode set
```

Syntax

```
esxcli qlfastling qcc adapter mode set [cmd options]
```

Keywords

-e|--ep-mode<str> = EP mode (Dell® 41000/45000 Series adapters only)
-i|--identifier<str> = Adapter identifier (required)
-m|--mode<str> = Adapter mode (required)

<u>Parameter</u>	<u>Value (strings are case-sensitive)</u>
identifier	Adapter identifier from the adapter list command
mode	Single-Function, Multi-Function, or UFP. UFP mode is supported on selected IBM® and Lenovo® 3400/8400 Series Adapters.
ep-mode	Enabled, Disabled (for Dell 41000/45000 Series Adapters only)

Example

The following example shows the `adapter mode set` command on a local host:

```
~# esxcli qlfastling qcc adapter mode set -i Adapter_17_0 -m Single-Function
```

The following example shows the `adapter mode set` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc adapter mode set -i Adapter_17_0 -m Single-Function
```

The output for both commands is:

```
Message: Success
Mode: Single-Function
Reboot Required: true
```

The command output shows the new setting, which will be active after reboot.

Adapter Default Configuration

To display adapter data and change adapter protocol settings when the mode is set to Single-Function, issue the `adapter defCfg` namespace command:

```
~# esxcli qlfastling qcc adapter defCfg
```

Syntax

```
esxcli qlfastling qcc adapter defCfg {cmd} [cmd options]
```

Available Commands

get

Shows default configuration information for the specified Marvell Adapter. See [Get Default Configuration](#).

`setFile`

Sets default configuration information for the specified Marvell Adapter in a file. See [Set Default Configuration File](#).

`set`

Sets default configuration information for the specified Marvell Adapter using a cached file. See [Set Default Configuration](#).

Get Default Configuration

To view default configuration data for a Marvell Adapter that is in Single-Function mode (Multi-Function mode is not supported), issue the `defCfg get` command as follows:

```
~# esxcli qlfastling qcc adapter defCfg get
```

Syntax

```
esxcli qlfastling qcc adapter defCfg get [cmd options]
```

Keywords

`-i|--identifier<str>` = Adapter identifier (required). Obtain the identifier from the `adapter list` output.

Example

The following example shows the `adapter defCfg get` command on a local host:

```
~# esxcli qlfastling qcc adapter defCfg get -i Adapter_17_0
```

The following example shows the `adapter defCfg get` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc adapter  
defCfg get -i Adapter_17_0
```

The output for both commands is:

Default Configuration:

Default Config:

Port Config:

Ethernet: Enabled

Fcoe: Enabled

Iscsi: Enabled

Iwarp: NA

Port Number: 0

Roce: Disabled

Ethernet: Enabled

```
Fcoe: Enabled
Iscsi: Enabled
Iwarp: NA
Port Number: 1
Roce: Disabled
Message: Supported Mode
Mode: Single-Function
```

Set Default Configuration File

To save user-provided data in a temporary cache file for a Marvell Adapter that is in Single-Function mode (Multi-Function mode is not supported), issue the `adapter defCfg setFile` command as follows:

```
~# esxcli qlfastling qcc adapter defCfg setFile
```

The `setFile` command creates a cache file of the default configuration on the test system, which is used by the `set` command to save the setting in the flash.

Syntax

```
esxcli qlfastling qcc adapter defCfg setFile [cmd options]
```

Keywords

```
-f|--fcoe <str> = FCoE
-i|--identifier <str> = Adapter identifier (required).
-c|--iscsi <str> = iSCSI
-w|--iwarp <str> = Internet wide area RDMA protocol (iWARP) (for
                  41000/45000 Series adapters only; currently not
                  supported by VMware)
-r|--roce <str> = RDMA over Converged Ethernet (RoCE)
                 (for 41000/45000 Series adapters only)
-p|--port-number <long> = Port number (required)
```

<u>Parameter</u>	<u>Value (strings are case-sensitive)</u>
identifier	Adapter identifier from the <code>adapter list</code> command
port-number	Physical port number of the adapter: 0 for Single port 0-1 for Dual port 0-3 for Quad-Port

<u>Parameter</u>	<u>Value (strings are case-sensitive)</u>
fcoe	Enabled, Disabled
iscsi	Enabled, Disabled
roce	Enabled, Disabled
iwarp	Enabled, Disabled

Example

The following example shows the `adapter defCfg SetFile` command on a local host:

```
~# esxcli qlfastling qcc adapter defCfg setFile -i Adapter_17_0 -p 0 -f Enabled
```

The following example shows the `adapter defCfg SetFile` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc adapter defCfg setFile -i Adapter_17_0 -p 0 -f Enabled
```

The output for both commands is:

Default Configuration:

Default Config:

Port Config:

Ethernet: Enabled

Fcoe: Enabled

Iscsi: Enabled

Iwarp: NA

Port Number: 0

Roce: Disabled

Ethernet: Enabled

Fcoe: Enabled

Iscsi: Enabled

Iwarp: NA

Port Number: 1

Roce: Disabled

Message: Supported Mode

Mode: Single-Function

The command output includes a combination of the existing settings and the user-modified settings saved in the cache file.

Set Default Configuration

The `adapter defCfg set` command sets user-provided or default configuration data from a temporary cache file to the flash when the adapter is in Single-Function mode (not supported in Multi-Function mode). This command fails if the cache file is not present. On successful completion, the `defCfg set` command cache file is deleted.

```
~# esxcli qlfastling qcc adapter defCfg set
```

Syntax

```
esxcli qlfastling qcc adapter defCfg set [cmd options]
```

Keywords

`-i|--identifier <str>` = Adapter identifier (required). Obtain the identifier from the `adapter list` output.

Example

The following example shows the `adapter defCfg set` command on a local host:

```
~# esxcli qlfastling qcc adapter defCfg set -i Adapter_17_0
```

The following example shows the `adapter defCfg set` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc adapter defCfg set -i Adapter_17_0
```

The output for both commands is:

Default Configuration:

Default Config:

Port Config:

Ethernet: Enabled

Fcoe: Disabled

Iscsi: Enabled

Iwarp: NA

Port Number: 0

Roce: Enabled

Ethernet: Enabled

Fcoe: Enabled

Iscsi: Enabled

Iwarp: NA

Port Number: 1

Roce: Enabled

```
Message: Supported Mode
Mode: Single-Function
Reboot Required: true
```

The output shows the new setting, which becomes active after a reboot.

Adapter NPAR Configuration

To display adapter data and change adapter function settings when the mode is set to Multi-Function (not supported in Single-Function mode), issue the `adapter nparCfg namespace` command:

```
~# esxcli qlfastlinq qcc adapter nparCfg
```

Syntax

```
esxcli qlfastlinq qcc adapter nparCfg {cmd} [cmd options]
```

Available Commands

`get`

Shows NPAR information for a specific Marvell Adapter. See [Get NPAR Configuration](#).

`setportcfg`

Sets NPAR port level configuration information for a specific Marvell Adapter in a file. See [Set NPAR Port Configuration](#).

`setfunccfg`

Sets NPAR function level configuration information for a specific Marvell Adapter in a file. See [Set NPAR Function Configuration](#).

`set`

Sets NPAR configuration for a specific Marvell Adapter. See [Set NPAR Configuration](#).

Get NPAR Configuration

The `adapter nparCfg get` command displays data when the adapter is in Multi-Function mode (not supported in Single-Function mode). To get NPAR information about the specified Marvell Adapter, issue the following command:

```
~# esxcli qlfastlinq qcc adapter nparCfg get
```

Syntax

```
esxcli qlfastlinq qcc adapter nparCfg get [cmd options]
```

Keywords

`-i|--identifier <str>` = Adapter identifier (required). Obtain the identifier from the adapter list output.

Example

The following example shows the `adapter nparCfg get` command on a local host:

```
~# esxcli qlfastling qcc adapter nparCfg get -i Adapter_16_0
```

The following example shows the `adapter nparCfg get` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc adapter nparCfg get -i Adapter_16_0
```

The output for both commands is:

Npar Configuration:

Message: Supported Mode

Mode: Multi Function

NPAR:

EPMode: Disabled

Functions:

Ethernet: Enabled

Fcoe: Disabled

Function Number: 0

Iscsi: Disabled

Iwarp: Disabled

Maximum Bandwidth: 100

Relative Bandwidth Weight: 0

Roce: Disabled

Ethernet: Enabled

Fcoe: Disabled

Function Number: 1

Iscsi: Disabled

Iwarp: Disabled

Maximum Bandwidth: 100

Relative Bandwidth Weight: 0

Roce: Disabled

.

.

```
.  
  
Ethernet: Enabled  
Fcoe: Disabled  
Function Number: 15  
Iscsi: Disabled  
Iwarp: Disabled  
Maximum Bandwidth: 100  
Relative Bandwidth Weight: 0  
Roce: Disabled  
Ports:  
Flow Control: Rx/Tx  
Port Number: 0  
  
Flow Control: Rx/Tx  
Port Number: 1
```

Set NPAR Port Configuration

The `adapter nparCfg setportcfg` command saves user-provided port-level data in a temporary cache file when the adapter is in Multi-Function mode (not supported in Single-Function mode; that is, the system must be in NPAR mode). This cache file is used by the `set` command to save settings in the flash. To set NPAR port configuration information for a specified Marvell Adapter in a file, issue the following command:

```
~# esxcli qlfastling qcc adapter nparCfg setportcfg
```

Syntax

```
esxcli qlfastling qcc adapter nparCfg setportcfg [cmd options]
```

Keywords

```
-f|--flow-control <str> = Flow control  
-i|--identifier <str> = Adapter identifier (required)  
-p|--port-number <long> = Port number (required)
```

<u>Parameter</u>	<u>Value (strings are case-sensitive)</u>
identifier	Adapter identifier from the adapter list command
port-number	Physical port number of the adapter: 0 for Single port 0-1 for Dual port 0-3 for Quad port
flow-control	Auto, Tx, Rx, Rx/Tx, Disabled

Example

The following example shows the `adapter nparCfg setportcfg` command on a local host. This example sets the flow control value for port 0 of the adapter named `Adapter_16_0`.

```
~# esxcli qlfastling qcc adapter nparCfg setportcfg -i  
Adapter_16_0 -p 0 -f Rx/Tx
```

The following example shows the `adapter nparCfg setportcfg` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc adapter  
nparCfg setportcfg -i Adapter_16_0 -p 0 -f Rx/Tx
```

The output for both commands is:

Npar Configuration:

Message: Supported Mode

Mode: Multi Function

NPAR:

EPMode: Disabled

Functions:

Ethernet: Enabled

Fcoe: Disabled

Function Number: 0

Iscsi: Disabled

Iwarp: Disabled

Maximum Bandwidth: 100

Relative Bandwidth Weight: 0

Roce: Disabled

Ethernet: Enabled

Fcoe: Disabled

Function Number: 1

Iscsi: Disabled

Iwarp: Disabled

```
Maximum Bandwidth: 100
Relative Bandwidth Weight: 0
Roce: Disabled
.
.
.
Ethernet: Enabled
Fcoe: Disabled
Function Number: 15
Iscsi: Disabled
Iwarp: Disabled
Maximum Bandwidth: 100
Relative Bandwidth Weight: 0
Roce: Disabled
Ports:
Flow Control: Rx/Tx
Port Number: 0

Flow Control: Rx/Tx
Port Number: 1
```

The command output is a combination of existing settings and the user-modified settings saved in the cache file.

Set NPAR Function Configuration

The `adapter nparCfg setfuncCfg` command saves user-provided function-level data in a temporary cache file when the adapter is in Multi-Function mode (not supported in Single-Function mode). This cache file is used by the `set` command to save settings in the flash. To set NPAR function configuration information on a specified Marvell Adapter in a file, issue the following command:

```
~# esxcli qlfastling qcc adapter nparCfg setfuncCfg
```

Syntax

```
esxcli qlfastling qcc adapter nparCfg setfuncCfg [cmd options]
```

Keywords

```
-e|--ethernet <str> = Ethernet
-f|--fcoe <str> = FCoE
-n|--function-number <long> = Function number (required)
-i|--identifier <str> = Adapter identifier (required)
-c|--iscsi <str> = iSCSI
```

-p|--iwarp <str> = iWARP (for 41000/45000 Series adapters)
 -r|--roce <str> = RDMA over Converged Ethernet (RoCE)
 (for 41000/45000 Series adapters)
 -w|--max-bw <long> = Maximum bandwidth
 -m|--min-bw <long> = Minimum bandwidth

<u>Parameter</u>	<u>Value (strings are case-sensitive)</u>
identifier	Adapter identifier from the adapter <code>list</code> command
function-number	Function number of the adapter: 0-7 for 3400/8400 Series adapters. For more information, see Note 1 . 0-15 for 41000/45000 Series adapters. For more information, see Note 2 .
ethernet	Enabled, Disabled
iscsi	Enabled, Disabled
iwarp	Enabled, Disabled.
fcoe	Enabled, Disabled
roce	Enabled, Disabled
max-bw	Maximum bandwidth (0-100)
min-bw	Minimum bandwidth (0-100). For more information, see Note 3 .

Note 1

The 3400/57800-based adapters support up to 8 functions in NPAR mode (except for the single port 3441/57811-based adapters and quad port 57800-based adapters). These adapters do not support 16 functions in NPAReP mode.

The dual 1GbE and dual 10GbE port 57800-based adapters support functions 0-5, but the 1GbE partitions (functions 2-3) do not support the NPAR feature. The single port 3441/57811-based adapters support functions 0-3.

See also footnotes [1](#) and [2](#).

Note 2

When the `Function-number` value is 0–15 (41000/45000 Series adapters):

- The 41000/45000 adapters support up to 8 functions in NPAR¹ mode; and up to 16 functions in NPAReP² mode.
- VMware ESXi 7.0 and later supports up to 16 physical (functions 0–15) per adapter.
- The single/dual/quad-port 41000 Series adapters¹ and dual/quad-port 45000 Series adapters¹ support values 0–7.
- The single-port 45000 Series adapters² support values 0, 2, 4, 6, 8, 10, 12, 14.
- The single-port 45000 Series adapters¹ support values 0, 2, 4, 6.
- The dual 1G-port and dual 10G-port based adapters¹ support values 0, 1, 4, 5. Functions 2 and 3 are the two fixed speed 1GbE RJ45 ports (which do not support the any NPAR features), and therefore are not valid values. Functions 6 and 7 are not used.
- The dual 1G-port and dual 10G-port based adapters² support values 0, 1, 4, 5, 8, 9, 12, 13; the two fixed-speed 1G RJ45 ports (which use values 2 and 3) do not support the NPAReP feature. Functions 6, 7, 10, 11, 14, 15 are not used.

Note 3

The sum total of all partitions of a single port's relative bandwidth weight (`min-bw`) value should be either 0 (all partitions are set to 0) or 100.

Example

The following example shows the `adapter nparCfg setfunccfg` command on a local host:

```
~# esxcli qlfastling qcc adapter nparCfg setfunccfg -i  
Adapter_16_0 -n 2 -m 10
```

The following example shows the `adapter nparCfg setfunccfg` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc adapter  
nparCfg setfunccfg -i Adapter_16_0 -n 2 -m 10
```

¹ If the server does not support PCI Alternative-Routing ID Interpretation (ARI), or the adapter is set to 8-partition NPAR mode instead of 16-partition NIC extended partitioning (NPAReP) mode.

² If the PCI ARI-supported server is set to 16-partition NPAReP mode.

The output for both commands is:

Npar Configuration:

Message: Supported Mode

Mode: Multi Function

NPAR:

EPMode: Disabled

Functions:

Ethernet: Enabled

Fcoe: Disabled

Function Number: 0

Iscsi: Disabled

Iwarp: Disabled

Maximum Bandwidth: 100

Relative Bandwidth Weight: 0

Roce: Disabled

Ethernet: Enabled

Fcoe: Disabled

Function Number: 1

Iscsi: Disabled

Iwarp: Disabled

Maximum Bandwidth: 100

Relative Bandwidth Weight: 0

Roce: Disabled

.
.
.

Ethernet: Enabled

Fcoe: Disabled

Function Number: 15

Iscsi: Disabled

Iwarp: Disabled

Maximum Bandwidth: 100

Relative Bandwidth Weight: 0

Roce: Disabled

Ports:

Flow Control: Rx/Tx

Port Number: 0

```
Flow Control: Rx/Tx
Port Number: 1
```

The output shows a combination of the existing settings and the user-modified settings that are saved in the cache file.

Set NPAR Configuration

The `adapter nparCfg set` command imports user-provided data from a temporary cache file to the flash when the adapter is in Multi-Function mode (not supported for Single-Function mode). This command fails if the cache file is not present. On successful completion of the `adapter nparCfg set` command, the cache file is deleted.

To import NPAR information for a specified Marvell Adapter, issue the following command:

```
~# esxcli qlfastling qcc adapter nparCfg set
```

Syntax

```
esxcli qlfastling qcc adapter nparCfg set [cmd options]
```

Keywords:

```
-i|--identifier <long> = Adapter identifier (required). Obtain the identifier from the
                        adapter list output
```

Example

The following example shows the `adapter nparCfg set` command on a local host:

```
~# esxcli qlfastling qcc adapter nparCfg set -i Adapter_16_0
```

The following example shows the `adapter nparCfg set` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc adapter
nparCfg set -i Adapter_16_0
```

The output for both commands is:

```
Npar Configuration:
  Message: Supported Mode
  Mode: Multi Function
  NPAR:
    EPMODE: Disabled
    Functions:
    Ethernet: Enabled
    Fcoe: Disabled
    Function Number: 0
```

```

    Iscsi: Disabled
    Iwarp: NA
    Maximum Bandwidth: 100
    Relative Bandwidth Weight: 0
    Roce: NA

    Ethernet: Enabled
    Fcoe: Disabled
    Function Number: 1
    Iscsi: Disabled
    Iwarp: NA
    Maximum Bandwidth: 100
    Relative Bandwidth Weight: 0
    Roce: NA
.
.
.

    Ethernet: Enabled
    Fcoe: Disabled
    Function Number: 15
    Iscsi: Disabled
    Iwarp: NA
    Maximum Bandwidth: 100
    Relative Bandwidth Weight: 0
    Roce: NA
    Ports:
    Flow Control: Rx/Tx
    Port Number: 0

    Flow Control: Rx/Tx
    Port Number: 1
Reboot Required: true
```

The output shows the new settings, which become active after a reboot if the command is successful.

Adapter SR-IOV Configuration

The SR-IOV configuration commands display SR-IOV data when the adapter is in Single-Function or Multi-Function mode (that is, SR-IOV over NPAR/NPAReP is supported on the 3400/578xx-based Series adapters and 41000/45000 Series adapters).

```
~# esxcli qlfastling qcc adapter sriov
```

Syntax

```
esxcli qlfastling qcc adapter sriov {cmd} [cmd options]
```

Available Commands

get

Shows SR-IOV information for the specified Marvell Adapter. See [Get SR-IOV Information](#).

setFile

Saves SR-IOV information for the specified Marvell Adapter in a cache file. See [Set SR-IOV File](#).

set

Saves SR-IOV information for the specified Marvell Adapter. See [Set SR-IOV](#).

Get SR-IOV Information

To view SR-IOV data read from flash for a Marvell Adapter, issue the following command:

```
~# esxcli qlfastling qcc adapter sriov get
```

Syntax

```
esxcli qlfastling qcc adapter sriov get [cmd options]
```

Keywords

`-i|--identifier <long>` = Adapter identifier (required). Obtain the identifier from the adapter list output

Example

The following example shows the `adapter sriov get` command on a local host:

```
~# esxcli qlfastling qcc adapter sriov get -i Adapter_17_0
```

The following example shows the `adapter sriov get` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc adapter sriov get -i Adapter_17_0
```

The output for both commands is:

```
SRIOV Configuration:
  Message: Success
  Mode: Single-Function
  SRIOV: Enabled
  Sriov Config:
    Pf Number: 0
    VFs Per PF: 24

    Pf Number: 1
    VFs Per PF: 32
```

Set SR-IOV File

The `adapter sriov setFile` command saves user-provided SR-IOV data for a specified Marvell Adapter in a temporary cache file. This cache file is used by the `set` command to save settings in the flash. To set the cache file, issue the following command:

```
~# esxcli qlfastling qcc adapter sriov setFile
```

Syntax

```
esxcli qlfastling qcc adapter sriov setFile [cmd options]
```

Keywords

```
-i|--identifier <str> = Adapter identifier (required)

-v|--number-of-vfs <long> = Number of virtual functions
-n|--pf-number <long> = Physical function number (required)
-o|--sriov <str> = SR-IOV
```

<u>Parameter</u>	<u>Value (strings are case-sensitive)</u>
identifier	Adapter identifier from the <code>adapter list</code> command
pf-number	Adapter's Ethernet physical function port number: 0 for a single port 0-1 for a dual port 0-3 for a quad port in Single-Function mode 0-7 for 3400/8400 Series adapters 0-15 for 41000/45000 Series adapters in Multi-Function mode

<u>Parameter</u>	<u>Value (strings are case-sensitive)</u>
<code>sriov</code>	Enabled, Disabled
<code>number-of-vfs</code>	Integer value of modulo 8. No VFs can be assigned to a physical function enabled with a storage personality (iSCSI offload or FCoE-offload). Maximum values: 128 for a 3400/8400 Series adapter. For more information, see Notes . 192 for a 41000 Series adapter. For more information, see Notes . 240 for a 45000 Series adapter. For more information, see Notes .

Notes

When the `Number-of-vfs` parameter is 128:

- 64 per port on single and dual port adapter
- 32 per port on quad port adapters.

In addition, VFs can be user-distributed across Ethernet physical functions on the same port.

When the `Number-of-vfs` parameter is 192 (for a 41000 Series adapter), the actual number of VFs is hard divided across Ethernet physical functions of an adapter—the VFs are not user re-distributable. For single-port adapters, there are 64 VFs (not 192) on the *default* mode single Ethernet physical function per port; in NPAReP mode, there are 16 VFs on the first eight Ethernet physical functions and 8 VFs on the last eight Ethernet physical functions. For dual-port adapters, there are 64 VFs on the *default* mode single Ethernet physical function per port; in NPAReP mode, there are 16 VFs on the first eight Ethernet physical functions and 8 VFs on the last eight Ethernet physical functions. For quad-port adapters, there are 48 VFs on the *default* mode single Ethernet physical function per port; in NPAReP mode, there are 16 VFs on the first eight Ethernet physical functions and 8 VFs on the last eight Ethernet physical functions.

When the `Number-of-vfs` parameter is 240 (for a 45000 Series adapter), the actual number of VFs is hard divided across Ethernet physical functions of an adapter—the VFs are not user re-distributable. For single-port adapters, there are 64 VFs (not 120) on the *default* mode single Ethernet physical function per port; in NPAREP mode, there are 16 VFs on the first seven Ethernet physical functions and 8 VFs on the last Ethernet physical function. For dual-port adapters, there are 64 VFs on the *default* mode single Ethernet physical function per port; in NPAREP mode, there are 16 VFs on the first fourteen Ethernet physical functions and 8 VFs on the last two Ethernet physical functions. For quad-port adapters, there are 64 VFs on the *default* mode single Ethernet physical function per port; in NPAREP mode, there are 16 VFs on the first fourteen Ethernet physical functions and 8 VFs on the last two Ethernet physical functions.

Example

The following example shows the `adapter sriov setFile` command on a local host:

```
~ # esxcli qlfastlinq qcc adapter sriov setFile -i Adapter_17_0 -n 1 -v 32
```

The following example shows the `adapter sriov setFile` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastlinq qcc adapter sriov setFile -i Adapter_17_0 -n 1 -v 32
```

The output for both commands is:

```
SRIOV Configuration:
  Message: Success
  Mode: Single-Function
  SRIOV: Enabled
  Sriov Config:
    Pf Number: 0
    VFs Per PF: 24

    Pf Number: 1
    VFs Per PF: 32
```

The output is a combination of existing settings and user-modified settings saved in the cache file.

Set SR-IOV

The `adapter sriov set` command imports user-provided SR-IOV information for a specified Marvell Adapter from a temporary cache file to the flash. This command fails if the cache file is not present. On successful completion of the set command, the cache file is deleted.

```
~# esxcli qlfastling qcc adapter sriov set
```

Syntax

```
esxcli qlfastling qcc adapter sriov set [cmd options]
```

Keywords

`-i|--identifier` = Adapter identifier (required). Obtain the identifier from the `<str>` adapter list output.

<u>Parameter</u>	<u>Value (strings are case-sensitive)</u>
<code>identifier</code>	Adapter identifier from the <code>adapter list</code> command
<code>pf-number</code>	Adapter's physical function port number: 0 for a single port 0-1 for a dual port 0-3 for a quad port in Single-Function mode 0-7 for 3400/8400 Series adapters 0-15 for 41000/45000 Series adapters in Multi-Function mode
<code>sriov</code>	Enabled, Disabled
<code>number-of-vfs</code>	Integer value of modulo 8. Maximum values: 128 for a 3400/8400 Series adapter. For more information, see "Notes" on page 33 . 240 for a 45000 Series adapter, with a maximum of 64 on one function. For more information, see "Notes" on page 33 . 192 for a 41000 Series adapter, with a maximum of 64 on one function. For more information, see "Notes" on page 33 .

Example

The following example shows the `adapter sriov set` command on a local host:

```
~# esxcli qlfastling qcc adapter sriov set -i Adapter_17_0
```

The following example shows the `adapter sriov set` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc adapter  
sriov set -i Adapter_17_0
```

The output for both commands is:

```
SRIOV Configuration:  
  Message: Success  
  Mode: Single-Function  
  Reboot Required: true  
  SRIOV: Enabled  
  Sriov Config:  
    Pf Number: 0  
    VFs Per PF: 24  
  
    Pf Number: 1  
    VFs Per PF: 32
```

The output shows the new SR-IOV setting, which becomes active after a reboot.

Adapter VPD

To view vital product data (VPD) for the selected adapter, issue the following command:

```
~# esxcli qlfastling qcc adapter vpd
```

Syntax

```
esxcli qlfastling qcc adapter vpd {cmd} [cmd options]
```

Available Commands

`get`

Gets VPD information for the specified Marvell Adapter. See [Get VPD](#).

Get VPD

The `adapter vpd get` command displays VPD data read from the flash.

```
~# esxcli qlfastling qcc adapter vpd get
```

Syntax

```
esxcli qlfastling qcc adapter vpd get [cmd options]
```

Keywords

`-i|--identifier <str>` = Adapter identifier (required)

<u>Parameter</u>	<u>Value (strings are case-sensitive)</u>
<code>identifier</code>	Adapter identifier from the <code>adapter list</code> command

Example

The following example shows the `adapter vpd get` command on a local host:

```
~# esxcli qlfastling qcc adapter vpd get -i Adapter_33_0
```

The following example shows the `adapter vpd get` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc adapter vpd get -i Adapter_33_0
```

The output for both commands is:

VPD Configuration:

Message: Success

VPDData:

Tag: EC

Value: A-5618

Tag: MN

Value: 1590

Tag: P#

Value: HPE Eth 4x25Gb 1p 620QSFP28 Adapter

Tag: PN

Value: 817760-001

Tag: ProductName

Value: HPE Eth 4x25Gb 1p 620QSFP28 Adapter

Tag: SN

Value: 6789012345

Tag: V0

Value: 20W PCIeGen3x16

Tag: V1

Value: 4.1.3.6

Tag: V2

Value: 5901

.
.
.

Tag: V7

Value: 620QSFP28

Adapter Port Mode Configuration

Some 45000 Series QSFP-based adapters can be split from 1x100G to 4x25G or 4x10G, and from 1x40G or 2x40G to 4x10G speeds. On the 2x40G adapter, when set to 4x10G mode, the second 40G QSFP+ port is disabled.

The port mode command is used for this operation.

To set and display current port mode settings for these 45000 Series Adapters, issue the following command:

```
~# esxcli qlfastling qcc adapter portmode
```

Syntax

```
esxcli qlfastling qcc adapter portmode {cmd} [cmd options]
```

Available Commands

get

Shows port mode configuration for the specified Marvell Adapter. See [Get Port Mode Configuration](#).

set

Saves port mode configuration for the specified Marvell Adapter. See [Set Port-Mode Configuration](#).

Get Port Mode Configuration

To view port mode data read from the flash for a specific Marvell Adapter, issue the following command:

```
~# esxcli qlfastling qcc adapter portmode get
```

Syntax

```
esxcli qlfastling qcc adapter portmode get [cmd options]
```

Keywords

`-i|--identifier <str>` = Adapter identifier (required). Obtain the identifier from the `adapter list` command.

Example

The following example shows the `adapter portmode get` command on a local host:

```
~# esxcli qlfastlinq qcc adapter portmode get -i Adapter_4_0
```

The following example shows the `adapter portmode get` command on a remote host:

```
~# esxcli -s 172.27.9.144 -u root -p password qlfastlinq qcc  
adapter portmode get -i Adapter_4_0
```

The output for both commands (on the 1x40G adapter) is:

```
Adapter Configuration:  
  Message: Success  
  Port Mode Data:  
    Current Value: 1x40  
    Description: Port Mode  
    Name: PortMode  
    Supported Values: 1x40, 4x10
```

Set Port-Mode Configuration

To set port mode data in the flash for a specific Marvell Adapter, issue the following command:

```
~# esxcli qlfastlinq qcc adapter portmode set
```

Syntax

```
esxcli qlfastlinq qcc adapter portmode set [cmd options]
```

Keywords

`-i|--identifier <str>` = Adapter identifier (required). Obtain the identifier from the `adapter list` command output.

`-n|--name <str>` = Parameter name (required)

`-v|--value <str>` = Parameter value from list of supported values provided in the `get` command (required)

Example

The following example shows the `adapter portmode set` command on a local host:

```
~# esxcli qlfastling qcc adapter portmode set -i Adapter_4_0 -n PortMode -v 4x10
```

The following example shows the `adapter portmode set` command on a remote host:

```
~# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc adapter portmode set -i Adapter_4_0 -n PortMode -v 4x10
```

The output for both commands (on the 1x40G adapter) is:

```
~# esxcli qlfastling qcc adapter portmode set -i Adapter_4_0 -n PortMode -v 4x10
```

Adapter Configuration:

Message: Success

Port Mode Data:

Current Value: 4x10

Description: Port Mode

Name: PortMode

Supported Values: 1x40, 4x10

Reboot Required: true

The output displays the new setting, which will be active after a reboot if the command is successful.

Adapter QinQ Configuration

QinQ, also referred to as *stacked VLANs* and *provider bridging*, is a VLAN feature that controls VLAN tagged transmit and receive frames based on various VLAN modes (Normal, Filtering, QinQ).

You can set these VLAN settings for each function (PF0–PF7, depending on the single function and NPAR modes) in the NVRAM.

These values will be used by drivers to pick/ignore transmit and receive VLAN tagged frames.

The QinQ commands set and display the VLAN QinQ table in the flash for 3400/8400 Series Adapters.

```
~# esxcli qlfastling qcc adapter qinq
```

Syntax

```
esxcli qlfastling qcc adapter qinq {cmd} [cmd options]
```

Available Commands

`get`

Shows QinQ configuration for the specified Marvell Adapter. See [Get QinQ Configuration](#).

`setportcfg`

Sets QinQ port configuration in a file for the specified Marvell Adapter. See [Set QinQ Port Configuration](#).

`setfunccfg`

Sets QinQ function configuration in a file for the specified Marvell Adapter. See [Set QinQ Function Configuration](#)

`set`

Saves QinQ configuration in the flash for the specified Marvell Adapter. See [Set QinQ Configuration](#).

Get QinQ Configuration

To view QinQ VLAN table data read from the flash for a specific Marvell Adapter, issue the following command:

```
~# esxcli qlfastling qcc adapter qinq get
```

Syntax

```
esxcli qlfastling qcc adapter qinq get [cmd options]
```

Keywords

`-i|--identifier <str>` = Adapter identifier (required). Obtain the identifier from the `adapter list` command output.

Example

The following example shows the `adapter qinq get` command on a local host:

```
~# esxcli qlfastling qcc adapter qinq get -i Adapter_66_0
```

The following example shows the `adapter qinq get` command on a remote host:

```
~# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc  
adapter qinq get -i Adapter_66_0
```

The output for both commands is:

```
Qinq Configuration:  
Message: Success  
Mode: Multi Function  
QINQ:
```

Functions:

Function Number: 0
Vlan Id: 30
Vlan Id Pool: 1-64
Vlan Priority: 3

Function Number: 1
Vlan Id: 22
Vlan Id Pool: 65-128
Vlan Priority: 2

Function Number: 2
Vlan Id: 121
Vlan Id Pool: 129-192
Vlan Priority: 7

Function Number: 3
Vlan Id: 5
Vlan Id Pool: 193-256
Vlan Priority: 1

Function Number: 4
Vlan Id: 1
Vlan Id Pool: 257-320
Vlan Priority: 0

Function Number: 5
Vlan Id: 1
Vlan Id Pool: 321-384
Vlan Priority: 0

Function Number: 6
Vlan Id: 1
Vlan Id Pool: 385-448
Vlan Priority: 0

Function Number: 7
Vlan Id: 1
Vlan Id Pool: 449-510, 600, 701
Vlan Priority: 0

Ports:

Port Number: 0

```
Vlan Mode: Filtering  
  
Port Number: 1  
Vlan Mode: Filtering
```

Set QinQ Port Configuration

The `adapter qinq setportcfg` command saves user-provided port level QinQ VLAN table data in a temporary cache file for the specified Marvell Adapter. This cache file is used by the `set` command to save settings in the flash.

```
~# esxcli qlfastlinq qcc adapter qinq setportcfg
```

Syntax

```
esxcli qlfastlinq qcc adapter qinq setportcfg [cmd options]
```

Keywords

- `-i|--identifier <str>` = Adapter identifier (required). Obtain the identifier from the `adapter list` command output.
- `-p|--port-number <long>` = Port number (required). Physical port number of the adapter. Valid values are:
 - 0 for Single port
 - 0-1 for Dual port
 - 0-3 for Quad port
- `-m|--vlan-mode <str>` = VLAN mode (required). Valid values are:
 - Normal
 - Filtering
 - QinQ

Example

The following example shows the `adapter qinq setportcfg` command on a local host:

```
~# esxcli qlfastlinq qcc adapter qinq setportcfg -i Adapter_66_0  
-p 0 -m QinQ
```

The following example shows the `adapter qinq setportcfg` command on a remote host:

```
~# esxcli -s 172.27.9.144 -u root -p password qlfastlinq qcc  
adapter qinq setportcfg -i Adapter_66_0 -p 0 -m QinQ
```

The output for both commands is:

```
QinQ Configuration:  
Message: Success
```

```
Mode: Multi Function
QINQ:
  Functions:
    Function Number: 0
    Vlan Id: 30
    Vlan Id Pool: 1-64
    Vlan Priority: 3

    Function Number: 1
    Vlan Id: 22
    Vlan Id Pool: 65-128
    Vlan Priority: 2

    Function Number: 2
    Vlan Id: 121
    Vlan Id Pool: 129-192
    Vlan Priority: 7

    Function Number: 3
    Vlan Id: 5
    Vlan Id Pool: 193-256
    Vlan Priority: 1

    Function Number: 4
    Vlan Id: 1
    Vlan Id Pool: 257-320
    Vlan Priority: 0

    Function Number: 5
    Vlan Id: 1
    Vlan Id Pool: 321-384
    Vlan Priority: 0

    Function Number: 6
    Vlan Id: 10
    Vlan Id Pool: 385-448
    Vlan Priority: 0

    Function Number: 7
    Vlan Id: 1
    Vlan Id Pool: 449-510,600,701
    Vlan Priority: 0 Ports:
```

```
Port Number: 0 Vlan Mode: QinQ  
  
Port Number: 1  
Vlan Mode: Filtering
```

The command output is a combination of existing settings and user-modified settings saved in a cache file.

Set QinQ Function Configuration

The `adapter qinq setfunccfg` command saves user-provided, function-level QinQ VLAN table data in a temporary cache file for a specified Marvell Adapter. This cache file is used by the `set` command to save settings in the flash.

When issuing this command:

- All `setfunccfg` parameters (`vlan-id`, `vlan-priority`, `vlan-id-pool`) are read-only in normal VLAN mode and set to 0.
- In QinQ mode:
 - ☐ `vlan-id-pool` is read only.
 - ☐ The `vlan-id` on all the functions of a port must be mutually exclusive.
 - ☐ The `vlan-id` must be nonzero.
- In Filtering mode:
 - ☐ There must be at least one valid `vlan-id` or `vlan-id-pool` value.
 - ☐ All parameters are read and write capable.
 - ☐ The maximum active VLAN IDs in the `vlan-id-pool` and `vlan-id` per adapter is 256.

The following command sets QinQ function configuration information for the specified Marvell Adapter in a file.

```
~# esxcli qlfastling qcc adapter qinq setfunccfg
```

Syntax

```
esxcli qlfastling qcc adapter qinq setfunccfg [cmd options]
```

Keywords

- `-i|--identifier <str>` = Adapter identifier (required). Obtain the identifier from the `adapter list` command output.
- `-n|--function-number <long>` = Function number (required). Function number of the adapter.
Valid values are in the range of 0-7.

`-d|--vlan-id <long>` = VLAN ID
Valid values are in the range of 1-4094.

`-l|--vlan-id-pool <str>` = VLAN ID pool. Numbers in string format. Numbers in a range are separated with a dash (-). Multiple numbers are separated with commas (,).
Valid values are in the range of 1-4094.

`-p|--vlan-priority <long>` = VLAN priority.
Valid values are in the range of 0-7.

Example

The following example shows the `adapter qinq setfunccfg` command on a local host:

```
~# esxcli qlfastlinq qcc adapter qinq setfunccfg -i Adapter_66_0  
-n 7 -l 449-510,600,701
```

The following example shows the `adapter qinq setfunccfg` command on a remote host:

```
~# esxcli -s 172.27.9.144 -u root -p password qlfastlinq qcc  
adapter qinq setfunccfg -i Adapter_66_0 -n 7 -l 449- 510,600,701
```

The output for both commands is:

```
QinQ Configuration:  
  Message: Success  
  Mode: Multi Function  
  QINQ:  
    Functions:  
      Function Number: 0  
      Vlan Id: 30  
      Vlan Id Pool: 1-64  
      Vlan Priority: 3  
  
      Function Number: 1  
      Vlan Id: 22  
      Vlan Id Pool: 65-128  
      Vlan Priority: 2  
  
      Function Number: 2  
      Vlan Id: 121  
      Vlan Id Pool: 129-192  
      Vlan Priority: 7  
  
      Function Number: 3
```

```
Vlan Id: 5
Vlan Id Pool: 193-256
Vlan Priority: 1

Function Number: 4
Vlan Id: 1
Vlan Id Pool: 257-320
Vlan Priority: 0

Function Number: 5
Vlan Id: 1
Vlan Id Pool: 321-384
Vlan Priority: 0

Function Number: 6
Vlan Id: 10
Vlan Id Pool: 385-448
Vlan Priority: 0

Function Number: 7
Vlan Id: 1
Vlan Id Pool: 449-510,600,701
Vlan Priority: 0 Ports:
Port Number: 0 Vlan Mode: QinQ

Port Number: 1
Vlan Mode: Filtering
```

The command output is a combination of existing settings and user-modified settings saved in a cache file.

Set QinQ Configuration

The `adapter qinq set` command imports user-provided data from a temporary cache file to the flash. This command fails if cache file is not present. When the command completes successfully, the cache file is deleted.

To import QinQ VLAN table data for a specified Marvell Adapter, issue the following command:

```
~# esxcli qlfastling qcc adapter qinq set
```

Syntax

```
esxcli qlfastling qcc adapter qinq set [cmd options]
```

Keywords

`-i|--identifier <str>` = Adapter identifier (required). Obtain the identifier from the `adapter list` command output.

Example

The following example shows the `adapter qinq set` command on a local host:

```
~# esxcli qlfastling qcc adapter qinq set -i Adapter_66_0
```

The following example shows the `adapter qinq set` command on a remote host:

```
~# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc  
adapter qinq set -i Adapter_66_0
```

The output for both commands is:

```
QinQ Configuration:  
  Message: Success  
  Mode: Multi Function  
  QINQ:  
    Functions:  
      Function Number: 0  
      Vlan Id: 30  
      Vlan Id Pool: 1-64  
      Vlan Priority: 3  
  
      Function Number: 1  
      Vlan Id: 22  
      Vlan Id Pool: 65-128  
      Vlan Priority: 2  
  
      Function Number: 2  
      Vlan Id: 121  
      Vlan Id Pool: 129-192  
      Vlan Priority: 7  
  
      Function Number: 3  
      Vlan Id: 5  
      Vlan Id Pool: 193-256  
      Vlan Priority: 1  
  
      Function Number: 4  
      Vlan Id: 1
```

```
Vlan Id Pool: 257-320
Vlan Priority: 0

Function Number: 5
Vlan Id: 1
Vlan Id Pool: 321-384
Vlan Priority: 0

Function Number: 6
Vlan Id: 1
Vlan Id Pool: 385-448
Vlan Priority: 0

Function Number: 7
Vlan Id: 1
Vlan Id Pool: 449-510,600,701
Vlan Priority: 0 Ports:
Port Number: 0
Vlan Mode: Filtering

Port Number: 1
Vlan Mode: Filtering
Reboot Required: true
```

The output shows the new settings, which will be active after a reboot if the command is successful.

Adapter Port Namespace Commands and Sub-namespaces

This section provides QESXCLI information on the following:

- [Adapter Port List](#)
- [Adapter Port Information](#)
- [Adapter Port FCoE Boot Configuration \(2400, 2500, 2600, and 2700 Series Fibre Channel Adapters 41000, and 45000 Series Converged Network Adapters\)](#)
- [Adapter Port FCoE Boot Configuration \(41000/45000 Series\)](#)
- [Adapter Port iSCSI Boot Configuration \(3400/8400 Series\)](#)
- [Adapter Port iSCSI Boot Configuration \(41000/45000 Series\)](#)

- [Adapter Port MBA Boot Configuration Namespace Commands and Sub-namespaces](#)
- [Adapter Port Diagnostics Namespace Commands and Sub-namespaces](#)
- [Adapter Port DCBX Namespace Commands and Sub-namespaces](#)
- [Adapter Port Link Settings \(SmartAN\) Namespace Commands and Sub-namespaces](#)

```
~# esxcli qlfastling qcc port
```

Syntax

```
esxcli qlfastling qcc port {cmd} [cmd options]
```

Namespaces

Available namespaces include the following:

<u>Namespace</u>	<u>Description</u>
dcbx	QCC CLI for port-level DCBX information
diag	QCC CLI for port-level diagnostics
dmi	QCC CLI for port-level SFP DMI information
fcoebootcfg579xx	QCC CLI for port FCoE boot configuration information for 41000/45000 Series adapters
fcoebootcfg	QCC CLI for port FCoE boot configuration information for 3400/8400 Series adapters
info	QCC CLI for port information
iscsibootcfg	QCC CLI for port iSCSI boot configuration information for 3400/8400 Series adapters
iscsibootcfg579xx	QCC CLI for port iSCSI boot configuration information for 41000/45000 Series Adapters
linkSettings	QCC CLI for port-level Advanced Link Settings information
mbabootcfg	QCC CLI for port MBA boot configuration information

Available Commands

```
list
```

Shows identifiers for Marvell Adapter ports discovered on the host.

Adapter Port List

The `port list` command (shown issued from a local host) lists all of the supported 3400/8400 Series and 41000/45000 Series ports, as follows:

```
~# esxcli qlfastling qcc port list
```

The following example shows the `port list` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc port list
```

The output for both commands is:

```
Ports
-----
Port_10_0_0
Port_10_0_1
Port_16_0_0
Port_16_0_1
Port_27_0_0
Port_27_0_1
```

Adapter Port Information

The `port info` command shows information about the selected Marvell Adapter port:

```
~# esxcli qlfastling qcc port info
```

Syntax

```
esxcli qlfastling qcc port info {cmd} [cmd options]
```

Available Commands

`get`

Shows information about the specified Marvell Adapter port. See [Get Port Information](#).

Get Port Information

The `port info get` command shows port-level information for the specified Marvell Adapter port.

```
~# esxcli qlfastling qcc port info get
```

Syntax

```
esxcli qlfastling qcc port info get [cmd options]
```

Keywords

`-i|--identifier <str>` = Adapter identifier (required). Obtain the identifier from the `port list` output.

Example

The following example shows the `port info get` command on a local host:

```
~# esxcli qlfastlinq qcc port info get -i Port_10_0_0
```

The following example shows the `port info get` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastlinq qcc port  
info get -i Port_10_0_0
```

The output for both commands is:

Port Information:

Message: Success

Port Info:

Bus Number: 18

Description: BCM57810 10 Gigabit Ethernet Multi Function

Device Number: 0

Duplex: Half

Fcoe Driver Version: NA

Fec Auto Neg Mode: NA

Fec Force Mode: NA

Iscsi Driver Version: NA

Link Settings: NA

Link Settings Link Speed: NA

Link Speedin Mbps: Unknown

Link State: Link Down

Media Type: Optical

Nic Driver Version: 1.0.69.0

Port Number: 0

Title: BCM57810 10 Gigabit Ethernet Multi Function rev 10 (vmnic20)

Adapter Port FCoE Boot Configuration (2400, 2500, 2600, and 2700 Series Fibre Channel Adapters 41000, and 45000 Series Converged Network Adapters)

The `fcoebootcfg` command performs FCoE boot configuration operations on 3400/8400 Series Adapters. For FCoE boot configuration on 41000/45000 Series Adapters, see [Adapter Port FCoE Boot Configuration \(41000/45000 Series\)](#).

```
~# esxcli qlfastling qcc port fcoebootcfg
```

Syntax

```
esxcli qlfastling qcc port fcoebootcfg {cmd} [cmd options]
```

Available Commands

get

Shows FCoE boot configuration information for the specified Marvell Adapter (3400/8400 Series Adapter) port. See [Get FCoE Boot Configuration](#).

setgenparams

Saves FCoE boot configuration general parameters for the specified Marvell Adapter (3400/8400 Series adapter) port in a file. See [Set FCoE Boot Configuration General Parameters](#).

settgtparams

Saves FCoE boot configuration target parameters for the specified Marvell Adapter (3400/8400 Series adapter) port in a file. See [Set FCoE Boot Configuration Target Parameters](#).

set

Sets FCoE boot configuration information for the specified Marvell Adapter (3400/8400 Series adapter) port. See [Set FCoE Boot Configuration](#).

Get FCoE Boot Configuration

To view FCoE boot configuration data for the specified Marvell Adapter (3400/8400 Series Adapter) port, issue the `port fcoebootcfg get` command as follows:

```
~# esxcli qlfastling qcc port fcoebootcfg get
```

Syntax

```
esxcli qlfastling qcc port fcoebootcfg get [cmd options]
```

Keywords

`-i|--identifier <str>` = Adapter identifier (required). Obtain the identifier from the `port list` output

Example

The following example shows the `port fcoebootcfg get` command on a local host:

```
~# esxcli qlfastling qcc port fcoebootcfg get -i Port_27_0_0
```

The following example shows the `port fcoebootcfg get` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc port  
fcoebootcfg get -i Port_27_0_0
```

The output for both commands is:

FCoE Boot Configuration:

FCOEBoot Info:

Boot Targets:

Boot LUN: 1

Connect: Enabled

Port WWN: 50-01-00-0E-0F-0A-0B-0C

Target Number: 0

Boot LUN: 3

Connect: Enabled

Port WWN: 20-01-00-0E-0A-04-0B-06

Target Number: 1

.

.

.

Boot LUN: 0

Connect: Disabled

Port WWN: 00-00-00-00-00-00-00-00

Target Number: 6

Boot LUN: 0

Connect: Disabled

Port WWN: 00-00-00-00-00-00-00-00

Target Number: 7

General Parameters:

Boot To Fcoe Target: One Time Disabled

Fabric Discovery Timeout: 5

Fcoe Hba Boot Mode: Disabled

Link Up Delay Time: 10

Lun Busy Retry Count: 9

Target As First HDD: Disabled

Message: Success

Set FCoE Boot Configuration General Parameters

The `port fcoebootcfg setgenparams` command saves user-provided FCoE general parameter data for the specified Marvell Adapter (3400/8400 Series adapter) port in a temporary cache file. The cache file is used by the `set` command to save settings in the flash.

```
~# esxcli qlfastling qcc port fcoebootcfg setgenparams
```

Syntax

```
esxcli qlfastling qcc port fcoebootcfg setgenparams [cmd options]
```

Keywords

```
-o|--boot-to-fcoe-target <str> = Boot to FCoE target
-d|--fabric-discovery-timeout <long> = Fabric discovery timeout
-m|--fcoe-hba-boot-mode <str> = FCoE HBA boot mode
-i|--identifier <str> = Port identifier (required)
-u|--link-up-delay-time <long> = Link up delay time
-r|--lun-busy-retry-count <long> = LUN busy retry count
-f|--target-as-first-hdd <str> = Target as first HDD
```

<u>Parameter</u>	<u>Value (strings are case-sensitive)</u>
identifier	Port identifier from the port <code>list</code> command
boot-to-fcoe-target	Enabled, Disabled, OneTimeDisabled
fcoe-hba-boot-mode	Enabled, Disabled
target-as-first-hdd	Enabled, Disabled
fabric-discovery-timeout	Integer value (1-8)
link-up-delay-time	Integer value (0-255)
lun-busy-retry-count	Integer value (0-60)

Example

The following example shows the `port fcoebootcfg setgenparams` command on a local host:

```
~# esxcli qlfastling qcc port fcoebootcfg setgenparams -i
Port_27_0_0 -r 20
```

The following example shows the `port fcoebootcfg setgenparams` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc port  
fcoebootcfg setgenparams -i Port_27_0_0 -r 20
```

The output for both commands is:

FCoE Boot Configuration:

FCOEBoot Info:

Boot Targets:

Boot LUN: 1

Connect: Enabled

Port WWN: 50-01-00-0E-0F-0A-0B-0C

Target Number: 0

Boot LUN: 3

Connect: Enabled

Port WWN: 20-01-00-0E-0A-04-0B-06

Target Number: 1

.

.

.

Boot LUN: 0

Connect: Disabled

Port WWN: 00-00-00-00-00-00-00-00

Target Number: 6

Boot LUN: 0

Connect: Disabled

Port WWN: 00-00-00-00-00-00-00-00

Target Number: 7

General Parameters:

Boot To Fcoe Target: One Time Disabled

Fabric Discovery Timeout: 5

Fcoe Hba Boot Mode: Disabled

Link Up Delay Time: 10

Lun Busy Retry Count: 20

Target As First HDD: Disabled

Message: Success

The output displayed is combination of existing settings and user modified settings saved in the cache file. Same data is present in cache file.

Set FCoE Boot Configuration Target Parameters

The `port fcoebootcfg settgtparams` command saves user-provided FCoE target parameters data for a specified Marvell Adapter port in a temporary cache file. This cache file will be used by the `set` command to save the settings in the flash.

```
~# esxcli qlfastling qcc port fcoebootcfg settgtparams
```

Syntax

```
esxcli qlfastling qcc port fcoebootcfg settgtparams [cmd options]
```

Keywords

```
-l|--boot-lun <long> = Link up delay time  
-c|--connect <str> = Connect  
-i|--identifier <str> = Port identifier (required)  
-p|--port-wwn <str> = Hyphen-separated port WWN (for example,  
20-01-0E-0A-04-06-0E-0B)  
-n|--target-number <long> = Target number (required)
```

<u>Parameter</u>	<u>Value (strings are case-sensitive)</u>
identifier	Port identifier from the <code>port list</code> command
target-number	Target number whose parameter to be set (0-7)
connect	Enabled, Disabled
port-wwn	Hyphen-separated port WWN (for example, 20-01-0E-0A-04-06-0E-0B)
boot-lun	Boot LUN (0-65535)

Example

The following example shows the `port fcoebootcfg settgtparams` command on a local host:

```
~# esxcli qlfastling qcc port fcoebootcfg settgtparams -i  
Port_27_0_0 -n 1 -l 4
```

The following example shows the `port fcoebootcfg settgtparams` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc port  
fcoebootcfg settgtparams -i Port_27_0_0 -n 1 -l 4
```

The output for both commands is:

```
FCoE Boot Configuration:  
FCOEBoot Info:
```

```
Boot Targets:
Boot LUN: 1
Connect: Enabled
Port WWN: 50-01-00-0E-0F-0A-0B-0C
Target Number: 0

Boot LUN: 4
Connect: Enabled
Port WWN: 20-01-00-0E-0A-04-0B-06
Target Number: 1

.
.
.

Boot LUN: 0
Connect: Disabled
Port WWN: 00-00-00-00-00-00-00-00
Target Number: 7
General Parameters:
Boot To Fcoe Target: One Time Disabled
Fabric Discovery Timeout: 5
Fcoe Hba Boot Mode: Disabled
Link Up Delay Time: 10
Lun Busy Retry Count: 20
Target As First HDD: Disabled
Message: Success
```

The output shown is combination of existing settings and user-modified settings saved in the cache file. The same data is present in the cache file.

Set FCoE Boot Configuration

To import user-provided FCoE boot configuration data for the specified Marvell Adapter (3400/8400 Series Adapter) from a temporary cache file to the flash, issue the `fcoebootcfg set` command as follows:

```
~# esxcli qlfastling qcc port fcoebootcfg set
```

This command fails if the cache file is not present. On successful completion of the `set` command, the cache file is deleted.

Syntax

```
esxcli qlfastling qcc port fcoebootcfg set [cmd options]
```

Keywords

`-i|--identifier <str>` = Port identifier (required). Obtain the identifier from the port list output

Example

The following example shows the `port fcoebootcfg set` command on a local host:

```
~# esxcli qlfastling qcc port fcoebootcfg set -i Port_27_0_0
```

The following example shows the `port fcoebootcfg set` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc port fcoebootcfg set -i Port_27_0_0
```

The output for both commands is:

FCoE Boot Configuration:

FCOEBoot Info:

Boot Targets:

Boot LUN: 1

Connect: Enabled

Port WWN: 50-01-00-0E-0F-0A-0B-0C

Target Number: 0

Boot LUN: 4

Connect: Enabled

Port WWN: 20-01-00-0E-0A-04-0B-06

Target Number: 1

.
. .
. .

Boot LUN: 0

Connect: Disabled

Port WWN: 00-00-00-00-00-00-00-00

Target Number: 7

General Parameters:

Boot To Fcoe Target: One Time Disabled

Fabric Discovery Timeout: 5

Fcoe Hba Boot Mode: Disabled

Link Up Delay Time: 10

Lun Busy Retry Count: 20

```
Target As First HDD: Disabled
Message: Success
Reboot Required: true
```

The output displayed is new setting, which will be active after reboot if the command is successful.

Adapter Port FCoE Boot Configuration (41000/45000 Series)

The `port fcoebootcfg579xx` command performs FCoE boot configuration operations on 41000/45000 Series Adapters. For FCoE boot configuration on 3400/8400 Series Adapters, see [Adapter Port FCoE Boot Configuration \(2400, 2500, 2600, and 2700 Series Fibre Channel Adapters 41000, and 45000 Series Converged Network Adapters\)](#).

```
~# esxcli qlfastling qcc port fcoebootcfg579xx
```

Syntax

```
esxcli qlfastling qcc port fcoebootcfg579xx {cmd} [cmd options]
```

Available Commands

`get`

Shows FCoE boot configuration information for the specified Marvell Adapter (41000/45000 Series) port. See [Get FCoE Boot Configuration](#).

`setgenparams`

Saves FCoE boot configuration general parameters for the specified Marvell Adapter (41000/45000 Series) port in a file. See [Set FCoE Boot Configuration General Parameters](#).

`settgtparams`

Saves FCoE boot configuration target parameters for the specified Marvell Adapter (41000/45000 Series) port in a file. See [Set FCoE Boot Configuration Target Parameters](#).

`set`

Imports FCoE boot configuration information for the specified Marvell Adapter (41000/45000 Series) port. See [Set FCoE Boot Configuration](#).

Get FCoE Boot Configuration

To view FCoE boot configuration data for the specified Marvell Adapter (41000/45000 Series) port, issue the `port fcoebootcfg579xx get` command as follows:

```
~# esxcli qlfastling qcc port fcoebootcfg579xx get
```

Syntax

```
esxcli qlfastling qcc port fcoebootcfg579xx get [cmd options]
```

Keywords

`-i|--identifier <str>` = Adapter identifier (required). Obtain the identifier from the `adapter port list output`

Example

The following example shows the `port fcoebootcfg579xx get` command on a local host:

```
~# esxcli qlfastlinq qcc port fcoebootcfg579xx get -i Port_17_0_0
```

The following example shows the `port fcoebootcfg579xx get` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastlinq qcc port fcoebootcfg579xx get -i Port_17_0_0
```

The output for both commands is:

```
FCoE Boot Configuration:
  FCoEBoot Info:
    Boot Targets:
      Boot LUN: 0
      Connect: Disabled
      Port WWN: 00-00-00-00-00-00-00-00
      Target Number: 0

      Boot LUN: 0
      Connect: Disabled
      Port WWN: 00-00-00-00-00-00-00-00
      Target Number: 1
    .
    .
    .

      Boot LUN: 0
      Connect: Disabled
      Port WWN: 00-00-00-00-00-00-00-00
      Target Number: 7
      General Parameters:
        Boot Protocol: None
        Fabric Login Retry Count: 5
        Fip Vlan: 0
        Target Login Retry Count: 5
      Message: Success
```

Set FCoE Boot Configuration General Parameters

The `port fcoebootcfg579xx setgenparams` command saves user-provided FCoE general parameter data for the specified Marvell Adapter (41000/45000 Series Adapter) port in a temporary cache file. The cache file is used by the `set` command to save settings in the flash.

```
~# esxcli qlfastling qcc port fcoebootcfg579xx setgenparams
```

Syntax

```
esxcli qlfastling qcc port fcoebootcfg579xx setgenparams [cmd  
options]
```

Keywords

```
-o|--boot-protocol <str> = Boot protocol  
-f|--fabric-login-retry-count <long> = Fabric login retry count  
-v|--fip-vlan <long> = FIP VLAN  
-i|--identifier <str> = Port identifier (required)  
-r|--target-login-retry-count <long> = Target login retry count
```

<u>Parameter</u>	<u>Value (strings are case-sensitive)</u>
identifier	Port identifier from the <code>port list</code> command
boot-protocol	FCOE, None
fabric-login-retry-count	Integer value (0-7)
target-login-retry-count	Integer value (0-255)
fip-vlan	Integer value (0-4094)

Example

The following example shows the `port fcoebootcfg579xx setgenparams` command on a local host:

```
~# esxcli qlfastling qcc port fcoebootcfg579xx setgenparams -i  
Port_17_0_0 -v 4
```

The following example shows the `port fcoebootcfg579xx setgenparams` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc port  
fcoebootcfg579xx setgenparams -i Port_17_0_0 -v 4
```

The output for both commands is:

```
FCoE Boot Configuration:  
FCOEBoot Info:
```

```
Boot Targets:
Boot LUN: 0
Connect: Disabled
Port WWN: 00-00-00-00-00-00-00-00
Target Number: 0

Boot LUN: 0
Connect: Disabled
Port WWN: 00-00-00-00-00-00-00-00
Target Number: 1

Boot LUN: 0
Connect: Disabled
Port WWN: 00-00-00-00-00-00-00-00
Target Number: 7
General Parameters:
Boot Protocol: None
Fabric Login Retry Count: 5
Fip Vlan: 4
Target Login Retry Count: 5
Message: Success
```

The command output includes a combination of existing settings and user-modified settings saved in the cache file.

Set FCoE Boot Configuration Target Parameters

The `port fcoebootcfg579xx settgtparams` command sets user-provided FCoE target parameters data for a specified Marvell Adapter port in a temporary cache file. This cache file will be used by the `set` command to save the settings in the flash.

```
~# esxcli qlfastling qcc port fcoebootcfg579xx settgtparams
```

Syntax

```
esxcli qlfastling qcc port fcoebootcfg579xx settgtparams [cmd
options]
```

Keywords

```
-l|--boot-lun <long> = Boot LUN
-c|--connect <str> = Connect
-i|--identifier <str> = Port identifier (required)
```

`-p|--port-wwn <str>` = Hyphen-separated port WWN (for example,
 20-01-0E-0A-04-06-0E-0B)
`-n|--target-number <long>` = Target number (required)

<u>Parameter</u>	<u>Value (strings are case-sensitive)</u>
identifier	Port identifier from the <code>port list</code> command
target-number	Target number whose parameter to be set (0-7)
connect	Enabled, Disabled
port-wwn	Hyphen-separated port WWN (for example, 20-01-0E-0A-04-06-0E-0B)
boot-lun	Boot LUN (0-65535)

Example

The following example shows the `port fcoebootcfg579xx settgtparams` command on a local host:

```
~# esxcli qlfastling qcc port fcoebootcfg579xx settgtparams -i
Port_17_0_0 -n 0 -c Enabled
```

The following example shows the `port fcoebootcfg579xx settgtparams` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc port
fcoebootcfg579xx settgtparams -i Port_17_0_0 -n 0 -c Enabled
```

The output for both commands is:

```
FCoE Boot Configuration:
  FCoEBoot Info:
    Boot Targets:
      Boot LUN: 0
      Connect: Enabled
      Port WWN: 00-00-00-00-00-00-00-00
      Target Number: 0

      Boot LUN: 0
      Connect: Disabled
      Port WWN: 00-00-00-00-00-00-00-00
      Target Number: 1

    .
    .
    .
```

```
Boot LUN: 0
Connect: Disabled
Port WWN: 00-00-00-00-00-00-00-00
Target Number: 7
General Parameters:
Boot Protocol: None
Fabric Login Retry Count: 5
Fip Vlan: 4
Target Login Retry Count: 5
Message: Success
```

The output shows a combination of existing settings and user-modified settings saved in the cache file.

Set FCoE Boot Configuration

To import user-provided FCoE boot configuration data for the specified Marvell Adapter (41000/45000 Series Adapter) from a temporary cache file to the flash, issue the `port fcoebootcfg set` command as follows:

```
~# esxcli qlfastling qcc port fcoebootcfg579xx set
```

This command fails if the cache file is not present. On successful completion of the `set` command, the cache file is deleted.

Syntax

```
esxcli qlfastling qcc port fcoebootcfg579xx set [cmd options]
```

Keywords

`-i|--identifier <str>` = Port identifier (required). Obtain the identifier from the port `list` output

Example

The following example shows the `port fcoebootcfg579xx set` command on a local host:

```
~# esxcli qlfastling qcc port fcoebootcfg579xx set -i Port_17_0_0
```

The following example shows the `port fcoebootcfg579xx set` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc port fcoebootcfg579xx set -i Port_17_0_0
```

The output for both commands is:

```
FCoE Boot Configuration:
FCOEBoot Info:
```

```
Boot Targets:
Boot LUN: 0
Connect: Enabled
Port WWN: 00-00-00-00-00-00-00-00
Target Number: 0

Boot LUN: 0
Connect: Disabled
Port WWN: 00-00-00-00-00-00-00-00
Target Number: 1

.
.
.

Boot LUN: 0
Connect: Disabled
Port WWN: 00-00-00-00-00-00-00-00
Target Number: 7
General Parameters:
Boot Protocol: None
Fabric Login Retry Count: 5
Fip Vlan: 4
Target Login Retry Count: 5
Message: Success
Reboot Required: true
```

The output displayed is new setting, which will be active after reboot if command is successful.

Adapter Port iSCSI Boot Configuration (3400/8400 Series)

The following command performs iSCSI boot configuration operations on 3400/8400 Series adapters:

```
~# esxcli qlfastling qcc port iscsibootcfg
```

Syntax

```
esxcli qlfastling qcc port iscsibootcfg {cmd} [cmd options]
```

Available Commands

get

Shows iSCSI boot configuration information for a specified Marvell Adapter (3400/8400 Series) port. See [Get iSCSI Boot Configuration](#).

`setgenparams`

Saves iSCSI boot configuration general parameters for a specified Marvell Adapter (3400/8400 Series) port in a file. See [Set iSCSI Boot Configuration General Parameters](#).

`setinitparams`

Saves iSCSI boot configuration initiator parameters for a specified Marvell Adapter (3400/8400 Series) port in a file. See [Set iSCSI Boot Configuration Initiator Parameters](#).

`settgtparams`

Saves iSCSI boot configuration target parameters for a specified Marvell Adapter (3400/8400 Series) port in a file. See [Set iSCSI Boot Configuration Target Parameters](#).

`setmpioparams`

Saves iSCSI boot configuration MPIO parameters for a specified Marvell Adapter (3400/8400 Series) port in a file. See [Set iSCSI Boot Configuration MPIO Parameters](#).

`set`

Imports iSCSI boot configuration information for a specified Marvell Adapter (3400/8400 Series) port. See [Set iSCSI Boot Configuration](#).

Get iSCSI Boot Configuration

To show iSCSI boot configuration information for a specified Marvell Adapter (3400/8400 Series) port, issue the following command:

```
~# esxcli qlfastling qcc port iscsibootcfg get
```

Syntax

```
esxcli qlfastling qcc port iscsibootcfg get [cmd options]
```

Keywords

`-i|--identifier <str>` = Port identifier (required). Obtain the identifier from the port `list` output.

Example

The following example shows the `port iscsibootcfg get` command on a local host:

```
~# esxcli qlfastling qcc port iscsibootcfg get -i Port_27_0_0
```

The following example shows the `port iscsibootcfg get` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc port iscsibootcfg get -i Port_27_0_0
```

The output for both commands is:

iSCSI Boot Configuration:

ISCSIBoot Info:

Boot Targets:

Connect: Enabled

Target Boot LUN: 5

Target Chap Id:

Target Chap Secret:

Target IPAddress: 192.168.100.227

Target Iscsi Name:

Target Number: 0

Target Tcp Port: 3260

Connect: Disabled

Target Boot LUN: 0

Target Chap Id:

Target Chap Secret:

Target IPAddress: 0.0.0.0

Target Iscsi Name:

Target Number: 1

Target Tcp Port: 0

General Parameters:

Boot To Iscsi Target: Enabled

Chap Authentication: Disabled

Dhcp Vendor Id: BCM

Hba Boot Mode: Disabled

Ip Version: IPv4

Iscsi Parameters Via DHCP: Disabled

Link Up Delay Time: 0

Lun Busy Retry Count: 0

Target As First HDD: Disabled

Tcp Ip Parameters Via DHCP: Enabled

Use Tcp Timestamp: Disabled

Initiator Parameters:

Default Gateway: 0.0.0.0

Initiator Chap Id:

Initiator Chap Secret:

Initiator IPAddress: 192.168.100.225

Initiator Iscsi Name: iqn.1995-05.com.broadcom.iscsiboot

Primary DNS: 0.0.0.0

```

Secondary DNS: 0.0.0.0
Subnet Mask: 0.0.0.0
Mpio Parameters:
MACAddress: 00:00:00:00:00:00
Mpio Mode: Enabled
Use Independent Target Name: Disabled
Use Independent Target Portal: Enabled
Message: Success

```

Set iSCSI Boot Configuration General Parameters

To save user-provided iSCSI boot configuration general parameters information for a specified Marvell Adapter (3400/8400 Series) port to a temporary cache file, issue the following command:

```
~# esxcli qlfastling qcc port iscsibootcfg setgenparams
```

Syntax

```
esxcli qlfastling qcc port iscsibootcfg setgenparams [cmd options]
```

Keywords

```

-o|--boot-to-iscsi-target <str> = Boot to iSCSI target
-a|--chap-authentication <str> = CHAP authentication
-d|--dhcp-vendor-id <str> = DHCP vendor ID
-m|--hba-boot-mode <str> = HBA boot mode
-i|--identifier <str> = Port identifier (required)
-v|--ip-version <str> = IP version
-s|--iscsi-via-dhcp <str> = iSCSI parameters via DHCP
-u|--link-up-delay-time <long> = Link up delay time
-r|--lun-busy-retry-count <long> = LUN busy retry count
-f|--target-as-first-hdd <str> = Target as first HDD
-c|--tcpip-via-dhcp <str> = TCP/IP parameters via DHCP
-e|--use-tcp-timestamp <str> = Use TCP timestamp

```

Parameter

Value (strings are case-sensitive)

identifier	Port identifier from the port list command
boot-to-iscsi-target	Target number whose parameter to be set (0-7)
connect	Enabled, Disabled, OneTimeDisabled

<u>Parameter</u>	<u>Value (strings are case-sensitive)</u>
chap-authentication	Enabled, Disabled
hba-boot-mode	Enabled, Disabled
iscsi-via-dhcp	Enabled, Disabled
target-as-first-hdd	Enabled, Disabled
tcpip-via-dhcp	Enabled, Disabled
use-tcp-timestamp	Enabled, Disabled
dhcp-vendor-id	String value
ip-version	IPv4, IPv6
link-up-delay-time	Integer value (0-255)
lun-busy-retry-count	Integer value (0-60)

Example

The following example shows the `port iscsibootcfg setgenparams` command on a local host:

```
~# esxcli qlfastling qcc port iscsibootcfg setgenparams -i  
Port_27_0_0 -u 55
```

The following example shows the `port iscsibootcfg setgenparams` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc port  
iscsibootcfg setgenparams -i Port_27_0_0 -u 55
```

The output for both commands is:

```
iSCSI Boot Configuration:  
  ISCSIBoot Info:  
    Boot Targets:  
    Connect: Enabled  
    Target Boot LUN: 5  
    Target Chap Id:  
    Target Chap Secret:  
    Target IPAddress: 192.168.100.227  
    Target Iscsi Name:  
    Target Number: 0  
    Target Tcp Port: 3260  
  
    Connect: Disabled  
    Target Boot LUN: 0  
    Target Chap Id:
```

```
Target Chap Secret:
Target IPAddress: 0.0.0.0
Target Iscsi Name:
Target Number: 1
Target Tcp Port: 0
General Parameters:
Boot To Iscsi Target: Enabled
Chap Authentication: Disabled
Dhcp Vendor Id: BCM
Hba Boot Mode: Disabled
Ip Version: IPv4
Iscsi Parameters Via DHCP: Disabled
Link Up Delay Time: 55
Lun Busy Retry Count: 0
Target As First HDD: Disabled
Tcp Ip Parameters Via DHCP: Enabled
Use Tcp Timestamp: Disabled
Initiator Parameters:
Default Gateway: 0.0.0.0
Initiator Chap Id:
Initiator Chap Secret:
Initiator IPAddress: 192.168.100.225
Initiator Iscsi Name: iqn.1995-05.com.broadcom.iscsiboot
Primary DNS: 0.0.0.0
Secondary DNS: 0.0.0.0
Subnet Mask: 0.0.0.0
Mpio Parameters:
MACAddress: 00:00:00:00:00:00
Mpio Mode: Enabled
Use Independent Target Name: Disabled
Use Independent Target Portal: Enabled
Message: Success
```

The command output contains a combination of existing settings and the user-modified settings saved in the cache file.

Set iSCSI Boot Configuration Initiator Parameters

To save user-provided iSCSI boot configuration initiator parameters information for a specified Marvell Adapter (3400/8400 Series) port to a temporary cache file, issue the following command:

```
~# esxcli qlfastling qcc port iscsibootcfg setinitparams
```

Syntax

```
esxcli qlfastling qcc port iscsibootcfg setinitparams [cmd  
options]
```

Keywords

```
-c|--chap-id <str> = Initiator CHAP ID  
-w|--chap-secret <str> = Initiator CHAP secret  
-g|--default-gateway <str> = Initiator gateway address a  
-i|--identifier <str> = Port identifier (required)  
-a|--ip-address <str> = Initiator IP address a  
-q|--iscsi-name <str> = Initiator iSCSI name  
-p|--primary-dns <str> = Primary DNS address a  
-d|--secondary-dns <str> = Secondary DNS address a  
-m|--subnet-mask <str> = Initiator subnet mask address a
```

^a Addresses can contain either periods (.) or colons (:) to separate segments.

<u>Parameter</u>	<u>Value (strings are case-sensitive)</u>
identifier	Port identifier from the port list command
chap-id	CHAP ID string
chap-secret	CHAP password string
ip-address	Initiator IP address ^a
subnet-mask	Initiator subnet mask ^a
default-gateway	Initiator default gateway ^a
iscsi-name	Initiator iSCSI qualified name (IQN)
primary-dns	Primary DNS address ^a
secondary-dns	Secondary DNS address ^a

^a Addresses can contain either periods (.) or colons (:) to separate segments.

Example

The following example shows the port iscsibootcfg setinitparams command on a local host:

```
~# esxcli qlfastling qcc port iscsibootcfg setinitparams -i  
Port_27_0_0 -a 192.168.100.225
```

The following example shows the `port iscsibootcfg setinitparams` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc port  
iscsibootcfg setinitparams -i Port_27_0_0 -a 192.168.100.225
```

The output for both commands is:

iSCSI Boot Configuration:

ISCSIBoot Info:

Boot Targets:

Connect: Enabled

Target Boot LUN: 5

Target Chap Id:

Target Chap Secret:

Target IPAddress: 192.168.100.227

Target Iscsi Name:

Target Number: 0

Target Tcp Port: 3260

Connect: Disabled

Target Boot LUN: 0

Target Chap Id:

Target Chap Secret:

Target IPAddress: 0.0.0.0

Target Iscsi Name:

Target Number: 1

Target Tcp Port: 0

General Parameters:

Boot To Iscsi Target: Enabled

Chap Authentication: Disabled

Dhcp Vendor Id: BCM

Hba Boot Mode: Disabled

Ip Version: IPv4

Iscsi Parameters Via DHCP: Disabled

Link Up Delay Time: 55

Lun Busy Retry Count: 0

Target As First HDD: Disabled

Tcp Ip Parameters Via DHCP: Enabled

Use Tcp Timestamp: Disabled

Initiator Parameters:

Default Gateway: 0.0.0.0

```
Initiator Chap Id:
Initiator Chap Secret:
Initiator IPAddress: 192.168.100.225
Initiator Iscsi Name: iqn.1995-05.com.broadcom.iscsiboot
Primary DNS: 0.0.0.0
Secondary DNS: 0.0.0.0
Subnet Mask: 0.0.0.0
Mpio Parameters:
MACAddress: 00:00:00:00:00:00
Mpio Mode: Enabled
Use Independent Target Name: Disabled
Use Independent Target Portal: Enabled
Message: Success
```

The command output is a combination of existing settings and user-modified settings saved in the cache file.

Set iSCSI Boot Configuration Target Parameters

To save user-provided iSCSI boot configuration target parameters information for a specified Marvell Adapter (3400/8400 Series) port to a temporary cache file, issue the following command:

```
~# esxcli qlfastlinq qcc port iscsibootcfg settgtparams
```

Syntax

```
esxcli qlfastlinq qcc port iscsibootcfg settgtparams [cmd options]
```

Keywords

```
-l|--boot-lun <long> = Boot LUN
-d|--chap-id <str> = Target CHAP ID
-w|--chap-secret <str> = Target CHAP secret
-c|--connect <str> = Connect
-i|--identifier <str> = Port identifier (required)
-a|--ip-address <str> = Target IP address a
-q|--iscsi-name <str> = Target iSCSI name
-n|--target-number <long> = Target number (required)
-p|--tcp-port <long> = TCP port
```

^a Addresses can contain either periods (.) or colons (:) to separate segments.

<u>Parameter</u>	<u>Value (strings are case-sensitive)</u>
identifier	Port identifier from the <code>port list</code> command
chap-id	Target CHAP IP string
chap-secret	Target CHAP password string
ip-address	Target IP address ^a
iscsi-name	Target IQN string
target-number	Target number whose parameter to be set (0-1)
connect	Enabled, Disabled
boot-lun	Boot LUN (0-65535)

^a Addresses can contain either periods (.) or colons (:) to separate segments.

NOTE

To set target parameters, the target *must* be enabled (`connect=Enabled`).

Example

The following example shows the `port iscsibootcfg settgtparams` command on a local host:

```
~# esxcli qlfastling qcc port iscsibootcfg settgtparams -i  
Port_27_0_0 -n 1 -c Enabled
```

The following example shows the `port iscsibootcfg settgtparams` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc port  
iscsibootcfg settgtparams -i Port_27_0_0 -n1 -c Enabled
```

The output for both commands is:

```
iSCSI Boot Configuration:  
  ISCSIBoot Info:  
    Boot Targets:  
    Connect: Enabled  
    Target Boot LUN: 5  
    Target Chap Id:  
    Target Chap Secret:  
    Target IPAddress: 192.168.100.227  
    Target Iscsi Name:  
    Target Number: 0
```

```
Target Tcp Port: 3260

Connect: Enabled
Target Boot LUN: 0
Target Chap Id:
Target Chap Secret:
Target IPAddress: 0.0.0.0
Target Iscsi Name:
Target Number: 1
Target Tcp Port: 3260
General Parameters:
Boot To Iscsi Target: Enabled
Chap Authentication: Disabled
Dhcp Vendor Id: BCM
Hba Boot Mode: Disabled
Ip Version: IPv4
Iscsi Parameters Via DHCP: Disabled
Link Up Delay Time: 55
Lun Busy Retry Count: 0
Target As First HDD: Disabled
Tcp Ip Parameters Via DHCP: Enabled
Use Tcp Timestamp: Disabled
Initiator Parameters:
Default Gateway: 0.0.0.0
Initiator Chap Id:
Initiator Chap Secret:
Initiator IPAddress: 192.168.100.225
Initiator Iscsi Name: iqn.1995-05.com.broadcom.iscsiboot
Primary DNS: 0.0.0.0
Secondary DNS: 0.0.0.0
Subnet Mask: 0.0.0.0
Mpio Parameters:
MACAddress: 00:00:00:00:00:00
Mpio Mode: Enabled
Use Independent Target Name: Disabled
Use Independent Target Portal: Enabled

Message: Success
```

The output displayed is combination of existing settings and user modified settings saved in the cache file. The same data is present in the cache file.

Set iSCSI Boot Configuration MPIO Parameters

To save user-provided iSCSI boot configuration MPIO parameters information for a specified Marvell Adapter (3400/8400 Series) port to a temporary cache file, issue the following command:

```
~# esxcli qlfastling qcc port iscsibootcfg setmpioparams
```

Syntax

```
esxcli qlfastling qcc port iscsibootcfg setmpioparams [cmd  
options]
```

Keywords

```
-i|--identifier <str> = Port identifier (required)  
-n|--ind-target-name <str> = Use independent target name  
-p|--ind-target-portal <str> = Use independent target portal  
-a|--mpio-mac-address <str> = MAC address a  
-m|--mpio-mode <str> = MPIO mode
```

^a Address must use colons (:) to separate segments.

Parameter	Value (strings are case-sensitive)
identifier	Port identifier from the port list command
mpio-mode	Enabled, Disabled
ind-target-portal	Enabled, Disabled
ind-target-name	Enabled, Disabled
mpio-mac-address	MPIO MAC address ^a

^a Address must use colons (:) to separate segments.

NOTE

To set MPIO parameters, the MPIO mode *must* be enabled (mpio-mode=Enabled).

Example

The following example shows the port iscsibootcfg setmpioparams command on a local host:

```
~# esxcli qlfastling qcc port iscsibootcfg setmpioparams -i  
Port_27_0_0 -m Enabled
```

The following example shows the `port iscsibootcfg setmpioparams` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastlinq qcc port  
iscsibootcfg setmpioparams -i Port_27_0_0 -m Enabled
```

The output for both commands is:

iSCSI Boot Configuration:

ISCSIBoot Info:

Boot Targets:

Connect: Enabled

Target Boot LUN: 5

Target Chap Id:

Target Chap Secret:

Target IPAddress: 192.168.100.227

Target Iscsi Name:

Target Number: 0

Target Tcp Port: 3260

Connect: Enabled

Target Boot LUN: 0

Target Chap Id:

Target Chap Secret:

Target IPAddress: 0.0.0.0

Target Iscsi Name:

Target Number: 1

Target Tcp Port: 3260

General Parameters:

Boot To Iscsi Target: Enabled

Chap Authentication: Disabled

Dhcp Vendor Id: BCM

Hba Boot Mode: Disabled

Ip Version: IPv4

Iscsi Parameters Via DHCP: Disabled

Link Up Delay Time: 55

Lun Busy Retry Count: 0

Target As First HDD: Disabled

Tcp Ip Parameters Via DHCP: Enabled

Use Tcp Timestamp: Disabled

Initiator Parameters:

Default Gateway: 0.0.0.0

```
Initiator Chap Id:  
Initiator Chap Secret:  
Initiator IPAddress: 192.168.100.225  
Initiator Iscsi Name: iqn.1995-05.com.broadcom.iscsiboot  
Primary DNS: 0.0.0.0  
Secondary DNS: 0.0.0.0  
Subnet Mask: 0.0.0.0  
Mpio Parameters:  
MACAddress: 00:00:00:00:00:00  
Mpio Mode: Enabled  
Use Independent Target Name: Disabled  
Use Independent Target Portal: Enabled  
Message: Success
```

The command output contains a combination of existing settings and user-modified settings saved in the cache file.

Set iSCSI Boot Configuration

To import user-provided iSCSI boot configuration information for a specified Marvell Adapter (3400/8400 Series) port from a temporary cache file to flash, issue the following command:

```
~# esxcli qlfastling qcc port iscsibootcfg set
```

The `iscsibootcfg set` command fails if a cache file is not present. On successful completion of this command, the cache file is deleted.

Syntax

```
esxcli qlfastling qcc port iscsibootcfg set [cmd options]
```

Keywords

`-i|--identifier <str>` = Port identifier (required). Obtain the identifier from the `port list` output.

Example

The following example shows the `port iscsibootcfg set` command on a local host:

```
~# esxcli qlfastling qcc port iscsibootcfg set -i Port_27_0_0
```

The following example shows the `port iscsibootcfg set` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc port  
iscsibootcfg set -i Port_27_0_0
```

The output for both commands is:

iSCSI Boot Configuration:

ISCSIBoot Info:

Boot Targets:

Connect: Enabled

Target Boot LUN: 5

Target Chap Id:

Target Chap Secret:

Target IPAddress: 192.168.100.227

Target Iscsi Name:

Target Number: 0

Target Tcp Port: 3260

Connect: Disabled

Target Boot LUN: 0

Target Chap Id:

Target Chap Secret:

Target IPAddress: 0.0.0.0

Target Iscsi Name:

Target Number: 1

Target Tcp Port: 0

General Parameters:

Boot To Iscsi Target: Enabled

Chap Authentication: Disabled

Dhcp Vendor Id: BCM

Hba Boot Mode: Disabled

Ip Version: IPv4

Iscsi Parameters Via DHCP: Disabled

Link Up Delay Time: 0

Lun Busy Retry Count: 0

Target As First HDD: Disabled

Tcp Ip Parameters Via DHCP: Enabled

Use Tcp Timestamp: Disabled

Initiator Parameters:

Default Gateway: 0.0.0.0

Initiator Chap Id:

Initiator Chap Secret:

Initiator IPAddress: 192.168.100.225

Initiator Iscsi Name: iqn.1995-05.com.broadcom.iscsiboot

Primary DNS: 0.0.0.0

```
Secondary DNS: 0.0.0.0
Subnet Mask: 0.0.0.0
Mpio Parameters:
MACAddress: 00:00:00:00:00:00
Mpio Mode: Enabled
Use Independent Target Name: Disabled
Use Independent Target Portal: Enabled
Message: Success
Reboot Required: true
```

The output shows the new setting, which will be active after reboot if command is successful.

Adapter Port iSCSI Boot Configuration (41000/45000 Series)

The following command performs iSCSI boot configuration operations on 41000/45000 Series adapters:

```
~# esxcli qlfastling qcc port iscsibootcfg579xx
```

Syntax

```
esxcli qlfastling qcc port iscsibootcfg579xx {cmd} [cmd options]
```

Available Commands

get

Shows iSCSI boot configuration information for a specified Marvell Adapter (41000/45000 Series) port. See [Get iSCSI Boot Configuration](#).

setgenparams

Saves iSCSI boot configuration general parameters in a file for a specified Marvell Adapter (41000/45000 Series) port. See [Set iSCSI Boot Configuration General Parameters](#).

setinitparams

Saves iSCSI boot configuration initiator parameters in a file for a specified Marvell Adapter (41000/45000 Series) port. See [Set iSCSI Boot Configuration Initiator Parameters](#).

settgtparams

Saves iSCSI boot configuration target parameters in a file for a specified Marvell Adapter (41000/45000 Series) port. See [Set iSCSI Boot Configuration Target Parameters](#).

set

Imports iSCSI boot configuration information for a specified Marvell Adapter (41000/45000 Series) port. See [Set iSCSI Boot Configuration](#).

Get iSCSI Boot Configuration

To show iSCSI boot configuration information for a specified Marvell Adapter (41000/45000 Series) port, issue the following command:

```
~# esxcli qlfastlinq qcc port iscsibootcfg579xx get
```

Syntax

```
esxcli qlfastlinq qcc port iscsibootcfg579xx get [cmd options]
```

Keywords

`-i|--identifier <str>` = Port identifier (required). Obtain the identifier from the port list output.

Example

The following example shows the `port iscsibootcfg579xx get` command on a local host:

```
~# esxcli qlfastlinq qcc port iscsibootcfg579xx get -i Port_17_0_0
```

The following example shows the `port iscsibootcfg579xx get` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastlinq qcc port iscsibootcfg579xx get -i Port_17_0_0
```

The output for both commands is:

```
iSCSI Boot Configuration:
  ISCSIBoot Info:
    Boot Targets:
      Connect: Enabled
      Target Boot LUN: 0
      Target Chap Id:
      Target Chap Secret:
      Target IPAddress: 0.0.0.0
      Target Iscsi Name:
      Target Number: 0
      Target Tcp Port: 3260

    Connect: Enabled
    Target Boot LUN: 0
    Target Chap Id:
    Target Chap Secret:
    Target IPAddress: 0.0.0.0
    Target Iscsi Name:
```

```
Target Number: 1
Target Tcp Port: 3260
General Parameters:
Address Redirect: Disabled
Boot Mode: Non-Offload
Boot Protocol: None
Chap Authentication: Disabled
Dhcp Request Timeout: 60
Dhcp Vendor Id: QLGC
IPv4Fallback: Disabled
Ip Version: IPv4
Iscsi Parameters Via DHCP: Enabled
Mutual Chap: Disabled
Target Login Timeout: 60
Tcp Ip Parameters Via DHCP: Enabled
Vlan: Enabled
Vlan Id: 5976
Initiator Parameters:
Default Gateway: 0.0.0.0
Initiator Chap Id:
Initiator Chap Secret:
Initiator IPAddress: 0.0.0.0
Initiator Iscsi Name:
iqn.1994-02.com.qlogic.iscsi:fastlingboot
Primary DNS: 0.0.0.0
Secondary DNS: 0.0.0.0
Subnet Mask: 0.0.0.0
Message: Success
```

Set iSCSI Boot Configuration General Parameters

To save user-provided iSCSI boot configuration general parameters information for a specified Marvell Adapter (41000/45000 Series) port to a temporary cache file, issue the following command:

```
~# esxcli qlfastling qcc port iscsibootcfg579xx setgenparams
```

Syntax

```
esxcli qlfastling qcc port iscsibootcfg579xx setgenparams [cmd
options]
```

Keywords

-e|--address-redirect <str> = Address redirect
-m|--boot-mode <str> = Boot mode
-o|--boot-protocol <str> = Boot protocol
-a|--chap-authentication <str> = CHAP authentication
-r|--dhcp-request-timeout <long> = DHCP request timeout
-d|--dhcp-vendor-id <str> = DHCP vendor ID
-i|--identifier <str> = Port identifier (required)
-f|--ipv4-fallback <str> = IPv4 fallback
-v|--ip-version <str> = IP version
-s|--iscsi-via-dhcp <str> = iSCSI parameters via DHCP
-u|--mutual-chap <str> = Mutual CHAP
-g|--target-login-timeout <long> = Target login timeout
-c|--tcpip-via-dhcp <str> = TCP/IP parameters via DHCP
-n|--vlan <str> = VLAN
-l|--vlan-id <long> = VLAN ID

<u>Parameter</u>	<u>Value (strings are case-sensitive)</u>
identifier	Port identifier from the port list command
address-redirect	Enabled, Disabled
chap-authentication	Enabled, Disabled
ipv4-fallback	Enabled, Disabled
iscsi-via-dhcp	Enabled, Disabled
mutual-chap	Enabled, Disabled
tcpip-via-dhcp	Enabled, Disabled
vlan	Enabled, Disabled
boot-mode	Offload, Non-Offload
boot-protocol	iSCSI, None
dhcp-vendor-id	String value

<u>Parameter</u>	<u>Value (strings are case-sensitive)</u>
ip-version	IPv4, IPv6
dhcp-request-timeout	Integer value (0-65535)
target-login-timeout	Integer value (0-65535)
vlan-id	Integer value (0-4094)

Example

The following example shows the `port iscsibootcfg579xx setgenparams` command on a local host:

```
~# esxcli qlfastling qcc port iscsibootcfg579xx setgenparams -i Port_17_0_0 -e Disabled
```

The following example shows the `port iscsibootcfg579xx setgenparams` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc port iscsibootcfg579xx setgenparams -i Port_17_0_0 -e Disabled
```

The output for both commands is:

```
iSCSI Boot Configuration:
  ISCSIBoot Info:
    Boot Targets:
      Connect: Enabled
      Target Boot LUN: 0
      Target Chap Id:
      Target Chap Secret:
      Target IPAddress: 0.0.0.0
      Target Iscsi Name:
      Target Number: 0
      Target Tcp Port: 3260

      Connect: Enabled
      Target Boot LUN: 0
      Target Chap Id:
      Target Chap Secret:
      Target IPAddress: 0.0.0.0
      Target Iscsi Name:
      Target Number: 1
      Target Tcp Port: 3260
    General Parameters:
      Address Redirect: Disabled
```

```
Boot Mode: Non-Offload
Boot Protocol: None
Chap Authentication: Disabled
Dhcp Request Timeout: 60
Dhcp Vendor Id: QLGC
IPv4Fallback: Disabled
Ip Version: IPv4
Iscsi Parameters Via DHCP: Enabled
Mutual Chap: Disabled
Target Login Timeout: 60
Tcp Ip Parameters Via DHCP: Enabled
Vlan: Enabled
Vlan Id: 5976
Initiator Parameters:
Default Gateway: 0.0.0.0
Initiator Chap Id:
Initiator Chap Secret:
Initiator IPAddress: 0.0.0.0
Initiator Iscsi Name:
iqn.1994-02.com.qlogic.iscsi:fastlingboot
Primary DNS: 0.0.0.0
Secondary DNS: 0.0.0.0
Subnet Mask: 0.0.0.0
Message: Success
```

The command output contains a combination of existing settings and user-modified settings saved in the cache file.

Set iSCSI Boot Configuration Initiator Parameters

To export user-provided iSCSI boot configuration initiator parameters information for a specified Marvell Adapter (41000/45000 Series) port from a temporary cache file, issue the following command:

```
~# esxcli qlfastling qcc port iscsibootcfg579xx setinitparams
```

Syntax

```
esxcli qlfastling qcc port iscsibootcfg579xx setinitparams [cmd
options]
```

Keywords

```
-c|--chap-id <str> = Initiator CHAP ID
-w|--chap-secret <str> = Initiator CHAP secret
```

-g|--default-gateway <str> = Initiator gateway address ^a
-i|--identifier <str> = Port identifier (required)
-a|--ip-address <str> = Initiator IP address ^a
-q|--iscsi-name <str> = Initiator iSCSI name
-p|--primary-dns <str> = Primary DNS address ^a
-d|--secondary-dns <str> = Secondary DNS address ^a
-m|--subnet-mask <str> = Initiator subnet mask address ^a

^a Addresses can contain either periods (.) or colons (:) to separate segments.

<u>Parameter</u>	<u>Value (strings are case-sensitive)</u>
identifier	Port identifier from the port list command
chap-id	CHAP ID string
chap-secret	CHAP password string
ip-address	Initiator IP address ^a
subnet-mask	Initiator subnet mask ^a
default-gateway	Initiator default gateway ^a
iscsi-name	Initiator iSCSI qualified name (IQN)
primary-dns	Primary DNS address ^a
secondary-dns	Secondary DNS address ^a

^a Addresses can contain either periods (.) or colons (:) to separate segments.

Example

The following example shows the `port iscsibootcfg579xx setinitparams` command on a local host:

```
~# esxcli qlfastling qcc port iscsibootcfg579xx setinitparams -i Port_17_0_0 -a 192.169.100.224
```

The following example shows the `port iscsibootcfg579xx setinitparams` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc port iscsibootcfg579xx setinitparams -i Port_17_0_0 -a 192.168.100.224
```

The output for both commands is:

```
iSCSI Boot Configuration:
  ISCSIBoot Info:
    Boot Targets:
```

```
Connect: Enabled
Target Boot LUN: 0
Target Chap Id:
Target Chap Secret:
Target IPAddress: 0.0.0.0
Target Iscsi Name:
Target Number: 0
Target Tcp Port: 3260

Connect: Enabled
Target Boot LUN: 0
Target Chap Id:
Target Chap Secret:
Target IPAddress: 0.0.0.0
Target Iscsi Name:
Target Number: 1
Target Tcp Port: 3260
General Parameters:
Address Redirect: Disabled
Boot Mode: Non-Offload
Boot Protocol: None
Chap Authentication: Disabled
Dhcp Request Timeout: 60
Dhcp Vendor Id: QLGC
IPv4Fallback: Disabled
Ip Version: IPv4
Iscsi Parameters Via DHCP: Enabled
Mutual Chap: Disabled
Target Login Timeout: 60
Tcp Ip Parameters Via DHCP: Enabled
Vlan: Enabled
Vlan Id: 5976
Initiator Parameters:
Default Gateway: 0.0.0.0
Initiator Chap Id:
Initiator Chap Secret:
Initiator IPAddress: 192.169.100.224
Initiator Iscsi Name:
iqn.1994-02.com.qlogic.iscsi:fastlinqboot
Primary DNS: 0.0.0.0
```

```
Secondary DNS: 0.0.0.0
Subnet Mask: 0.0.0.0
Message: Success
```

The command output contains a combination of existing settings and user-modified settings saved in the cache file.

Set iSCSI Boot Configuration Target Parameters

To save user-provided iSCSI boot configuration target parameters information for a specified Marvell Adapter (41000/45000 Series) port to a temporary cache, issue the following command:

```
~# esxcli qlfastling qcc port iscsibootcfg579xx settgtparams
```

Syntax

```
esxcli qlfastling qcc port iscsibootcfg579xx settgtparams [cmd
options]
```

Keywords

```
-l|--boot-lun <long> = Boot LUN
-d|--chap-id <str> = Target CHAP ID
-w|--chap-secret <str> = Target CHAP secret
-c|--connect <str> = Connect
-i|--identifier <str> = Port identifier (required)
-a|--ip-address <str> = Target IP address a
-q|--iscsi-name <str> = Target iSCSI name
-n|--target-number <long> = Target number (required)
-p|--tcp-port <long> = TCP port
```

^a Addresses can contain either periods (.) or colons (:) to separate segments.

<u>Parameter</u>	<u>Values (strings are case-sensitive)</u>
identifier	Port identifier from the port list command
chap-id	Target CHAP IP string
chap-secret	Target CHAP password string
ip-address	Target IP address ^a
iscsi-name	Target IQN name string

<u>Parameter</u>	<u>Values (strings are case-sensitive)</u>
target-number	Target number (0-1)
tcp-port	Target TCP Port (0-65535)
connect	Enabled, Disabled
boot-lun	Boot LUN number (0-65535)

^a Addresses can contain either periods (.) or colons (:) to separate segments.

NOTE

To set target parameters, the target *must* be enabled (connect=Enabled).

Example

The following example shows the `port iscsibootcfg579xx settgtparams` command on a local host:

```
~# esxcli qlfastling qcc port iscsibootcfg579xx settgtparams -i  
Port_17_0_0 -c Enabled -n 0
```

The following example shows the `port iscsibootcfg579xx settgtparams` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc port  
iscsibootcfg579xx settgtparams -i Port_17_0_0 -c Enabled -n 0
```

The output for both commands is:

```
iSCSI Boot Configuration:  
  ISCSIBoot Info:  
    Boot Targets:  
    Connect: Enabled  
    Target Boot LUN: 0  
    Target Chap Id:  
    Target Chap Secret:  
    Target IPAddress: 0.0.0.0  
    Target Iscsi Name:  
    Target Number: 0  
    Target Tcp Port: 3260  
  
    Connect: Enabled  
    Target Boot LUN: 0  
    Target Chap Id:  
    Target Chap Secret:
```

```
Target IPAddress: 0.0.0.0
Target Iscsi Name:
Target Number: 1
Target Tcp Port: 3260
General Parameters:
Address Redirect: Disabled
Boot Mode: Non-Offload
Boot Protocol: None
Chap Authentication: Disabled
Dhcp Request Timeout: 60
Dhcp Vendor Id: QLGC
IPv4Fallback: Disabled
Ip Version: IPv4
Iscsi Parameters Via DHCP: Enabled
Mutual Chap: Disabled
Target Login Timeout: 60
Tcp Ip Parameters Via DHCP: Enabled
Vlan: Enabled
Vlan Id: 5976
Initiator Parameters:
Default Gateway: 0.0.0.0
Initiator Chap Id:
Initiator Chap Secret:
Initiator IPAddress: 192.169.100.224
Initiator Iscsi Name:
iqn.1994-02.com.qlogic.iscsi:fastlinqboot
Primary DNS: 0.0.0.0
Secondary DNS: 0.0.0.0
Subnet Mask: 0.0.0.0
Message: Success
```

The command output contains a combination of existing settings and user-modified settings saved in the cache file.

Set iSCSI Boot Configuration

To import user-provided iSCSI boot configuration information for a specified Marvell Adapter (41000/45000 Series) port from a temporary cache file to flash, issue the following command:

```
~# esxcli qlfastlinq qcc port iscsibootcfg579xx set
```

The `set` command fails if the cache file is not present. On successful completion of the command, the cache file is deleted.

Syntax

```
esxcli qlfastling qcc port iscsibootcfg579xx set [cmd options]
```

Keywords

`-i|--identifier <str>` = Port identifier (required). Obtain the identifier from the `port list` command.

Example

The following example shows the `port iscsibootcfg set` command on a local host:

```
~# esxcli qlfastling qcc port iscsibootcfg579xx set -i Port_17_0_0
```

The following example shows the `port iscsibootcfg set` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc port iscsibootcfg set -i Port_27_0_0
```

The output for both commands is:

```
iSCSI Boot Configuration:
```

```
    ISCSIBoot Info:
```

```
        Boot Targets:
```

```
            Connect: Enabled
```

```
            Target Boot LUN: 0
```

```
            Target Chap Id:
```

```
            Target Chap Secret:
```

```
            Target IPAddress: 0.0.0.0
```

```
            Target Iscsi Name:
```

```
            Target Number: 0
```

```
            Target Tcp Port: 3260
```

```
        Connect: Enabled
```

```
        Target Boot LUN: 0
```

```
        Target Chap Id:
```

```
        Target Chap Secret:
```

```
        Target IPAddress: 0.0.0.0
```

```
        Target Iscsi Name:
```

```
        Target Number: 1
```

```
        Target Tcp Port: 3260
```

```
        General Parameters:
```

```
            Address Redirect: Disabled
```

```
            Boot Mode: Non-Offload
```

```
            Boot Protocol: None
```

```
Chap Authentication: Disabled
Dhcp Request Timeout: 60
Dhcp Vendor Id: QLGC
IPv4Fallback: Disabled
Ip Version: IPv4
Iscsi Parameters Via DHCP: Enabled
Mutual Chap: Disabled
Target Login Timeout: 60
Tcp Ip Parameters Via DHCP: Enabled
Vlan: Enabled
Vlan Id: 5976
Initiator Parameters:
Default Gateway: 0.0.0.0
Initiator Chap Id:
Initiator Chap Secret:
Initiator IPAddress: 192.169.100.224
Initiator Iscsi Name:
ign.1994-02.com.qlogic.iscsi:fastlingboot
Primary DNS: 0.0.0.0
Secondary DNS: 0.0.0.0
Subnet Mask: 0.0.0.0
Message: Success
Reboot Required: true
```

The command output shows the new settings, which are active after reboot if command is successful.

Adapter Port MBA Boot Configuration Namespace Commands and Sub-namespaces

Use the commands in this section to perform Multi-Boot Agent (MBA) boot configuration operations on 3400/8400 Series and 41000/45000 Series Adapter ports.

```
~# esxcli qlfastling qcc port mbabootcfg
```

Syntax

```
esxcli qlfastling qcc port mbabootcfg {cmd} [cmd options]
```

Available Commands

get

Shows MBA boot configuration information about the specified Marvell Adapter port. See [Get MBA Boot Configuration](#).

set

Sets MBA boot configuration information about the specified Marvell Adapter port.
See [Set MBA Boot Configuration](#).

Get MBA Boot Configuration

To show MBA boot configuration information for a specified 3400/8400 Series or 41000/45000 Series Adapter port, issue the following command:

```
~# esxcli qlfastling qcc port mbabootcfg get
```

Syntax

```
esxcli qlfastling qcc port mbabootcfg get [cmd options]
```

Keywords

`-i|--identifier <str>` = Port identifier (required). Obtain the identifier from the `port list` command.

Example

The following example shows the `port mbabootcfg get` command on a local host:

```
~# esxcli qlfastling qcc port mbabootcfg get -i Port_17_0_0
```

The following example shows the `port mbabootcfg get` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc port mbabootcfg get -i Port_17_0_0
```

The output for both commands is:

MBA Boot Configuration:

MBABoot Info:

Banner Message Timeout: 15

Boot Protocol: None

Boot Retry Count: 0

Boot Strap Type: Auto

Hide Setup Prompt: Disabled

Link Speed: 40_Gbps

Option ROM: Enabled

Preboot Wakeon LAN: Disabled

Setup Key Stroke: Ctrl-S

VLANMode: Disabled

VLANID: 1

Message: Success

Set MBA Boot Configuration

To configure MBA boot information for a specified 3400/8400 Series or 41000/45000 Series Adapter port, issue the following command:

```
~# esxcli qlfastling qcc port mbabootcfg set
```

Syntax

```
esxcli qlfastling qcc port mbabootcfg set [cmd options]
```

Keywords

```
-n|--banner-msg-timeout <long> = Banner message timeout
    -p|--boot-protocol <str> = Boot protocol
-c|--boot-retry-count <long> = Boot retry count
    -y|--boot-strap-type <str> = Boot strap type
-e|--hide-setup-prompt <str> = Hide setup prompt
    -i|--identifier <str> = Port identifier (required)
    -s|--link-speed <str> = Link speed
    -o|--option-rom <str> = Option ROM
    -w|--pre-boot-wol <str> = Pre-boot wake on LAN
-k|--setup-key-stroke <str> = Setup Key Stroke
    -d|--vlan-id <long> = VLAN ID
    -m|--vlan-mode <str> = VLAN mode
```

Parameter

Values (strings are case-sensitive)

identifier	Port identifier from the port <code>list</code> command
option-rom	Enabled, Disabled
boot-protocol	For 3400/8400 Series adapters: None, PXE, iBFT, iSCSI, FCoE, RPL For 41000/45000 Series adapters: None, PXE, iBFT
boot-strap-type	Int_19h, Int_18h, BBS, Auto
hide-setup-prompt	Enabled, Disabled
setup-key-stroke	Ctrl-B, Ctrl-S
banner-message-timeout	Integer value (1-15)
link-speed	For 3400/8400 Series adapters: 1_Gbps, 10_Gbps For 41000/45000 Series adapters: 10_Gbps, 25_Gbps, 40_Gbps, 50_Gbps, 100_Gbps, Auto_Neg

<u>Parameter</u>	<u>Values (strings are case-sensitive)</u>
pre-boot-wol	Enabled, Disabled
vlan-mode	Enabled, Disabled
vlan-id	Integer value (1-4094)
boot-retry-count	Integer value (1-64)

Example

The following example shows the `port mbabootcfg set` command on a local host:

```
~# esxcli qlfastling qcc port mbabootcfg set -i Port_17_0_0 -n 13
```

The following example shows the `port mbabootcfg set` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc port mbabootcfg set -i Port_17_0_0 -n 13
```

The output for both commands is:

MBA Boot Configuration:

 MBABoot Info:

 Banner Message Timeout: 13
 Boot Protocol: None
 Boot Retry Count: 0
 Boot Strap Type: Auto
 Hide Setup Prompt: Disabled
 Link Speed: 40_Gbps
 Option ROM: Enabled
 Preboot Wakeon LAN: Disabled
 Setup Key Stroke: Ctrl-S
 VLANMode: Disabled
 VLANID: 1

 Message: Success

 Reboot Required: true

The output shows the new settings, which will be active after a reboot if the command is successful.

Adapter Port Diagnostics Namespace Commands and Sub-namespaces

Use the commands in this section to perform diagnostics on 3400/8400 Series and 41000/45000 Series Adapter ports.

```
~# esxcli qlfastling qcc port diag
```

Syntax

```
esxcli qlfastling qcc port diag {cmd} [cmd options]
```

Available Commands

test

Runs diagnostics tests on the identified Marvell Adapter port. See [Run Port Diagnostics Test](#).

Run Port Diagnostics Test

To run port diagnostic tests for a specified Marvell Adapter 3400/8400 Series or 41000/45000 Series port, issue the following command:

```
~# esxcli qlfastling qcc port diag test
```

Syntax

```
esxcli qlfastling qcc port diag test [cmd options]
```

Keywords

-n|--diag-test-name <str> = Diagnostic test command (required)
-i|--identifier <str> = Port identifier (vmnic) (required). Obtain the identifier from the `port list` command output.
-l|--led-interval <long> = LED Interval (for LED test only)
-c|--test-iterations <long> = Number of test iterations (required)

<u>Parameter</u>	<u>Values (strings are case-sensitive)</u>
identifier	Port identifier from port list command
diag-test-name	ControlRegisters, InternalMemory, EEPROM, Interrupt, LoopbackPHY, LoopbackMAC, LED
test-iterations	Integer value (1-255)
led-interval	Integer value (5-100 seconds) (default = 5)

Example

The following example shows the `port diag test` command on a local host:

```
~# esxcli qlfastling qcc port diag test -i Port_17_0_0 -n LED -c 2 -l 10
```

The following example shows the `port diag test` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc port diag test -i Port_17_0_0 -n LED -c 2 -l 10
```

The output for both commands is:

```
Diagnostic Test Result:
  Message: Success
  Test Name: LED
```

Adapter Port DCBX Namespace Commands and Sub-namespaces

The following command performs DCBX operations on 3400/8400 Series and 41000/45000 Series Adapters:

```
~# esxcli qlfastling qcc port dcbx
```

Syntax

```
esxcli qlfastling qcc port dcbx {cmd} [cmd options]
```

Available Commands

`get`

Shows DCBX information for the specified Marvell Adapter port. See [Get DCBX Port Information](#).

Get DCBX Port Information

To show DCBX data for a specified 3400/8400 Series or 41000/45000 Series Adapter port, issue the following command:

```
~# esxcli qlfastling qcc port dcbx get
```

Syntax

```
esxcli qlfastling qcc port dcbx get [cmd options]
```

Keywords

`-i|--identifier <str>` = Port identifier (required). Obtain the identifier from the `port list` command output.

Example

The following example shows the `port dcbx get` command on a local host:

```
~# esxcli qlfastling qcc port dcbx get -i Port_132_0_0
```

The following example shows the `port dcbx get` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc port  
dcbx get -i Port_132_0_0
```

The output for both commands is:

DCBX Information:

Dcbx Info:

```
DCB: Enabled  
Dcb Protocol: Auto  
Dcbx Advanced:  
Local MIB:  
Configuration Mismatch: Disabled  
ETS: Disabled  
Fcoe PGID: NA  
Fcoe PRI: NA  
Iscsi PGID: NA  
Iscsi PRI: NA  
Networking PGID: 0  
Networking PRI: 0  
PFC: Disabled  
PGID_0_BW: 0  
PGID_1_BW: 0  
PGID_2_BW: 0  
PGID_3_BW: 0  
PGID_4_BW: 0  
PGID_5_BW: 0  
PGID_6_BW: 0  
PGID_7_BW: 0  
Pfc Disabled On Priorities: 0 1 2 3 4 5 6 7  
Pfc Enabled On Priorities:  
Remote MIB:  
Remote Application Priority Willing: Enabled  
Remote Ets Recommendation Valid: Disabled  
Remote Ets Willing: Enabled  
Remote Fcoe PGID: NA  
Remote Fcoe PRI: NA
```

```
Remote Iscsi PGID: NA
Remote Iscsi PRI: NA
Remote Networking PGID: 0
Remote PGID_0_BW: 50
Remote PGID_1_BW: 50
Remote PGID_2_BW: 0
Remote PGID_3_BW: 0
Remote PGID_4_BW: 0
Remote PGID_5_BW: 0
Remote PGID_6_BW: 0
Remote PGID_7_BW: 0
Remote Pfc Disabled On Priorities: 0 1 2 4 5 6 7
Remote Pfc Enabled On Priorities: 3
Remote Pfc Willing: Enabled
Enhanced Transmission Selection: Not Operational
Priority Flow Control: Not Operational
Priority Flow Control Values:
Priority Group Bandwidth:
Priority Tagging: Not Operational
Priority Tagging Values:
Priority To Priority Group Mapping:
Message: Success
```

Adapter Port Link Settings (SmartAN) Namespace Commands and Sub-namespaces

The following command performs link setting (Marvell Smart autonegotiation (SmartAN™)) operations on the 41000/45000 Series Adapters:

```
~# esxcli qlfastlinq qcc port linkSettings
```

Syntax

```
esxcli qlfastlinq qcc port linkSettings {cmd} [cmd options]
```

Available Commands

get

Shows link settings (SmartAN) information for the specified Marvell Adapter port. See [Get Port Link Settings Information](#).

set

Configures link settings (SmartAN) information for the specified Marvell Adapter port. See [Set Port Link Settings Information](#).

Get Port Link Settings Information

To view port link settings (SmartAN) for a specified 41000/45000 Series adapter port, issue the following command:

```
~# esxcli qlfastling qcc port linkSettings get
```

Syntax

```
esxcli qlfastling qcc port linkSettings get [cmd options]
```

Keywords

`-i|--identifier <str>` = Port identifier (required). Obtain the identifier from the `port list` command output.

Example

The following example shows the `port linkSettings get` command on a local host:

```
~# esxcli qlfastling qcc port linkSettings get -i Port_13_0_0
```

The following example shows the `port linkSettings get` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc port linkSettings get -i Port_13_0_0
```

The output for both commands is:

```
LinkSettings:
```

```
    Link Settings Info:
```

```
        Current Value: SmartAN
```

```
        Description: SmartAN(TM) Mode
```

```
        Name: SmartAN
```

```
        Supported Values: SmartAN,Advanced_Link_Settings
```

```
    Message: Success
```

The output depends upon the current mode of the port link settings.

Set Port Link Settings Information

To configure port link settings (SmartAN) for a specified 41000/45000 Series Adapter port, issue the following command:

```
~# esxcli qlfastling qcc port linkSettings set
```

Syntax

```
esxcli qlfastling qcc port linkSettings set [cmd options]
```

Keywords

`-i|--identifier <str>` = Port identifier (vmnic) (required). Obtain the identifier from the `port list` command output.

`-n|--name=<str>` = Parameter name (required)

`-v|--value=<str>` = Parameter value from list of supported values provided in the `get` command (required)

Example

The following example shows the `port linkSettings set` command on a local host:

```
~# esxcli qlfastlinq qcc port linkSettings set -i Port_13_0_0 -n SmartAN -v Advanced_Link_Settings
```

The following example shows the `port linkSettings set` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastlinq qcc port linkSettings set -i Port_13_0_0 -n SmartAN -v Advanced_Link_Settings
```

The output for both commands is:

LinkSettings:

Link Settings Info:

Current Value: Advanced_Link_Settings

Description: SmartAN(TM) Mode

Name: SmartAN

Supported Values: SmartAN,Advanced_Link_Settings

Current Value: AutoNeg

Description: NVM Speed

Name: NVM

Supported Values: Unknown,AutoNeg,1G,10G

Current Value: None

Description: FEC An Mode

Name: FECAnMode

Supported Values: None,10G_Firecode,ALL

Message: Success

Reboot Required: true

The new settings will be active after reboot.

The output depends upon current mode of the port link settings.

The `linkSettings` are on a per-port basis for the 41000 Series Adapter. For 45000 Series Adapters, the same settings are written on all ports of the same adapter.

Adapter Port DMI Namespace Commands and Sub-namespaces

The port desktop management interface (DMI) command displays small form-factor pluggable (SFP) DMI information for the 41000/45000 Series SFP-based adapters when optics/DAC is connected. This command is not supported on BASE-T interfaced 41000/45000 Series adapters nor on any 3400 (578xx) Series adapters.

```
~# esxcli qlfastling qcc port dmi
```

Syntax

```
esxcli qlfastling qcc port dmi {cmd} [cmd options]
```

Available Commands

`get`

Shows SFP DMI information for the specified Marvell Adapter port. See [Get Port Link Settings Information](#).

Get Port DMI Information

To view SFP DMI data for the adapters, issue the following command:

```
~# esxcli qlfastling qcc port dmi get
```

Syntax

```
esxcli qlfastling qcc port dmi get [cmd options]
```

Keywords

`-i|--identifier <str>` = Port identifier (required). Obtain the identifier from the `port list` command output.

Example

The following example shows the `port dmi get` command on a local host:

```
~# esxcli qlfastling qcc port dmi get -i Port_8_0_0
```

The following example shows the `port dmi get` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc port dmi get -i Port_8_0_0
```

The output for both commands is:

DMI Information:

 Dmi Info:

 Dmi Data:

Media Information

 Vendor: Amphenol

 Type: 100Gbit/Secor25Gbit/Sec

 Part Number: NDAQGJ-0005

 Speed: 100 Gbit/Sec or 25 Gbit/Sec

 Revision: D

 Serial Number: APF16200057E0V

Optical Transceiver Digital Diagnostic Data:

Address A0

 Identifier: SFP

 Ext Identifier: GBIC/SFP defined by serial ID only

 Connector:

 Ethernet Speed:

 Compliance: 0x00 0x00 0x00

 FC Link Length:

 FC Transmitter Tech: Copper Passive (IR1/IR2) Electrical Intra-Enclosure (EL)

FC Transmission Media:

 FC Speed:

 Encoding:

 BR, Nominal: 0xff

 Length (9um) - km: 0x00

 Length (9um): 0x00

 Length (50um): 0x00

 Length (62.5um): 0x00

 Length (Copper): 0x05

 Vendor name: Amphenol

 Ext Ethernet Speed: 100 Gbit/Sec or 25 Gbit/Sec

 Vendor OUI: 0x78 0xa7 0x14

3-Ethernet CLI Command Extensions

Adapter Port Namespace Commands and Sub-namespaces

```
Vendor PN: NDAQGJ-0005
Vendor rev: D
Wavelength: 0x0100
  CC_BASE: 0x17
  Options:-Signal Loss, as defined in SFP MSA: 0x0
          -Signal Loss, inverted from SFP MSA: 0x0
          -TX_FAULT signal implemented: 0x0
          -TX_DISABLE implemented and disables serial o/p: 0x0
          -RATE_SELECT implemented: 0x0
  BR, max: 0x67
  BR, min: 0x00
Vendor SN: APF16200057E0V
Date code: 160520
Diag Monitoring Type:-Address change required: 0x0
                    -Power Measurement: 0x0
                    -Externally Calibrated: 0x0
                    -Internally Calibrated: 0x0
                    -Digital diag monitoring: 0x0
                    -Legacy diagnostic: 0x0
Enhanced Options:-Soft RATE_SELECT ctrl and monitoring: 0x0
                 -Soft RX_LOS monitoring: 0x0
                 -Soft TX_FAULT monitoring: 0x0
                 -Soft TX_DISABLE ctrl and monitoring: 0x0
                 -Alarm/warning flags: 0x0
SFF-8472 Compliance: Digital diag not included or undefined
  CC_EXT: 0x4c
Vendor Specific: 0x41 0xff 0xff 0xff 0xff 0xff 0xff 0xff
                0xff 0xff 0xff 0xff 0xff 0xff 0xff 0xff
                0xff 0xff 0xff 0xff 0xff 0xff 0xff 0xff
                0xff 0xff 0xff 0xff 0xff 0xff 0xff 0xff
Address A2
  Temp High Alarm: 0x0000
  Temp Low Alarm: 0x0000
  Temp High Warning: 0x0000
  Temp Low Warning: 0x0000
  Voltage High Alarm: 0x0000
  Voltage Low Alarm: 0x0000
  Voltage High Warning: 0x0000
  Voltage Low Warning: 0x0000
```

3-Ethernet CLI Command Extensions

Adapter Port Namespace Commands and Sub-namespaces

```

    Bias High Alarm: 0x0000
    Bias Low Alarm: 0x0000
    Bias High Warning: 0x0000
    Bias Low Warning: 0x0000
TX Signal Power High Alarm: 0x0000
TX Signal Power Low Alarm: 0x0000
TX Signal Power High Warning: 0x0000
TX Signal Power Low Warning: 0x0000
RX Signal Power High Alarm: 0x0000
RX Signal Power Low Alarm: 0x0000
RX Signal Power High Warning: 0x0000
RX Signal Power Low Warning: 0x0000
    Rx_PWR(4): 0x00000000
    Rx_PWR(3): 0x00000000
    Rx_PWR(2): 0x00000000
    Rx_PWR(1): 0x00000000
    Rx_PWR(0): 0x00000000
    Tx_I(Slope): 0x0000
    Tx_I(Offset): 0x0000
    Tx_PWR(Slope): 0x0000
    Tx_PWR(Offset): 0x0000
    T(Slope): 0x0000
    T(Offset): 0x0000
    V(Slope): 0x0000
    V(Offset): 0x0000
    Checksum: 0x00
Temperature MSB: 0x00
Temperature LSB: 0x00
    Vcc MSB: 0x00
    Vcc LSB: 0x00
    TX Bias MSB: 0x00
    TX Bias LSB: 0x00
    TX Power MSB: 0x00
    TX Power LSB: 0x00
    RX Power MSB: 0x00
    RX Power LSB: 0x00
    Reserved MSB: 0x00
    Reserved LSB: 0x00
    Reserved MSB: 0x00
```

3-Ethernet CLI Command Extensions

Adapter Port Namespace Commands and Sub-namespaces

```
Reserved LSB: 0x00
Status/Control Bits:-Data_Ready_Bar: 0x0
                    -LOS: 0x0
                    -TX Fault: 0x0
                    -Soft RX Rate Select: 0x0
                    -RX Rate Select State: 0x0
                    -Soft TX Disable: 0x0
                    -TX Disable State: 0x0
                    -TX Signal Power Low Alarm: 0x0
                    -TX Signal Power High Alarm: 0x0
                    -TX Bias Low Alarm: 0x0
                    -TX Bias High Alarm: 0x0
                    -Vcc Low Alarm: 0x0
                    -Vcc High Alarm: 0x0
                    -Temp Low Alarm: 0x0
                    -Temp High Alarm: 0x0
                    -RX Signal Power Low Alarm: 0x0
                    -RX Signal Power High Alarm: 0x0
                    -TX Signal Power Low Warning: 0x0
                    -TX Signal Power High Warning: 0x0
                    -TX Bias Low Warning: 0x0
                    -TX Bias High Warning: 0x0
                    -Vcc Low Warning: 0x0
                    -Vcc High Warning: 0x0
                    -Temp Low Warning: 0x0
                    -Temp High Warning: 0x0
                    -Reserved Warning: 0x0
                    -Reserved Warning: 0x0
                    -Reserved Warning: 0x0
                    -Reserved Warning: 0x0
                    -Reserved Warning: 0x0
                    -Reserved Warning: 0x0
                    -RX Signal Power Low Warning: 0x0
                    -RX Signal Power High Warning: 0x0
Vendor Specific: 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00
Message: Success
```

Adapter NIC Namespace Commands and Sub-namespaces

To view NIC namespace and sub-namespace commands, issue the following:

```
~# esxcli qlfastlinq qcc nic
```

Syntax

```
esxcli qlfastlinq qcc nic {cmd} [cmd options]
```

Namespaces

Available namespaces include the following:

<u>Namespace</u>	<u>Description</u>
advParams	QCC CLI for NIC advanced parameters
info	QCC CLI for operations on NIC information
stats	QCC CLI for NIC statistics

Available Commands

list

Lists identifiers for the Marvell Adapter NICs discovered on the host. See [List NIC Ports](#).

List NIC Ports

The `nic list` command lists all supported 3400/8400 Series and 41000/45000 Series NIC ports.

Example

The following example shows the `nic list` command on a local host:

```
~# esxcli qlfastlinq qcc nic list
```

The following example shows the `nic list` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastlinq qcc nic list
```

The output for both commands is:

Name	PCI Device	Driver	Link Status	Speed	Duplex	MAC Address	MTU	Description
vmnic8	0000:11:00.0	qedentv	Down	0	Full	00:0E:1E:C4:B2:D5	1500	FastLinQ QL45462H 40GbE Adapter rev10 (vmnic8)
vmnic9	0000:11:00.1	qedentv	Up	40000	Full	00:0E:1E:C4:B2:D6	1500	FastLinQ QL45462H 40GbE Adapter rev 10 (vmnic9)
vmnic4	0000:1b:00.0	bnx2x	Down	0	Half	00:0A:F7:73:74:10	1500	BCM57800 1/10 Gigabit Ethernet rev 10 (vmnic4)
vmnic5	0000:1b:00.1	bnx2x	Down	0	Half	00:0A:F7:73:74:11	1500	BCM57800 1/10 Gigabit Ethernet rev 10 (vmnic5)
vmnic6	0000:1b:00.2	bnx2x	Down	0	Half	00:0A:F7:73:74:12	1500	BCM57800 1/10 Gigabit Ethernet rev 10 (vmnic6)
vmnic7	0000:1b:00.3	bnx2x	Down	0	Half	00:0A:F7:73:74:13	1500	BCM57800 1/10 Gigabit Ethernet rev 10 (vmnic7)

Adapter NIC Information

```
~# esxcli qlfastling qcc nic info
```

Syntax

```
esxcli qlfastling qcc nic info {cmd} [cmd options]
```

Available Commands

get

Shows information about the specified Marvell Adapter NIC function. See [Get NIC Information](#).

Get NIC Information

To view NIC information for the selected NIC device, issue the following command:

```
~# esxcli qlfastling qcc nic info get
```

Syntax

```
esxcli qlfastling qcc nic info get [cmd options]
```

Keywords

`-i|--identifier <str>` = NIC identifier (vmnic) (required). Obtain the identifier from the `nic list` command output.

Example

The following example shows the `nic info get` command on a local host:

```
~# esxcli qlfastling qcc nic info get -i vmnic9
```

The following example shows the `nic info get` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc nic  
info get -i vmnic9
```

The output for both commands is:

NIC Information:

Message: Success

NICInfo:

Driver Date: NA

Driver Name: qedentv

Driver Version: 3.0.6.6

Flow Control: Rx/Tx

Interface: Up

Link Speed In Mbps: 40000

MACAddress: 00:0E:1E:C4:B2:D6

```
MTU: 1500
Permanent MACAddress: 00:0E:1E:C4:B2:D6
```

Adapter NIC Statistics

```
~# esxcli qlfastling qcc nic stats
```

Syntax

```
esxcli qlfastling qcc nic stats {cmd} [cmd options]
```

Available Commands

get

Shows statistics for the specified Marvell Adapter NIC function. [Get NIC Statistics](#).

Get NIC Statistics

To view NIC statistics for the specified Marvell Adapter NIC function, issue the following command:

```
~# esxcli qlfastling qcc nic stats get
```

Syntax

```
esxcli qlfastling qcc nic stats get [cmd options]
```

Keywords

`-i|--identifier <str>` = NIC identifier (vmnic name) (required). Obtain the identifier from the `nic list` command output.

Example

The following example shows the `nic stats get` command on a local host:

```
~# esxcli qlfastling qcc nic stats get -i vmnic9
```

The following example shows the `nic stats get` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc nic
stats get -i vmnic9
```

The output for both commands is:

NIC Statistics:

Message: Success

NICStats:

```
Broadcast Frames Received: 0
Broadcast Frames Transmitted: 0
Carrier Sense Errors: 0
Deferred Transmissions: 0
Directed Frames Received: 0
```

```
Directed Frames Transmitted: 0
Excessive Collisions: 0
Fec Core Error: 0
Fec Mode: 0
Fec Reserved: 0
Fec Uncore Error: 0
Late Collisions: 0
Multicast Frames Received: 0
Multicast Frames Transmitted: 0
Multiple Collision Frames: 0
Octets Received: 16470171
Octets Transmitted: 0
Packets Received: 0
Packets Transmitted: 0
Receive Threshold Hits: 0
Single Collision Frames: 0
Total Receive Errors: 0
Total Transmit Errors: 0
Transmit Threshold Hits: 0
```

Adapter NIC Advanced Parameters Namespace Commands and Sub-namespaces

The following command performs NIC advanced parameters operations on 3400/8400 Series Adapters and 41000/45000 Series Adapters:

```
~# esxcli qlfastling qcc nic advParams
```

Syntax

```
esxcli qlfastling qcc advParams {cmd} [cmd options]
```

Available Commands

get

Shows NIC advanced parameter information for the specified Marvell Adapter port. See [Get NIC Advanced Parameter Information](#).

set

Configures NIC advanced parameter information for the specified Marvell Adapter port. See [Set NIC Advanced Parameter Information](#).

Get NIC Advanced Parameter Information

To view port NIC advanced parameter information for a specified 3400/41000/45000 Series Adapter, issue the following command:

```
~# esxcli qlfastling qcc advParams get
```

Syntax

```
esxcli qlfastling qcc advParams get [cmd options]
```

Keywords

`-i|--identifier <str>` = NIC identifier (vmnic name) (required). Obtain the identifier from the `nic list` command output.

Example

The following example shows the `nic advParams get` command on a local host:

```
~# esxcli qlfastling qcc nic advParams get -i vmnic0
```

The following example shows the `nic advParams get` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc nic  
advParams get -i vmnic0
```

The output for both commands is:

Advanced Params:

Adv Params:

Current Value: Disabled

Default Value: Disabled

Description: RoCE

Name: RoCE

Param Type: String-Enum

String Max Length: NA

Supported Values: Disabled

Current Value: 0

Default Value: 0

Description: RoCE Current MTU

Name: RoCECurrMTU

Param Type: String-Enum

String Max Length: NA

```
Supported Values: 0  
Message: Success
```

The output depends upon number of parameters supported by driver.

Set NIC Advanced Parameter Information

To configure NIC advanced parameters for a specified 3400/8400 Series adapter, issue the following command:

```
~# esxcli qlfastling qcc nic advParams set
```

Syntax

```
esxcli qlfastling qcc nic advParams set [cmd options]
```

Keywords

```
-i|--identifier <str> = NIC identifier (vmnic name) (required). Obtain the identifier  
                        from the nic list command output.  
-n|--name=<str> = Parameter name (required)  
-v|--value=<str> = Parameter value from list of supported values provided in the  
                  get command (required)
```

Example

The following example shows the `nic advParams set` command on a local host:

```
~# esxcli qlfastling qcc nic advParams set -i vmnic14 -n NvmDcbxCfg  
-v Enabled
```

The following example shows the `nic advParams set` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc nic  
advParams set -i vmnic14 -n NvmDcbxCfg -v Enabled
```

The output for both commands is:

```
Advanced Params:  
  Adv Params:  
    Current Value: Disabled  
    Default Value: Enabled  
    Description: Nvm Dcbx Cfg  
    Name: NvmDcbxCfg  
    Param Type: String-Enum  
    String Max Length: NA
```

```
Supported Values: Disabled,Enabled
Message: Success
Reboot Required: true
```

The new settings will be active after reboot.

The current set of NIC advanced parameters for the 41000/45000 Series Adapters are read-only; for the 3400/8400 Series Adapters, they are read/write.

Adapter FCoE Namespace Commands and Sub-namespaces

To view FCoE namespace and sub-namespace commands, issue the following:

```
~# esxcli qlfastling qcc fcoe
```

Syntax

```
esxcli qlfastling qcc fcoe {cmd} [cmd options]
```

Namespaces

Available namespaces include the following:

<u>Namespace</u>	<u>Description</u>
lun	QCC CLI for FCoE LUNs
target	QCC CLI for FCoE targets
vnport	QCC CLI for FCoE virtual N_Port (VN_Port) information
info	QCC CLI for FCoE information

Available Commands

```
list
```

Lists identifiers for the list of Marvell Adapter FCoE ports discovered on the host.
See [List FCoE Ports](#).

List FCoE Ports

To view a list of all supported 3400/8400 Series and 41000/45000 Series FCoE ports, issue the `fcoe list` command.

Example

The following example shows the `fcoe list` command on a local host:

```
~# esxcli qlfastling qcc fcoe list
```

The following example shows the `fcoe list` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc fcoe list
```

The output for both commands is:

```
FCoE
-----
FCoE_10-00-00-0E-1E-C4-C5-EC
FCoE_10-00-00-0E-1E-C4-C5-ED
```

Adapter FCoE Info Namespace Commands and Sub-namespaces

```
~# esxcli qlfastling qcc fcoe info
```

Syntax

```
esxcli qlfastling qcc fcoe info {cmd} [cmd options]
```

Available Commands

get

Shows information about the specified Marvell Adapter FCoE function. See [Get FCoE Information](#).

Get FCoE Information

To view FCoE information for the specified FCoE device, issue the following command:

```
~# esxcli qlfastling qcc fcoe info get
```

Syntax

```
esxcli qlfastling qcc fcoe info get [cmd options]
```

Keywords

`-i|--identifier <str>` = FCoE identifier (required). Obtain the identifier from the `fcoe list` command output.

Example

The following example shows the `fcoe info get` command on a local host:

```
~# esxcli qlfastling qcc fcoe info get -i
FCoE_10-00-00-0E-1E-C4-C5-ED
```

The following example shows the `fcoe info get` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc fcoe
info get -i FCoE_10-00-00-0E-1E-C4-C5-ED
```

The output for both commands is:

```
FCoE Information:
  FCOEInfo:
```

```
Driver Date: Sep 08, 2015
Driver Name: qedf
Driver Version: 1.2.8.8.18130
FCFSelection: First Received
Firmware Version: 08.18.14.00
MACAddress: 00:0E:1E:C4:C5:ED
MTU: 9000
VNPorts: VNPort_20-00-00-0E-1E-C4-C5-ED
WWNN: 10-00-00-0E-1E-C4-C5-ED
WWPN: 20-00-00-0E-1E-C4-C5-ED
Message: Success
```

Adapter FCoE VN_Port Namespace Commands and Sub-namespaces

```
~# esxcli qlfastling qcc fcoe vnport
```

Syntax

```
esxcli qlfastling qcc fcoe vnport {cmd} [cmd options]
```

Namespaces

Available namespaces include the following:

<u>Namespace</u>	<u>Description</u>
info	QCC CLI for FCoE VN_Port information
stats	QCC CLI for FCoE VN_Port statistics

Available Commands

```
list
```

Lists identifiers for the Marvell Adapter FCoE VN_Ports discovered on the host.
See [List VN_Ports](#).

List VN_Ports

The `fcoe vnport list` command lists all of the supported 3400/8400 Series and 41000/45000 Series FCoE VN_Ports.

Example

The following example shows the `fcoe vnport list` command on a local host:

```
~# esxcli qlfastling qcc fcoe vnport list
```

The following example shows the `fcoe vnport list` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc fcoe  
vnport list
```

The output for both commands is:

```
VNPorts  
-----  
VNPort_20-00-00-0E-1E-C4-C5-EC  
VNPort_20-00-00-0E-1E-C4-C5-ED
```

Adapter FCoE VN_Port Info Namespace Commands and Sub-namespaces

```
~# esxcli qlfastling qcc fcoe vnport info
```

Syntax

```
esxcli qlfastling qcc fcoe vnport info {cmd} [cmd options]
```

Available Commands

`get`

Shows information about the specified Marvell Adapter FCoE VN_Port. See [Get FCoE VN_Port Info](#).

Get FCoE VN_Port Info

To view FCoE VN_Port information of the specified FCoE VN_Port device, issue the following command:

```
~# esxcli qlfastling qcc fcoe vnport info get
```

Syntax

```
esxcli qlfastling qcc fcoe vnport info get [cmd options]
```

Keywords

`-i|--identifier <str>` = VN_Port identifier (required). Obtain the identifier from the `fcoe vnport list` command output.

Example

The following example shows the `fcoe vnport info get` command on a local host:

```
~# esxcli qlfastling qcc fcoe vnport info get -i  
VNPort_20-00-00-0E-1E-C4-C5-ED
```

The following example shows the `fcoe vnport info get` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc fcoe  
vnport info get -i VNPort_20-00-00-0E-1E-C4-C5-ED
```

The output for both commands is:

VNPort Information:

Message: Success

VNPort Info:

FCFMACAddress: 28:34:A2:E6:A2:30

Fabric Name: 20-01-00-05-9B-23-D8-01

Fabric Priority: 128

Link Keep Alive Interval: 1669389911

Parent WWPort Name: 20-00-00-0E-1E-C4-C5-ED

Port FCID: 9634208

Port State: Up

Port Type: NPort

Switch Name: 20-01-8C-60-4F-2D-3C-01

Targets:

VNPort_20-00-00-0E-1E-C4-C5-ED_Target_50-0A-09-81-80-0F-06-39

WWNode Name: 10-00-00-0E-1E-C4-C5-ED

WWPort Name: 20-00-00-0E-1E-C4-C5-ED

View FCoE VN_Port Statistics

```
~# esxcli qlfastling qcc fcoe vnport stats
```

Syntax

```
esxcli qlfastling qcc fcoe vnport stats {cmd} [cmd options]
```

Available Commands

get

Shows statistics for the specified Marvell Adapter FCoE VN_Port. See [Get FCoE VN_Port Statistics](#).

Get FCoE VN_Port Statistics

To view statistics for the specified FCoE VN_Port device, issue the following command:

```
~# esxcli qlfastling qcc fcoe vnport stats get
```

Syntax

```
esxcli qlfastling qcc fcoe vnport stats get [cmd options]
```

Keywords

`-i|--identifier <str>` = VN_Port identifier (required). Obtain the identifier from the `fcoe vnport list` command output.

Example

The following example shows the `fcoe vnport stats get` command on a local host:

```
~# esxcli qlfastling qcc fcoe vnport stats get -i  
VNPort_20-00-00-0E-1E-C4-C5-ED
```

The following example shows the `fcoe vnport stats get` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc fcoe  
vnport stats get -i VNPort_20-00-00-0E-1E-C4-C5-ED
```

The output for both commands is:

```
VNPort Statistics:  
  Message: Success  
  VNPort Stats:  
    Fcoe Dropped Frames: 0  
    Fcoe Received Bytes: 440591  
    Fcoe Received Frames: 16243  
    Fcoe Transmitted Bytes: 224075  
    Fcoe Transmitted Frames: 8963  
    Wrong Fcoe Crc Packets: 0
```

Adapter FCoE Target Namespace Commands and Sub-namespaces

```
~# esxcli qlfastling qcc fcoe target
```

Syntax

```
esxcli qlfastling qcc fcoe target {cmd} [cmd options]
```

Namespaces

Available namespaces include the following:

<u>Namespace</u>	<u>Description</u>
info	QCC CLI for FCoE target information

Available Commands

`list`

Lists identifiers for the Marvell Adapter FCoE targets discovered on the host. See [List FCoE Targets](#).

List FCoE Targets

The `fcoe target list` command lists all of the detected FCoE targets on 3400/8400 Series and 41000/45000 Series Adapters.

Example

The following example shows the `fcoe target list` command on a local host:

```
~# esxcli qlfastling qcc fcoe target list
```

The following example shows the `fcoe target list` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc fcoe target list
```

The output for both commands is:

```
Targets
-----
VNPort_20-00-00-0E-1E-C4-C5-ED_Target_50-0A-09-81-80-0F-06-39
```

Adapter FCoE Target Information Namespace Commands and Sub-namespaces

```
~# esxcli qlfastling qcc fcoe target info
```

Syntax

```
esxcli qlfastling qcc fcoe target info {cmd} [cmd options]
```

Available Commands

`get`

Shows information about the specified Marvell Adapter FCoE target. See [Get FCoE Target Information](#).

Get FCoE Target Information

To view FCoE target information for the specified Marvell Adapter FCoE target device, issue the following command:

```
~# esxcli qlfastling qcc fcoe target info get
```

Syntax

```
esxcli qlfastling qcc fcoe target info get [cmd options]
```

Keywords

`-i|--identifier <str>` = Target identifier (required). Obtain the identifier from the `fcoe target list` command output.

Example

The following example shows the `fcoe target info get` command on a local host:

```
~# esxcli qlfastling qcc fcoe target info get -i  
VNPort_20-00-00-0E-1E-C4-C5-ED_Target_50-0A-09-81-80-0F-06-39
```

The following example shows the `fcoe target info get` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc fcoe  
target info get -i  
VNPort_20-00-00-0E-1E-C4-C5-ED_Target_50-0A-09-81-80-0F-06-39
```

The output for both commands is:

```
Target Information:  
  Message: Success  
  Target Info:  
    Lun Count: 1  
    Luns:  
VNPort_20-00-00-0E-1E-C4-C5-ED_Target_50-0A-09-81-80-0F-06-39_LUN_0  
  Port State: Up  
  Scsi Target Number: 0  
  Target Node Name: 50-0A-09-80-80-0F-06-39  
  Target Port ID: 00-E6-01-20  
  Target Port Name: 50-0A-09-81-80-0F-06-39
```

Adapter FCoE LUN Namespace Commands and Sub-namespaces

```
~# esxcli qlfastling qcc fcoe lun
```

Syntax

```
esxcli qlfastling qcc fcoe lun {cmd} [cmd options]
```

Namespaces

Available namespaces include the following:

<u>Namespace</u>	<u>Description</u>
info	QCC CLI for FCoE LUN information

Available Commands

list

Lists identifiers for the Marvell Adapter FCoE LUNs discovered on the host. See [List FCoE LUNs](#).

List FCoE LUNs

The `fcoe lun list` command lists all FCoE LUNs detected on 3400/8400 Series and 41000/45000 Series Adapters.

Example

The following example shows the `fcoe lun list` command on a local host:

```
~# esxcli qlfastling qcc fcoe lun list
```

The following example shows the `fcoe lun list` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc fcoe  
lun list
```

The output for both commands is:

```
Luns  
-----  
VNPort_20-00-00-0E-1E-C4-C5-ED_Target_50-0A-09-81-80-0F-06-39_LUN_0
```

Adapter FCoE LUN Info Namespace Commands and Sub-namespaces

```
~# esxcli qlfastling qcc fcoe lun info
```

Syntax

```
esxcli qlfastling qcc fcoe lun info {cmd} [cmd options]
```

Available Commands

get

Shows information about the specified Marvell Adapter FCoE LUN. See [Get FCoE LUN Information](#).

Get FCoE LUN Information

To view FCoE LUN information for the specified FCoE LUN device, issue the following command:

```
~# esxcli qlfastling qcc fcoe lun info get
```

Syntax

```
esxcli qlfastling qcc fcoe lun info get [cmd options]
```

Keywords

`-i|--identifier <str>` = LUN identifier (required). Obtain the identifier from the `fcoe lun list` command output.

Example

The following example shows the `fcoe lun info get` command on a local host:

```
~# esxcli qlfastling qcc fcoe lun info get -i  
VNPort_20-00-00-0E-1E-C4-C5-ED_Target_50-0A-09-81-80-0F-06-39_LUN_0
```

The following example shows the `fcoe lun info get` command on a remote host:

```
password qlfastling qcc fcoe lun info get -i  
VNPort_20-00-00-0E-1E-C4-C5-ED_Target_50-0A-09-81-80-0F-06-39_LUN_0
```

The output for both commands is:

```
Lun Information:  
  Lun Info:  
    Capacity In MB: 5242  
    Device Type: Disk  
    Product ID: LUN  
    Product Rev Level: 811a  
    Scsi Unit Number: 0  
    Vendor ID: NETAPP  
  Message: Success
```

Adapter iSCSI Namespace Commands and Sub-namespaces

To view iSCSI namespace and sub-namespace commands, issue the following:

```
~# esxcli qlfastling qcc iscsi
```

Syntax

```
esxcli qlfastling qcc iscsi {cmd} [cmd options]
```

Namespaces

Available namespaces include the following:

<u>Namespace</u>	<u>Description</u>
portal	QCC CLI for iSCSI portals
target	QCC CLI for iSCSI targets
info	QCC CLI for iSCSI target information

Available Commands

`list`

Lists identifiers for the list of Marvell Adapter iSCSI ports discovered on the host.
See [List iSCSI Ports](#).

List iSCSI Ports

The `iscsi list` command lists all supported 3400/8400 Series and 41000/45000 Series iSCSI ports.

Example

The following example shows the `iscsi list` command on a local host:

```
~# esxcli qlfastling qcc iscsi list
```

The following example shows the `iscsi list` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc iscsi list
```

The output for both commands is:

```
iSCSI
-----
iSCSI_00:0E:1E:C4:B2:D9
iSCSI_00:0E:1E:C4:B2:DA
```

Adapter iSCSI Info Namespace Commands and Sub-namespaces

```
~# esxcli qlfastling qcc iscsi info
```

Syntax

```
esxcli qlfastling qcc iscsi info {cmd} [cmd options]
```

Available Commands

get

Shows information for the Marvell Adapter iSCSI port discovered on the host. See [Get iSCSI Info](#).

Get iSCSI Info

To view iSCSI information for the specified Marvell Adapter iSCSI device port discovered on the host, issue the following command:

```
~# esxcli qlfastling qcc iscsi info get
```

Syntax

```
esxcli qlfastling qcc iscsi info get [cmd options]
```

Keywords

`-i|--identifier <str>` = iSCSI identifier (required). Obtain the identifier from the `iscsi list` command output.

Example

The following example shows the `iscsi info get` command on a local host:

```
~# esxcli qlfastling qcc iscsi info get -i iSCSI_00:0E:1E:C4:B2:DA
```

The following example shows the `iscsi info get` command on a remote host:

```
password qlfastling qcc iscsi info get -i iSCSI_00:0E:1E:C4:B2:DA
```

The output for both commands is:

```
iSCSI Information:
```

```
  ISCSIIInfo:
```

```
    Data Digest: Disabled
```

```
    Data Pdu In Order: Enabled
```

```
    Data Sequence In Order: Enabled
```

```
    Device Id: 0x165e
```

```
    Driver Name: qedil
```

```
    Driver Version: 1.0.8.2.0818.1300
```

```
    Error Recovery Level: 0
```

```
    Firmware Version: mfw 8.15.0.0 storm 8.18.14.0
```

```
    First Data Burst Length: 65536
```

```
    Header Digest: Disabled
```

```
    Immediate Data: Enabled
```

```
    Initial R2T: Disabled
```

```
    MACAddress: 00:0E:1E:C4:B2:DA
```

```
MTU: 1500
Max Outstanding R2T: 1
Portals:
IPv4Address: 192.168.100.124
IPv4Port Number: 0
IPv6Address: C0:A8:64:7C:00:00:00:00:00:00:00:00:00:00:00:00
IPv6Port Number: 0
Portal Number: 0
Sessions:
Session: 192.168.100.124 to 192.168.100.5
Session Number: 0

Session: 192.168.100.124 to 192.168.100.5
Session Number: 1

Session: 192.168.100.124 to 192.168.100.5
Session Number: 2

Session: 192.168.100.124 to 192.168.100.5
Session Number: 3
Message: Success
```

Adapter iSCSI Portal Namespace Commands and Sub-namespaces

```
~# esxcli qlfastling qcc iscsi portal
```

Syntax

```
esxcli qlfastling qcc iscsi portal {cmd} [cmd options]
```

Namespaces

Available namespaces include the following:

<u>Namespace</u>	<u>Description</u>
info	QCC CLI for iSCSI portal information

Available Commands

list

Lists portal identifiers for the Marvell Adapter iSCSI ports discovered on the host.
See [List iSCSI Portals](#).

info

Lists portal identifiers for the Marvell Adapter iSCSI ports discovered on the host.
See [List iSCSI Portals](#).

List iSCSI Portals

The `iscsi portal list` command lists all of the supported 3400/8400 Series and 41000/45000 Series iSCSI portals.

Example

The following example shows the `iscsi portal list` command on a local host:

```
~# esxcli qlfastling qcc iscsi portal list
```

The following example shows the `iscsi portal list` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc iscsi portal list
```

The output for both commands is:

```
Portals
-----
Portal_192.168.100.124
```

iSCSI Portal Info

```
~# esxcli qlfastling qcc iscsi portal info
```

Syntax

```
esxcli qlfastling qcc iscsi portal info {cmd} [cmd options]
```

Available Commands

get

Gets information for the Marvell Adapter iSCSI portal discovered on the host. See [Get iSCSI Portal Info](#).

Get iSCSI Portal Info

To view iSCSI portal information for the specified Marvell Adapter iSCSI portal discovered on the host.

```
~# esxcli qlfastling qcc iscsi portal info get
```

Syntax

```
esxcli qlfastling qcc iscsi portal info get [cmd options]
```

Keywords

```
-i|--identifier <str> = iSCSI identifier (required). Obtain the identifier from the  
iscsi portal list command output.
```

Example

The following example shows the `iscsi portal info get` command on a local host:

```
~# esxcli qlfastling qcc iscsi portal info get -i  
Portal_192.168.100.124
```

The following example shows the `iscsi portal info get` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc iscsi  
portal info get -i Portal_192.168.100.124
```

The output for both commands is:

```
iSCSI Portal Information:  
  Message: Success  
  Portal Info:  
    Portal IPAddress: 192.168.100.124  
    Sessions:  
      Connection Id: 4280287241  
      Data Pdu In Order: Enabled  
      Data Sequence In Order: Enabled  
      Error Recovery Level: 0  
      Immediate Data: Enabled  
      Initial R2T: Disabled  
      Initiator Portal: 192.168.100.124  
      Max Outstanding R2T: 1  
      Session Number: 0  
      Session State: Connected  
      Session Unique Id: 73685775427816  
    Target:  
      iqn.2001-05.com.equallogic:0-8a0906-3a14b7e04-b5e000e7ac253579-isns  
      Target Portal: 192.168.100.5  
  
      Connection Id: 4280287235  
      Data Pdu In Order: Enabled  
      Data Sequence In Order: Enabled  
      Error Recovery Level: 0  
      Immediate Data: Enabled  
      Initial R2T: Disabled  
      Initiator Portal: 192.168.100.124  
      Max Outstanding R2T: 1  
      Session Number: 1
```

```
Session State: Connected
Session Unique Id: 73685775429208
Target:
iqn.2001-05.com.equallogic:0-8a0906-4084b7e04-59f6c0a42cd5399c-
parag-broadcom
Target Portal: 192.168.100.5

Connection Id: 4280287242
Data Pdu In Order: Enabled
Data Sequence In Order: Enabled
Error Recovery Level: 0
Immediate Data: Enabled
Initial R2T: Disabled
Initiator Portal: 192.168.100.124
Max Outstanding R2T: 1
Session Number: 2
Session State: Connected
Session Unique Id: 73685775430600
Target:
iqn.2001-05.com.equallogic:0-8a0906-be94b7e04-aa76c0a440c55cc9-
krishna-40g
Target Portal: 192.168.100.5

Connection Id: 4280287237
Data Pdu In Order: Enabled
Data Sequence In Order: Enabled
Error Recovery Level: 0
Immediate Data: Enabled
Initial R2T: Disabled
Initiator Portal: 192.168.100.124
Max Outstanding R2T: 1
Session Number: 3
Session State: Connected
Session Unique Id: 73685775434776
Target:
iqn.2001-05.com.equallogic:0-8a0906-e8f4b7e04-a5e0014e31f584ea-sas-
-nanoe4
Target Portal: 192.168.100.5
```

Adapter iSCSI Target Namespace Commands and Sub-namespaces

```
~# esxcli qlfastling qcc iscsi target
```

Syntax

```
esxcli qlfastling qcc iscsi target {cmd} [cmd options]
```

Namespaces

Available namespaces include the following:

<u>Namespace</u>	<u>Description</u>
info	QCC CLI for iSCSI target information

Available Commands

```
list
```

Lists target identifiers of iSCSI targets discovered through Marvell Adapters. See [List iSCSI Targets](#).

List iSCSI Targets

The `iscsi target list` command lists all detected iSCSI targets on 3400/8400 Series and 41000/45000 Series Adapters.

Example

The following example shows the `iscsi target list` command on a local host:

```
~# esxcli qlfastling qcc iscsi target list
```

The following example shows the `iscsi target list` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc iscsi target list
```

The output for both commands is:

```
Targets
-----
Portal_192.168.100.124_Target_SID_73685775427816
Portal_192.168.100.124_Target_SID_73685775429208
Portal_192.168.100.124_Target_SID_73685775430600
Portal_192.168.100.124_Target_SID_73685775434776
```

Adapter iSCSI Target Info Namespace Commands and Sub-namespaces

```
~# esxcli qlfastling qcc iscsi target info
```

Syntax

```
esxcli qlfastling qcc iscsi target info {cmd} [cmd options]
```

Available Commands

get

Shows information for the Marvell Adapter iSCSI target discovered on the host.

See [Get iSCSI Target Info](#).

Get iSCSI Target Info

To view iSCSI target information for the specified Marvell Adapter iSCSI target device discovered on the host, issue the following command:

```
~# esxcli qlfastling qcc iscsi target info get
```

Syntax

```
esxcli qlfastling qcc iscsi target info get [cmd options]
```

Keywords

`-i|--identifier <str>` = Target identifier (required). Obtain the identifier from the `iscsi target list` command output.

Example

The following example shows the `iscsi target info get` command on a local host:

```
~# esxcli qlfastling qcc iscsi target info get -i  
Portal_192.168.100.124_Target_SID_73685775427816
```

The following example shows the `iscsi target info get` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc iscsi  
target info get -i  
Portal_192.168.100.124_Target_SID_73685775427816
```

The output for both commands is:

iSCSI Target Information:

Message: Success

Target Info:

IPv4Address: 192.168.100.5

IPv6Address: 00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00

Lun Count: 1

```
MACAddress: 00:09:8A:04:7E:4C
Scsi Target Number: 0
Sessions:
Connection Id: 4280287241
Data Pdu In Order: Enabled
Data Sequence In Order: Enabled
Error Recovery Level: 0
Immediate Data: Enabled
Initial R2T: Disabled
Initiator Portal: 192.168.100.124
Max Outstanding R2T: 1
Session Number: 0
Session State: Connected
Session Unique Id: 73685775427816
Target:
iqn.2001-05.com.equallogic:0-8a0906-3a14b7e04-b5e000e7ac253579-isns
Target Portal: 192.168.100.5
Target Iqn Name:
iqn.2001-05.com.equallogic:0-8a0906-3a14b7e04-b5e000e7ac253579-isns
```

Adapter iSCSI LUN Namespace Commands and Sub-namespaces

```
~# esxcli qlfastling qcc iscsi lun
```

Syntax

```
esxcli qlfastling qcc iscsi lun {cmd} [cmd options]
```

Namespaces

Available namespaces include the following:

<u>Namespace</u>	<u>Description</u>
info	QCC CLI for iSCSI LUN information

Available Commands

```
list
```

Lists identifiers for Marvell Adapter iSCSI LUNs on 3400/8400 Series and 41000/45000 Series adapters discovered on the host. See [List iSCSI LUNs](#).

List iSCSI LUNs

The `iscsi lun list` command lists all detected iSCSI LUNs.

Example

The following example shows the `iscsi lun list` command on a local host:

```
~# esxcli qlfastling qcc iscsi lun list
```

The following example shows the `iscsi lun list` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc iscsi  
lun list
```

The output for both commands is:

Luns

```
-----  
Portal_192.168.100.124_Target_SID_73683392473320_LUN_0  
Portal_192.168.100.124_Target_SID_73683392474712_LUN_0  
Portal_192.168.100.124_Target_SID_73683392476104_LUN_0  
Portal_192.168.100.124_Target_SID_73683392480280_LUN_0
```

Adapter iSCSI LUN Info Namespace Commands and Sub-namespaces

```
~# esxcli qlfastling qcc iscsi lun info
```

Syntax

```
esxcli qlfastling qcc iscsi lun info {cmd} [cmd options]
```

Available Commands

get

Shows information about the specified Marvell Adapter iSCSI LUN. See [Get iSCSI LUN Info](#).

Get iSCSI LUN Info

To view iSCSI LUN information for the specified Marvell Adapter iSCSI LUN device, issue the following command:

```
~# esxcli qlfastling qcc iscsi lun info get
```

Syntax

```
esxcli qlfastling qcc iscsi lun info get [cmd options]
```

Keywords

`-i|--identifier <str>` = LUN identifier (required). Obtain the identifier from the `iscsi lun list` command output.

Example

The following example shows the `iscsi lun info get` command on a local host:

```
~# esxcli qlfastling qcc iscsi lun info get -i  
Portal_192.168.100.124_Target_SID_73683392474712_LUN_0
```

The following example shows the `iscsi lun info get` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfastling qcc iscsi  
lun info get -i  
Portal_192.168.100.124_Target_SID_73683392474712_LUN_0
```

The output for both commands is:

Lun Information:

Lun Info:

Capacity In MB: 5253
Device Type: Disk
Product ID: 100E-00
Product Rev Level: 4.3
Scsi Unit Number: 0
Vendor ID: EQLOGIC

Message: Success

4

Fibre Channel CLI Command Extensions

This chapter describes the functions of the various software components added to extend the capabilities of the Marvell ESXCLI VMware Plug-in software for the Marvell QLogic Fibre Channel Adapters.

Sections provided in this chapter include the following:

- [“Extension Command Format” on page 136](#)
- [“Extension Module Functional Specification” on page 138](#)
- [“QCC Namespace-level Commands and Sub-namespaces” on page 138](#)
- [“Adapter Namespace Commands and Sub-namespaces” on page 139](#)
- [“Adapter Port Namespace Commands and Sub-namespaces” on page 147](#)
- [“Adapter Target Namespace Commands and Sub-namespaces” on page 236](#)
- [“Adapter LUN Namespace Commands and Sub-namespaces” on page 249](#)

See [Figure 3-1](#) for an illustration of the ESXCLI extension module flow chart. See [“Extending ESXCLI Commands” on page 7](#) for a high level description of how to extend ESXCLI commands.

In this chapter:

- *SAN congestion management* (SCM) is a common noun, and describes a standards-based Fibre Channel technology.
- *Universal SAN Congestion Mitigation* (USCM) is Marvell’s IP, and describes Marvell’s SCM feature.

Extension Command Format

The ESXCLI commands are organized as a hierarchy of *namespaces*. If you are a VMware partner, and you are creating your own ESXCLI commands, organize the commands in a consistent, logical manner to improve usability of your own commands and of ESXCLI as a whole.

Usage Guidelines

If each partner adheres to the following guidelines, each partner can have full control of the organization of the namespaces and commands.

- **Single root namespace.** Each partner namespace has a single root namespace, which is the name of the partner, in lowercase letters. For example, if you belong to the Acme organization, the root namespace should be `acme`, and all namespaces and commands that you add to ESXCLI will be under `esxcli acme`.
- **Organized hierarchy.** Organize the commands in the namespace and use additional namespaces as needed. In most cases, your commands apply to a single product or product type. For example, if you are shipping commands to support the widget product, place the commands under `esxcli acme widget`. If you are shipping a second product, you might create a second namespace.
- **Commands are actions.** Each command should operate on a logical object. For example, a command `esxcli acme widget stats get` follows the convention, but `esxcli acme widget getstats` does not. Look at VMware ESXCLI commands for examples.
- **Consistent XML format.** Make the XML format consistent with other ESXCLI commands. For example:

```
$ esxcli --formatter=xml system time get
<?xml version="1.0" encoding="utf-8"?>
<output xmlns="http://www.vmware.com/Products/ESX/5.0/esxcli">
<root>
<string>2013-09-26T00:08:07Z</string>
</root>
</output>
```

Syntax

ESXCLI commands in this chapter have the following syntax:

```
esxcli [dispatcher options] <namespace1 [namespace2] ...>
<command> [input parameters]
```

- **Dispatcher options.** Predefined options for connection information such as target host, user name, and so on. Extension developers have no control over dispatcher options and do not need to be concerned about them.
- **Namespace.** Organizational structure that groups a quantity of ESXCLI objects. One namespace is required; additional namespaces are possible.

Examples of namespaces include:

- ❑ `nmp`
VMware native multipathing commands.
- ❑ `swiscsi`
Commands in the software iSCSI namespace.
- ❑ `corestorage`
VMware core storage commands.

- **Command.** The command reports on or modifies the state on the system. Commands are the leaf nodes in the ESXCLI syntax. Commands are the verbs that act on the objects defined by the namespaces.
- **Input parameters.** Multiple input parameters are supported.

All ESXCLI commands in this section have examples of command usage with both a local host and a remote host. The remote host in the examples has the following credentials:

- IP address: 172.27.9.144
- Password: password
- User name: root

Format

For a local host, command syntax is as follows:

```
esxcli qlfc qcc <namespace> <command> <options>
```

For a remote host, the command syntax is as follows:

```
esxcli --server <ip_address> --username <username> --password  
<password> qlfc qcc namespace [command] [options]
```

where `<ip_address>`, `<username>`, and `<password>` are the IP address and credentials for the remote host. The keywords `--server`, `--username`, and `--password` can be abbreviated `-s`, `-u`, and `-p` respectively.

To obtain detailed information for a specific command, type the command without arguments or with the `--help` option.

All ESXCLI commands in this section have examples of command usage with both a local host and a remote host. The remote host in the examples has the following credentials:

- IP address: 172.27.9.144
- Password: password
- User name: root

NOTE

For remote operation, the VMware vSphere CLI software must be installed on the local workstation. For more information about obtaining, installing, and operating the VMware software, see the VMware documentation for your system.

Extension Module Functional Specification

`qfcesxcli` is the standard command line executable module invoked by the Fibre Channel (FC) ESXCLI VMware Plug-in plug-in extension wrapper. The `qfcesxcli` command line executable module supports multiple sets of input arguments for different commands and produces XML output for the FC ESXCLI VMware Plug-in extension wrapper to consume.

The non-interactive commands that are supported by `qfcesxcli` must be published to the ESXCLI plug-in extension wrapper using an extension XML file that adheres to the metadata specification. Together, the `qfcesxcli` and the extension XML file enable users to view and execute commands through ESXCLI (both locally as well as remotely). All of the commands are published as part of the `qlfc.qcc` sub-namespace (ESXCLI namespace).

QCC Namespace-level Commands and Sub-namespaces

At the top-most level—the Marvell QConvergeConsole® (QCC) namespace level—the following commands and sub-namespaces are exposed:

```
~ # esxcli qlfc qcc
```

Syntax

```
esxcli qlfc qcc {cmd} [cmd options]
```

Namespaces

Available namespaces include the following:

<u>Namespace</u>	<u>Description</u>
adapter	QCC CLI for operations on adapters
lun	QCC CLI for operations on LUNs
port	QCC CLI for operations on port functions
target	QCC CLI for operations on target functions

Adapter Namespace Commands and Sub-namespaces

```
~# esxcli qlfc qcc adapter
```

Syntax

```
esxcli qlfc qcc adapter {cmd} [cmd options]
```

Namespaces

Available namespaces include the following:

<u>Namespace</u>	<u>Description</u>
info	QCC CLI for adapter information
personality	QCC CLI for personality information
flashinfo	QCC CLI for flash information

Available Commands

list

Lists identifiers for the Marvell Adapters discovered on the host. See [List Adapters](#).

update

Updates the flash on a Marvell Adapter. See [Update Adapters](#).

List Adapters

To list all supported Fibre Channel Adapters, issue the `list` command as follows on the local host:

```
~ # esxcli qlfc qcc adapter list
```

The following example shows the `list` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc adapter list
```

The output for both commands is:

```
Adapters
-----
Adapter_QLE2772_AFD1923Y07491
Adapter_QLE2770_AFD1924Y07544
```

The output contains model name and serial number as part of the adapter identifier.

Update Adapters

To update the flash on a Marvell Adapter, issue the `adapter update` command as follows:

```
~ # esxcli qlfc qcc adapter update
```

Syntax

```
esxcli qlfc qcc adapter update [cmd options]
```

Keywords

- `-f|--flashfile <str>` = Flash file (required)
- `-i|--identifier <str>` = Adapter identifier (required). Obtain the identifier from the `adapter list` output.
- `-m|--image-type <str>` = Image type (required)

<u>Parameter</u>	<u>Value (strings are case-sensitive)</u>
identifier	Adapter identifier from the <code>adapter list</code> command
flashfile	Flash file name with complete path
image-type	MBI, BrdCfg, PEPCfg, FWPreload

Example

The following example shows the `adapter update` command on a local host:

```
~ # esxcli qlfc qcc adapter update -i
Adapter_QLE2772_AFD1923Y07491 -f /scratch/mh010205.bin -m MBI
```

The flash file must be on the remote host before issuing the `adapter update` command as described in the following steps.

1. Determine the name of the volume on the remote host in which to store the flash file. You will use the volume name and VMFS UUID in subsequent steps.

```
# esxcli -s 172.27.9.144 -u root -p password storage vmfs extent list
Volume Name      VMFS UUID                               Extent Number  Device Name
-----
datastore1 (3)  4d435b11-2d3d0b17-a566-000af73e458c      0
```

2. Create a temporary directory on the remote host in which to store the flash file using the name of the volume that you obtained in [Step 1](#). The following command creates a directory called `tmp` on the volume `datastore1 (3)`. You will specify this directory when you update the flash in [Step 4](#).

```
# vifs.pl --server 172.27.9.144 --username root --password
password --mkdir "[datastore1 (3)] tmp"
```

3. Upload the flash file to the remote host.

```
# vifs.pl --server 172.27.9.144 --username root --password
password --put mh010205.bin "[datastore1 (3)]
tmp/mh010205.bin"
```

4. Update the adapter flash on the remote host. The flash file path is indicated in `/vmfs/volumes/<vmfs_uuid>/tmp/mh010205.bin`, where the value for `<vmfs_uuid>` comes from [Step 1](#).

The following example shows the `adapter update` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc adapter
update -i Adapter_QLE2772_AFD1923Y07491 -f /vmfs/volumes/
4d435b11-2d3d0b17-a566-000af73e458c/tmp/mh010205.bin -m MBI
```

The output for both commands is:

```
Message: Success
Reboot Required: true
```

Adapter Information

To obtain information about a specific Marvell Adapter, issue the `info` command as follows:

```
~ # esxcli qlfc qcc adapter info
```

Syntax

```
esxcli qlfc qcc adapter info {cmd} [cmd options]
```

Available Commands

`get`

Shows information about the adapter. See [Get Adapter Information](#).

Get Adapter Information

To obtain information about a Marvell Adapter, issue the `get` command as follows:

```
~# esxcli qlfc qcc adapter info get
```

Syntax

```
esxcli qlfc qcc adapter info get [cmd options]
```

Keywords

`-i|--identifier <str>` = Adapter identifier (required). Obtain the identifier from the `adapter list` output.

Example

The following example shows the `adapter info get` command on a local host:

```
~# esxcli qlfc qcc adapter info get -i  
Adapter_QLE2772_AFD1923Y07491
```

The following example shows the `adapter info get` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc adapter info  
get -i Adapter_QLE2772_AFD1923Y07491
```

The output for both commands is:

Adapter Information:

General Parameters:

Data:

Manufacturer: QLogic Corporation

Model: QLE2772

Serial Number: AFD1923Y07491

Vendor ID: 0x1077

Device ID: 0x2281

Subsystem Device ID: 0x2f3

Subsystem Vendor ID: 0x1077

PCI Bus ID: 0x37

Chip Revision: 2

Type: Fibre Channel Adapter

```
Multiboot Version: 2.06.19
Flash Firmware Version: 9.09.00
Flash BIOS Version: 0.00
Flash FCode Version: NA
Flash EFI Version: 7.26
Flash Preload Firmware Area Version: 4.01.15
Flash FC Board Config Version: 3.07.02
Flash MPI Firmware Version: 3.03.03
Flash PEP Firmware Version: 3.01.36
Flash PEP Board Config Version: 3.01.00
Flash PEP SoftROM Version: 3.00.13
Flash MPI SoftROM Version: NA
Flash PCIE Serdes Version: 3.00.07
```

Message: Success

Adapter Personality

To display and set the adapter's current personality (FC or CNA), issue the `adapter personality namespace` command as follows:

```
~# esxcli qlfc qcc adapter personality
```

Syntax

```
esxcli qlfc qcc adapter personality {cmd} [cmd options]
```

Available Commands

`get`

Shows personality information for the specified Marvell Adapter. See [Get Adapter Personality](#).

`set`

Sets the personality for the specified Marvell Adapter. See [Set Adapter Personality](#).

Get Adapter Personality

NOTE

Personality commands are only supported on 2670 Series Marvell Adapters.

To read the personality of a Marvell Adapter, issue the `adapter personality get` command as follows:

```
~# esxcli qlfc qcc adapter personality get
```

Syntax

```
esxcli qlfc qcc adapter personality get [cmd options]
```

Keywords

`-i|--identifier <str>` = Adapter identifier (required). Obtain the identifier from the `adapter list` output.

Example

The following example shows the `adapter personality get` command on a local host:

```
~# esxcli qlfc qcc adapter personality get -i  
Adapter_QLE8362_MY58330JGY
```

The following example shows the `adapter personality get` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc adapter  
personality get -i Adapter_QLE8362_MY58330JGY
```

The output for both commands is:

```
Adapter Personality:  
Message: Success  
Personality: FC
```

Set Adapter Personality

NOTE

The personality `set` command is only supported on 2670 Series Marvell Adapters.

To set the personality of a Marvell Adapter, issue the `adapter personality set` command as follows:

```
~# esxcli qlfc qcc adapter personality set
```

Syntax

```
esxcli qlfc qcc adapter personality set [cmd options]
```

Keywords

`-i|--identifier <str>` = Adapter identifier (required). Obtain the identifier from the `adapter list` output.

`-p|--personality <str>` = Adapter personality to be set (required)

<u>Parameter</u>	<u>Value (strings are case-sensitive)</u>
<code>identifier</code>	Adapter identifier from the <code>adapter list</code> command
<code>personality</code>	FC, CNA

Example

The following example shows the `adapter personality set` command on a local host:

```
~# esxcli qlfc qcc adapter personality set -i  
Adapter_QLE8362_MY58330JGY
```

The following example shows the `adapter personality set` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc adapter  
personality set -i Adapter_QLE8362_MY58330JGY -p CNA
```

The output for both commands is:

```
Adapter Personality:  
Message: Success  
Personality: CNA  
Reboot Required: true
```

Adapter Flash Information

To obtain flash information about a specific Marvell Adapter, issue the `flashinfo` command as follows:

```
~ # esxcli qlfc qcc adapter flashinfo
```

Syntax

```
esxcli qlfc qcc adapter flashinfo {cmd} [cmd options]
```

Available Commands

`get`

Shows the flash information of the specified Marvell Adapter. See [Get Adapter Flash Information](#).

Get Adapter Flash Information

To obtain flash information about a Marvell Adapter, issue the `get` command as follows:

```
~# esxcli qlfc qcc adapter flashinfo get
```

Syntax

```
esxcli qlfc qcc adapter flashinfo get [cmd options]
```

Keywords

`-i|--identifier <str>` = Adapter identifier (required). Obtain the identifier from the `adapter list` output.

Example

The following example shows the `adapter flashinfo get` command on a local host:

```
~# esxcli qlfc qcc adapter flashinfo get -i  
Adapter_QLE2772_AFD1923Y07491
```

The following example shows the `adapter flashinfo get` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc adapter  
flashinfo get -i Adapter_QLE2772_AFD1923Y07491
```

The output for both commands is:

```
Adapter Flash Information:
```

```
Flash Info:
```

```
Data:
```

```
MBI Version: 02.04.07
```

```
MBI Build Date: 2020-11-17
```

```
Flash Tool ID: FC PowerKit
```

```
Flash Tool Version: 01.00.16.00
```

```
Last Update Time: 2021-06-16 09:35:32
```

```
Message: Success
```

Adapter Port Namespace Commands and Sub-namespaces

This section provides information on the following:

- [Adapter Port List](#)
- [Adapter Port Update NVRAM](#)
- [Adapter Port Information](#)
- [Adapter Port Statistics](#)
- [Adapter Port SFP DMI Information](#)
- [Adapter Port VPD Information](#)
- [Adapter Port HBA Parameters Configuration](#)
- [Adapter Port Buffer-To-Buffer Credit Recovery Configuration](#)
- [Adapter Port Forward-Error-Correction Configuration](#)
- [Adapter Port Boot Configuration](#)
- [Adapter Port Boot Configuration \(Extended\)](#)
- [Adapter Port Firmware Dump Information](#)
- [Adapter Port Beacon Configuration](#)
- [Adapter Port Diagnostics \(DPort\) Configuration](#)
- [Adapter Port Common Pass-thru \(CT\) Diagnostics](#)
- [Adapter Port Echo ELS Diagnostics](#)
- [Adapter Port Ping Diagnostics](#)
- [Adapter Port Read Port Diagnostics \(RDP\) Information](#)
- [Adapter Port Loopback Diagnostics](#)
- [Adapter Port Read and Write Buffer Diagnostics](#)
- [Adapter Port Universal SAN Congestion Mitigation Status](#)
- [Adapter Port Universal SAN Congestion Mitigation Statistics](#)
- [Adapter Port Universal SAN Congestion Mitigation Profile](#)
- [Adapter Port NVMe Host NQN Registration](#)

`esxcli qlfc qcc port`

Syntax

`esxcli qlfc qcc port {cmd} [cmd options]`

Namespaces

Available namespaces include the following:

<u>Namespace</u>	<u>Description</u>
info	QCC CLI for port information
stats	QCC CLI for statistics information
dmi	QCC CLI for SFP DMI information
vpd	QCC CLI for VPD information
hbaparams	QCC CLI for HBA parameters configuration
bbcr	QCC CLI for buffer-to-buffer credit (BBCR) configuration
fec	QCC CLI for FEC information
bootconfig	QCC CLI for boot configuration
bootconfigext	QCC CLI for boot configuration
fwdump	QCC CLI for firmware dump information
beacon	QCC CLI for beacon configuration
dportdiag	QCC CLI for diagnostic port (DPort)
ctdiag	QCC CLI for common pass-thru (CT) diagnostics commands
fcecho	QCC CLI for FC Echo ELS diagnostic commands
fcping	QCC CLI for FC ping diagnostics commands
rdp	QCC CLI for FC port read diagnostics parameters information
loopback	QCC CLI for loopback diagnostics commands
rwbuffer	QCC CLI for FC read/write buffer diagnostics commands
scmchk	QCC CLI for FC port Universal SAN Congestion Mitigation (USCM) status
scmstats	QCC CLI for USCM statistics
scmprofile	QCC CLI for USCM profile

Available Commands

list

Lists identifiers for the Marvell Adapter ports discovered on the host.

updatenvram

Updates NVRAM data of Marvell Adapter ports discovered on the host. See [“Adapter Port Update NVRAM” on page 149](#).

Adapter Port List

The `port list` command (shown issued from a local host) lists all of the supported 2770 Series ports, as follows:

```
~# esxcli qlfc qcc port list
```

The following example shows the `port list` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port list
```

The output for both commands is:

```
Ports
-----
FC_51:40:2e:c0:12:3c:f4:a0
FC_51:40:2e:c0:12:3c:f4:a2
FC_51:40:2e:c0:01:c7:ed:18
FC_51:40:2e:c0:01:c7:ed:1a
```

Adapter Port Update NVRAM

The `port updatenvram` command updates the NVRAM on a Marvell Adapter port:

```
~ # esxcli qlfc qcc port updatenvram
```

Syntax

```
esxcli qlfc qcc port updatenvram [cmd options]
```

Keywords

`-i|--identifier <str>` = Port identifier (required). Obtain the identifier from the `port list` output.

`-f|--nvramfile <str>` = NVRAM file (required)

Example

The following example shows the `port updatenvram` command on a local host:

```
~ # esxcli qlfc qcc port updatenvram -i FC_51:40:2e:c0:12:3c:f4:a0
-f /scratch/FCN.dat
```

The following example shows the `port updatenvram` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port
updatenvram -i FC_51:40:2e:c0:12:3c:f4:a0 -f /scratch/FCN.dat
```

The output for both commands is:

```
Message: Success
Reboot Required: true
```

Adapter Port Information

The `port info` command shows information about the selected Marvell Adapter port:

```
~# esxcli qlfc qcc port info
```

Syntax

```
esxcli qlfc qcc port info {cmd} [cmd options]
```

Available Commands

`get`

Shows information about the specified Marvell Adapter port. See [Get Port Information](#).

Get Port Information

The `port info get` command shows port-level information for the specified Marvell Adapter port.

```
~# esxcli qlfc qcc port info get
```

Syntax

```
esxcli qlfc qcc port info get [cmd options]
```

Keywords

`-i|--identifier <str>` = Port identifier (required). Obtain the identifier from the `port list` output.

Example

The following example shows the `port info get` command on a local host:

```
~# esxcli qlfc qcc port info get -i FC_51:40:2e:c0:12:3c:f4:a0
```

The following example shows the `port info get` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port info get
-i FC_51:40:2e:c0:12:3c:f4:a0
```

The output for both commands is:

```
Port Information:
  Message: Success
  Port Info:
```

```
Data:
Model: QLE2772
Port Number: 1
PCI Bus Number: 0x37
PCI Device Number: 0x0
PCI Function Number: 0x0
PCI Bus Max Width: x8
PCI Bus Negotiated Width: x8
PCI Bus Max Speed: 16 Gtps
PCI Bus Negotiated Speed: 8 Gtps
Driver Version: 4.1.64
Host NQN: nqn.2014-08.org.nvmexpress:uuid:
        32324c58-6e35-3154-3943-505030303930
Host ID: 7286afd3b3ad45da83aa4f2cbdb3c10e
Node Name: 51:40:2e:c0:12:3c:f4:a1
Port Name: 51:40:2e:c0:12:3c:f4:a0
Principal Fabric WWN: 10:00:88:94:71:97:67:63
Adjacent Fabric WWN: 20:11:88:94:71:97:67:63
Maximum Speed: 32 Gbps
Supported Speeds: 8 16 32 Gbps
Port Interface Type: Physical Port
Protocol Type: FC
Port Type: Node Port
Port State: Online
Port Connection Mode: Point to Point
Port Speed: 32 Gbps
Port ID: 0a:11:00
Temperature In Celsius: 37
Flash Firmware Version: 9.09.00
Flash BIOS Version: 0.00
Flash FCode Version: NA
Flash EFI Version: 7.26
Flash Preload Firmware Area Version: 4.01.15
Flash FC Board Config Version: 3.07.02
Flash MPI Firmware Version: 3.03.03
Flash PEP Firmware Version: 3.01.36
Flash PEP Board Config Version: 3.01.00
Flash PEP SoftROM Version: 3.00.13
Flash MPI SoftROM Version: NA
Flash PCIE Serdes Version: 3.00.07
```

```
Running Firmware Version: 9.09.00
Running MPI Firmware Version: 3.03.03
Running PEP Firmware Version: 3.01.36
Config Lockdown: false
Firmware Update Lockdown: false
MPI Lockdown: false
```

Adapter Port Statistics

The `port stats` command shows statistics of the selected Marvell Adapter port:

```
~# esxcli qlfc qcc port stats
```

Syntax

```
esxcli qlfc qcc port stats {cmd} [cmd options]
```

Available Commands

`get`

Shows statistics of the specified Marvell Adapter port. See [Get Port Statistics](#).

`reset`

Resets the statistics of the specified Marvell Adapter port. See [Reset Port Statistics](#).

Get Port Statistics

The `port stats get` command shows port-level statistics for the specified port on the Marvell Adapter:

```
~# esxcli qlfc qcc port stats get
```

Syntax

```
esxcli qlfc qcc port stats get [cmd options]
```

Keywords

`-i|--identifier <str>` = Port identifier (required). Obtain the identifier from the port `list` output.

`-m|--mode <str>` = Mode (required)

Parameter

`identifier`

`mode`

Value (strings are case-sensitive)

Port identifier from the port `list` command

Driver, Firmware

Example

The following example shows the `port stats get` command on a local host for Driver mode:

```
~# esxcli qlfc qcc port stats get -i FC_51:40:2e:c0:12:3c:f4:a0  
-m Driver
```

The following example shows the `port stats get` command on a remote host for Driver mode:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port stats  
get -i FC_51:40:2e:c0:12:3c:f4:a0 -m Driver
```

The output for both commands is:

```
FC Statistics:  
  FCStats:  
    Data:  
      Controller Error Count: 0  
      Device Error Count: 0  
      IO Count: 1676  
      Mega Bytes Count: 4  
      LIP Reset Count: 0  
      Interrupt Count: 0  
  Message: Success
```

The following example shows the `port stats get` command on a local host for Firmware mode:

```
~# esxcli qlfc qcc port stats get -i FC_51:40:2e:c0:12:3c:f4:a0  
-m Firmware
```

The following example shows the `port stats get` command on a remote host for Firmware mode:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port stats  
get -i FC_51:40:2e:c0:12:3c:f4:a0 -m Firmware
```

The output for both commands is:

```
FC Statistics:  
  FCStats:  
    Data:  
      Link Failure Count: 2  
      Loss Of Sync Count: 4  
      Loss Of Signal Count: 4  
      Primitive Sequence Protocol Error Count: 0  
      Invalid Transmission Word Count: 0
```

```
Invalid CRC Count: 0
```

```
Message: Success
```

Reset Port Statistics

The `port stats reset` command resets port-level statistics for the specified port on the Marvell Adapter.

```
~# esxcli qlfc qcc port stats reset
```

Syntax

```
esxcli qlfc qcc port stats reset [cmd options]
```

Keywords

`-i|--identifier <str>` = Port identifier (required). Obtain the identifier from the `list` output.

`-m|--mode <str>` = Mode (required)

<u>Parameter</u>	<u>Value (strings are case-sensitive)</u>
identifier	Port identifier from the <code>list</code> command
mode	Firmware

Example

The following example shows the `port stats reset` command on a local host for Firmware mode:

```
~# esxcli qlfc qcc port stats reset -i FC_51:40:2e:c0:12:3c:f4:a0  
-m Firmware
```

The following example shows the `port stats reset` command on a remote host for Firmware mode:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port stats  
reset -i FC_51:40:2e:c0:12:3c:f4:a0 -m Firmware
```

The output for both commands is:

```
Reset FC Statistics:
```

```
Message: Success
```

Adapter Port SFP DMI Information

The `port dmi` command shows SFP DMI information of the selected Marvell Adapter port:

```
~# esxcli qlfc qcc port dmi
```

Syntax

```
esxcli qlfc qcc port dmi {cmd} [cmd options]
```

Available Commands

`get`

Shows SFP DMI information of the specified Marvell Adapter port. See [Get Port SFP DMI Information](#).

`getraw`

Shows raw SFP DMI information of the specified Marvell Adapter port. See [Get Port Raw SFP DMI Information](#).

`save`

Saves SFP DMI information of the specified Marvell FC port in the specified format. See [Save Port SFP DMI Information](#).

Get Port SFP DMI Information

The `port dmi get` command shows port-level SFP DMI Information for the specified Marvell Adapter port.

```
~# esxcli qlfc qcc port dmi get
```

Syntax

```
esxcli qlfc qcc port dmi get [cmd options]
```

Keywords

`-i|--identifier <str>` = Port identifier (required). Obtain the identifier from the `port list` output.

`-r|--refresh <str>` = Refresh (optional). Refresh driver's cached SFP data before providing it to user.

<u>Parameter</u>	<u>Value (strings are case-sensitive)</u>
<code>identifier</code>	Port identifier from the <code>port list</code> command
<code>refresh</code>	true, false

Example

The following example shows the `port dmi get` command on a local host:

```
~# esxcli qlfc qcc port dmi get -i FC_51:40:2e:c0:12:3c:f4:a0
```

The following example shows the `port dmi get` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port dmi get  
-i FC_51:40:2e:c0:12:3c:f4:a0
```

The output for both commands is:

DMI Information:

 Dmi Info:

 Dmi Data:

Media Information

```
                    Vendor: FINISAR CORP.  
                    Connector: LC (Lucent Connector)  
                    Media Type: 800-M5-SN-S  
                    Part Number: FTLF8532P4BCV-QL  
                    Speed: 3200 MBytes/Sec 1600 MBytes/Sec 800 MBytes/Sec  
                    Revision: A  
                    Serial Number: PY12TQ5  
                    Identifier: SFP/SFP+/SFP28 and later  
Extended Compliance Codes: Unspecified  
                    Rate Identifier: FC-PI-6 (32/16/8G Independent  
                                        Rx, Tx Rate_Select)  
                    QLogic SFP Installed: Yes  
-----
```

	Temperature	Voltage	Tx Bias	Tx Power	Rx Power
	(C)	(V)	(mA)	(mW)	(mW)
	-----	-----	-----	-----	-----
Value	36.97	3.32	7.88	0.7327	0.7414
Status	Normal	Normal	Normal	Normal	Normal

4-Fibre Channel CLI Command Extensions

Adapter Port Namespace Commands and Sub-namespaces

High Alarm	75.00	3.60	12.00	1.9953	1.9953
High Warning	70.00	3.50	11.50	1.5849	1.5849
Low Warning	0.00	3.10	2.00	0.1585	0.0158
Low Alarm	-5.00	3.00	1.00	0.1259	0.0100

Optical Transceiver Digital Diagnostic Data:

Address A0

```

Identifier: SFP/SFP+/SFP28 and later
Ext Identifier: GBIC/SFP defined by serial ID only
Connector: LC (Lucent Connector)
Ethernet Speed:
Compliance: 0x00 0x00 0x00
FC Link Length: Short Distance (S)
FC Transmitter Tech: Shortwave Laser w/o OFC (SN)
FC Transmission Media: Multi-mode 50m (M5)
FC Speed: 3200 MBytes/Sec 1600 MBytes/Sec 800 MBytes/Sec
Encoding: 64B66B
BR, Nominal: 0xff
Rate Identifier: FC-PI-6 (32/16/8G Independent Rx, Tx Rate_Select
Length (9um) - km: 0x00
Length (9um): 0x00
Length (50um): 0x03
Length (62.5um): 0x00
Length
(50um, OM4, Copper): 0x0a
Length
(50um, OM3, Copper): 0x07
Vendor name: FINISAR CORP.
Extended Compliance
Codes          : Unspecified
Vendor OUI: 0x00 0x90 0x65
Vendor PN: FTLF8532P4BCV-QL
Vendor rev: A
Wavelength: 0x0352
CC_BASE: 0x1f

```

4–Fibre Channel CLI Command Extensions

Adapter Port Namespace Commands and Sub-namespaces

Optional Transceiver

Signals: -Linear Receiver Output Implemented: 0x0
-Power Level Declaration: 0x0
-Cooled Transceiver Declaration: 0x0
-Retimer or CDR indicator: 0x1
-Paging implemented indicator: 0x0
-High Power Level Declaration by bit 1: 0x0
-High Power Level Declaration by bits 1 and 5: 0x0
-Reserved: 0x0
-Signal Loss, as defined in SFP MSA: 0x1
-Signal Loss, inverted from SFP MSA: 0x0
-TX_FAULT signal implemented: 0x1
-TX_DISABLE implemented and disables serial o/p: 0x1
-RATE_SELECT implemented: 0x1
-Tunable transmitter technology: 0x0
-Receiver decision threshold implemented: 0x00

Signaling Rate Max: 0x70

Signaling Rate Min: 0x00

Vendor SN: PY12TQ5

Date code: 170709

Diag Monitoring Type:-Address change required: 0x0

-Power Measurement: 0x1
-Externally Calibrated: 0x0
-Internally Calibrated: 0x1
-Digital diag monitoring: 0x1
-Legacy diagnostic: 0x0

Enhanced Options:-Optional Soft Rate Select ctrl per SFF-8431: 0x1
-Optional Application Select ctrl per SFF-8079: 0x0
-Optional Soft RATE_SELECT ctrl and monitoring: 0x1
-Soft RX_LOS monitoring: 0x1
-Soft TX_FAULT monitoring: 0x1
-Soft TX_DISABLE ctrl and monitoring: 0x1
-Alarm/warning flags: 0x1

SFF-8472 Compliance: Includes functionality described in Rev 12.4 of SFF-8472

CC_EXT: 0x9b

Vendor Specific: 0x51 0x4c 0x6f 0x67 0x69 0x63 0x00 0x00
0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00
0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00
0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x00

SFP Firmware Version: 0x00 0x00

4–Fibre Channel CLI Command Extensions

Adapter Port Namespace Commands and Sub-namespaces

MCU Firmware Version: 0x00 0x00
DSP Firmware Version: 0x00 0x00 0x00

Address A2

Temp High Alarm: 0x4b00
Temp Low Alarm: 0xfb00
Temp High Warning: 0x4600
Temp Low Warning: 0x0000
Voltage High Alarm: 0x8ca0
Voltage Low Alarm: 0x7530
Voltage High Warning: 0x88b8
Voltage Low Warning: 0x7918
Bias High Alarm: 0x1770
Bias Low Alarm: 0x01f4
Bias High Warning: 0x1676
Bias Low Warning: 0x03e8
TX Signal Power High Alarm: 0x4df1
TX Signal Power Low Alarm: 0x04eb
TX Signal Power High Warning: 0x3de9
TX Signal Power Low Warning: 0x0631
RX Signal Power High Alarm: 0x4df1
RX Signal Power Low Alarm: 0x0064
RX Signal Power High Warning: 0x3de9
RX Signal Power Low Warning: 0x009e
Rx_PWR(4): 0x00000000
Rx_PWR(3): 0x00000000
Rx_PWR(2): 0x00000000
Rx_PWR(1): 0x3f800000
Rx_PWR(0): 0x00000000
Tx_I(Slope): 0x0100
Tx_I(Offset): 0x0000
Tx_PWR(Slope): 0x0100
Tx_PWR(Offset): 0x0000
T(Slope): 0x0100
T(Offset): 0x0000
V(Slope): 0x0100
V(Offset): 0x0000
Checksum: 0xd4
Temperature MSB: 0x24

```
Temperature LSB: 0xf8
      Vcc MSB: 0x81
      Vcc LSB: 0xb2
      TX Bias MSB: 0x0f
      TX Bias LSB: 0x66
      TX Power MSB: 0x1c
      TX Power LSB: 0x9f
      RX Power MSB: 0x1c
      RX Power LSB: 0xf6
      Reserved MSB: 0x00
      Reserved LSB: 0x00
      Reserved MSB: 0x00
      Reserved LSB: 0x00
Status/Control Bits:-Data_Ready_Bar: 0x0
      -LOS: 0x0
      -TX Fault: 0x0
      -Soft RX Rate Select: 0x0
      -RX Rate Select State: 0x0
      -Soft TX Disable: 0x0
      -TX Disable State: 0x0
      -EWRAP Control Bit: 0x0
      -EWRAP FORWARD Control Bit: 0x0
      -OWRAP Control Bit: 0x0
      -OWRAP FORWARD Control Bit: 0x0
      -TX Signal Power Low Alarm: 0x0
      -TX Signal Power High Alarm: 0x0
      -TX Bias Low Alarm: 0x0
      -TX Bias High Alarm: 0x0
      -Vcc Low Alarm: 0x0
      -Vcc High Alarm: 0x0
      -Temp Low Alarm: 0x0
      -Temp High Alarm: 0x0
      -RX Signal Power Low Alarm: 0x0
      -RX Signal Power High Alarm: 0x0
      -TX Signal Power Low Warning: 0x0
      -TX Signal Power High Warning: 0x0
      -TX Bias Low Warning: 0x0
      -TX Bias High Warning: 0x0
      -Vcc Low Warning: 0x0
```

```
-Vcc High Warning: 0x0
-Temp Low Warning: 0x0
-Temp High Warning: 0x0
-Reserved Warning: 0x0
-Reserved Warning: 0x0
-Reserved Warning: 0x0
-Reserved Warning: 0x0
-Reserved Warning: 0x0
-Reserved Warning: 0x0
-RX Signal Power Low Warning: 0x0
-RX Signal Power High Warning: 0x0
Extended Module Control: -Optional Power Level Select: 0x0
                        -Optional Power Level Operation State: 0x0
                        -Power Level 4 Enable: 0x0
                        -Soft RS(1) Select: 0x0
                          -Adaptive Input EQ Fail Flag: 0x0
                          -Reserved: 0x0
                          -Reserved: 0x0
                          -Reserved: 0x0
Extended Status Bytes: -Optional Tx CDR Unlocked: 0x0
                       -64GFC Mode: 0x0
                       -PAM4 Mode Rx Configured: 0x0
                       -PAM4 Mode Tx Configured: 0x0
                       -Reserved: 0x0
                       -Reserved: 0x0
                       -Reserved: 0x0
Vendor Specific: 0x00 0x00 0x00 0x00 0x00 0x00 0x00 0x01
TP1 to TP4 EWRAP Control: -EWRAP Disable: 0x0
                        -EWRAP Enable: 0x0
TP3 to TP2 OWRAP Control: -OWRAP Disable: 0x0
                        -OWRAP Enable: 0x0
Electrical Output Tx Tap Pre3: 0x00
Electrical Output Tx Tap Pre2: 0x00
Electrical Output Tx Tap Pre1: 0x00
Electrical Output Tx Tap Main: 0x00
Electrical Output Tx Tap Post1: 0x00
  DSP Status Timing Control: 0x00
    DSP Control: 0x00
      FC 64G Mode Control: 0x00
```

```
LSN Control: -Train 64G: 0x0
              -Train 32G: 0x0
              -Fixed Speed Switch to 64G: 0x0
              -Reserved: 0x0
              -Reserved: 0x0
              -Reserved: 0x0
              -Client Rx Adaptation Reset: 0x0
              -LSN Mode: 0x0
CDR Firmware Version: 0x00 0x00 0x00
Laser Version: 0x00
TIA Version: 0x00
CDR Version: 0x00
HW Version: 0x00
MCU Version: 0x00
PLP API Version: 0x00
Debug MCU Version: 0x00
```

Message: Success

Get Port Raw SFP DMI Information

The `port dmi getraw` command shows port-level raw SFP DMI information for the specified Marvell Adapter port:

```
~# esxcli qlfc qcc port dmi getraw
```

Syntax

```
esxcli qlfc qcc port dmi getraw [cmd options]
```

Keywords

`-i|--identifier <str>` = Port identifier (required). Obtain the identifier from the port list output.

Example

The following example shows the `port dmi getraw` command on a local host:

```
~# esxcli qlfc qcc port dmi getraw -i FC_51:40:2e:c0:12:3c:f4:a0
```

The following example shows the `port dmi getraw` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port dmi
getraw -i FC_51:40:2e:c0:12:3c:f4:a0
```

The output for both commands is:

DMI Information:

Dmi Info:

```
Dmi A0Data In Hex: 03 04 07 00 00 00 00 40 40 04 68 06 FF 0C 00 00
03 00 0A 07 46 49 4E 49 53 41 52 20 43 4F 52 50 2E 20 20 20 00 00 90 65 46 54
4C 46 38 35 33 32 50 34 42 43 56 2D 51 4C 41 20 20 20 03 52 00 1F 08 3A 70 00
50 59 31 32 54 51 35 20 20 20 20 20 20 20 20 20 20 20 31 37 30 37 30 39 20 20 68 FA
09 9B 51 4C 6F 67 69 63 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00
```

```
Dmi A2Data In Hex: 4B 00 FB 00 46 00 00 00 8C A0 75 30 88 B8 79 18
17 70 01 F4 16 76 03 E8 4D F1 04 EB 3D E9 06 31 4D F1 00 64 3D E9 00 9E 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
3F 80 00 00 00 00 00 00 01 00 00 00 01 00 00 00 01 00 00 00 01 00 00 00 00 00
00 D4 24 62 81 51 0C C5 19 E3 12 18 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 01 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00
```

Message: Success

Save Port SFP DMI Information

The `port dmi save` command saves port-level raw SFP DMI Information in the specified format for the specified port on the Marvell FC Port.

```
~# esxcli qlfc qcc port dmi save
```

Syntax

```
esxcli qlfc qcc port dmi save [cmd options]
```

Keywords

- `-i|--identifier <str>` = Port identifier (required). Obtain the identifier from the port `list` output.
- `-m|--mode <str>` = File Mode (required).
- `-f|--sfpfile <str>` = SFP Data File (required).

Parameter value strings are case-sensitive.

<u>Parameter</u>	<u>Value (strings are case-sensitive)</u>
<code>identifier</code>	Port identifier from the port <code>list</code> command.
<code>mode</code>	Binary, Text.
<code>sfpfile</code>	Filename with complete path to save SFP Data.

Example

The following example shows the `port dmi save` command to save data in binary format on a local host:

```
~# esxcli qlfc qcc port dmi save -i FC_51:40:2e:c0:12:3c:f4:a0 -m Binary -f /scratch/sfp.bin
```

The following example shows the `port dmi save` command to save data in binary format on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port dmi save -i FC_51:40:2e:c0:12:3c:f4:a0 -m Binary -f /scratch/sfp.bin
```

The output for both commands is:

```
Save SFP Data:
Message: Success
```

The following example shows the `port dmi save` command to save data in text format on a local host:

```
~# esxcli qlfc qcc port dmi save -i FC_51:40:2e:c0:12:3c:f4:a0 -m Text -f /scratch/sfp.txt
```

The following example shows the `port dmi save` command to save data in text format on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port dmi save -i FC_51:40:2e:c0:12:3c:f4:a0 -m Text -f /scratch/sfp.txt
```

The output for both commands is:

```
Save SFP Data:
Message: Success
```

Adapter Port VPD Information

The `port vpd` command shows VPD information of the selected Marvell Adapter port:

```
~# esxcli qlfc qcc port vpd
```

Syntax

```
esxcli qlfc qcc port vpd {cmd} [cmd options]
```

Available Commands

`get`

Shows VPD information of the specified Marvell Adapter port. See [Get Port VPD](#).

Get Port VPD

The `port vpd get` command shows port-level VPD information for the specified Marvell Adapter port:

```
~# esxcli qlfc qcc port vpd get
```

Syntax

```
esxcli qlfc qcc port vpd get [cmd options]
```

Keywords

`-i|--identifier <str>` = Port identifier (required). Obtain the identifier from the `list` output.

Example

The following example shows the `port vpd get` command on a local host:

```
~# esxcli qlfc qcc port vpd get -i FC_51:40:2e:c0:12:3c:f4:a0
```

The following example shows the `port vpd get` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port vpd get  
-i FC_51:40:2e:c0:12:3c:f4:a0
```

The output for both commands is:

VPD Information:

Message: Success

VPDData:

Tag: Engineering Date Code

Value: 1-5917

Tag: Manufacturing Id

Value: MA2810401-34 03

Tag: Product Identifier
Value: QLogic 2x32Gb QLE2772 FC HBA

Tag: Part Number
Value: QLE2772

Tag: Serial Number
Value: AFD1923Y07491

Tag: Miscellaneous Info
Value: PW=15 Watts

Adapter Port HBA Parameters Configuration

The `port hbaparams` command configures the HBA parameters of the selected Marvell Adapter port:

```
~# esxcli qlfc qcc port hbaparams
```

Syntax

```
esxcli qlfc qcc port hbaparams {cmd} [cmd options]
```

Available Commands

`get`

Shows the HBA parameters information of the specified Marvell Adapter port. See [Get Port HBA Parameters](#).

`setFile`

Sets the HBA parameters information of the specified Marvell Adapter port in a local cache file. See [SetFile Port HBA Parameters](#).

`set`

Sets the HBA parameters information of the specified Marvell Adapter port from a local cache file to flash on the adapter. See [Set Port HBA Parameters](#).

`restoreDefaults`

Sets the default values of the HBA parameters information of the specified Marvell Adapter port. See [Restore Default Port HBA Parameters](#).

`save`

Saves HBA parameters information of the specified Marvell Adapter port to a user-provided file in text format. See [Save Port HBA Parameters](#).

Get Port HBA Parameters

The `port hbaparams get` command shows port-level HBA parameters information for the Marvell Adapter port. This command is supported only on the physical port (not on the NPIV virtual port).

```
~# esxcli qlfc qcc port hbaparams get
```

Syntax

```
esxcli qlfc qcc port hbaparams get [cmd options]
```

Keywords

`-i|--identifier <str>` = Port identifier (required). Obtain the identifier from the port list output.

Example

The following example shows the `port hbaparams get` command on a local host:

```
~# esxcli qlfc qcc port hbaparams get -i FC_51:40:2e:c0:12:3c:f4:a0
```

The following example shows the `port hbaparams get` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port  
hbaparams get -i FC_51:40:2e:c0:12:3c:f4:a0
```

The output for both commands is:

HBA Parameters Info:

HBAParameters:

```
Connection Options:Loop_Preferred_Otherwise_Point_To_Point  
Data Rate: Auto  
Enable Fabric Assigned WWN: false  
Enable Fc Tape Support: true  
Enable Hard Loop Id: true  
Enable Host Hba Bios: true  
Enable LR: false  
Enable Lip Full Login: true  
Enable USCM: true  
Enable Target Reset: true  
Execution Throttle: 0  
Frame Size: 2048  
Hard Loop Id: 10  
Interrupt Delay Timer In100us: 2  
Link Down Timeout In Seconds: 30  
Login Retry Count: 8  
Loop Reset Delay In Seconds: 15  
Luns Per Target: 128
```

```
Operation Mode: Interrupt_When_Interrupt_Delay_Timer_
Expires_Or_No_Active_I/O
Port Down Retry Count: 30
Virtual Lane: false
Message: Success
```

SetFile Port HBA Parameters

The `port hbaparams setFile` command sets port-level HBA parameters information for the specified Marvell Adapter port in a local cache file. This cache file is used by the `set` command to write HBA parameters in the flash. The `port hbaparams setFile` command is supported only on the physical port (not on the NPIV virtual port).

```
~# esxcli qlfc qcc port hbaparams setFile
```

Syntax

```
esxcli qlfc qcc port hbaparams setFile [cmd options]
```

Keywords

```
-i|--identifier <str> = Port identifier (required). Obtain the
                        identifier from the port list output.
-c|--connection-options <str> = Connection options
-d|--data-rate <str> = Data rate
-b|--enable-bios <str> = Enable BIOS (use for boot from SAN)
-n|--enable-fabric-assigned-wwn <str> = Enable fabric assigned WWN
-f|--enable-fc-tape <str> = Enable FC tape
-p|--enable-hard-loop-id <str> = Enable hard loop ID
-g|--enable-lip-full-login <str> = Enable LIP full login
-k|--enable-lr <str> = Enable LR
-q|--enable-uscm <str> = Enable Universal SAN Congestion
                        Mitigation (USCM)
-a|--enable-target-reset <str> = Enable target reset
-x|--execution-throttle <long> = Execution throttle
-z|--frame-size <long> = Frame size
-l|--hard-loop-id <long> = Hard loop ID
-e|--interrupt-delay-timer <long> = Interrupt delay timer
-o|--link-down-timeout <long> = Link down time-out
-u|--login-retry-count <long> = Login retry count
-r|--loop-reset-delay <long> = Loop reset delay
-y|--luns-per-target <long> = Maximum LUNs per target
```

`-i|--identifier <str>` = Port identifier (required). Obtain the identifier from the port `list` output.

`-w|--port-down-retry-count <long>` = Port down retry count

`-m|--operation-mode <str>` = Operation mode

`-j|--virtual-lane <str>` = Enable virtual lane
For more information about virtual lanes, see the appropriate Marvell QLogic Fibre Channel Adapter user's guide.

<u>Parameter</u>	<u>Value (strings are case-sensitive)</u>
<code>identifier</code>	Port identifier from the port <code>list</code> command
<code>connection-options</code>	Loop_Only, Point_To_Point_Only, Loop_Preferred_Otherwise_Point_To_Point
<code>data-rate</code>	Auto, 1_Gbps, 2_Gbps, 4_Gbps, 8_Gbps, 16_Gbps, 32_Gbps, 64_Gbps ^a
<code>enable-bios</code>	true, false
<code>enable-fabric-assigned-wwn</code>	true, false
<code>enable-fc-tape</code>	true, false
<code>enable-hard-loop-id</code>	true, false
<code>enable-lip-full-login</code>	true, false
<code>enable-lr</code>	true, false
<code>enable-uscm</code>	true, false
<code>enable-target-reset</code>	true, false
<code>execution-throttle</code>	0-65535
<code>frame-size</code>	512, 1024, 2048, 2112 ^b
<code>hard-loop-id</code>	0-125
<code>interrupt-delay-timer</code>	0-255
<code>link-down-timeout</code>	0-240
<code>login-retry-count</code>	0-255
<code>loop-reset-delay</code>	0-255

<u>Parameter</u>	<u>Value (strings are case-sensitive)</u>
<code>luns-per-target</code>	0, 8, 16, 32, 64, 128, 256
<code>port-down-retry-count</code>	0–255
<code>operation-mode</code>	Interrupt_For_Every_I/O_Completion, Interrupt_When_Interrupt_Delay_Timer_Expires, Interrupt_When_Interrupt_Delay_Timer_ Expires_Or_No_Active_I/O
<code>virtual-lane</code>	true, false For more information about virtual lanes, see the appropriate Marvell QLogic Fibre Channel Adapter user's guide.

^a 2800 Series Adapters only. In addition, the Loop_Only connection option is not supported for 64Gbps adapters.

^b Frame size 2112 is supported only on 2880 Series Adapters.

Example

The following example shows the `port hbaparams setFile` command on a local host:

```
~# esxcli qlfc qcc port hbaparams setFile -i
FC_51:40:2e:c0:12:3c:f4:a0 -z 2048
```

The following example shows the `port hbaparams setFile` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port
hbaparams setFile -i FC_51:40:2e:c0:12:3c:f4:a0 -z 2048
```

The output for both commands is:

HBA Parameters Info:

```
HBAParameters:
    Connection Options:Loop_Preferred_Otherwise_Point_
                        To_Point
    Data Rate: Auto
    Enable Fabric Assigned WWN: false
    Enable Fc Tape Support: true
    Enable Hard Loop Id: true
    Enable Host Hba Bios: true
    Enable LR: false
    Enable Lip Full Login: true
    Enable USCM: true
    Enable Target Reset: true
    Execution Throttle: 0
```

```
Frame Size: 2048
Hard Loop Id: 10
Interrupt Delay Timer In100us: 2
Link Down Timeout In Seconds: 30
Login Retry Count: 8
Loop Reset Delay In Seconds: 15
Luns Per Target: 128
Operation Mode:
Interrupt_When_Interrupt_Delay_Timer_Expires_Or_No_Active_I/O
Port Down Retry Count: 30
Virtual Lane: false
Message: Success
```

Set Port HBA Parameters

The `port hbaparams set` command sets port-level HBA parameters information for the Marvell Adapter port from the local cache file. If the local cache file is not present, this command fails. When this command completes successfully, the local cache file is deleted. This command is supported only on the physical port (not on the NPIV virtual port).

```
~# esxcli qlfc qcc port hbaparams set
```

Syntax

```
esxcli qlfc qcc port hbaparams set [cmd options]
```

Keywords

`-i|--identifier <str>` = Port identifier (required). Obtain the identifier from the `list` output.

Example

The following example shows the `port hbaparams set` command on a local host:

```
~# esxcli qlfc qcc port hbaparams set -i FC_51:40:2e:c0:12:3c:f4:a0
```

The following example shows the `port hbaparams set` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port
hbaparams set -i FC_51:40:2e:c0:12:3c:f4:a0
```

The output for both commands is:

HBA Parameters Info:

HBAParameters:

```
Connection Options:Loop_Preferred_Otherwise_Point_To_Point
Data Rate: Auto
Enable Fabric Assigned WWN: false
Enable Fc Tape Support: true
Enable Hard Loop Id: true
Enable Host Hba Bios: true
Enable LR: false
Enable Lip Full Login: true
Enable USCM: true
Enable Target Reset: true
Execution Throttle: 0
Frame Size: 2048
Hard Loop Id: 10
Interrupt Delay Timer In100us: 2
Link Down Timeout In Seconds: 30
Login Retry Count: 8
Loop Reset Delay In Seconds: 15
Luns Per Target: 128
Operation Mode:
Interrupt_When_Interrupt_Delay_Timer_Expires_Or_No_Active_I/O
Port Down Retry Count: 30
Virtual Lane: false
```

Message: Success

Reboot Required: true

Restore Default Port HBA Parameters

The `port hbaparams resetoreDefaults` command sets port-level HBA parameters information for the specified Marvell Adapter port to its default values. This command also deletes all the boot settings. This command is supported only on the physical port (not on the NPIV virtual port).

```
~# esxcli qlfc qcc port hbaparams restoreDefaults
```

Syntax

```
esxcli qlfc qcc port hbaparams restoreDefaults [cmd options]
```

Keywords

`-i|--identifier <str>` = Port identifier (required). Obtain the identifier from the port list output.

Example

The following example shows the `port hbaparams restoreDefaults` command on a local host:

```
~# esxcli qlfc qcc port hbaparams restoreDefaults -i  
FC_51:40:2e:c0:12:3c:f4:a0
```

The following example shows the `port hbaparams restoreDefaults` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port  
hbaparams restoreDefaults -i FC_51:40:2e:c0:12:3c:f4:a0
```

The output for both commands is:

```
Restore Defaults Info:  
  Message: Success  
  Reboot Required: true
```

Save Port HBA Parameters

The `port hbaparams save` command saves port-level HBA parameters information for the specified port on the Marvell Adapter to a user-provided file. This command is supported on the physical port (not on an NPIV virtual port).

```
~# esxcli qlfc qcc port hbaparams save
```

Syntax

```
esxcli qlfc qcc port hbaparams save [cmd options]
```

Keywords

`-i|--identifier <str>` = Port identifier (required). Obtain the identifier from the port list output.

`-f|--filename <str>` = File where Marvell Adapter port parameters will be saved. The file is in text format.

Example

The following example shows the `port hbaparams save` command on a local host:

```
~# esxcli qlfc qcc port hbaparams save -i  
FC_51:40:2e:c0:12:3c:f4:a0 -f fc_params.dat
```

The following example shows the `port hbaparams save` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port  
hbaparams save -i FC_51:40:2e:c0:12:3c:f4:a0 -f fc_params.dat
```

The output for both commands is:

```
HBA Parameters Save:  
Message: Success
```

Adapter Port Buffer-To-Buffer Credit Recovery Configuration

The `port bbcr` command configures buffer-to-buffer credit (BBCR) values of the selected Marvell Adapter port:

```
~# esxcli qlfc qcc port bbcr
```

Syntax

```
esxcli qlfc qcc port bbcr {cmd} [cmd options]
```

Available Commands

`get`

Shows BBCR configuration of the specified Marvell Adapter port. See [Get Port BBCR Configuration](#).

`setFile`

Sets BBCR configuration of the specified Marvell Adapter port in a local cache file. See [SetFile Port BBCR Configuration](#).

`set`

Sets BBCR configuration of the specified Marvell Adapter port from a local cache file to flash on the adapter. See [Set Port BBCR Configuration](#).

Get Port BBCR Configuration

The `port bbcr get` command shows port-level BBCR configuration for the specified Marvell Adapter port. This command is supported only on the physical port (not on the NPIV virtual port).

```
~# esxcli qlfc qcc port bbcr get
```

Syntax

```
esxcli qlfc qcc port bbcr get [cmd options]
```

Keywords

`-i|--identifier <str>` = Port identifier (required). Obtain the identifier from the port list output.

Example

The following example shows the `port bbcr get` command on a local host:

```
~# esxcli qlfc qcc port bbcr get -i FC_51:40:2x1e:c0:12:3c:f4:a0
```

The following example shows the `port bbcr get` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port bbcr get  
-i FC_51:40:2e:c0:12:3c:f4:a0
```

The output for both commands is:

```
BBCR Info:  
  BBCR:  
    Data:  
      BBCR Status: true  
      BBCR Configured: 4  
      BBCR State: Online  
      BBCR Negotiated: 4
```

```
Message: Success
```

SetFile Port BBCR Configuration

The `port bbcr setFile` command sets port-level BBCR configuration for the specified Marvell Adapter port in a local cache file. This cache file is used by the `set` command to write BBCR configuration in the flash. This command is supported only on the physical port (not on the NPIV virtual port).

```
~# esxcli qlfc qcc port bbcr setFile
```

Syntax

```
esxcli qlfc qcc port bbcr setFile [cmd options]
```

Keywords

`-i|--identifier <str>` = Port identifier (required). Obtain the identifier from the port list output.

`-c|--bbcr-configured <long>` = Buffer-to-buffer credit configured value

`-b|--bbcr-status <str>` = Buffer-to-buffer credit status

<u>Parameter</u>	<u>Value (strings are case-sensitive)</u>
Identifier	Port identifier from the <code>port list</code> command
bbcr-configured	0-15
bbcr-status	true, false

Example

The following example shows the `port bbcr setFile` command on a local host:

```
~# esxcli qlfc qcc port bbcr setFile -i FC_51:40:2e:c0:12:3c:f4:a0 -c 8
```

The following example shows the `port hbaparams setFile` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port bbcr setFile -i FC_51:40:2e:c0:12:3c:f4:a0 -c 8
```

The output for both commands is:

```
BBCR Info:
  BBCR:
    Data:
      BBCR Status: true
      BBCR Configured: 8
      BBCR State: Online
      BBCR Negotiated: 4
```

```
Message: Success
```

Set Port BBCR Configuration

The `port bbcr set` command sets port-level BBCR configuration for the specified Marvell Adapter port from the local cache file. If the local cache file is not present, this command fails. When this command completes successfully, the local cache file is deleted. This command is supported only on the physical port (not on the NPIV virtual port).

```
~# esxcli qlfc qcc port bbcr set
```

Syntax

```
esxcli qlfc qcc port bbcr set [cmd options]
```

Keywords

`-i|--identifier <str>` = Port identifier (required). Obtain the identifier from the port list output.

Example

The following example shows the `port bocr set` command on a local host:

```
~# esxcli qlfc qcc port bocr set -i FC_51:40:2e:c0:12:3c:f4:a0
```

The following example shows the `port bocr set` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port bocr set  
-i FC_51:40:2e:c0:12:3c:f4:a0
```

The output for both commands is:

```
BBCR Info:
```

```
  BBCR:
```

```
    Data:
```

```
      BBCR Status: true
```

```
      BBCR Configured: 8
```

```
      BBCR State: Online
```

```
      BBCR Negotiated: 4
```

```
Message: Success
```

```
Reboot Required: true
```

Adapter Port Forward-Error-Correction Configuration

The `port fec` command configures forward-error-correction (FEC) values of the selected Marvell Adapter port:

```
~# esxcli qlfc qcc port fec
```

Syntax

```
esxcli qlfc qcc port fec {cmd} [cmd options]
```

Available Commands

`get`

Shows FEC configuration of the specified Marvell Adapter port. See [Get Port FEC Configuration](#).

`set`

Sets FEC configuration of the specified Marvell Adapter port to flash on the adapter. See [Set Port FEC Configuration](#).

Get Port FEC Configuration

The `port fec get` command shows port-level FEC configuration for the specified Marvell Adapter port. This command is supported only on the physical port (not on the NPIV virtual port).

```
~# esxcli qlfc qcc port fec get
```

Syntax

```
esxcli qlfc qcc port fec get [cmd options]
```

Keywords

`-i|--identifier <str>` = Port identifier (required). Obtain the identifier from the `list` output.

Example

The following example shows the `port fec get` command on a local host:

```
~# esxcli qlfc qcc port fec get -i FC_51:40:2e:c0:12:3c:f4:a0
```

The following example shows the `port fec get` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port fec get  
-i FC_51:40:2e:c0:12:3c:f4:a0
```

The output for both commands is:

```
FEC Info:  
  FEC:  
    Correctable FECerrors: 0  
    FEC_Status: true  
    Uncorrectable FECerrors: 0  
  Message: Success
```

Set Port FEC Configuration

The `port fec set` command sets port-level FEC configuration for the specified Marvell Adapter port. This command is supported only on the physical port (not on the NPIV virtual port).

```
~# esxcli qlfc qcc port fec set
```

Syntax

```
esxcli qlfc qcc port fec set [cmd options]
```

Keywords

`-i|--identifier <str>` = Port identifier (required). Obtain the identifier from the port list output.

`-f|--fec-status <str>` = FEC status

`-r|--reset <str>` = FEC counter reset

<u>Parameter</u>	<u>Value (strings are case-sensitive)</u>
Identifier	Port identifier from the <code>port list</code> command
fec-status	true, false
reset	true, false

Example

The following example shows the `port fec set` command on a local host:

```
~# esxcli qlfc qcc port fec set -i FC_51:40:2e:c0:12:3c:f4:a0 -f true
```

The following example shows the `port fec set` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port fec set  
-i FC_51:40:2e:c0:12:3c:f4:a0 -f true
```

The output for both commands is:

```
FEC Info:  
  FEC:  
    Correctable FECerrors: 0  
    FEC_Status: true  
    Uncorrectable FECerrors: 0  
  Message: Success  
  Reboot Required: true
```

Adapter Port Boot Configuration

The `port bootconfig` command configures boot target and LUN settings for boot from SAN of the selected Marvell Adapter port:

```
~# esxcli qlfc qcc port bootconfig
```

Syntax

```
esxcli qlfc qcc port bootconfig {cmd} [cmd options]
```

Available Commands

`get`

Shows the boot configuration of the specified Marvell Adapter port. See [Get Port Boot Configuration](#).

`setFile`

Sets the boot configuration of the specified Marvell Adapter port in a local cache file. See [SetFile Port Boot Configuration](#).

`set`

Sets the boot configuration of the specified Marvell Adapter port from a local cache file to flash on the adapter. See [Set Port Boot Configuration](#).

Get Port Boot Configuration

The `port bootconfig get` command shows port-level boot configuration for the specified Marvell Adapter port. This command is supported only on the physical port (not on the NPIV virtual port).

```
~# esxcli qlfc qcc port bootconfig get
```

Syntax

```
esxcli qlfc qcc port bootconfig get [cmd options]
```

Keywords

`-i|--identifier <str>` = Port identifier (required). Obtain the identifier from the `list` output.

`-b|--boot-mode <str>` = Boot mode (BIOS, UEFI). UEFI mode is supported only on adapters with ISP2700/2800 Series Controllers.

Example

The following example shows the `port bootconfig get` command on a local host in BIOS mode:

```
~# esxcli qlfc qcc port bootconfig get -i FC_51:40:2e:c0:12:3c:f4:a0  
-b BIOS
```

The following example shows the `port bootconfig get` command on a remote host in BIOS mode:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port  
bootconfig get -i FC_51:40:2e:c0:12:3c:f4:a0 -b BIOS
```

The output for both commands is:

```
Boot Config Info:  
  Boot Config:  
    Data:  
      Adapter BIOS: false
```

```
Selectable Boot: false
Fabric Assigned Boot LUN: true
Drive 0 WWPN: 00:00:00:00:00:00:00:00
Drive 0 LUN: 0
Drive 1 WWPN: 00:00:00:00:00:00:00:00
Drive 1 LUN: 0
Drive 2 WWPN: 00:00:00:00:00:00:00:00
Drive 2 LUN: 0
Drive 3 WWPN: 00:00:00:00:00:00:00:00
Drive 3 LUN: 0
```

Message: Success

NOTE

UEFI mode is supported only for ISP2700 and ISP2800 based adapters.

The following example shows the `port bootconfig get` command on a local host in UEFI mode:

```
~# esxcli qlfc qcc port bootconfig get -i FC_51:40:2e:c0:12:3c:f4:a0
-b UEFI
```

The following example shows the `port bootconfig get` command on a remote host in UEFI mode:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port
bootconfig get -i FC_51:40:2e:c0:12:3c:f4:a0 -b UEFI
```

The output for both commands is:

```
Data:
Adapter Driver: false
Selective Login: false
Selective LUN Login: false
World Login: true
Fabric Assigned Boot LUN: false
Fabric Assigned Boot LUN: false
Drive 0 WWPN: 00:00:00:00:00:00:00:00
Drive 0 LUN: 0
Drive 1 WWPN: 00:00:00:00:00:00:00:00
Drive 1 LUN: 0
Drive 2 WWPN: 00:00:00:00:00:00:00:00
Drive 2 LUN: 0
Drive 3 WWPN: 00:00:00:00:00:00:00:00
```

```
Drive 3 LUN: 0
Drive 4 WWPN: 00:00:00:00:00:00:00:00
Drive 4 LUN: 0
Drive 5 WWPN: 00:00:00:00:00:00:00:00
Drive 5 LUN: 0
Drive 6 WWPN: 00:00:00:00:00:00:00:00
Drive 6 LUN: 0
Drive 7 WWPN: 00:00:00:00:00:00:00:00
Drive 7 LUN: 0
Message: Success
```

SetFile Port Boot Configuration

The `port bootconfig setFile` command sets port-level boot configuration for the specified Marvell Adapter port in a local cache file. This cache file is used by the `set` command to write the boot configuration in the flash. This command is supported only on the physical port (not on the NPIV virtual port).

```
~# esxcli qlfc qcc port bootconfig setFile
```

Syntax

```
esxcli qlfc qcc port bootconfig setFile [cmd options]
```

Keywords

```
-i|--identifier <str> = Port identifier (required). Obtain the
                        identifier from the port list output.

-a|--enable-bfs<str> = Enable boot-from-SAN

-b|--boot-mode <str> = Boot mode

-c|--selective-lun-login <str> = Selective LUN login (UEFI mode only)

-d|--selectable-boot <str> = Selectable boot (BIOS mode only)

-e|--selective-login <str> = Selective login (UEFI mode only)

-f|--fabric-assigned-boot-lun <str> = Fabric assigned boot LUN

g|--world-login <str> = World login (UEFI mode only)

j|--drive-0 <str> = Boot target 0 (":" separated) and LUN
                  number "-" separated)

k|--drive-1 <str> = Boot target 1 (":" separated) and LUN
                  number "-" separated)

-l|--drive-2 <str> = Boot target 2 (":" separated) and LUN
                  number "-" separated)

-m|--drive-3 <str> = Boot target 3 (":" separated) and LUN
                  number "-" separated)
```

-n|--drive-4 <str> = Boot target 4 (":" separated) and LUN number "-" separated)
(UEFI mode only)

-o|--drive-5 <str> = Boot target 5 (":" separated) and LUN number "-" separated)
(UEFI mode only)

-p|--drive-6 <str> = Boot target 6 (":" separated) and LUN number "-" separated)
(UEFI mode only)

-q|--drive-7 <str> = Boot target 7 (":" separated) and LUN number "-" separated)
(UEFI mode only)

<u>Parameter</u>	<u>Value (strings are case-sensitive)</u>
Identifier	Port identifier from the <code>port list</code> command
boot-mode	BIOS, UEFI
enable-bfs	true, false
selectable-boot	true, false
fabric-assigned-boot-lun	true, false
selective-login	true, false
selective-lun-login	true, false
world-login	true, false
drive-0	":" separated WWPN and "-" separated LUN
drive-1	":" separated WWPN and "-" separated LUN
drive-2	":" separated WWPN and "-" separated LUN
drive-3	":" separated WWPN and "-" separated LUN
drive-4	":" separated WWPN and "-" separated LUN
drive-5	":" separated WWPN and "-" separated LUN
drive-6	":" separated WWPN and "-" separated LUN
drive-7	":" separated WWPN and "-" separated LUN

Example

The following example shows the `port bootconfig setFile` command on a local host in BIOS mode:

```
~# esxcli qlfc qcc port bootconfig setFile -i
FC_51:40:2e:c0:12:3c:f4:a0 -b BIOS -d true
```

The following example shows the `port bootconfig setFile` command on a remote host in BIOS mode:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port  
bootconfig setFile -i FC_51:40:2e:c0:12:3c:f4:a0 -b BIOS -d true
```

The output for both commands is:

```
Boot Config Info:  
  Boot Config:  
    Data:  
      Adapter BIOS: false  
      Selectable Boot: true  
      Fabric Assigned Boot LUN: true  
      Drive 0 WWPN: 00:00:00:00:00:00:00:00  
      Drive 0 LUN: 0  
      Drive 1 WWPN: 00:00:00:00:00:00:00:00  
      Drive 1 LUN: 0  
      Drive 2 WWPN: 00:00:00:00:00:00:00:00  
      Drive 2 LUN: 0  
      Drive 3 WWPN: 00:00:00:00:00:00:00:00  
      Drive 3 LUN: 0  
Message: Success
```

The following example shows the `port bootconfig setFile` command on a local host in UEFI mode:

```
~# esxcli qlfc qcc port bootconfig setFile -i  
FC_51:40:2e:c0:12:3c:f4:a0 -b UEFI -e true
```

The following example shows the `port bootconfig setFile` command on a remote host in UEFI mode:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port  
bootconfig setFile -i FC_51:40:2e:c0:12:3c:f4:a0 -b UEFI -e true
```

The output for both commands is:

```
Boot Config Info:  
  Boot Config:  
    Data:  
      Adapter Driver: false  
      Selective Login: true  
      Selective LUN Login: false  
      World Login: true  
      Fabric Assigned Boot LUN: false  
      Drive 0 WWPN: 00:00:00:00:00:00:00:00
```

```
Drive 0 LUN: 0
Drive 1 WWPN: 00:00:00:00:00:00:00:00
Drive 1 LUN: 0
Drive 2 WWPN: 00:00:00:00:00:00:00:00
Drive 2 LUN: 0
Drive 3 WWPN: 00:00:00:00:00:00:00:00
Drive 3 LUN: 0
Drive 4 WWPN: 00:00:00:00:00:00:00:00
Drive 4 LUN: 0
Drive 5 WWPN: 00:00:00:00:00:00:00:00
Drive 5 LUN: 0
Drive 6 WWPN: 00:00:00:00:00:00:00:00
Drive 6 LUN: 0
Drive 7 WWPN: 00:00:00:00:00:00:00:00
Drive 7 LUN: 0
```

Message: Success

Set Port Boot Configuration

The `port bootconfig set` command sets port-level boot configuration for the specified Marvell Adapter port from the local cache file. If the local cache file is not present, this command fails. When this command completes successfully, the local cache file is deleted.

```
~# esxcli qlfc qcc port bootconfig set
```

NOTE

This command is supported only on the physical port (not on the NPIV virtual port).

This command is supported only for Fibre Channel Protocol (FCP) targets. Non-Volatile Memory Express (NVMe) targets are not supported.

Syntax

```
esxcli qlfc qcc port bootconfig set [cmd options]
```

Keywords

`-i|--identifier <str>` = Port identifier (required). Obtain the identifier from the port list output.

Example

The following example shows the `port bootconfig set` command on a local host:

```
~# esxcli qlfc qcc port bootconfig set -i FC_51:40:2e:c0:12:3c:f4:a0
```

The following example shows the `port bootconfig set` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port  
bootconfig set -i FC_51:40:2e:c0:12:3c:f4:a0
```

The output for both commands depends on the last boot mode value used in the `setFile` command.

When the boot mode is BIOS, the command output is:

```
Boot Config Info:  
  Boot Config:  
    Data:  
      Adapter BIOS: false  
      Selectable Boot: true  
      Fabric Assigned Boot LUN: true  
      Drive 0 WWPN: 00:00:00:00:00:00:00:00  
      Drive 0 LUN: 0  
      Drive 1 WWPN: 00:00:00:00:00:00:00:00  
      Drive 1 LUN: 0  
      Drive 2 WWPN: 00:00:00:00:00:00:00:00  
      Drive 2 LUN: 0  
      Drive 3 WWPN: 00:00:00:00:00:00:00:00  
      Drive 3 LUN: 0  
Message: Success  
Reboot Required: false
```

When the boot mode is UEFI, the command output is:

```
Boot Config Info:  
  Boot Config:  
    Data:  
      Adapter Driver: false  
      Selective Login: true
```

```
Selective LUN Login: false
World Login: true
Fabric Assigned Boot LUN: false
Drive 0 WWPN: 00:00:00:00:00:00:00:00
Drive 0 LUN: 0
Drive 1 WWPN: 00:00:00:00:00:00:00:00
Drive 1 LUN: 0
Drive 2 WWPN: 00:00:00:00:00:00:00:00
Drive 2 LUN: 0
Drive 3 WWPN: 00:00:00:00:00:00:00:00
Drive 3 LUN: 0
Drive 4 WWPN: 00:00:00:00:00:00:00:00
Drive 4 LUN: 0
Drive 5 WWPN: 00:00:00:00:00:00:00:00
Drive 5 LUN: 0
Drive 6 WWPN: 00:00:00:00:00:00:00:00
Drive 6 LUN: 0
Drive 7 WWPN: 00:00:00:00:00:00:00:00
Drive 7 LUN: 0
```

```
Message: Success
Reboot Required: false
```

9

Adapter Port Boot Configuration (Extended)

The `port bootconfigext` command configures boot target and LUN settings to boot from SAN from the selected Marvell Adapter port:

```
~# esxcli qlfc qcc port bootconfigext
```

Syntax

```
esxcli qlfc qcc port bootconfigext {cmd} [cmd options]
```

Available Commands

`get`

Shows the boot configuration of the specified Marvell Adapter port. See [Get Port Boot Configuration \(Extended\)](#).

`setFile`

Sets the boot configuration of the specified Marvell Adapter port from a local cache file. See [SetFile Port Boot Configuration \(Extended\)](#).

set

Sets the boot configuration of the specified Marvell Adapter port from a local cache file to flash on the adapter. See [Set Port Boot Configuration \(Extended\)](#).

Get Port Boot Configuration (Extended)

The `port bootconfigext get` command shows port-level boot configuration for the specified Marvell Adapter port. This command is supported only on the physical port (not on the NPIV virtual port).

```
~# esxcli qlfc qcc port bootconfigext get
```

Syntax

```
esxcli qlfc qcc port bootconfigext get [cmd options]
```

Keywords

- `-i|--identifier <str>` = Port identifier (required). Obtain the identifier from the `list` output.
- `-b|--boot-mode <str>` = Boot mode (BIOS, UEFI, NVME). UEFI and NVME modes are supported only on adapters with ISP2700/2800 Series Controllers. This keyword is required.

Example

The following example shows the `port bootconfigext get` command on a local host in BIOS mode:

```
~# esxcli qlfc qcc port bootconfigext get -i  
FC_51:40:2e:c0:12:3c:f4:a0 -b BIOS
```

The following example shows the `port bootconfigext get` command on a remote host in BIOS mode:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port  
bootconfigext get -i FC_51:40:2e:c0:12:3c:f4:a0 -b BIOS
```

The output for both commands is:

```
Boot Config Info:  
  Boot Config:  
    Data:  
      Adapter BIOS: false  
      Selectable Boot: false  
      Fabric Assigned Boot LUN: true  
      Drive 0 WWPN: 00:00:00:00:00:00:00:00  
      Drive 0 LUN: 0  
      Drive 1 WWPN: 00:00:00:00:00:00:00:00  
      Drive 1 LUN: 0
```

```
Drive 2 WWPN: 00:00:00:00:00:00:00:00
Drive 2 LUN: 0
Drive 3 WWPN: 00:00:00:00:00:00:00:00
Drive 3 LUN: 0
Message: Success
```

The following example shows the `port bootconfigext get` command on a local host in UEFI mode:

```
~# esxcli qlfc qcc port bootconfigext get -i
FC_51:40:2e:c0:12:3c:f4:a0 -b UEFI
```

The following example shows the `port bootconfigext get` command on a remote host in UEFI mode:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port
bootconfigext get -i FC_51:40:2e:c0:12:3c:f4:a0 -b UEFI
```

The output for both commands is:

```
Boot Config Info:
  Boot Config:
    Data:
      Adapter Driver: false
      Selective Login: false
      Selective LUN Login: false
      World Login: true
      Fabric Assigned Boot LUN: false
      Drive 0 WWPN: 00:00:00:00:00:00:00:00
      Drive 0 LUN: 0
      Drive 1 WWPN: 00:00:00:00:00:00:00:00
      Drive 1 LUN: 0
      Drive 2 WWPN: 00:00:00:00:00:00:00:00
      Drive 2 LUN: 0
      Drive 3 WWPN: 00:00:00:00:00:00:00:00
      Drive 3 LUN: 0
      Drive 4 WWPN: 00:00:00:00:00:00:00:00
      Drive 4 LUN: 0
      Drive 5 WWPN: 00:00:00:00:00:00:00:00
      Drive 5 LUN: 0
      Drive 6 WWPN: 00:00:00:00:00:00:00:00
      Drive 6 LUN: 0
```

```
Drive 7 WWPN: 00:00:00:00:00:00:00:00
Drive 7 LUN: 0
```

Message: Success

The following example shows the `port bootconfigext get` command on a local host operating in NVME mode:

```
~# esxcli qlfc qcc port bootconfigext get -i
FC_51:40:2e:c0:12:3c:f4:a0 -b NVME
```

The following example shows the `port bootconfigext get` command on a remote host in UEFI mode:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port
bootconfigext get -i FC_51:40:2e:c0:12:3c:f4:a0 -b NVME
```

The output for both commands is:

Boot Config Info:

Boot Config:

Data:

```
Adapter Driver: true
Selective Login: false
Selective LUN Login: false
World Login: true
Fabric Assigned Boot LUN: false
FC NVMe: true
Host NQN: nqn.2014-08.com.marvell:nvme:FCBFSAutomationLun0
Host ID: 62978f65f57dabb29525f40270d6f210
Storage 0: true
Storage 0 WWNN: 23:98:00:a0:98:f4:68:4a
Storage 0 WWPN: 23:9a:00:a0:98:f4:68:4a
Storage 0 NQN: nqn.1992-08.com.netapp:sn.
               4d9248d2e18011ecad6d00a098d6abfa:
               subsystem.AM-Automation-SUB
Storage 0 ControllerID: 0x101
Storage 0 NamespaceID: 7
Storage 1: false
Storage 1 WWNN: 00:00:00:00:00:00:00:00
Storage 1 WWPN: 00:00:00:00:00:00:00:00
Storage 1 NQN:
Storage 1 ControllerID: 0x0
Storage 1 NamespaceID: 0
Storage 2: false
```

```
Storage 2 WWNN: 00:00:00:00:00:00:00:00
Storage 2 WWPN: 00:00:00:00:00:00:00:00
Storage 2 NQN:
Storage 2 ControllerID: 0x0
Storage 2 NamespaceID: 0
Storage 3: false
Storage 3 WWNN: 00:00:00:00:00:00:00:00
Storage 3 WWPN: 00:00:00:00:00:00:00:00
Storage 3 NQN:
Storage 3 ControllerID: 0x0
Storage 3 NamespaceID: 0
Storage 4: false
Storage 4 WWNN: 00:00:00:00:00:00:00:00
Storage 4 WWPN: 00:00:00:00:00:00:00:00
Storage 4 NQN:
Storage 4 ControllerID: 0x0
Storage 4 NamespaceID: 0
Storage 5: false
Storage 5 WWNN: 00:00:00:00:00:00:00:00
Storage 5 WWPN: 00:00:00:00:00:00:00:00
Storage 5 NQN:
Storage 5 ControllerID: 0x0
Storage 5 NamespaceID: 0
Storage 6: false
Storage 6 WWNN: 00:00:00:00:00:00:00:00
Storage 6 WWPN: 00:00:00:00:00:00:00:00
Storage 6 NQN:
Storage 6 ControllerID: 0x0
Storage 6 NamespaceID: 0
Storage 7: false
Storage 7 WWNN: 00:00:00:00:00:00:00:00
Storage 7 WWPN: 00:00:00:00:00:00:00:00
Storage 7 NQN:
Storage 7 ControllerID: 0x0
Storage 7 NamespaceID: 0
```

Message: Success

SetFile Port Boot Configuration (Extended)

The `port bootconfigext setFile` command sets port-level boot configuration for the specified Marvell Adapter port in a local cache file. This cache file is used by the `set` command to write the boot configuration in the flash. This command is supported only on the physical port (not on the NPIV virtual port).

```
~# esxcli qlfc qcc port bootconfigext setFile
```

Syntax

```
esxcli qlfc qcc port bootconfigext setFile [cmd options]
```

Keywords

```
-i|--identifier <str> = Port identifier (required). Obtain the
                        identifier from the port list output.
-a|--enable-bfs<str> = Enable boot-from-SAN
-b|--boot-mode <str> = Boot mode
-c|--selective-lun-login <str> = Selective LUN login (UEFI and NVME
                                modes only)
-d|--selectable-boot <str> = Selectable boot (BIOS mode only)
-e|--selective-login <str> = Selective login (UEFI and NVMe modes
                                only)
-f|--fabric-assigned-boot-lun <str> = Fabric assigned boot LUN
    g|--world-login <str> = World login (UEFI and NVMe modes only)
-l|--boot-target-enable <str> = Boot target enable (NVMe mode only)
    -m|--fc-nvme <str> = Fibre Channel NVMe (NVMe mode only)
-n|--boot-target-num <long> = Boot target number
    -o|--boot-disk-num <long> = Boot disk (LUN or namespace ID) number
-p|--boot-target-wwpn <str> = Boot target WWPN (":" separated)
```

<u>Parameter</u>	<u>Value (strings are case-sensitive)</u>
Identifier	Port identifier from the <code>port list</code> command
boot-mode	BIOS, UEFI, NVME
enable-bfs	true, false
selectable-boot	true, false
fabric-assigned-boot-lun	true, false
selective-login	true, false
selective-lun-login	true, false

<u>Parameter</u>	<u>Value (strings are case-sensitive)</u>
world-login	true, false
fc-nvme	true, false
boot-target-num	0–3 (BIOS) or 0–7 (UEFI mode and NVMe mode)
boot-target-wwpn	“:” separated WWPN
boot-disk-num	0–65,535
boot-target-enable	true, false

Example

The following example shows the `port bootconfigext setFile` command on a local host in BIOS mode:

```
~# esxcli qlfc qcc port bootconfigext setFile -i  
FC_51:40:2e:c0:12:3c:f4:a0 -b BIOS -d true
```

The following example shows the `port bootconfigext setFile` command on a remote host in BIOS mode:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port  
bootconfigext setFile -i FC_51:40:2e:c0:12:3c:f4:a0 -b BIOS -d  
true
```

The output for both commands is:

```
Boot Config Info:  
  Boot Config:  
    Data:  
      Adapter BIOS: false  
      Selectable Boot: true  
      Fabric Assigned Boot LUN: true  
      Drive 0 WWPN: 00:00:00:00:00:00:00:00  
      Drive 0 LUN: 0  
      Drive 1 WWPN: 00:00:00:00:00:00:00:00  
      Drive 1 LUN: 0  
      Drive 2 WWPN: 00:00:00:00:00:00:00:00  
      Drive 2 LUN: 0  
      Drive 3 WWPN: 00:00:00:00:00:00:00:00  
      Drive 3 LUN: 0  
      Message: Success
```

The following example shows the `port bootconfigext setFile` command on a local host in UEFI mode:

```
~# esxcli qlfc qcc port bootconfigext setFile -i  
FC_51:40:2e:c0:12:3c:f4:a0 -b UEFI -e true
```

The following example shows the `port bootconfigext setFile` command on a remote host in UEFI mode:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port  
bootconfigext setFile -i FC_51:40:2e:c0:12:3c:f4:a0 -b UEFI -e  
true
```

The output for both commands is:

Boot Config Info:

Boot Config:

Data:

Adapter Driver: false
Selective Login: true
Selective LUN Login: false
World Login: true
Fabric Assigned Boot LUN: false
Drive 0 WWPN: 00:00:00:00:00:00:00:00
Drive 0 LUN: 0
Drive 1 WWPN: 00:00:00:00:00:00:00:00
Drive 1 LUN: 0
Drive 2 WWPN: 00:00:00:00:00:00:00:00
Drive 2 LUN: 0
Drive 3 WWPN: 00:00:00:00:00:00:00:00
Drive 3 LUN: 0
Drive 4 WWPN: 00:00:00:00:00:00:00:00
Drive 4 LUN: 0
Drive 5 WWPN: 00:00:00:00:00:00:00:00
Drive 5 LUN: 0
Drive 6 WWPN: 00:00:00:00:00:00:00:00
Drive 6 LUN: 0
Drive 7 WWPN: 00:00:00:00:00:00:00:00
Drive 7 LUN: 0

Message: Success

The following example shows the `port bootconfigext setFile` command on a local host in NVME mode:

```
~# esxcli qlfc qcc port bootconfigext setFile -i  
FC_51:40:2e:c0:12:3c:f4:a0 -b NVME -e true
```

The following example shows the `port bootconfigext setFile` command on a remote host in NVME mode:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port  
bootconfigext setFile -i FC_51:40:2e:c0:12:3c:f4:a0 -b NVME -e  
true
```

The output for both commands is:

Boot Config Info:

Boot Config:

Data:

```
Adapter Driver: true  
Selective Login: true  
Selective LUN Login: false  
World Login: true  
Fabric Assigned Boot LUN: false  
FC NVMe: true  
Host NQN: nqn.2014-08.com.marvell:nvme:FCBFSAutomationLun0  
Host ID: 62978f65f57dabb29525f40270d6f210  
Storage 0: true  
Storage 0 WWNN: 23:98:00:a0:98:f4:68:4a  
Storage 0 WWPN: 23:9a:00:a0:98:f4:68:4a  
Storage 0 NQN: nqn.1992-08.com.netapp:sn.  
4d9248d2e18011ecad6d00a098d6abfa:  
subsystem.AM-Automation-SUB  
Storage 0 ControllerID: 0x101  
Storage 0 NamespaceID: 7  
Storage 1: false  
Storage 1 WWNN: 00:00:00:00:00:00:00:00  
Storage 1 WWPN: 00:00:00:00:00:00:00:00  
Storage 1 NQN:  
Storage 1 ControllerID: 0x0  
Storage 1 NamespaceID: 0  
Storage 2: false  
Storage 2 WWNN: 00:00:00:00:00:00:00:00  
Storage 2 WWPN: 00:00:00:00:00:00:00:00  
Storage 2 NQN:
```

```
Storage 2 ControllerID: 0x0
Storage 2 NamespaceID: 0
Storage 3: false
Storage 3 WWNN: 00:00:00:00:00:00:00:00
Storage 3 WWPN: 00:00:00:00:00:00:00:00
Storage 3 NQN:
Storage 3 ControllerID: 0x0
Storage 3 NamespaceID: 0
Storage 4: false
Storage 4 WWNN: 00:00:00:00:00:00:00:00
Storage 4 WWPN: 00:00:00:00:00:00:00:00
Storage 4 NQN:
Storage 4 ControllerID: 0x0
Storage 4 NamespaceID: 0
Storage 5: false
Storage 5 WWNN: 00:00:00:00:00:00:00:00
Storage 5 WWPN: 00:00:00:00:00:00:00:00
Storage 5 NQN:
Storage 5 ControllerID: 0x0
Storage 5 NamespaceID: 0
Storage 6: false
Storage 6 WWNN: 00:00:00:00:00:00:00:00
Storage 6 WWPN: 00:00:00:00:00:00:00:00
Storage 6 NQN:
Storage 6 ControllerID: 0x0
Storage 6 NamespaceID: 0
Storage 7: false
Storage 7 WWNN: 00:00:00:00:00:00:00:00
Storage 7 WWPN: 00:00:00:00:00:00:00:00
Storage 7 NQN:
Storage 7 ControllerID: 0x0
Storage 7 NamespaceID: 0
```

Message: Success

Set Port Boot Configuration (Extended)

The `port bootconfigext set` command sets port-level boot configuration for the specified Marvell Adapter port from the local cache file. If the local cache file is not present, this command fails. When this command completes successfully, the local cache file is deleted.

```
~# esxcli qlfc qcc port bootconfigext set
```

NOTE

This command is supported only on the physical port (not on the NPIV virtual port).

This command is supported for both Fibre Channel Protocol (FCP) targets and non-Volatile Memory Express (NVMe) targets.

Syntax

```
esxcli qlfc qcc port bootconfigext set [cmd options]
```

Keywords

`-i|--identifier <str>` = Port identifier (required). Obtain the identifier from the `port list` output.

Example

The following example shows the `port bootconfigext set` command on a local host:

```
~# esxcli qlfc qcc port bootconfigext set -i  
FC_51:40:2e:c0:12:3c:f4:a0
```

The following example shows the `port bootconfigext set` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port  
bootconfigext set -i FC_51:40:2e:c0:12:3c:f4:a0
```

The output for both commands is dependent on the last boot mode value used in the `setFile` command.

If BIOS boot mode is used, the output is:

```
Boot Config Info:  
  Boot Config:  
    Data:  
      Adapter BIOS: false  
      Selectable Boot: true
```

```
Fabric Assigned Boot LUN: true
Drive 0 WWPN: 00:00:00:00:00:00:00:00
Drive 0 LUN: 0
Drive 1 WWPN: 00:00:00:00:00:00:00:00
Drive 1 LUN: 0
Drive 2 WWPN: 00:00:00:00:00:00:00:00
Drive 2 LUN: 0
Drive 3 WWPN: 00:00:00:00:00:00:00:00
Drive 3 LUN: 0
Message: Success
Reboot Required: false
```

If UEFI boot mode used, the output is:

```
Boot Config Info:
  Boot Config:
    Data:
      Adapter Driver: false
      Selective Login: true
      Selective LUN Login: false
      World Login: true
      Fabric Assigned Boot LUN: false
      Fabric Assigned Boot LUN: false
      Drive 0 WWPN: 00:00:00:00:00:00:00:00
      Drive 0 LUN: 0
      Drive 1 WWPN: 00:00:00:00:00:00:00:00
      Drive 1 LUN: 0
      Drive 2 WWPN: 00:00:00:00:00:00:00:00
      Drive 2 LUN: 0
      Drive 3 WWPN: 00:00:00:00:00:00:00:00
      Drive 3 LUN: 0
      Drive 4 WWPN: 00:00:00:00:00:00:00:00
      Drive 4 LUN: 0
      Drive 5 WWPN: 00:00:00:00:00:00:00:00
      Drive 5 LUN: 0
      Drive 6 WWPN: 00:00:00:00:00:00:00:00
      Drive 6 LUN: 0
      Drive 7 WWPN: 00:00:00:00:00:00:00:00
      Drive 7 LUN: 0
```

```
Message: Success
Reboot Required: false
```

If NVMe boot mode is used, the output is:

```
Boot Config Info:
  Boot Config:
    Data:
      Adapter Driver: true
      Selective Login: true
      Selective LUN Login: false
      World Login: true
      Fabric Assigned Boot LUN: false
      FC NVMe: true
      Host NQN: nqn.2014-08.com.marvell:nvme:FCBFSAutomationLun0
      Host ID: 62978f65f57dabb29525f40270d6f210
      Storage 0: true
      Storage 0 WWNN: 23:98:00:a0:98:f4:68:4a
      Storage 0 WWPN: 23:9a:00:a0:98:f4:68:4a
      Storage 0 NQN: nqn.1992-08.com.netapp:
                    sn.4d9248d2e18011ecad6d00a098d6abfa:
                    subsystem.AM-Automation-SUB
      Storage 0 ControllerID: 0x101
      Storage 0 NamespaceID: 7
      Storage 1: false
      Storage 1 WWNN: 00:00:00:00:00:00:00:00
      Storage 1 WWPN: 00:00:00:00:00:00:00:00
      Storage 1 NQN:
      Storage 1 ControllerID: 0x0
      Storage 1 NamespaceID: 0
      Storage 2: false
      Storage 2 WWNN: 00:00:00:00:00:00:00:00
      Storage 2 WWPN: 00:00:00:00:00:00:00:00
      Storage 2 NQN:
      Storage 2 ControllerID: 0x0
      Storage 2 NamespaceID: 0
      Storage 3: false
      Storage 3 WWNN: 00:00:00:00:00:00:00:00
      Storage 3 WWPN: 00:00:00:00:00:00:00:00
      Storage 3 NQN:
      Storage 3 ControllerID: 0x0
```

```
Storage 3 NamespaceID: 0
Storage 4: false
Storage 4 WWNN: 00:00:00:00:00:00:00:00
Storage 4 WWPN: 00:00:00:00:00:00:00:00
Storage 4 NQN:
Storage 4 ControllerID: 0x0
Storage 4 NamespaceID: 0
Storage 5: false
Storage 5 WWNN: 00:00:00:00:00:00:00:00
Storage 5 WWPN: 00:00:00:00:00:00:00:00
Storage 5 NQN:
Storage 5 ControllerID: 0x0
Storage 5 NamespaceID: 0
Storage 6: false
Storage 6 WWNN: 00:00:00:00:00:00:00:00
Storage 6 WWPN: 00:00:00:00:00:00:00:00
Storage 6 NQN:
Storage 6 ControllerID: 0x0
Storage 6 NamespaceID: 0
Storage 7: false
Storage 7 WWNN: 00:00:00:00:00:00:00:00
Storage 7 WWPN: 00:00:00:00:00:00:00:00
Storage 7 NQN:
Storage 7 ControllerID: 0x0
Storage 7 NamespaceID: 0
```

```
Message: Success
Reboot Required: false
```

Adapter Port Firmware Dump Information

The `port fwdump` command provides firmware dump information from the selected Marvell Adapter port:

```
~# esxcli qlfc qcc port fwdump
```

Syntax

```
esxcli qlfc qcc port fwdump {cmd} [cmd options]
```

Available Commands

get

Saves a firmware dump of the specified Marvell Adapter port. See [Get Port Firmware Dump Information](#).

Get Port Firmware Dump Information

The `port fwdump get` command saves port-level firmware dump information for the specified Marvell Adapter port. This command works only when the firmware dump is generated and saved in the driver buffer. This command is supported only on the physical port (not on the NPIV virtual port).

```
~# esxcli qlfc qcc port fwdump get
```

Syntax

```
esxcli qlfc qcc port fwdump get [cmd options]
```

Keywords

`-i|--identifier <str>` = Port identifier (required). Obtain the identifier from the `list` output.

`-f|--filename <str>` = Filename where the firmware dump will be saved (required) with the absolute path

Example

The following example shows the `port fwdump get` command on a local host:

```
~# esxcli qlfc qcc port fwdump get -i FC_51:40:2e:c0:12:3c:f4:a0  
-f /scratch/fwdump.bin
```

The following example shows the `port fwdump get` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port fwdump  
get -i FC_51:40:2e:c0:12:3c:f4:a0 -f /scratch/fwdump.bin
```

The output for both commands is:

```
FwDump Info:  
  Message: Success
```

Adapter Port Beacon Configuration

The `port beacon` command configures beacon values of the selected Marvell Adapter port:

```
~# esxcli qlfc qcc port beacon
```

Syntax

```
esxcli qlfc qcc port beacon {cmd} [cmd options]
```

Available Commands

`get`

Shows beacon configuration of the specified Marvell Adapter port. See [Get Port Beacon Configuration](#).

`set`

Sets the beacon configuration of the specified Marvell Adapter port to flash on the adapter. See [Set Port Beacon Configuration](#).

Get Port Beacon Configuration

The `port beacon get` command shows port-level beacon configuration for the specified Marvell Adapter port. This command is supported only on the physical port (not on the NPIV virtual port).

```
~# esxcli qlfc qcc port beacon get
```

Syntax

```
esxcli qlfc qcc port beacon get [cmd options]
```

Keywords

`-i|--identifier <str>` = Port identifier (required). Obtain the identifier from the `port list` output.

Example

The following example shows the `port beacon get` command on a local host:

```
~# esxcli qlfc qcc port beacon get -i FC_51:40:2e:c0:12:3c:f4:a0
```

The following example shows the `port beacon get` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port beacon  
get -i FC_51:40:2e:c0:12:3c:f4:a0
```

The output for both commands is:

```
Beacon Info:  
  Beacon State: OFF  
  Message: Success
```

Set Port Beacon Configuration

The `port beacon set` command sets port-level beacon configuration for the specified Marvell Adapter port. This command is supported only on the physical port (not on the NPIV virtual port).

```
~# esxcli qlfc qcc port beacon set
```

Syntax

```
esxcli qlfc qcc port beacon set [cmd options]
```

Keywords

`-i|--identifier <str>` = Port identifier (required). Obtain the identifier from the `port list` output.

`-b|--beacon-state <str>` = Beacon state

<u>Parameter</u>	<u>Value (strings are case-sensitive)</u>
Identifier	Port identifier from the <code>port list</code> command
beacon-state	ON, OFF

Example

The following example shows the `port beacon set` command on a local host:

```
~# esxcli qlfc qcc port beacon set -i FC_51:40:2e:c0:12:3c:f4:a0  
-b ON
```

The following example shows the `port beacon set` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port beacon  
set -i FC_51:40:2e:c0:12:3c:f4:a0 -b ON
```

The output for both commands is:

```
Beacon Info:  
  Beacon State: ON  
  Message: Success
```

Adapter Port Diagnostics (DPort) Configuration

The `port dportdiag` command sets the port in diagnostic port (DPort) mode and runs DPort diagnostic commands on the selected Marvell Adapter port:

```
~# esxcli qlfc qcc port dportdiag
```

Syntax

```
esxcli qlfc qcc port dportdiag {cmd} [cmd options]
```

Available Commands

`get`

Shows DPort configuration of the specified Marvell Adapter port. See [Get DPort Configuration](#).

set

Sets the DPort configuration of the specified Marvell Adapter port. See [Set DPort Configuration](#).

run

Runs a DPort operation on the specified Marvell Adapter port. See [Run DPort Diagnostics](#).

Get DPort Configuration

The `port dportdiag get` command shows the port-level DPort configuration for the specified Marvell Adapter port. This command is supported only on the physical port (not on the NPIV virtual port).

```
~# esxcli qlfc qcc port dportdiag get
```

Syntax

```
esxcli qlfc qcc port dportdiag get [cmd options]
```

Keywords

`-i|--identifier <str>` = Port identifier (required). Obtain the identifier from the `list` output.

Example

The following example shows the `port dportdiag get` command on a local host:

```
~# esxcli qlfc qcc port dportdiag get -i  
FC_51:40:2e:c0:12:3c:f4:a0
```

The following example shows the `port dportdiag get` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port  
dportdiag get -i FC_51-40:2e:c0:12:3c:f4:a0
```

The output for both commands is:

```
DPort Diag Info:  
Diagnostics Port Status: false  
Message: Success
```

Set DPort Configuration

The `port dportdiag set` command sets port-level DPort configuration for the specified Marvell Adapter port. This command is supported only on the physical port (not) on NPIV virtual port.

```
~# esxcli qlfc qcc port dportdiag set
```

Syntax

```
esxcli qlfc qcc port dportdiag set [cmd options]
```

Keywords

`-i|--identifier <str>` = Port identifier (required). Obtain the identifier from the port list output.

`-m|--mode <str>` = DPort mode

<u>Parameter</u>	<u>Value (strings are case-sensitive)</u>
Identifier	Port identifier from the port list command
mode	true, false

Example

The following example shows the `port dportdiag set` command on a local host:

```
~# esxcli qlfc qcc port dportdiag set -i  
FC_51:40:2e:c0:12:3c:f4:a0 -m true
```

The following example shows the `port dportdiag set` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port  
dportdiag set -i FC_51:40:2e:c0:12:3c:f4:a0 -m true
```

The output for both commands is:

```
DPort Diag Info:  
  Diagnostics Port Status: true  
  Message: Success  
  Reboot Required: true
```

Run DPort Diagnostics

The `port dportdiag run` command runs a host port-level DPort configuration for the specified Marvell Adapter port. This command is supported only on the physical port (not on the NPIV virtual port).

```
~# esxcli qlfc qcc port dportdiag run
```

Syntax

```
esxcli qlfc qcc port dportdiag run [cmd options]
```

Keywords

`-i|--identifier <str>` = Port identifier (required). Obtain the identifier from the port list output.

Example

The following example shows the `port dportdiag run` command on a local host:

```
~# esxcli qlfc qcc port dportdiag run -i  
FC_51:40:2e:c0:12:3c:f4:a0
```

The following example shows the `port dportdiag get` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port  
dportdiag run -i FC_51:40:2e:c0:12:3c:f4:a0
```

The output for both commands is:

DPort Diag Info:

DPort Diag Result:

Data:

Start Time: Tue Nov 30 22:23:34 2021

Stop Time: Tue Nov 30 22:23:53 2021

HBA Port Value: 0x1

HBA Port Status: 1

HBA Port Result: Passed

Electrical Loopback Value: 0xd2

Electrical Loopback Status: 1

Electrical Loopback Result: Passed

Optical Loopback Value: 0xd3

Optical Loopback Status: 1

Optical Loopback Result: Passed

Link Traffic Value: 0xd5

Link Traffic Status: 2

Link Traffic Result: Skipped

Tx Power: 0x173a

Rx Power: 0x184b

Mbx1: 0x41

Mbx2: 0xe000

Roundtrip Link Latency: 176 ns

Cable Link Distance: 3 meters

Allowable Power Loss: 0.014000

```
Egress Power: Tx: -2.257750 dBm, Rx: -2.123978 dBm,  
              Diff: -0.133772 dBm  
Ingress Power: Tx: -1.930742 dBm, Rx: -2.062794 dBm,  
              Diff: 0.132052 dBm
```

Message: Success

Adapter Port Common Pass-thru (CT) Diagnostics

NOTE

This command is supported for FCP targets and NVMe-FC targets.

The `port ctdiag` command runs common pass-thru (CT) diagnostic commands on the selected Marvell Adapter port:

```
~# esxcli qlfc qcc port ctdiag
```

Syntax

```
esxcli qlfc qcc port ctdiag {cmd} [cmd options]
```

Available Commands

`run`

Runs CT diagnostics on the specified Marvell Adapter port. See [Run Port CT Diagnostics](#).

Run Port CT Diagnostics

The `port ctdiag run` command runs host port-level CT diagnostics commands for the specified port on the Marvell Adapter. This command is supported on the physical port, but not on the NPIV virtual port.

```
~# esxcli qlfc qcc port ctdiag run
```

Syntax

```
esxcli qlfc qcc port ctdiag run [cmd options]
```

Keywords

```
-i|--identifier <str> = Port identifier (required). Obtain the identifier from  
                        the port list output.  
-n|--number-of-tests <long> = Number of test iterations  
-e|--stop-on-error <str> = Test stop on error
```

`-t|--target <str>` = Target WWPN (":" separated)
`-p|--test-type <str>` = Test type

<u>Parameter</u>	<u>Value (strings are case-sensitive)</u>
<code>identifier</code>	Port identifier from the <code>port list</code> command
<code>number-of-tests</code>	1–65535
<code>stop-on-error</code>	true, false
<code>target</code>	":" separated target WWPN
<code>test-type</code>	CTPing, CTFCTraceRoute

Example

The following example shows the `port ctdiag run` command on a local host:

```
~# esxcli qlfc qcc port ctdiag run -i FC_51:40:2e:c0:12:3c:f4:a0  
-n 2 -e true -t 50:0a:09:82:90:a2:ce:4d -p CTPing
```

The following example shows the `port ctdiag run` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port ctdiag  
run -i FC_51:40:2e:c0:12:3c:f4:a0 -n 2 -e true -t  
50:0a:09:82:90:a2:ce:4d -p CTPing
```

The output for both commands is:

```
CT Diag Result:  
Diagnostic Test: CTPing  
Test Result: Success
```

Adapter Port Echo ELS Diagnostics

NOTE

This command is supported for FCP targets and NVMe-FC targets.

The `port fcecho` command runs Fibre Channel Echo ELS diagnostic commands on the specified Marvell Adapter port:

```
~# esxcli qlfc qcc port fcecho
```

Syntax

```
esxcli qlfc qcc port fcecho {cmd} [cmd options]
```

Available Commands

`run`

Runs Fibre Channel Echo ELS diagnostics on the specified Marvell Adapter port.
See [“Run Port Fibre Channel Echo ELS Diagnostics” on page 209](#).

Run Port Fibre Channel Echo ELS Diagnostics

The `port fcecho run` command runs host port-level Fibre Channel Echo ELS diagnostics commands for the specified Marvell Adapter port. This command is supported on the physical port, but not on the NPIV virtual port.

```
~# esxcli qlfc qcc port fcecho run
```

Syntax

```
esxcli qlfc qcc port fcecho run [cmd options]
```

Keywords

```
-i|--identifier <str> = Port identifier (required). Obtain the identifier from  
                        the port list output.  
-n|--number-of-tests <long> = Number of test iterations  
-e|--stop-on-error <str> = Test stop on error  
-t|--target <str> = Target WWPN (":" separated)
```

<u>Parameter</u>	<u>Value (strings are case-sensitive)</u>
identifier	Port identifier from the <code>port list</code> command
number-of-tests	1–65535
stop-on-error	true, false
target	":" separated target WWPN

Example

The following example shows the `port fcecho run` command on a local host:

```
~# esxcli qlfc qcc port fcecho run -i FC_51:40:2e:c0:12:3c:f4:a0  
-n 2 -e true -t 50:0a:09:82:90:a2:ce:4d
```

The following example shows the `port fcecho run` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port fcecho  
run -i FC_51:40:2e:c0:12:3c:f4:a0 -n 2 -e true -t  
50:0a:09:82:90:a2:ce:4d
```

The output for both commands is:

FC Echo ELS Result:

FCEcho Test Results:

```
Destination WWN: 50:0a:09:82:90:a2:ce:4d
Echo Status: Success
Frame Received: 1
Frame Sent: 1
Ping Sequence Number: 1
Response Length: 256
Response Time: 0.00 (ms)
```

```
Destination WWN: 50:0a:09:82:90:a2:ce:4d
Echo Status: Success
Frame Received: 1
Frame Sent: 1
Ping Sequence Number: 2
Response Length: 256
Response Time: 0.00 (ms)
Message: Success
```

Adapter Port Ping Diagnostics

NOTE

This command is supported for FCP targets and NVMe-FC targets.

The `port fcping` command runs Fibre Channel ping diagnostic commands on the selected Marvell Adapter port:

```
~# esxcli qlfc qcc port fcping
```

Syntax

```
esxcli qlfc qcc port fcping {cmd} [cmd options]
```

Available Commands

`run`

Runs Fibre Channel ping diagnostics on the specified Marvell Adapter port. See [Run Port Fibre Channel Ping Diagnostics](#).

Run Port Fibre Channel Ping Diagnostics

The `port fcping run` command runs host port-level Fibre Channel ping diagnostics commands for the specified Marvell Adapter port. This command is supported on physical port, but not on the NPIV virtual port.

```
~# esxcli qlfc qcc port fcping run
```

Syntax

```
esxcli qlfc qcc port fcping run [cmd options]
```

Keywords

```
-i|--identifier <str> = Port identifier (required). Obtain the identifier from  
                        the port list output.  
-n|--number-of-tests <long> = Number of test iterations  
-e|--stop-on-error <str> = Test stop on error  
-t|--target <str> = Target WWPN (":" separated)
```

<u>Parameter</u>	<u>Value (strings are case-sensitive)</u>
identifier	Port identifier from the <code>port list</code> command
number-of-tests	1–65535
stop-on-error	true, false
target	":" separated target WWPN

Example

The following example shows the `port fcping run` command on a local host:

```
~# esxcli qlfc qcc port fcping run -i FC_51:40:2e:c0:12:3c:f4:a0  
-n 2 -e true -t 50:0a:09:82:90:a2:ce:4d
```

The following example shows the `port fcping run` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port fcping  
run -i FC_51:40:2e:c0:12:3c:f4:a0 -n 2 -e true -t  
50:0a:09:82:90:a2:ce:4d
```

The output for both commands is:

```
FC Ping Result:  
Diagnostic Test: FCPing  
Test Result: Success
```

Adapter Port Read Port Diagnostics (RDP) Information

The `port rdp` command shows port diagnostics information about the selected Marvell Adapter port:

```
~# esxcli qlfc qcc port rdp
```

Syntax

```
esxcli qlfc qcc port rdp {cmd} [cmd options]
```

Available Commands

`get`

Shows information about the specified Marvell Adapter port. See [Get Read Port Diagnostics Information](#).

Get Read Port Diagnostics Information

The `port rdp get` command shows port-level diagnostics information for the specified Marvell Adapter port.

```
~# esxcli qlfc qcc port rdp get
```

Syntax

```
esxcli qlfc qcc port rdp get [cmd options]
```

Keywords

```
-i|--identifier <str> = Port identifier (required). Obtain the identifier from  
the port list output.
```

Example

The following example shows the `port rdp get` command on a local host:

```
~# esxcli qlfc qcc port rdp get -i FC_51:40:2e:c0:12:3c:f4:a0
```

The following example shows the `port rdp get` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port rdp get  
-i FC_51:40:2e:c0:12:3c:f4:a0
```

The output for both commands is:

```
RDP Information:  
  Message: Success  
  Read Diagnostics Parameters Data:  
    RDPInfo:
```

```
-----  
Diagnostics Parameters Information  
-----  
Descriptor Tag: Link Service Request Information  
Descriptor Len: 4 Bytes  
Descriptor Value: 0x18000000  
  
-----  
Port Speed Information  
-----  
Port Speed Capabilities: 32 16 8 4 Gbps  
Port Operating Speed: 32 Gbps  
  
-----  
Link Error Status Block Information  
-----  
Link Failure Count: 13  
Loss Of Sync Count: 0  
Loss Of Signal Count: 13  
Primary Sequence Error Count: 0  
Invalid Transmit Word Count: 0  
Invalid CRC Count: 0  
PN Port Physical Type: 0x40000000  
    The sending VN_Port uses an FC-FS-3 PN_Port or PF Port  
  
-----  
Port Name Information  
-----  
Node WWN: 10:00:88:94:71:97:67:63  
Port WWN: 20:11:88:94:71:97:67:63  
  
-----  
Port Name Information  
-----  
Node WWN: 51:40:2e:c0:12:3c:f4:a1  
Port WWN: 51:40:2e:c0:12:3c:f4:a0  
  
-----  
SFP Diagnostics Param Information
```

```
-----  
Temperature: 58 (C)  
Vcc: 3.338599920 V  
Tx Bias: 7.642000198 mA  
Tx Power: 0.737200022 mW  
Rx Power: 0.781500041 mW  
SFP Flag: 0x0051  
    Port Tx Type: Short Wave Laser  
    Connector Type: SFP+  
    Optical Port: On  
    SFP Diagnostics Parameters not valid: Off  
    FEC Active: Off
```

```
-----  
FEC Status Information  
-----
```

```
Correctable Blocks: 0  
UnCorrectable Blocks: 58
```

```
-----  
Buffer Credits Status Information  
-----
```

```
FC Port Buffer To Buffer Credits: 20  
Attached FC Port Buffer To Buffer Credits: 48  
Nominal FC Port RTT: 0 ns
```

```
-----  
Optical Product Data Information  
-----
```

```
Vendor Name: BROCADE  
Part Number: 57-1000333-01  
Serial Number: JAF418500000BL0  
Revision:  
Date: 181211
```

```
-----  
Optical Element Data Information  
-----
```

```
Temperature High Alarm: 75.00
```

Temperature Low Alarm: -5.00

Temperature High Warning: 70.00

Temperature Low Warning: 0.00

Optical Element Data Information

Voltage High Alarm: 3.599999905

Voltage Low Alarm: 3.000000000

Voltage High Warning: 3.500000000

Voltage Low Warning: 3.099999905

Optical Element Data Information

Tx Bias High Alarm: 12.000000954

Tx Bias Low Alarm: 1.000000000

Tx Bias High Warning: 11.500000954

Tx Bias Low Warning: 2.000000000

Optical Element Data Information

Tx Power High Alarm: 1.995300174

Tx Power Low Alarm: 0.125900000

Tx Power High Warning: 1.584900141

Tx Power Low Warning: 0.158500001

Optical Element Data Information

Rx Power High Alarm: 1.995300174

Rx Power Low Alarm: 0.010000001

Rx Power High Warning: 1.584900141

Rx Power Low Warning: 0.015800001

Adapter Port Loopback Diagnostics

The `port loopback` command runs loopback diagnostic commands on the specified Marvell Adapter port:

```
~# esxcli qlfc qcc port loopback
```

Syntax

```
esxcli qlfc qcc port loopback {cmd} [cmd options]
```

Available Commands

`run`

Runs loopback diagnostics on the specified Marvell Adapter port. See [Run Port Loopback Diagnostics](#).

Run Port Loopback Diagnostics

The `port loopback run` command runs host port-level loopback diagnostics commands for the specified Marvell Adapter port. This command is supported on the physical port, but not on the NPIV virtual port.

```
~# esxcli qlfc qcc port loopback run
```

Syntax

```
esxcli qlfc qcc port loopback run [cmd options]
```

Keywords

<code>-i --identifier <str></code>	=	Port identifier (required). Obtain the identifier from the <code>port list</code> output.
<code>-n --number-of-tests <long></code>	=	Number of test iterations
<code>-t --test-increment <long></code>	=	Test increment count
<code>-e --stop-on-error <str></code>	=	Test stop on error
<code>-l --loopback-type <str></code>	=	Loopback test type
<code>-z --data-size <str></code>	=	Data size
<code>-p --data-pattern-type <str></code>	=	Loopback buffer data pattern type
<code>-d --data-pattern <str></code>	=	Custom 8-byte data pattern for loopback buffer

<u>Parameter</u>	<u>Value (strings are case-sensitive)</u>
<code>identifier</code>	Port identifier from the <code>port list</code> command
<code>number-of-tests</code>	1–65535
<code>test-increment</code>	1–65535
<code>stop-on-error</code>	Ignore, Stop, Loop
<code>loopback-type</code>	Internal_10bit, Internal, External, FCoE_Echo (only for legacy 8100/8200 Series Adapters)
<code>data-size</code>	8, 16, 32, 64, 128, 256, 512, 1024, 2048, 4096, 8192, 16384, 32768, 65535
<code>data-pattern-type</code>	Random, CRPAT, CJTPAT, CSPAT, 00000000, 01010101, 01011010, 10100101, 10101010, 11111111, Custom
<code>data-pattern</code>	8-byte used defined data pattern (only for Custom <code>data-pattern-type</code>)

Example

The following example shows the `port loopback run` command on a local host:

```
~# esxcli qlfc qcc port loopback run -i FC_51:40:2e:c0:12:3c:f4:a0  
-n 2 -t 5 -e Stop -l External -z 512 -p Random
```

The following example shows the `port loopback run` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port loopback  
run -i FC_51:40:2e:c0:12:3c:f4:a0 -n 2 -t 5 -e Stop -l External -z  
512 -p Random
```

The output for both commands is:

Loopback Test Information:

Loopback Test Result:

Crc Error: 0

Disparity Error: 0

Failure Count: 0

Frame Length Error: 0

Success Count: 5

Test Iteration: 5

Test Status: Success

Message: Success

Adapter Port Read and Write Buffer Diagnostics

The `port rwbuffer` command runs read and write buffer diagnostic commands on the specified Marvell Adapter port:

```
~# esxcli qlfc qcc port rwbuffer
```

Syntax

```
esxcli qlfc qcc port rwbuffer {cmd} [cmd options]
```

Available Commands

`run`

Runs read and write buffer diagnostics on the specified Marvell Adapter port. See [Run Port Read and Write Buffer Diagnostics](#).

Run Port Read and Write Buffer Diagnostics

The `port rwbuffer run` command runs host port-level read-write buffer diagnostics commands for the specified Marvell Adapter port. This command is supported on the physical port, but not on the NPIV virtual port.

```
~# esxcli qlfc qcc port rwbuffer run
```

Syntax

```
esxcli qlfc qcc port rwbuffer run [cmd options]
```

Keywords

<code>-i --identifier <str></code>	=	Port identifier (required). Obtain the identifier from the <code>port list</code> output.
<code>-n --number-of-tests <long></code>	=	Number of test iterations
<code>-t --test-increment <long></code>	=	Test increment count
<code>-e --stop-on-error <str></code>	=	Stop on error
<code>-z --data-size <str></code>	=	Data size
<code>-p --data-pattern-type <str></code>	=	Loopback buffer data pattern type
<code>-d --data-pattern <str></code>	=	User defined 8-byte data pattern for the loopback buffer. Use only when <code>data-pattern-type</code> parameter is Custom.

<u>Parameter</u>	<u>Value (strings are case-sensitive)</u>
identifier	Port identifier from the <code>port list</code> command
number-of-tests	1–10000
test-increment	1–10000
stop-on-error	Ignore, Stop, Loop
data-size	8, 16, 32, 64, 128
data-pattern-type	Random, CRPAT, CJTPAT, CSPAT, 00000000, 01010101, 01011010, 10100101, 10101010, 11111111, Custom
data-pattern	8-byte used defined data pattern (only for Custom data-pattern-type)

Example

The following example shows the `port rwbuffer run` command on a local host:

```
~# esxcli qlfc qcc port rwbuffer run -i FC_51:40:2e:c0:12:3c:f4:a0  
-n 2 -t 5 -e Stop -z 64 -p Random
```

The following example shows the `port rwbuffer run` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port rwbuffer  
run -i FC_51:40:2e:c0:12:3c:f4:a0 -n 2 -t 5 -e Stop -z 64 -p Random
```

The output for both commands is:

Read Write Buffer Test Information:

Message: Success

RWBuffer Test Result:

Data Miscompare: 0

Failure Count: 0

Invalid CRC: 0

Link Failure: 0

Loss Of Signal: 0

Loss Of Sync: 0

Port ID: 0a:00:00

Success Count: 5

Test Iteration: 5

Test Status: Success

Adapter Port Universal SAN Congestion Mitigation Status

NOTE

SAN congestion management (SCM) is a common noun, and describes a standards-based Fibre Channel technology.

Universal SAN Congestion Mitigation (USCM) is Marvell's IP, and describes Marvell's capabilities that encompass SCM and additional functionalities to further assist users.

USCM is supported only on 2800 Series Adapters, 2770 Series Adapters, and 2690 Series Adapters.

The `port scmchk` command displays the USCM status of the specified Marvell Adapter port:

```
~# esxcli qlfc qcc port scmchk
```

Syntax

```
esxcli qlfc qcc port scmchk {cmd} [cmd options]
```

Available Commands

`get`

Shows USCM status information of the specified Marvell Adapter port. See [Get Initiator Port USCM Status](#).

Get Initiator Port USCM Status

The `port scmchk get` command shows port-level USCM status for the specified Marvell Adapter initiator port:

```
~# esxcli qlfc qcc port scmchk get
```

Syntax

```
esxcli qlfc qcc port scmchk get [cmd options]
```

Keywords

`-i|--identifier <str>` = Port identifier (required). Obtain the identifier from the `port list` output.

Example

The following example shows the `port scmchk get` command on a local host:

```
~# esxcli qlfc qcc port scmchk get -i FC_51:40:2e:c0:12:3c:f4:a0
```

The following example shows the `port scmchk get` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port scmchk  
get -i FC_51:40:2e:c0:12:3c:f4:a0
```

The output for both commands is:

```
Port Congestion Information:  
  Message: Success  
  Port Congestion Status:  
    Data:  
    Node Name: 51:40:2e:c0:12:3c:f4:a1  
    Port Name: 51:40:2e:c0:12:3c:f4:a0  
    Port Id: 01:02:00  
    Port State: Online  
    Congestion Current State: Healthy  
    Congestion Severity: None  
    Link Integrity Events: No  
    Delivery Notification Events: No  
    Seconds Since Last Event: 409  
    Fabric Connection Flags: Rdf Completed  
    Virtual Lane: Operational  
    I/O Throttling: None
```

Not all of the port parameters in this section are available on all systems. The attributes are based on the adapter driver version.

Initiator Port Status

The USCM initiator port congestion status ([Table 4-1](#)) indicates the current status of the particular adapter port, based on congestion events (both extended link service (ELS) and signals) from the switch. At a given point in time, the adapter port is either *congested* or *healthy*. The other status indicates the severity of congestion and the time since the last congestion event.

Contact the fabric/switch vendor for more information relating to congestion severity within their products.

Table 4-1. USCM Initiator Port Status

Status	Description
Congestion Current State	Healthy Congested

Table 4-1. USCM Initiator Port Status (Continued)

Status	Description
Congestion Severity	Warning. Congestion is building and may have reached a severe level. Alarm. Congestion has reached a severe level. None. No congestion present. Reserved NOTE: For more FPIN information, see the user's guide for your switch.
Link Integrity Events	Yes. A link event has been received. No
Delivery Notification Events	Yes. A delivery notification event has been received. No
Seconds Since Last Event	Event time period (in seconds) since the last congestion notification was received.
Fabric Connection Flags	RDF Rejected. The adapter is either not connected or does not support RDF; or the connected switch does not support USCM. RDF Completed. Either the connected Brocade or Cisco switch does not support virtual lanes or the virtual lane feature is disabled at the initiator port. RDF Completed (Cisco). The connected Cisco switch has virtual lanes up and running. NOTE: RDF stands for Registration Diagnostic Function.
Virtual Lane ^a	Operational. Virtual lane negotiation is complete and fully functional. Non-operational Virtual lane negotiation with the switch failed. Disabled Virtual lanes are disabled at either the driver or the initiator port parameter (NVRAM).

Table 4-1. USCM Initiator Port Status (Continued)

Status	Description
I/O Throttling ^a	Active I/O throttling is currently active. The I/O queue depth is ramping up or down. None I/O throttling is not active. I/Os are running with the normal queue depth value. Disabled I/O throttling is disabled on the adapter. NA I/O throttling is not supported on the adapter.

^a For more information about virtual lanes and I/O throttling, see the appropriate Marvell QLogic Fibre Channel Adapter user's guide.

Adapter Port Universal SAN Congestion Mitigation Statistics

For a description of USCM, see the following [NOTE](#).

The `port scmstats` command displays the USCM statistics of the selected FC port:

```
~# esxcli qlfc qcc port scmstats
```

Syntax

```
esxcli qlfc qcc port scmstats {cmd} [cmd options]
```

Available Commands

`get`

Shows USCM statistics information of the specified Marvell Adapter Fibre Channel initiator port. See [Get Initiator Port USCM Statistics](#).

`clear`

Clears USCM statistics of the specified Marvell Adapter Fibre Channel initiator port and all the target ports connected to that initiator. See [Clear Initiator Port and Connected Targets USCM Statistics](#).

Get Initiator Port USCM Statistics

USCM statistics are gathered for all ports on the Marvell QLogic FC adapter and connected targets in the configured zones with active sessions.

- USCM statistics are not gathered for other initiators in the configured zones.
- USCM statistics track the following types of Fabric Performance Impact Notification (FPIN) Extended Link Services (ELSs) to provide SAN congestion awareness:

FPIN ELS Statistic	Initiator Port	Target Port
Congestion	✓	—
Peer congestion	—	✓
Link integrity	✓	✓
Delivery	✓	✓

- USCM also displays a set of congestion mitigation statistics that reflect actions taken by the adapter to minimize the impact of congestion caused by the endpoints.

You can view the USCM congestion mitigation status and statistics; the statistics can also be reset.

For target USCM statistics, see [“Adapter Target Universal SAN Congestion Mitigation Statistics” on page 242](#).

The `port scmstats get` command shows port-level USCM statistics for the specified Marvell Adapter port:

```
~# esxcli qlfc qcc port scmstats get
```

Syntax

```
esxcli qlfc qcc port scmstats get [cmd options]
```

Keywords

`-i|--identifier <str>` = Port identifier (required). Obtain the identifier from the port list output.

Example

The following example shows the `port scmstats get` command on a local host:

```
~# esxcli qlfc qcc port scmstats get -i FC_51:40:2e:c0:12:3c:f4:a0
```

The following example shows the `port scmstats get` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port  
scsmstats get -i FC_51:40:2e:c0:12:3c:f4:a0
```

The output for both commands is:

Port SCM Statistics:

Message: Success

Port SCMStats:

Data:

Node Name: 51:40:2e:c0:12:3c:f4:a1

Port Name: 51:40:2e:c0:12:3c:f4:a0

Port Id: 0a:11:00

Port State: Online

Congestion Mitigation

Congestion Alarm Count: 3

Congestion Warning Count: 8

Cleared Congestion Count: 21

Throttled Up Count: 2

Throttled Down Count: 3

Bottomed Out Count: 5

Returned Busy Count:

Rx Fabric Performance Impact
Notifications

Link Failure Count: 0

Link Unknown Event Count: 0

Loss Of Sync Count: 0

Loss Of Signal Count: 0

Link Device Specific Event Count: 0

Primitive Sequence Protocol Error Count: 0

Invalid Transmission Word Count: 0

```
Invalid CRC Count: 0
Link Uncorrectable FEC Count: 0
Delivery Failure Unknown Count: 0
Delivery Timeout Count: 0
Delivery Unable To Route Count: 0
Delivery Failure Device Specific Count: 0
Congestion Clear Count: 0
Congestion Lost Credit Count: 0
Congestion Credit Stall Count: 0
Congestion Oversubscription Count: 0
Congestion Device Specific Count: 0
```

Not all of the port parameters in this section are available on all systems. The attributes are based on the adapter driver version.

Initiator Port Statistics

The USCM initiator port statistics ([Table 4-2](#)) indicate how many times a congestion event has occurred since the counters were reset.

Table 4-2. USCM Initiator Port Congestion Mitigation Statistics

Statistic	Description
Congestion Alarm Count	Counter for the number of alarm events in Congestion Severity .
Congestion Warning Count	Counter for the number of warning events in Congestion Severity .
Cleared Congestion Count	The number of times the congestion event was cleared for this port.
Throttled Down Count	The fabric is congested at this port. ■ Each increment indicates that the port is receiving congestion notifications from the fabric. ■ For each increment, the port decreases the I/O bandwidth. ■ Incrementing stops when the low watermark performance for the port is reached.

Table 4-2. USCM Initiator Port Congestion Mitigation Statistics

Statistic	Description
Throttled Up Count	The fabric is <i>not</i> congested at this port. ■ Each increment indicates that the port is <i>not</i> receiving congestion notifications from the fabric. ■ For each increment, the port increases the I/O bandwidth (up to the maximum I/O bandwidth for the port). ■ Incrementing starts only after the Throttle Down Count increments (and congestion notifications abate). ■ Incrementing stops when the port reaches its optimal performance.
Bottomed Out Count	This port is operating at its low watermark performance and the fabric continues to be congested at this port. ■ Each increment indicates that the port is receiving congestion notifications from the fabric. ■ This port cannot decrease the I/O bandwidth any further.
Returned Busy Count	The number of times the driver returns an I/O request queued by the initiator's storage stack. This request must be retried because the port is congested. The count is incremented faster when the driver is throttling down, and slower when the driver is throttling up.

Clear Initiator Port and Connected Targets USCM Statistics

The `port scmstats clear` command clears port-level USCM statistics for both the specified Marvell Adapter Fibre Channel initiator port and all the targets connected to that port:

```
~# esxcli qlfc qcc port scmstats get
```

Syntax

```
esxcli qlfc qcc port scmstats clear [cmd options]
```

Keywords

`-i|--identifier <str>` = Port identifier (required). Obtain the identifier from the `list` output.

Example

The following example shows the `port scmstats clear` command on a local host:

```
~# esxcli qlfc qcc port scmstats clear -i  
FC_51:40:2e:c0:12:3c:f4:a0
```

The following example shows the `port scmstats clear` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port scmstats  
clear -i FC_51:40:2e:c0:12:3c:f4:a0
```

The output for both commands is:

```
SCM Statistics Clear:  
Message: Success
```

Adapter Port Universal SAN Congestion Mitigation Profile

The `port scmprofile` command displays the USCM congestion profile of the selected FC port:

```
~# esxcli qlfc qcc port scmprofile
```

Syntax

```
esxcli qlfc qcc port scmprofile {cmd} [cmd options]
```

Available Commands

`get`

Shows USCM congestion profile information of the specified Marvell Adapter Fibre Channel port. See [Get Port Universal SAN Congestion Mitigation Profile](#).

`set`

Sets USCM congestion profile information of the specified Marvell Adapter port. See [Set Port Universal SAN Congestion Mitigation Profile](#).

For more information about USCM profiles, see the appropriate Marvell QLogic Fibre Channel Adapter user's guide.

Get Port Universal SAN Congestion Mitigation Profile

The `port scmprofile get` command displays the port-level USCM profile settings of the selected FC port:

```
~# esxcli qlfc qcc port scmprofile get
```

Syntax

```
esxcli qlfc qcc port scmprofile get [cmd options]
```

Keywords

`-i|--identifier <str>` = Port identifier (required). Obtain the identifier from the port list output.

Example

The following example shows the `port scmpprofile get` command on a local host:

```
~# esxcli qlfc qcc port scmpprofile get -i  
FC_51:40:2e:c0:12:3c:f4:a0
```

The following example shows the `port scmpprofile get` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port  
scmpprofile get -i FC_51:40:2e:c0:12:3c:f4:a0
```

The output for both commands is:

```
Port USCM Profile:  
  Congestion Profile:  
    Data:  
      Node Name: 51:40:2e:c0:12:3c:f4:a1  
      Port Name: 51:40:2e:c0:12:3c:f4:a0  
      Port Id: 0a:11:00  
      Port State: Online  
      USCM Configuration Status: true  
      USCM Profile Management: Driver_Settings  
      USCM Profile Activation: Monitor_Only  
  
Message: Success
```

Set Port Universal SAN Congestion Mitigation Profile

The `port scmpprofile set` command sets the port-level USCM profile settings of the selected FC port:

```
~# esxcli qlfc qcc port scmpprofile set
```

Syntax

```
esxcli qlfc qcc port scmpprofile set [cmd options]
```

Keywords

- `-i|--identifier <str>` = Port identifier (required). Obtain the identifier from the `port list` output.
- `-a|--activation <str>` = Congestion profile activation value
- `-r|--restore <str>` = Restore congestion profile to the default driver setting

<u>Parameter</u>	<u>Value (strings are case-sensitive)</u>
<code>identifier</code>	Port identifier from the <code>port list</code> command
<code>activation</code>	<code>Monitor_Only</code> (default), <code>Conservative</code> , <code>Moderate</code> , <code>Aggressive</code> These values are referred to as the <i>port profiles</i> ; see Table 4-3 .
<code>restore</code>	<code>Driver_Settings</code>

The `activation` and `restore` parameters are mutually exclusive.
Settings are activated immediately without reboot.
Settings are persistent across reboots.

The `restore` parameter sets profile settings defined using either the driver module parameter or the default value (if not defined using the driver module parameter). The default value is `Monitor_Only`.

Table 4-3. USCM Adapter Port Profiles

Profile	Description
USCM Configuration Status	Indicates if the USCM feature of the specified adapter port is supported. Valid values are: True False
USCM Profile Management	Indicates the current active profile setting for congestion on the specified adapter port. Valid values are: Driver_Settings (default). The USCM profile is set using either a Windows driver registry parameter; or a Linux or VMware ESXi driver module parameter. NVRAM Settings . The USCM profile is set in the adapter NVRAM.

Table 4-3. USCM Adapter Port Profiles (Continued)

Profile	Description
USCM Profile Activation	Valid values are: Monitor Only (default). Records adapter performance and congestion history for review. No actions are taken to resolve congestion. Conservative. Maintains optimum throughput while gradually reducing congestion. Queue depth (outstanding I/Os) is reduced to half of the current value as part of the throttle down operation. Marvell recommends this setting for high-priority workloads. Moderate. Queue depth (outstanding I/Os) is reduced to one-quarter of the current value as part of the throttle down operation. Aggressive. Reduces congestion on priority while reducing throughput. Queue depth (outstanding I/Os) is reduced to one-eighth of the current value as part of the throttle down operation. Marvell recommends this setting for low-priority workloads.

Example

The following example shows the `port scmpprofile set activation` command on a local host:

```
~# esxcli qlfc qcc port scmpprofile set -i
FC_51:40:2e:c0:12:3c:f4:a0 -a Aggressive
```

The following example shows the `port scmpprofile set activation` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port
scmpprofile set -i FC_51:40:2e:c0:12:3c:f4:a0 -a Aggressive
```

The output for both commands is:

```
Port USCM Profile:
  Congestion Profile:
    Data:
      Node Name: 51:40:2e:c0:12:3c:f4:a1
```

```
Port Name: 51:40:2e:c0:12:3c:f4:a0
Port Id: 0a:11:00
Port State: Online
USCM Configuration Status: true
USCM Profile Management: NVRAM
USCM Profile Activation: Aggressive
```

Message: Success

The following example shows the `port scmpprofile set restore` command on a local host:

```
~# esxcli qlfc qcc port scmpprofile set -i
FC_51:40:2e:c0:12:3c:f4:a0 -r Driver_Settings
```

The following example shows the `port scmpprofile set restore` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port
scmpprofile set -i FC_51:40:2e:c0:12:3c:f4:a0 -r Driver_Settings
```

The output for both commands is:

```
Port USCM Profile:
  Congestion Profile:
    Data:
      Node Name: 51:40:2e:c0:12:3c:f4:a1
      Port Name: 51:40:2e:c0:12:3c:f4:a0
      Port Id: 0a:11:00
      Port State: Online
      USCM Configuration Status: true
      USCM Profile Management: Driver_Settings
      USCM Profile Activation: Monitor_Only

Message: Success
```

Adapter Port NVMe Host NQN Registration

NOTE

This feature is supported with Brocade Switch FOS 9.2.2a and later for 32G and 64G fabrics only.

The `port hnqn` command displays the NVMe Host NQN information of the selected FC port:

```
~# esxcli qlfc qcc port hnqn
```

Syntax

```
esxcli qlfc qcc port hnqn {cmd} [cmd options]
```

Available Commands

`get`

Shows NVMe Host NQN information of the specified Marvell Adapter Fibre Channel port. See [Get Port NVMe Host NQN](#).

`register`

Registers NVMe Host NQN information of the specified Marvell Adapter port with FC switch. See [Register Port NVMe Host NQN](#).

`deregister`

Deregisters NVMe Host NQN information of the specified Marvell Adapter port with FC switch. See [Deregister Port NVMe Host NQN](#).

Get Port NVMe Host NQN

The `port hnqn get` command displays the NVMe Host NQN information of the selected FC port:

```
~# esxcli qlfc qcc port hnqn get
```

Syntax

```
esxcli qlfc qcc port hnqn get [cmd options]
```

Keywords

`-i|--identifier <str>` = Port identifier (required). Obtain the identifier from the port list output.

Example

The following example shows the `port hnqn get` command on a local host:

```
~# esxcli qlfc qcc port hnqn get -i FC_51:40:2e:c0:12:3c:f4:a0
```

The following example shows the `port hnqn get` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port hnqn get  
-i FC_51:40:2e:c0:12:3c:f4:a0
```

The output for both commands is:

```
Host NQNInfo:  
Host Nqn:  
nqn.2014-08.org.nvmexpress:uuid:35323550-3433-4753-4834-33394b5a37  
5a  
Host Nqn Registration Status: Not Registered  
Message: Success
```

Register Port NVMe Host NQN

The `port hnqn register` command registers the NVMe Host NQN information of the selected FC port with FC switch:

```
~# esxcli qlfc qcc port hnqn register
```

Syntax

```
esxcli qlfc qcc port hnqn register [cmd options]
```

Keywords

`-i|--identifier <str>` = Port identifier (required). Obtain the identifier from the port

list output.

Example

The following example shows the `port hnqn register` command on a local host:

```
~# esxcli qlfc qcc port hnqn register -i  
FC_51:40:2e:c0:12:3c:f4:a0
```

The following example shows the `port hnqn register` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port hnqn  
register -i FC_51:40:2e:c0:12:3c:f4:a0
```

The output for both commands is:

```
Host NQNInfo:
```

```
Host Nqn:  
nqn.2014-08.org.nvmexpress:uuid:35323550-3433-4753-4834-33394b5a37  
5a  
Host Nqn Registration Status: Registered  
Message: Success
```

Deregister Port NVMe Host NQN

The port `hnqn deregister` command deregisters the NVMe Host NQN information of the selected FC port with FC switch:

```
~# esxcli qlfc qcc port hnqn deregister
```

Syntax

```
esxcli qlfc qcc port hnqn deregister [cmd options]
```

Keywords

`-i|--identifier <str>` = Port identifier (required). Obtain the identifier from the port list output.

Example

The following example shows the port `hnqn deregister` command on a local host:

```
~# esxcli qlfc qcc port hnqn deregister -i  
FC_51:40:2e:c0:12:3c:f4:a0
```

The following example shows the port `hnqn deregister` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port hnqn  
deregister -i FC_51:40:2e:c0:12:3c:f4:a0
```

The output for both commands is:

```
Host NQNInfo:  
Host Nqn:  
nqn.2014-08.org.nvmexpress:uuid:35323550-3433-4753-4834-33394b5a37  
5a  
Host Nqn Registration Status: Not Registered  
Message: Success
```

Adapter Target Namespace Commands and Sub-namespaces

This section provides information on the following:

- [Adapter Target List](#)
- [Adapter Target Information](#)
- [Adapter Target Universal SAN Congestion Mitigation Status](#)
- [Adapter Target Universal SAN Congestion Mitigation Statistics](#)
- [Adapter Target iidMA Configuration](#)

NOTE

These commands are supported for FCP targets and NVMe-FC targets.

To view all Marvell Adapter target namespace and subspace commands, issue the following:

```
# esxcli qlfc qcc target
```

Syntax

```
esxcli qlfc qcc target {cmd} [cmd options]
```

Namespaces

Available namespaces include the following:

<u>Namespace</u>	<u>Description</u>
info	QCC CLI for target information
scmchk	QCC CLI for target USCM status
scmstats	QCC CLI for target USCM statistics
iidma	QCC CLI for target maximum link speed
stats	QCC CLI for target link statistics

Available Commands

list

Lists identifiers for the Marvell Adapter targets discovered on the host. See [Adapter Target List](#).

Adapter Target List

The `target list` command shows all the targets detected, as follows:

```
~# esxcli qlfc qcc target list
```

The following example shows the `target list` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc target list
```

The command output is:

```
Targets
-----
FC_51:40:2e:c0:12:3c:f4:a2_Target_50:0a:09:81:90:a2:ce:4d
FC_51:40:2e:c0:12:3c:f4:a2_Target_ 20:02:00:11:0d:27:b2:00
```

Adapter Target Information

The `target info` command shows target information about the selected target:

```
~# esxcli qlfc qcc target info
```

Syntax

```
esxcli qlfc qcc target info {cmd} [cmd options]
```

Available Commands

`get`

Shows information about the specified target on the Marvell Adapter port. See [Get Target Information](#).

Get Target Information

The `target info get` command shows target information for the specified target.

```
~# esxcli qlfc qcc target info get
```

Syntax

```
esxcli qlfc qcc target info get [cmd options]
```

Keywords

`-i|--identifier <str>` = Target identifier (required). Obtain the identifier from the `target list` output.

Example

The following example shows the `target info get` command for FCP targets on a local host:

```
~# esxcli qlfc qcc target info get -i  
FC_51:40:2e:c0:12:3c:f4:a2_Target_50:0a:09:81:90:a2:ce:4d
```

The following example shows the `target info get` command for FCP targets on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc target info  
get -i FC_51:40:2e:c0:12:3c:f4:a2_Target_50:0a:09:81:90:a2:ce:4d
```

The output for both commands is:

```
Target Information:  
  Message: Success  
  Target Info:  
    Data:  
      Target Node Name: 50:0a:09:80:80:a2:ce:4d  
      Target Port Name: 50:0a:09:81:90:a2:ce:4d  
      Target Port ID: 01:12:00  
      Target Number: 0  
      Vendor ID: NETAPP  
      Product ID: LUN  
      Product Revision: 820a  
      Product Type: FCP Disk  
      Serial Number: 80ADI+KeW-ca  
      Lun Count: 1  
      Luns: LUN_1  
      Remote Type: Unknown  
      Session State: NA  
      Secure Mode: Disabled  
      Congestion Current State: Healthy  
      Virtual Lane: Normal  
      I/O Throttling: None  
      Status: Online
```

The following example shows the `target info get` command for NVMe targets on a local host:

```
~# esxcli qlfc qcc target info get -i  
FC_51:40:2e:c0:12:3c:f4:a2_Target_20:02:00:11:0d:27:b2:00
```

The following example shows the `target info get` command for NVMe targets on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc target info  
get -i FC_51:40:2e:c0:12:3c:f4:a2_Target_20:02:00:11:0d:27:b2:00
```

The output for both commands is:

Target Information:

Message: Success

Target Info:

Data:

Target Node Name: 20:02:00:11:0d:27:b2:00

Target Port Name: 20:02:00:11:0d:27:b2:00

Target Port ID: 01:00:00

Target Number: 1

Vendor ID: SANBlaze

Product ID: VLUN P2T0

Product Revision: V8.1-dev

Product Type: NVMe Disk

Serial Number: 00-200200110d27b200

Storage NQN: nqn.2014-08.com.sanblaze:virtualun.
virtuallunnvme.2.0

Storage Controller ID: 0x103

Namespace Count: 1

Namespaces: NSID_1

Remote Type: Unknown

Session State: NA

Secure Mode: Disabled

Congestion Current State: Healthy

Virtual Lane: Normal

I/O Throttling: None

Status: Online

Adapter Target Universal SAN Congestion Mitigation Status

For a description of USCM, see the following [NOTE](#).

The `target scmchk` command displays USCM status of the selected target discovered on the Marvell Adapter target:

```
~# esxcli qlfc qcc target scmchk
```

Syntax

```
esxcli qlfc qcc target scmchk {cmd} [cmd options]
```

Available Commands

`get`

Shows USCM status information of the specified target. See [Get Target USCM Status](#).

Get Target USCM Status

The `target scmchk get` command displays target-level USCM status of the selected target discovered on the Marvell Adapter port:

```
~# esxcli qlfc qcc target scmchk get
```

Syntax

```
esxcli qlfc qcc target scmchk get [cmd options]
```

Keywords

`-i|--identifier <str>` = Target identifier (required). Obtain the identifier from the `target list` output.

Example

The following example shows the `target scmchk get` command on a local host:

```
~# esxcli qlfc qcc target scmchk get -i  
FC_51:40:2e:c0:12:3c:f4:a0_Target_50:0a:09:81:90:a2:ce:4d
```

The following example shows the `target scmchk get` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc target scmchk  
get -i FC_51:40:2e:c0:12:3c:f4:a0_Target_50:0a:09:81:90:a2:ce:4d
```

The output for both commands is:

```
Target Congestion Information:  
Message: Success
```

```
Target Congestion Status:
  Data:
    Node Name: 50:0a:09:80:80:a2:ce:4d
    Port Name: 50:0a:09:81:90:a2:ce:4d
    Port Id: 01:12:00
    Target Number: 0
    Congestion Current State: Healthy
    Link Integrity Events: No
    Seconds Since Last Event: 153
    Virtual Lane: Normal
    I/O Throttling: None
```

Target Port Status

The USCM target congestion status ([Table 4-4](#)) indicates the current status/health of connected target ports based on the FPIN ELSs received from the switch.

This status includes peer congestion and link integrity, as well as details about each of these events for each active target port.

Table 4-4. USCM Target Port Status

Status	Description
Congestion Current State	See Congestion Current State
Link Integrity Events	Yes . A link event has been received. No
Seconds Since Last Event	See Seconds Since Last Event .
Virtual Lane ^a	Slow . The current target is marked as slow device and was moved to a slow virtual lane due to congestion. Normal . The current target is healthy. No congestion is detected. Fast . Fast traffic is flowing to a fast virtual lane. Non-operational . Either virtual lanes is disabled at the initiator or it is not supported by the connected switch. NA . Virtual lanes is not supported on the connected adapter and/or the driver.
I/O Throttling ^a	See I/O Throttling

^a For more information about virtual lane and I/O throttling, see the appropriate Marvell QLogic Fibre Channel Adapter user's guide.

Adapter Target Universal SAN Congestion Mitigation Statistics

For a description of USCM, see the following [NOTE](#).

For more information about USCM statistics, see [“Get Initiator Port USCM Statistics” on page 224](#).

The `target scmstats` command displays USCM statistics for the specified target discovered on the Marvell Adapter port:

```
~# esxcli qlfc qcc target scmstats
```

Syntax

```
esxcli qlfc qcc target scmstats {cmd} [cmd options]
```

Available Commands

`get`

Shows USCM statistics information of the specified target. See [Get Target SAN Congestion Management \(SCM\) Statistics](#).

Get Target USCM Statistics

The `target scmstats get` command displays target-level USCM statistics for the specified target discovered on the Marvell Adapter port.

```
~# esxcli qlfc qcc target scmstats get
```

Syntax

```
esxcli qlfc qcc target scmstats get [cmd options]
```

Keywords

`-i|--identifier <str>` = Target identifier (required). Obtain the identifier from the `target list` output.

Example

The following example shows the `target scmstats get` command on a local host:

```
~# esxcli qlfc qcc port scmstats get -i  
FC_51:40:2e:c0:12:3c:f4:a2_Target_50:0a:09:81:90:a2:ce:4d
```

The following example shows the `target scmstats get` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port  
scsmstats get  
-i FC_51:40:2e:c0:12:3c:f4:a2_Target_50:0a:09:81:90:a2:ce:4d
```

The output for both commands is:

Target SCM Statistics:

Message: Success

Target SCMStats:

Data:

Node Name: 50:0a:09:80:80:a2:ce:4d

Port Name: 50:0a:09:81:90:a2:ce:4d

Port Id: 01:12:00

Target Number: 0

Congestion Mitigation

Cleared Congestion Count: 3

Throttled Up Count: 1

Throttled Down Count: 4

Bottomed Out Count: 0

Returned Busy Count: 12

Rx Fabric Performance Impact
Notifications

Link Failure Count: 0

Link Unknown Event Count: 0

Loss Of Sync Count: 0

Loss Of Signal Count: 0

Link Device Specific Event Count: 0

Primitive Sequence Protocol Error Count: 0

Invalid Transmission Word Count: 0

Invalid CRC Count: 0

Link Uncorrectable FEC Count: 0

Congestion Clear Count: 3

Congestion Lost Credit Count: 2

Congestion Credit Stall Count: 5

Congestion Oversubscription Count: 2

Congestion Device Specific Count: 0
Pun Count: 0

Target Port Statistics

The USCM target statistics ([Table 4-5](#)) indicate how many times a congestion event has occurred since the counters were reset.

Table 4-5. USCM Target Port Congestion Mitigation Statistics

Statistic	Description
Cleared Congestion Count	Counter for the number of times the congestion event was cleared for this target.
Throttled Up Count	See Throttled Up Count .
Throttled Down Count	See Throttled Down Count .
Bottomed Out Count	See Bottom Out Count .
Returned Busy Count	See Returned Busy Count .
Link Failure Count	Counter for number of link failure events.
Link Unknown Event Count	Counter for the number of unknown events.
Loss of Sync Count	Counter for the number of loss of sync events.
Loss of Signal Count	Counter for the number of loss of signal count events.
Link Device Specific Event Count	Counter for the number of device specific events.
Primitive Seq Protocol Error Count	Counter for the number of primitive sequence protocol errors.
Invalid Transmission Word Count	Counter for the number of transmission word errors.

Table 4-5. USCM Target Port Congestion Mitigation Statistics (Continued)

Statistic	Description
Invalid CRC Count	Counter for the number of invalid CRC events.
Link Uncorrectable FEC Count	Counter for the number of uncorrectable FEC errors.
Congestion Clear Count	Counter for the number of times the peer congestion event was cleared for this target.
Congestion Lost Credit Count	Counter for the number of lost credit events.
Congestion Credit Stall Count	Counter for the number of credit stall events.
Congestion Oversubscription Count	Counter for the number of oversubscription events.
Congestion Device Specific Count	Counter for the number of device-specific events.
PUN Count	Number of priority update notifications received.

Adapter Target iidMA Configuration

The `target iidma` command configures the maximum target link speed at which data is sent for the selected FC target from the Marvell Adapter port:

```
~# esxcli qlfc qcc target iidma
```

Syntax

```
esxcli qlfc qcc target iidma {cmd} [cmd options]
```

Available Commands

`get`

Shows current maximum link speed configuration of the specified target detected on Marvell FC Port. See [Get Target iidMA Configuration](#).

`set`

Sets maximum link speed configuration of the specified target detected on Marvell FC Port. See [Set Target iidMA Configuration](#).

Get Target iiDMA Configuration

The `target iidma get` command shows target link speed configuration for the specified FC target.

```
~# esxcli qlfc qcc target iidma get
```

Syntax

```
esxcli qlfc qcc target iidma get [cmd options]
```

Keywords

`-i|--identifier <str>` = Target identifier (required). Obtain the identifier from the `target list` output.

Example

The following example shows the `target iidma get` command on a local host:

```
~# esxcli qlfc qcc target iidma get -i  
FC_51:40:2e:c0:12:3c:f4:A2_Target_50:0a:09:81:90:a2:ce:4d
```

The following example shows the `target iidma get` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc target iidma  
get -i FC_51:40:2e:c0:12:3c:f4:a2_Target_50:0a:09:81:90:a2:ce:4d
```

The output for both commands is:

```
Target IIDMA Information:  
  Message: Success  
  Target IIDMAInfo:  
    Data:  
      Node Name: 50:0a:09:80:80:a2:ce:4d  
      Port Name: 50:0a:09:81:90:a2:ce:4d  
      Port Id: 01:12:00  
      Target Number: 0  
      Target Maximum Link Speed: 16_Gbps
```

Set Target iiDMA Configuration

The `target iidma set` command sets the target link speed for the specified FC target.

```
~# esxcli qlfc qcc target iidma set
```

NOTE

The maximum link speed is limited to the maximum supported port speed shown in the `port info` command.

Syntax

```
esxcli qlfc qcc target iidma set [cmd options]
```

Keywords

- `-i|--identifier <str>` = Target identifier (required). Obtain the identifier from the `target list` output.
- `-s|--link-speed <str>` = Link speed (required)

Parameter

Value (strings are case-sensitive)

identifier	Port identifier from the <code>port list</code> command
link-speed	1_Gbps, 2_Gbps, 4_Gbps, 8_Gbps, 16_Gbps, 32_Gbps, 64_Gbps

Example

The following example shows the `target iidma set` command on a local host:

```
~# esxcli qlfc qcc target iidma set -i  
FC_51:40:2e:c0:12:3c:f4:a2_Target_50:0a:09:81:90:a2:ce:4d -s  
32_Gbps
```

The following example shows the `target iidma set` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc target iidma  
set -i FC_51:40:2e:c0:12:3c:f4:a2_Target_50:0a:09:81:90:a2:ce:4d  
-s 32_Gbps
```

The output for both commands is:

```
Target IIDMA Information:  
  Message: Success  
  Target IIDMAInfo:  
    Data:  
      Node Name: 50:0a:09:80:80:a2:ce:4d  
      Port Name: 50:0a:09:81:90:a2:ce:4d  
      Port Id: 01:12:00  
Target Number: 0
```

Target Maximum Link Speed: 32_Gbps

Target Link Statistics

The `target stats` command shows target link statistics for the selected FC target from the Marvell Adapter port:

```
~# esxcli qlfc qcc target stats
```

Syntax

```
esxcli qlfc qcc target stats {cmd} [cmd options]
```

Available Commands

`get`

Shows link statistics of the specified FC target detected on the Marvell FC port.

See [Get Target Link Statistics](#).

Get Target Link Statistics

The `target stats get` command shows target link statistics for the specified FC target detected on the Marvell FC port.

```
~# esxcli qlfc qcc target stats get
```

Syntax

```
esxcli qlfc qcc target stats get [cmd options]
```

Keywords

`-i|--identifier <str>` = Target identifier (required). Obtain the identifier from the `target list` output.

Example

The following example shows the `target stats get` command on a local host:

```
~# esxcli qlfc qcc target stats get -i  
FC_51:40:2e:c0:12:3c:f4:a2_Target_50:0a:09:81:90:a2:ce:4d
```

The following example shows the `target stats get` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc target stats  
get -i FC_51:40:2e:c0:12:3c:f4:a2_Target_50:0a:09:81:90:a2:ce:4d
```

The output for both commands is:

Target Statistics:

```
Message: Success
Target Stats:
  Data:
    Node Name: 50:0a:09:80:80:a2:ce:4d
    Port Name: 50:0a:09:81:90:a2:ce:4d
    Port Id: 0a:00:00
    Target Number: 0
    Link Failure Count: 1
    Loss Of Sync Count: 0
    Loss Of Signal Count: 0
    Primitive Sequence Protocol Error Count: 0
    Invalid Transmission Word Count: 0
    Invalid CRC Count: 0
```

Adapter LUN Namespace Commands and Sub-namespaces

This section provides information on the following:

- [Adapter LUN List](#)
- [Adapter LUN Information](#)

NOTE

These commands are supported for FCP targets and NVMe-FC targets.

To view the Marvell Adapter LUN namespace commands and sub-namespaces, issue the following command:

```
# esxcli qlfc qcc lun
```

Syntax

```
esxcli qlfc qcc lun {cmd} [cmd options]
```

Namespaces

Available namespaces include the following:

<u>Namespace</u>	<u>Description</u>
info	QCC CLI for LUN information

Available Commands

list

Lists identifiers for the LUNs discovered on the Marvell Adapter ports. See [Adapter LUN List](#).

Adapter LUN List

The `lun list` command shows all the LUNs detected, as follows:

```
~# esxcli qlfc qcc lun list
```

The following example shows the `lun list` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc lun list
```

The command output is:

```
Luns/Namespaces
-----
FC_51:40:2e:c0:12:3c:f4:a2_Target_50:0a:09:81:90:a2:ce:4d_LUN_0
FC_51:40:2e:c0:12:3c:f4:a2_Target_50:0a:09:81:90:a2:ce:4d_LUN_1
FC_51:40:2e:c0:12:3c:f4:a2_Target_ 20:02:00:11:0d:27:b2:00_NSID_1
```

Adapter LUN Information

The `lun info` command shows LUN information of the selected FC LUN:

```
~# esxcli qlfc qcc lun info
```

Syntax

```
esxcli qlfc qcc lun info {cmd} [cmd options]
```

Available Commands

get

Shows LUN information of the specified LUN. See [Get LUN Information](#).

Get LUN Information

The `lun info get` command shows information for the specified LUN.

```
~# esxcli qlfc qcc lun info get
```

Syntax

```
esxcli qlfc qcc lun info get [cmd options]
```

Keywords

`-i|--identifier <str>` = LUN identifier (required). Obtain the identifier from the LUN list output.

Example

The following example shows the `lun info get` command for an FCP target on a local host:

```
~# esxcli qlfc qcc lun info get -i  
FC_51:40:2e:c0:12:3c:f4:a2_Target_50:0a:09:81:90:a2:ce:4d_LUN_1
```

The following example shows the `lun info get` command an FCP target on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc lun info get  
-i FC_51:40:2e:c0:12:3c:f4:a2_Target_50:0a:09:81:90:a2:ce:4d_LUN_1
```

The output for both commands is:

Lun Information:

Lun Info:

Data:

Vendor ID: NETAPP

Product ID: LUN

Product Revision: 820a

Lun Number: 1

Lun Size In MB: 3074

Lun Worldwide Unique ID:

4e:45:54:41:50:50:20:20:4c:55:4e:20:38:30:41:44:49:2b:4b:65:57:
2d:63:61:00:00:00:00:00:00:00

Message: Success

The following example shows the `lun info get` command for an NVMe target on a local host:

```
~# esxcli qlfc qcc lun info get -i  
FC_51:40:2e:c0:12:3c:f4:a2_Target_20:02:00:11:0d:27:b2:00_NSID_1
```

The following example shows the `lun info get` command for an NVMe target on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc lun info get  
-i FC_51:40:2e:c0:12:3c:f4:a2_Target_20:02:00:11:0d:27:b2:00_NSID_1
```

The output for both commands is:

Lun Information:

Lun Info:

Data:

Vendor ID: SANBlaze

Product ID: VLUN P2T0

Product Revision: V8.1-dev

Namespace ID: 1

Namespace Size In MB: 5000

Message: Success

A USCM Virtual Lanes

This appendix provides information for USCM virtual lanes feature to Marvell QLogic adapters using ESXCLI-Plugin.

Prerequisites

When setting up virtual lanes, consider the following:

- This feature is available only when the adapter is connected to a supported Cisco switch running a fabric OS version that supports the equivalent feature on the fabric.
- USCM must be enabled to use the virtual lanes feature.
- By default, the USCM virtual lanes feature is disabled.
- USCM virtual lanes feature can be enabled on both target and initiator ports.
- The USCM virtual lanes feature is available only on Fibre Channel 2770 and 2800 Series Adapters.
- USCM virtual lanes feature can be enabled using the following commands.

- ☐ Save the configuration in the local configuration file.

The following example shows the `port hbaparams setFile` command on a local host:

```
~# esxcli qlfc qcc port hbaparams setFile -i  
FC_51:40:2e:c0:12:3c:f4:a0 -q true -j true
```

The following example shows the `port hbaparams setFile` command on a remote host:

```
# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port  
hbaparams setFile -i FC_51:40:2e:c0:12:3c:f4:a0 -q true -j  
true
```

The output for both commands is:

```
HBA Parameters Info:
```

```
HBAParameters:
```

```
Connection Options:Loop_Preferred_Otherwise_Point_  
To_Point
```

```

Data Rate: Auto
    Enable Fabric Assigned WWN: false
    Enable Fc Tape Support: true
    Enable Hard Loop Id: true
    Enable Host Hba Bios: true
    Enable LR: false
    Enable Lip Full Login: true
    Enable USCM: true
    Enable Target Reset: true
    Execution Throttle: 0
    Frame Size: 2048
    Hard Loop Id: 10
    Interrupt Delay Timer In100us: 2
    Link Down Timeout In Seconds: 30
    Login Retry Count: 8
    Loop Reset Delay In Seconds: 15
    Luns Per Target: 128
    Operation Mode:
Interrupt_When_Interrupt_Delay_Timer_Expires_Or_No_Active_I/O
    Port Down Retry Count: 30
    Virtual Lane: true
Message: Success

```

- ☐ Set the configuration settings from the local configuration file on the adapter.

The following example shows the `port hbaparams set` command on a local host:

```

~# esxcli qlfc qcc port hbaparams set -i
FC_51:40:2e:c0:12:3c:f4:a0

```

The following example shows the `port hbaparams set` command on a remote host:

```

# esxcli -s 172.27.9.144 -u root -p password qlfc qcc port
hbaparams set -i FC_51:40:2e:c0:12:3c:f4:a0

```

The output for both commands is:

```
HBA Parameters Info:
  HBAParameters:
    Connection
Options:Loop_Preferred_Otherwise_Point_To_Point
    Data Rate: Auto
    Enable Fabric Assigned WWN: false
    Enable Fc Tape Support: true
    Enable Hard Loop Id: true
Enable Host Hba Bios: true
    Enable LR: false
    Enable Lip Full Login: true
    Enable USCM: true
    Enable Target Reset: true
    Execution Throttle: 0
    Frame Size: 2048
    Hard Loop Id: 10
    Interrupt Delay Timer In100us: 2
    Link Down Timeout In Seconds: 30
    Login Retry Count: 8
    Loop Reset Delay In Seconds: 15
    Luns Per Target: 128
    Operation Mode:
      Interrupt_When_Interrupt_Delay_Timer_Expires_Or_No_Activ
e_I/O
      Port Down Retry Count: 30
      Virtual Lane: true
Message: Success
  Reboot Required: true
```

B USCM FPIN-LI/MPIO with FC-NVMe Storage

This appendix provides information for USCM multipath switching based on marginal links with integrity issues running on Marvell QLogic Adapters using ESXCLI-Plugin.

Prerequisites

When enabling and configuring FPIN-LI/MPIO, consider the following:

- This feature is available only with ESX 8.0 U3 or later hosts.
- USCM must be enabled to use the FPIN-LI/MPIO feature.
- This feature is available on QLE2600, QLE2700, and QLE2800 Series Adapters.

NOTE

For more information about configuring FPINs for FPIN-LI/MPIO operation in PSA, see the VMware vSphere 8.0 U3 documentation.

C Revision History

Document Revision History
Revision A, April 15, 2016
Revision B, June 21, 2017
Revision C, November 17, 2017
Revision D, June 27, 2018
Revision E, January 18, 2019
Revision F, September 27, 2019
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Revision I not released. All updates from revision I included in revision J
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Revision P, December 15, 2021
Revision Q not released. All updates from revision Q included in revision R
Revision R, March 29, 2022
Revision S not released. All updates from revision S included in revision T
Revision T, September 30, 2022
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Revision W, March 24, 2023
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Revision Z, June 10, 2024
Revision ZA, May 29, 2026

Changes	Sections Affected
Added an Adapter Port Namespace and Sub-namespaces command 'Adapter Port NVMe Host NQN Registration'.	“Adapter Port NVMe Host NQN Registration” on page 233



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