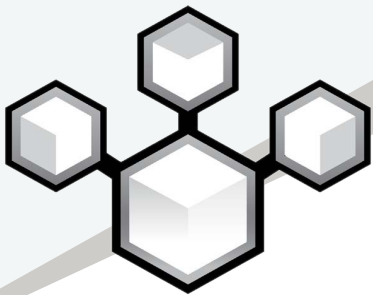


Unified Adapter Management Across the Data Center

Marvell QConvergeConsole from Marvell Simplifies and Accelerates Deployment and Management in Windows and Linux



QConvergeConsole

- **QLogic FC HBAs**
- **FastLinQ Ethernet Adapters**

- The Marvell QConvergeConsole® (QCC) management tool from Marvell maximizes application performance and availability.
- Administrators can manage the entire Marvell and FastLinQ products portfolio using one tool, which provides a single-pane-of-glass view for management of Fibre Channel, FCoE, iSCSI, Universal RDMA (RoCEv1/RoCEv2/iWARP), and IP functions.
- The QCC GUI allows for centralized management and configuration of multiple Marvell HBAs (Host Bus Adapters) and FastLinQ Ethernet adapters within the entire network from LANs (Local Area Networks) to SANs (Storage Area Networks).
- Using the QCC CLI and QCS CLI increases productivity by automating manual tasks.¹

KEY BENEFITS

- **Exceed Service Level Agreements:** The QCC delivers seamless, unified management of multiple LAN and SAN fabrics across the data center, enabling IT administrators to optimize the performance and availability of data and network resources.
- **Reduce Administration Time:** Offering a wizard-driven approach to adapter management, QCC saves time by automating repetitive tasks and providing automatic e-mail notifications on the status of various SAN and LAN components. In addition, a breadth of customized asset management options are also available.
- **Comply with Data Center Security Policies:** QCC allows flexible definitions of administrator roles and responsibilities, providing LAN and SAN administrators with access to the components they own and manage.

EXECUTIVE SUMMARY

IT managers face several ever-growing challenges to manage the data center, including: virtualization; power consumption; reliability, availability, and serviceability (RAS); security; and manageability. One method of addressing these concerns is to implement unified management across the data center, which improves efficiency and saves costs. When taking this approach, it is imperative to select a management solution that is easy to deploy and offers single-pane-of-glass, intelligent, and automated operations management.

Marvell QConvergeConsole® (QCC) delivers a broad set of powerful Ethernet and Fibre Channel adapter management features for administrators to maximize application performance and availability. Available in both GUI and CLI options, QCC offers application-based wizards to enable the environment to be quickly and easily provisioned based on published best practices.

The QCC delivers a unified, Web-based, single-pane-of-glass management console across the broad product line of storage, networking sssadapters from Marvell.

¹ The QCC CLI does not support the QLE344x/QLE844x(578xx)/QL41xxx/QL45xxx adapters, which you can manage using the Marvell Control Suite (QCS) CLI utility or QCC PowerKit.

INTRODUCTION TO MARVELL MANAGEMENT TOOLS

Marvell offers a robust set of management tools to help organizations simplify management and improve efficiency while reducing costs. Available for a wide range of operating systems and server platforms, QCC is capable of managing all generations and types of Marvell adapters. The following tools simplify every step of the Marvell adapter life cycle: deployment, monitoring, troubleshooting, and firmware upgrades.

- **QCC GUI** - A comprehensive, Web-based client and server GUI that allows for centralized management and configuration of multiple QLogic® Gen 5/Gen 6 2500/2600/2700 Fibre Channel, Marvell 8100/8200/8300/FastLinQ 8400 (578xx)/41000/45000 Converged Network and Marvell 3200/FastLinQ 3400 (578xx)/41000/45000 Ethernet Adapters across the data center.
- **QCC CLI** - A lightweight, agentless CLI interface for generations of QLogic 2500/2600/2700 Fibre Channel, 8100/8200/8300 Converged Network, and 3200 Ethernet Adapters¹. Available for Windows®, Linux®, and Solaris® environments, the CLI includes both a menu-driven interface for quick operations and a scriptable interface for extensive scripting and integration tasks.
- **SuperInstaller:** Single package to install all required software components for generations of QLogic Fibre Channel Marvell Converged Network, and Ethernet Adapters². Available for Windows environments, the SuperInstaller (SI) package includes all drivers as well as the QCC CLI and QCC GUI management agents.

QCC GUI

The QCC GUI unified adapter management tool can be deployed on a management workstation or virtual machine (VM). It communicates with management agents residing on servers with Marvell adapters over a secure channel via HTTPS. Access to QCC is available via any of the supported browsers by pointing the browser to the IP address of the management workstation or VM where QCC is installed. The management agents can be installed on servers with Marvell adapters in Windows and Linux environments.

¹ The QLE344x/QLE844x(578xx)/QL41xxx/QL45xxx do not use the QCC CLI but instead use the QCS CLI utility and QCC PowerKit.

² SuperInstaller is available on Windows OS's only and is for the Marvell QLogic FC HBAs and legacy CNA/Intelligent Ethernet Adapters, but not for the 57xx/57xxx/34xx/84xx/41xxx/45xxx series adapters.

³ These features are only available on the Marvell QLogic FC HBAs (2500/2600/2700) and legacy CNA/Ethernet series adapters (3200/8100/8200/8300), but not for the 57xx/57xxx and 578xx (34xx/84xx)/41xxx/45xxx series adapters.



Figure 1. Key Features of the QCC GUI

Web-based Unified Adapter Management

Using a browser-based, intuitive, and easy-to-use interface, the QCC GUI provides a single-pane-of-glass management interface that enables IT organizations to manage generations of Marvell adapters. As a result, QCC optimizes technology investments and significantly reduces the overall administrative burden.

Web-based Unified Adapter Management	GUI
Single Tool to Manage ALL Marvell Adapters	✓
Heterogeneous and Data Center-Wide Single-Pane-of-Glass Management	✓
Manage Fibre Channel, FCoE, iSCSI, RDMA, and NIC Functions	✓

Wizard-based Approach

The QCC GUI limits decision making and errors by integrating best practices into a wizard-driven approach to most common management functions relating to Marvell adapters. Intuitive wizards provide IT administrators with an extensive set of features that enable them to perform key administrative tasks, which could normally take hours to be completed, in less than a few minutes.

Wizard-based Management	GUI
Data Center-wide Firmware Updates ³	✓
Driver Update Wizards ³	✓
Driver Parameters Update Wizard ³	✓
Management Agent Update Wizard	✓
Protected Operations Password Update Wizard	✓

Wizard-based Management	GUI
Data Center-wide Firmware Updates	✓
Driver Update Wizards	✓
Driver Parameters Update Wizard	✓
Management Agent Update Wizard	✓
Protected Operations Password Update Wizard	✓

Role-based Access Control

All critical and disruptive operations that can be performed using the QCC GUI are protected from unauthorized access and erroneous use by using role-based authentication that allows for separate access for SAN and LAN administrators. This approach allows organizations to converge their LAN and SAN infrastructure without changing their organizational structure.

Role-based Access Control	GUI
Password Protected Operations	✓
Segregated Access for LAN and SAN Administrators	✓
Password Update Wizards to Comply with Security Policies	✓

Enterprise-class Management Features – Diagnostics, Inventory, and Call Home

The QCC GUI provides a rich set of features designed for the business needs and SLAs of an enterprise-class deployment. A wide range of proactive and user-initiated diagnostics help detect potential issues in the SAN and LAN before they can affect the enterprise applications that depend on Marvell adapters. This simplifies inventory management of several hundred of these adapters with a wide range of inventory gathering techniques and built-in reports. Administrators can easily configure e-mail alerts for various critical, error, or informational messages to help them quickly resolve problems.

Enterprise-class Management	GUI
Integrated Diagnostics	✓
Inventory Reports	✓
E-mail Alerts	✓
Web-Based Application Updates	✓

QCC CLI

QCC CLI provides a lightweight, text-based interface for managing generations of QLogic Fibre Channel adapters from Marvell. Restricted to local mode adapter management for enhanced security, the QCC CLI provides both interactive modes for IT administrators who are unfamiliar with the syntax and a scriptable mode with a rich set of commands and options for scripting. QCC CLI is available for Windows, Linux, and Solaris environments and is available as a standalone package for installation, or it can be installed as part of the SI.



Figure 2. Key Features of the QCC CLI

SUPERINSTALLER

SuperInstaller (SI) is an alternative and highly efficient way to deploy all the required and optional adapter software components. SI is available for supported Windows platforms and contains all the latest and interoperable software components for generations of select Marvell adapters. Administrators can deploy SI using either an interactive, menu-driven interface or a scriptable silent installation to install the following components:

- Fibre Channel, FCoE, iSCSI, and Ethernet Networking (NDIS) drivers for select Marvell adapters
- Windows QCC CLI management utility
- Fibre Channel, FCoE, iSCSI, RDMA, and networking management agents to enable remote access using the QCC GUI management utility. Using SI significantly reduces deployment time and enables IT administrators to rapidly deploy their IT infrastructure and save costs.



Figure 3. Components of SuperInstaller (SI)

MARVELL ADVANTAGE

While other adapter vendors also offer management tools to monitor and manage their adapters, these tools often lack the ease of use, maturity, and feature set required for the enterprise data center. The QCC leverages decades of experience to understand the IT administrator’s management and monitoring needs and provides them with a seamless, single-pane-of-glass management tool for all QLogic HBAs and FastLinQ Ethernet adapters from Marvell.

Adapter Management Features	Marvell QCC	Broadcom OneCommand®
Unified LAN and SAN Adapter Management	✓	✗
Fully Featured Ethernet Adapter Management	✓	✗
Menu-Driven CLI	✓	✗
Single-pane-of-glass Management of Physical and Virtual SAN Functions	✓	✗
Physical and Logical Topology Maps	✓	✗

CONCLUSION

Marvell offers a robust management solution to help organizations simplify management and improve efficiency while reducing costs. The management solutions, under the umbrella of QCC, are designed to simplify storage, Ethernet, and converged networking environments. They offer cross-functionality views and support for QLogic Fibre Channel Adapters, and FastLinQ Converged Network Adapters, and Intelligent Ethernet Adapters from Marvell. The QCC enables IT departments to standardize on one tool to manage all data, storage, and converged infrastructure.

RELATED VIDEO: QLOGIC KNOWHOW: QCONVERGECONSOLE GUI: GETTING STARTED



Click on the Image to Watch a YouTube Video

1. The QLogic Advanced Server Program (QLASP) VLAN Teaming and NIC Teaming driver is for Windows OS’s only. QLASP is not available on Windows Server 2016 and later.



ABOUT MARVELL: Marvell first revolutionized the digital storage industry by moving information at speeds never thought possible. Today, that same breakthrough innovation remains at the heart of the company’s storage, processing, networking, security and connectivity solutions. With leading intellectual property and deep system-level knowledge, Marvell semiconductor solutions continue to transform the enterprise, cloud, automotive, industrial, and consumer markets. For more information, visit www.marvell.com.

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