Simplify Storage and Network Adapter Management in VMware

QLogic® QConvergeConsole Plug-in for VMware vCenter Makes Adapter Management Easier

QConvergeConsole

The QLogic QConvergeConsole (QCC) Plug-in from Marvell is a set of software components delivered through CIM providers that enhances your hardwaremanagement capability within vSphere.

Simplified Management

- Diagrammatic visibility to storage and networking devices
- Single-pane-of-glass management of QLogic adapters from VMware vCenter
- Multi-fabric and multi-protocol management (Ethernet/FC/FCoE/iSCSI/RDMA and VXLAN/GENEVE)
- Extended visibility to VM locations and resources even with VMs moving via vMotion™

Lower Deployment Times

- Faster deployment
- Easier troubleshooting
- Optimized adapter settings
- Dynamic bandwidth allocation and choice of protocol type
- Single-pane-of-glass view of diagnostics and statistics
- Boot from SAN (FC/FCoE/iSCSI/PXE/UEFI)
- Transceiver status

Overview

The QLogic® QConvergeConsole® (QCC) Plug-in from Marvell is a set of software components delivered through CIM providers that enhances your hardware management capability within vSphere. VMware® vSphere™ virtualization platform continues to be the dominant enterprise-class server virtualization product on the market. Integrating the VMware vSphere virtualization platform with the 10GbE 3200/ FastLinQ 10/20/25/40/50/100GbE 3400 (578xx)/41000/45000 Intelligent Ethernet Adapters, 10GbE 8100/8200/8300/ FastLinQ 10/20/25/40/50/100GbE/8400 (578xx)/ 41000/45000 Converged Network Adapters, and 32GFC/16GFC/8GFC 2400/2500/2600/ 2700 Fibre Channel Adapter solutions from Marvell QLogic for network and storage can optimize the virtualized data center infrastructure to provide enterprise-class Local Area Network (LAN), Remote Direct Memory Access (RDMA), and Storage Area Network (SAN) connectivity for servers and cloud-enabled data centers.

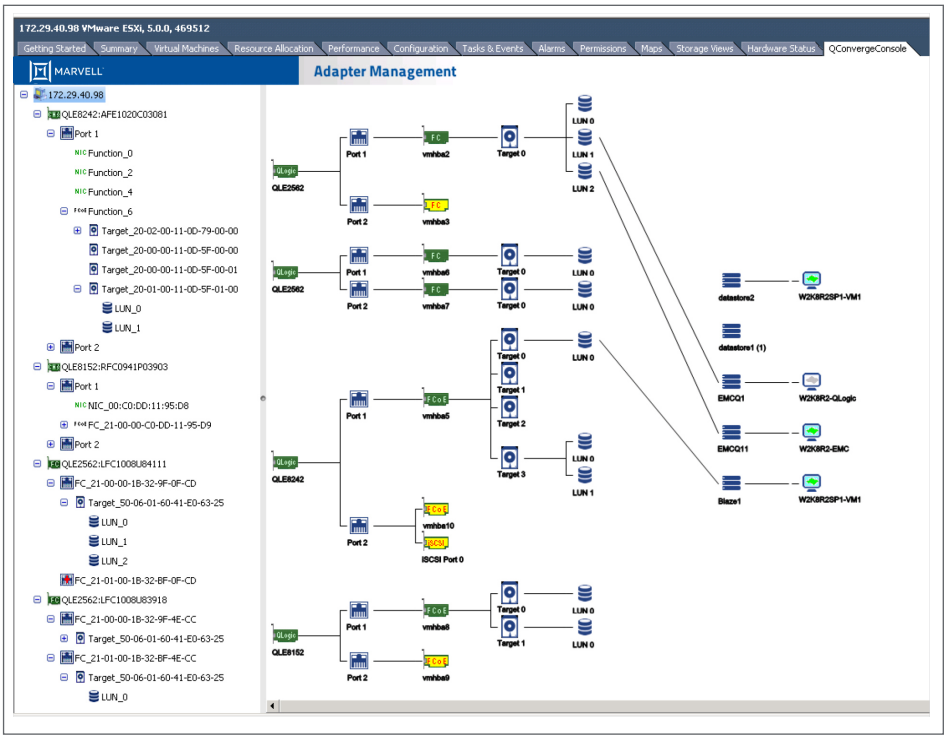

Figure 1. Marvell QCC Plug-in

Benefits of A Joint QLogic and VMware Solution

- Efficient adapter management from within VMware's vCenter via the QCC plug-in
- Flexible, application-specific network resource management (Quality of Service, QoS) with VMflex® and OS- and switch-agnostic NIC Partitioning (NPAR)
- Proven interoperability through standards-based integration and longstanding partnerships inclusive of joint certification testing

Industry Challenge

Along with all its benefits, server virtualization has increased administrative challenges. Having multiple applications and virtual machines (VMs) on a single physical server breaks the one-to- one software/hardware relationship and also strains the I/O bandwidth capability at the server edge. This can lead to complex management scenarios with workloads that have shared hardware and software resources.

Traditional network and storage administrators who are responsible for connecting the servers to their LAN or RDMA or SAN networks and implementing network policy controls use multiple screens within VMware vSphere to gather the information about their network and storage devices, and then they have to manually build a map to tie all the information together. This method of topology mapping makes the IT manager's ability to meet the business' SLAs more difficult. Efficient management requires better visibility into the interaction of components.

Improve Your Visibility

Marvell delivers a method for automating the visibility and management of storage and network components in the data center. The QCC plug-in delivers technology advancement to improve and enhance the user experience. The tool improves business processes, agility, deployment opportunities, and methods for troubleshooting.

The QLogic QCC plug-in from Marvell offers features and benefits described in the following sections:

Key Features

- Support for VMware vSphere 5.5 and later releases
- End-to-end visual representation of network and storage connectivity (see Figure
  - Storage adapter -> physical port -> virtual port -> target -> LUN -> datastore -> VM
  - Network adapter -> physical port -> network partition -> vSwitch -> port group -> VM
- NPAR management allows dynamic bandwidth allocation and choice of protocol type
- Boot from SAN configuration
- Diagnostics and statistics delivered through a single-pane-of-glass view
- In-transient status using color coding to monitor status of critical components
- Mouse-over capability delivers key configuration information of hardware and software components

With the QCC plug-in, you can manage your QLogic adapters from your virtual console. Using a common tool to manage your QLogic hardware and your virtual infrastructure will increase the efficiency of your IT staff. Instead of switching from console to console, you can complete your task within VMware vCenter. The QCC plug-in eliminates complexity from the installation or expansion of your virtualized environment by giving you better visibility and control for your storage and networking components. Managing your adapters with the plug-in makes it easier to maintain corporate-approved standards and improves the delivery of SLAs. NIC Partition management from within the QCC plug-in allows dynamic bandwidth allocation and the choice of protocol type, giving fine-grain control over your QoS settings and deployment flexibility.

QCC Plug-In for VMware vCenter Makes it Possible

With the QLogic QConvergeConsole Plug-in for VMware vCenter installed in your VMware environment, you can:

- Manage your storage and network components visually, saving time
- Deploy patches and firmware updates remotely, lowering administration costs
- Dynamically allocate bandwidth and set protocol type, providing the best utilization of network infrastructure