Simplify Storage and Network Adapter Management in VMware

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

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

KEY BENEFITS

**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
- Extended visibility to VM locations and resources: 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
- Transceiver status

EXECUTIVE SUMMARY

The QLogic QConvergeConsole® (QCC) Plug-in 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 QLogic 10GbE Intelligent Ethernet Adapter or Converged Network Adapter and 8Gb/16Gb Fibre Channel Adapter solutions for network and storage can optimize the virtualized data center infrastructure to provide enterprise-class LAN and SAN connectivity for servers and cloud-enabled data centers.

Figure 1. QLogic QCC Plug-in
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**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 QLogic VMflex® and OS- and switch-agnostic NIC Partitioning (NPAR)
- Proven interoperability through standards-based integration and long-standing partnerships inclusive of joint certification testing

**INDUSTRY CHALLENGE**

Along with all its benefits, there are increased administrative challenges created due to server virtualization. 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 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**

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

QLogic's QCC plug-in offers these features and benefits:

**KEY FEATURES**

- Support for VMware vSphere 5.0 and later releases
- End-to-end visual representation of network and storage connectivity (See Figure 1)
  - 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:

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

QLogic offers complete solutions to some of the most complex issues facing the data center. To visit the QLogic Solutions Web page, click “QLogic Solutions” under the Solutions tab at www.qlogic.com.

QLogic has created demonstrations that showcase QLogic technologies, such as NIC Partitioning and the application of QoS in a VMware ESXi v5.x environment using a QLogic QLE8242 Converged Network Adapter. In addition, demonstrations of technology performance or proof of concepts can be configured for your specific environment.

To register for a demonstration of QLogic product capabilities, visit www.qlogic.com/solutions/Pages/qos.aspx and click “Schedule a Future ‘Live’ Demo.”

RELATED VIDEO: PRODUCT DEMONSTRATION—QLOGIC QCONVERGECONSOLE PLUG-IN FOR VMWARE VCENTER

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