Q: What new QLogic Fibre Channel Adapters are available for Dell PowerEdge servers?

QLogic® offers 16Gb Gen 5 Fibre Channel Adapters in five formats for Dell® PowerEdge™ servers: QLE2660 low-profile standard 16Gb-to-PCI Express® single-port adapter with either full-height or half-height brackets, QLE2662 low-profile standard 16Gb-to-PCI Express dual-port adapter with either full-height or half-height brackets, and QME2662 dual-port blade mezzanine card for Dell blade servers.

Q: What are the Dell model numbers?

The Dell model numbers are the following:

- QLE2660 (full-height bracket): 430-4969
- QLE2660L (half-height bracket): 430-4970
- QLE2662 (full-height bracket): 430-4971
- QLE2662L (half-height bracket): 430-4972
- QME2662 (blade): 430-4967
Q: Is there a network daughter card (NDC) version of the 2600 Series?

No, an NDC format is not available. NDCs are primarily LOMs and therefore offer 10GbE connectivity from the server. Our NDCs are based on the QLogic 3200 Series controller (i.e. P3+).

Q: Why would customers choose Gen 5 Fibre Channel?

The 2600 Series is for organizations with data centers that require high-speed, secure, reliable Fibre Channel I/O connectivity. These customers are interested in the higher performance offered by Gen 5 Fibre Channel while maintaining backward compatibility with their existing 8Gb and 4Gb SAN infrastructure.

The 2600 Series is targeted at large enterprises with data centers that support Fibre Channel SAN infrastructure. These customers are interested in the higher performance and bandwidth offered by Gen 5 Fibre Channel.

In addition, the 2600 Series is targeted at customers that are looking to consolidate their server footprints through virtualization. Server virtualization's popularity is based on its ability to consolidate individual servers, which results in reduced hardware, power, cooling, space, and management costs. The 2600 Series further enable this goal by increasing the amount of bandwidth and reducing the number of I/O slots needed to support a larger number of virtual machines (VMs). The 2600 Series, which supports granular Quality of Service (QoS), is optimized for virtualization and cloud computing deployments, and it can be deployed across heterogeneous infrastructures.

The 2600 Series is ideal for high-bandwidth and I/O-intensive applications, such as media streaming, backup/restore, data warehousing and business analytics, OLTP, Microsoft Exchange Server™, and server virtualization.

Q: What makes the QLogic Gen 5 Fibre Channel different or better than other market alternatives?

Unlike competitive offerings, QLogic Gen 5 adapters are based on a high-availability architecture that provides secure, predictive, and scalable performance across its dual-port architecture. The dual-port ASIC architecture provides complete port-level isolation. In addition, QLogic Gen 5 adapters provide three times the transactions and two times the bandwidth from previous-generation 8Gb Fibre Channel Adapters, resulting in higher application performance, unparalleled flexibility for virtualization and cloud deployments, investment protection, and simplified management.

Q: What is port isolation and why is it important?

Port isolation refers to the architecture of the adapter's ASIC. QLogic delivers independent functionality on a per-port basis. Each port has its own dedicated processor, memory, and firmware image. This feature provides higher availability and complete physical level of isolation and security across the adapter's dual-port ASIC architecture. A firmware crash on one port does not affect the other port.

Each port can be independently reset, deleted, and recovered, which means that customers get 100 percent predictable performance and unparalleled stability. Emulex, on the other hand, uses shared resources across both ports, which may provide better single-port performance. However, Emulex’s approach adds significant risk—a firmware crash will bring down both ports, traffic spikes on the one port will affect other ports, performance is unpredictable, and there is a risk of instability.

Q: What kind of performance improvements for “real-world” applications can I expect using the 2600 Series?

QLogic adapters deliver performance across operating system (OS) and enterprise applications. Examples of enterprise workloads are Oracle® OLTP and OLAP, in which QLogic delivers half a million transactions per second (at typical database block size), backup and restore databases at approximately 3,200MBps throughput, and enhanced application performance. In addition, for Microsoft Exchange Server 2010, QLogic's high performance enhances the user experience by providing 200,000 IOPS at 32KB block size, twice as fast mailbox backup and restore times, and 47 percent better performance than Emulex® for typical Exchange block sizes.1

1 For more information, please see the following white paper: http://www.qlogic.com/Resources/Documents/WhitePapers/Adapters/White_Paper_QLogic_2600_Series_16Gb_FC_HBAs_Double_Performance_and_Flexibility.pdf
Q: Is the 2600 Series backwards compatible with legacy Fibre Channel environments?

Yes. Auto-negotiation is available for 16/8/4Gb Fibre Channel with the exception of the Dell Gen 5 Fibre Channel mezzanine adapter, which does not support 4Gb Fibre Channel. 2Gb and 1Gb Fibre Channel are not supported in any form factor.

Q: Will the 2600 Series work with previous-generation switches at 8Gbps and 4Gbps speeds?

Yes, the 2600 Series is backward compatible with 8Gb and 4Gb Fibre Channel speeds and will work with previous-generation switches at 8Gb and 4Gb speeds.

Q: Is the 2600 Series supported with Dell Compellent Fibre Channel arrays?

Yes. In fact, QLogic Fibre Channel Host Bus Adapter technology is used in “target mode” to provide native Fibre Channel connectivity for Dell Compellent storage arrays. Having QLogic “end-to-end” (configured both in Dell server and Dell storage devices) reduces qualification time for the customer and ensures higher integrity of data transmission throughout the Dell Compellent SAN.

Q: What server platforms is the 2600 Series qualified on?

The server platforms are Dell PowerEdge® R520, R620, R715, R720, R815, R820, R910, M620, M820, M910, and M915.

Q: What OSs are qualified?

The qualified OSs are Windows Server 2012; 2008 SP2; 2008 R2 SP1; 2003; 2003 R2 SP2; RHel® 5.7/5.8; RHel 6.1/6.2; SLES® 10 SP4; SLES 11 SP2; Citrix® XenServer® 6.0.1/6.1; VMware ESX/ESXi Server 4.1 U3; ESXi/ESXi 5.0 U2; and ESX/ESXi 5.1.

Q: Why is PCIe® Gen3 important?

Supported by the latest generations of servers, PCIe Gen 3.0 has a higher maximum system bus throughput, lower I/O pin count, better performance scaling for bus devices, and support for hardware I/O virtualization.

Q: Is the 2600 Series backwards compatible with PCIe Gen2 and Gen1 slots?

The series supports PCI Express® Gen3 x4, Gen2 x8, and Gen1 x 8.

Q: Using NPIV, how many virtual Host Bus Adapter ports can be deployed with the 2600 Series Adapter?

255 virtual ports can be deployed. QoS settings can be applied by priority or as a percentage of bandwidth.

Q: What unified management tool will be supported for the 2600 Series?

QConvergeConsole® (QCC) is the unified management tool (GUI and CLI) for Fibre Channel/FCoE, iSCSI, and networking (LAN) in Windows® and Linux® environments. In addition, using the QLogic vCenter plug-in for VMware environments, 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