QLogic Continues to Innovate in Connectivity and Network Infrastructures

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QLogic announced on 30th March 2009, with immediate availability, the world's first single-chip Converged Network Adapter (CNA) with a full offload engine, an important step for the emerging Fibre Channel over Ethernet (FCoE) market. The new 8100 Series of PCI-Express CNAs is based on the company's advanced Network Plus Architecture with its leading-edge ASIC design technology and manufacturing. QLogic also announced a significant number of Tier One OEM design wins, and we expect to see the new FCoE ASIC appear in leading server and storage systems in the coming months. QLogic's intelligent converged fabric technology is generally available to OEMs today and will be available to end users and channel partners in Q2CY09. This announcement advances QLogic further ahead in the intelligent converged fabric marketplace.

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FCoE

Fibre Channel over Ethernet combines and leverages the advantages of two technologies: the Fibre Channel protocol, and Ethernet. FCoE encapsulates the FC content directly in Ethernet frames with very little overhead. The "framing efficiency" of FCoE (when using "baby jumbo" frames) is within 1 percent of a native FC link. With FCoE, Converged Network Adapters replace and consolidate Network Interface Cards (NICs), Host Bus adapters (HBAs), and Host Channel Adapters (HCAs). This consolidation is particularly useful for blade servers which are often shipped with a single mezzanine card. FCoE is simple to deploy and integrate with existing Fiber Channels SANs. It supports the current FC management tools and does not require gateways.

Potential user benefits of FCoE:

- Investment protection for FC infrastructure
- Fewer switches
- IO consolidation in servers
- Lower energy consumption
- Less cabling
- Lower long-term operating costs through consolidated connectivity and management

- Simplified infrastructure, lower “framing overhead” than iSCSI
- No TCP/IP stacks (unlike iSCSI) resulting in better performance

Hardware

The new CNA with its single Application-Specific Integrated Circuit (ASIC) replaces the first generation CNA (QLE 8042) containing five ASICs and Integrated Circuits (ICs). The new Qlogic ASIC, based on the company’s advanced Network Plus Architecture, handles storage and data networking traffic at full 10GbEE line speeds, and consumes just 7 Watts - one third the power consumption of existing CNA cards. One part of the ASIC is an integrated FCoE offload engine, which supports twice as many virtual machines as existing CNA offerings, reducing server overhead and enabling faster performance. The new CNA is available in multiple form factors: standard for rack-mount servers, and mezzanine for blade servers. Storage vendors can also integrate the ASIC into their products for native FCoE connectivity.

Support: This product supports all major server hardware**,** all major OS (including AIX, HP-UX, Linux, and Solaris) and hypervisors such as VMware, Citrix and Microsoft Hyper-V.

Channel Partner Opportunities

QLogic is coming to market first with tangible intelligent converged fabric solutions for FCoE so its worldwide channel partners won’t have to wait to start offering their customers the advantages of unified networks. They can focus on addressing the requirements for virtualized, converged data center environments with SSDs today. They can begin to capitalize on this emerging market sector and gain first mover advantage.

FCoE represents a major upheaval in the networking world and presents an opportunity for channel partners involved in either data or storage networking to expand their addressable market with unified networking solutions from QLogic. It’s no longer a question of either/or for them, but how fast can they address both markets. Convergence really means greater revenue opportunities for channel partners as FCoE solutions enable end-users to repurpose and redeploy existing infrastructure while unifying their networking environment.

Conclusion

In the last few years, the industry has faced tremendous growth in server performance. The increase of clock frequency, multiple-core processors, and hyper-threading have pushed server performance much faster than networking infrastructure has evolved over the same time frame; the latter usually improves in steps every few years. This unsynchronized development has created an imbalance between server and networking performance. The growing popularity of server virtualization is worsening this situation even further as virtualized servers require more data and network capabilities than the non-virtualized variety, meaning more slots, NICs, HBAs, switch ports, cables, and thus, higher costs. Some

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of the performance and cost challenges can be solved by deploying FcoE, which QLogic (among others) pioneered.

By introducing the 8100 Series Converged Network Adapters, QLogic gains the competitive advantage of offering a CNA which can better handle FCoE infrastructures in physical and virtual environments. This announcement entrenches QLogic's position as a tier-1 storage networking infrastructure vendor, leading in FC HBAs, iSCSI, 8Gb SAN products and now FCoE solutions.