

Data Center Networking Brief

Emulex Releases OneConnect UCNA

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Abstract: Emulex has announced general availability of its Universal Converged Network Adapter. This new product is raising the bar for converged networks to include Ethernet, iSCSI, and FCoE with an easy to consume, pay-as-you-go model for adding additional technologies. Emulex is betting on an “Ethernet first” model and expanding from there.

Overview

Emulex used the backdrop of SNW Europe to announce the general availability of its OneConnect Universal Converged Network Adaptor (UCNA) and OneCommand management suite. The announcement includes:

OneConnect UCNA: Emulex is expanding beyond its core Fibre Channel (FC) business by adding the industry’s first UCNAs. This adapter takes advantage of the Emulex vEngine single chip technology that enables TCP/IP and TCP Chimney, iSCSI, and Fibre Channel over Ethernet (FCoE) hardware offload and acceleration.

The Emulex OneConnect family leverages a unique pay-as-you-go model with the base card Ethernet enabled by default. Users can then add iSCSI and FCoE functionality.

OneCommand Manager: This new converged management application replaces the popular HBAnyware. It provides a single management interface for both the OneConnect UCNAs and the LightPulse family of Fibre Channel Host Bus Adapters (HBAs). The OneCommand Manager will add additional diagnostic tools and provide the ability to customize reporting to track performance and availability.

The products are now available through the Emulex distribution channel.

Analysis

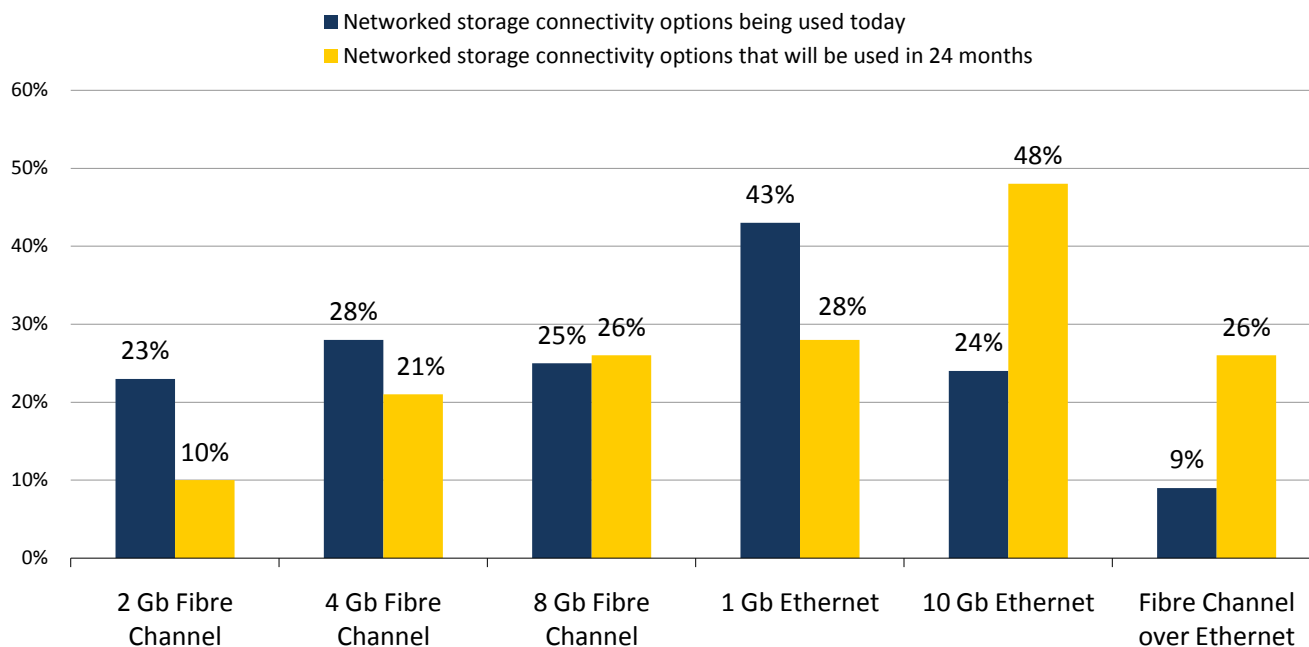
Emulex is raising the bar for converged networking by focusing its efforts on delivering an offering that should be attractive to OEMs, distributors, and end-users. These new products will provide:

- **A unique pay-as-you-go model that delivers convergence investment protection:** Given the current economy, many organizations are concerned about paying a premium for converging networking equipment. Emulex is removing that barrier by offering its UCNA with a low entry price as a 10 Gb Ethernet Network Interface Cards (NIC) and provide a path forward to converge the network with the capabilities to turn on (and pay for) iSCSI and FCoE at a later time.
- **Enhanced virtual server capabilities:** Leveraging the vEngine capabilities to perform all TCP/IP and TCP Chimney offload Emulex, OneConnect UCNAs will reduce server overhead and enable users to optimize the number of virtual machines that can run on virtualized servers
- **Power of choice:** Emulex is shipping solutions for 10 Gb Ethernet adapters with TCP/IP and TCP Chimney hardware offload, 10 Gb Ethernet adapters with hardware offload for iSCSI enabled, and 10 Gb adapters with hardware offload for FCoE enabled. Each card can leverage the aforementioned pay-as-you-go protocol hardware offload capabilities.
- **Optimal flexibility:** Current data center networking solutions consist of multiple network protocols, each of which require their own cards and cabling. The Emulex OneConnect UCNA can be leveraged to create virtually any type of Ethernet-based storage networking environment, which is important as ESG research indicates that 10 Gb Ethernet and FCoE are poised for rapid growth.¹

¹ Source: ESG Research Report, *Enterprise Storage Survey*, November 2008-.

Figure 1. Data Center Connectivity

Please indicate which of the following front-end connectivity options are being utilized today to connect servers to networked storage systems. Please also indicate which connectivity options will be used in 24 months.
(Percent of respondents, N=447)



Source: Enterprise Strategy Group, 2008.

More to be Done

Emulex’s approach to the converged network adapter market is very different from its competitors, who are focused on delivering converged network adapters with just Ethernet and FCoE. In order to capitalize on this approach, Emulex needs to:

- **Drive greater awareness of the OneConnect approach.** Emulex needs to educate its distribution channel and end-users on the financial and technology benefits of its OneConnect UCNAs. As organizations continue to consolidate data centers and data center infrastructure, it will be crucial for Emulex to get its story out to drive demand in the market for its UCNAs and flexible pricing models.
- **Pursue further design wins.** Emulex has been chalking up some impressive design wins for its 10 Gb Ethernet technology with IBM. The Virtual Fabric Adapter (VFA) announced with IBM BladeCenter is the first with pay-as-you-go capabilities. The card supports 10 Gb Ethernet and vNICs (virtual NICs) with the ability to upgrade to iSCSI and FCoE. Also, this same technology, which can be used for 10 Gb Ethernet, iSCSI, and FCoE, has been qualified for IBM Power systems. Emulex needs to continue driving this new model for 10 Gb Ethernet convergence across the OEM community.

The Bigger Truth

As server virtualization continues to proliferate and companies leverage different types of networked storage to support it, providing real convergence in the data center should produce tangible benefits to organizations. The reductions in capital and operational expenses should be very real, not to mention the increased service levels enabled by a simplified architecture. A single reference architecture for the server domain will enable much greater flexibility and higher service levels as cards do not need to be swapped in and out of a server to enable connectivity and capital costs can be reduced using a pay-as-you-go model.

End-users should take a good, long look at this architecture and consider how they could benefit from building highly flexible compute resource pools that can adapt to multiple different network technologies—without requiring significant moves, adds, or changes. Simply put, network convergence makes sense. If you don't have to have more than one network, why would you? The only reason not to converge is if you have to give something up, which is not the case here. The Emulex OneConnect UCNA even provides a strategic entry point with its pay-as-you-go pricing model. This type of cost management and flexibility should be well received by organizations planning their next data center refresh.