

HP® Integrated FlexFabric Adapter Enhances HP VirtualSystem VS2 for VMware®

Three market-leading companies deliver virtualization as a plug-and-play solution

At a Glance

Deploying virtualization solutions is now easier with pre-tested, pre-configured solutions from market-leading companies Emulex, HP and VMware. With HP VirtualSystem VS2 for VMware (HP VS2 for VMware), data center managers can now reduce their deployment time while achieving optimum performance for their critical business needs.

Products

- HP Integrated FlexFabric adapter (based on Emulex OneConnect™ Universal Converged Network Adapter (UCNA) technology)
- HP ProLiant BL460c G7 server blade
- VMware vSphere 5

HP VirtualSystem VS2 for VMware (HP VS2 for VMware) is a pre-configured, HP factory integrated solution that greatly simplifies virtualization by enabling you to virtualize your enterprise with essentially plug-and-play technology. Based on HP ProLiant BL460c G7 server blades with VMware vSphere 5 and vCenter™, HP VS2 for VMware is an ideal balance of performance, scalability and expandability. The HP Integrated FlexFabric adapter, based on Emulex OneConnect 10Gb/s Ethernet (10GbE) technology, enhances HP VS2 for VMware by providing leading-edge connectivity and great value for virtualized environments.

As the integrated LAN on motherboard (LOM) on the HP BL460c G7 server blade, the HP Integrated FlexFabric adapter provides:

- High performance offload for TCP/IP, TCP/IP Offload Engine (TOE), iSCSI and Fibre Channel over Ethernet (FCoE) protocols over a common 10GbE network infrastructure*
- Low power usage and reduced costs for energy and cooling

Solution Details

The dual-port HP Integrated FlexFabric adapter is based on the Emulex OneConnect Universal Converged Network Adapter (UCNA) technology. These integrated adapters support TCP/IP and FCoE or accelerated iSCSI connectivity with high performance protocol offloads that optimize server efficiency and maximize server virtualization ratios.

Emulex OneConnect UCNA technology fully supports HP's FlexFabric Converged Infrastructure, a next-generation, highly scalable data center fabric architecture and a technology layer in the HP Converged Infrastructure architecture. The combination of HP's ProLiant G7 server blades with Emulex UCNA technology and the latest HP Virtual Connect FlexFabric module simplifies, consolidates and virtualizes the server edge for HP BladeSystem customers.

Included in this solution is the HP P4800 SAN for BladeSystem storage system, which includes an upgrade kit to connect to a 10GbE iSCSI network. Emulex provides the 10GbE PCIe Network Interface Card (NIC) option adapter included in this upgrade kit. This storage area network (SAN) system is completely converged within the HP BladeSystem architecture, offering exceptional performance, efficiency and density with all-inclusive SAN management software.

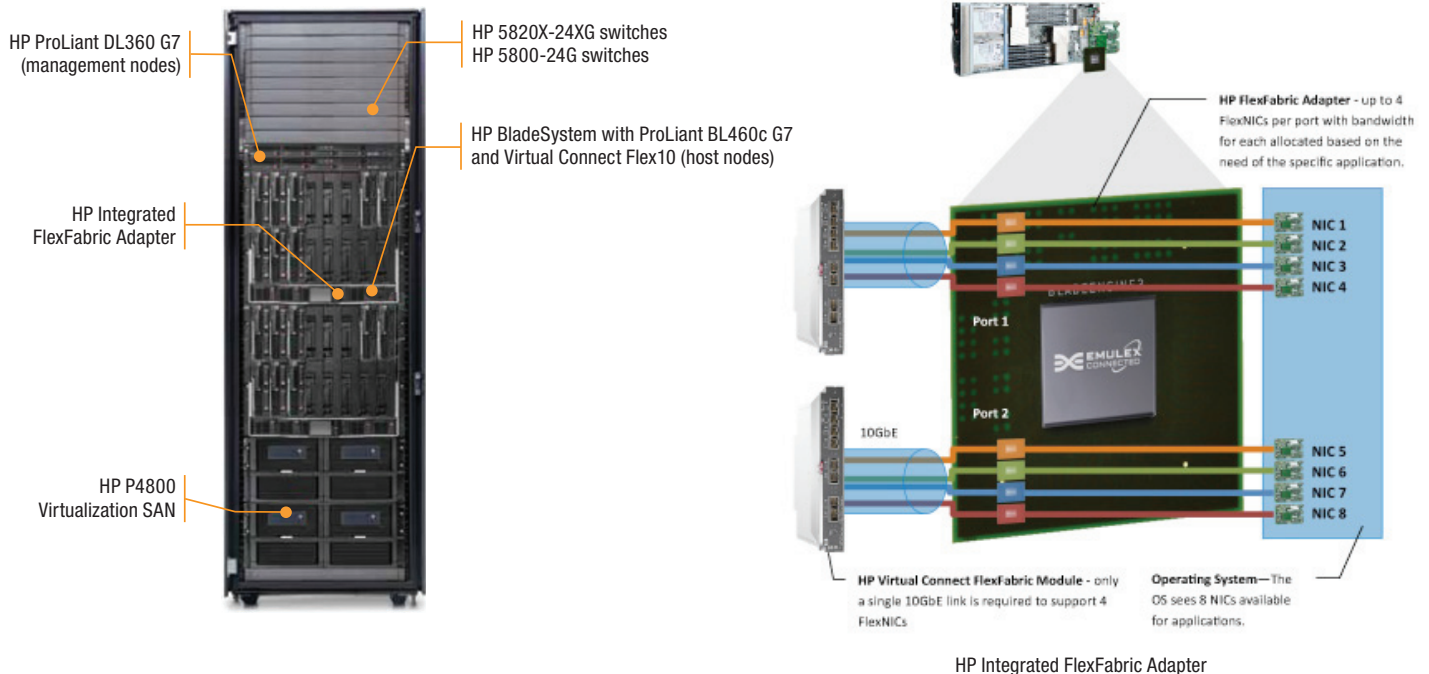
HP VS2 for VMware takes virtualization and storage to the next level, with a pre-configured, HP factory integrated solution.



* HP VS2 for VMware is available for iSCSI

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Solution Benefits

When you deploy HP VS2 for VMware with the HP Integrated FlexFabric adapter, you get the following benefits:

Benefit	HP VS2 for VMware	HP Integrated FlexFabric Adapter (NC553i)
Superior performance	Optimized for maximizing VMware performance, agility and efficiency; pre-installed VMware vSphere 5 and vCenter continues to set the standard in virtualization, delivering better application performance and availability for all business-critical applications	Full 20Gbps bidirectional Ethernet bandwidth per port; up to 800K I/O operations per second (IOPS) for FCoE; protocol offloads support vEngine™ technology that enables I/O for more virtual machines per server
Simple deployment	Complete, easy-to-order virtualized infrastructure; rapid installation; unified support	Reduce hardware requirements and save up to 30% on adapter cards, switch ports and cables for network and storage traffic
Secure transmission	Storage network is completely self-contained within the HP VS2 for VMware enclosure, providing enhanced data security	End-to-end data protection with hardware parity, CRC, ECC and other advanced error checking and correcting
Optimized solution	Pre-configured for a wide range of needs; performance tested for typical workloads; exceptional power and cooling efficiency; HP integrated management enables you to manage your entire HP VS2 for VMware solution, including servers, storage and networking	Reduce the number of adapter cards and switches, resulting in savings up to 40% for power and cooling; one management console for network and storage adapters (HP Insight Control suite with enhanced Integrated Lights-Out 3 (iLO 3) remote management and centralized enterprise I/O management with Emulex OneCommand™ Manager)
Flexible options	Customizable ordering; simple upgrade options; scale up and/or out to handle future growth; HP Tipping Point options: <ul style="list-style-type: none"> Complete set of security solutions that address today's sophisticated security threats at the perimeter and interior of your business VMware vShield:™ excellent data protection that integrates with HP TippingPoint security solutions 	Multiple protocol offloads for optimum server efficiency (stateless TCP/IP, TOE, iSCSI); provides (up to) eight connections to network and storage without the need for add-in mezzanine cards
It Just Works!	Emulex has supplied products to HP customers for over 14 years and across ten generations of products and platforms with backward compatibility; backed by HP leadership in physical and virtualized IT and experience with VMware; built by HP Factory Express; custom integrated with your environment by HP Technical Services consulting	Backed by field-proven HP and Emulex reliability and support; leveraging ten generations of advanced, field-proven Fibre Channel host bus adapter (HBA) technology, HP FlexFabric CNAs are based on the Emulex OneConnect architecture and meet the robust interoperability and reliability requirements of corporate data centers

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Conclusion

The Emulex OneConnect family of 10GbE UCNAs leads the industry with fast performance and flexible connectivity. The HP Integrated FlexFabric adapter, HP NC553i, based on the OneConnect 10GbE UCNA product platform, is an integrated FlexFabric LOM adapter for HP BladeSystem 460c servers. HP VS2 for VMware combines the HP NC553i LOM, HP BladeSystem 460c server and VMware vSphere 5 to create a new standard for data center virtualization with industry-leading I/O capacity and throughput and support for the greatest number of virtual machines.



vmware®

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