



HP Drives Network Innovations for Virtualization and Cloud Computing

Data center solutions, services improve performance, flexibility, management and security

LAS VEGAS, Aug. 29, 2011 – HP today announced enhancements to the [HP FlexNetwork architecture](#) that increase the performance of virtualized and cloud environments while simplifying network complexity and management.

Organizations with a proprietary multitier network infrastructure create lock-in that drives up cost and management complexity. As a result, implementing new applications and services is difficult and slow, reducing overall productivity.

To increase delivery of applications and services through virtualization and cloud computing, HP has enhanced server connectivity, switching, management, security and services under the HP FlexNetwork architecture, its unified networking approach across the data center, campus and branch.

Improved performance at half the cost

HP FlexNetwork, also part of [HP VirtualSystem](#), delivers better performance by flattening the network architecture from three tiers to two or one tier. As a result, HP FlexNetwork solutions increase throughput and lower network latency while eliminating up to 50 percent of the cost and 85 percent of the complexity than legacy three-tier architectures.⁽¹⁾

Virtualization drives significant changes in data center traffic patterns. According to Gartner research, by 2014, network planners should expect more than 80 percent of traffic in the data center's local-area network (LAN) to be between servers. However, to improve business agility, enterprises rely on virtual machine mobility, which can burst data rates up to 9 gigabits per second and significantly slow data transfer between servers.⁽²⁾

Based on the HP FlexNetwork architecture, HP FlexFabric solutions for data centers include HP Virtual Connect, as well as HP 5800 and 12500 series switches. These solutions eliminate unnecessary network layers and

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costly bottlenecks with a one-tier network fabric that provides wire-once direct connections to thousands of virtual, physical and storage components, providing clients:

- Improved virtual machine (VM) performance. In fact, a new [report by Network Test](#) demonstrates HP FlexFabric solutions accelerate VM mobility, such as VMware vMotion, by up to 40 percent while doubling throughput and reducing network recovery time by more than 500 times;⁽¹⁾
- Increased application performance with the new HP [5830 top-of-rack switch series](#), which delivers high-density server access connectivity as well as flexible application and storage deployment, powered by the [HP Intelligent Resilient Framework](#) (IRF).

Industry-leading virtualized server networking connectivity

[HP Virtual Connect](#), the world's first wire-once technology, has revolutionized the way servers and VMs are connected to networks, eliminating 95 percent of network cables and reducing cost by up to 65 percent.⁽¹⁾ Demonstrating rapid adoption since its introduction in 2007, Virtual Connect recently passed the 5-million-port milestone and accounts for 16.2 percent of all 10Gb ports shipped worldwide.⁽⁴⁾

The new HP Virtual Connect v3.3 firmware upgrade provides clients with:

- Enhanced flexibility and capacity through extended virtual local-area network (VLAN) support of more than 1,000 VLANs per Virtual Connect domain, eight times more than the previous version;
- Improved performance with six times greater network capacity per physical server port;
- The industry's first and only simultaneous tunneled/mapped VLAN support that gives clients the flexibility to separate network traffic based on best practices for running virtual server environments;
- Simplified management with visibility and transparency into system and networking information that is vital for troubleshooting virtualized environments.



Unifying physical and virtual network management

[HP Intelligent Management Center](#) (IMC 5.1) is the industry's first single pane-of-glass network management platform that manages both virtual and physical environments across heterogeneous networks. It automatically discovers VMs and switches and identifies their relationship to the physical network, enabling clients to simplify administration and gain control of their assets.

Easing the cloud transition through services

[New consulting services from HP](#) help clients understand how their networking environments can support and extend cloud services. HP Assessment and HP Architecture and Design Services for Cloud Ready Networking enable clients to increase efficiency and cost savings by assessing the readiness of people, processes and networking technology to transition to a cloud-based model.

Next-generation security for virtual and cloud environments

[HP TippingPoint](#) and VMware are codeveloping next-generation security solutions that deliver pervasive security in the cloud with unified management and automated scanning for identifying and blocking potential threats.

For example, the seamlessly integrated VMware vCenter Server™ and vShield® 5 with [HP TippingPoint Intrusion Prevention System \(IPS\)](#) automates security policy enforcement that “follows” VMs as they are created, moved or changed, providing visibility in to previous blindspots. In addition to inspecting VMs, [HP TippingPoint vController](#) automatically synchronizes security policies as VMs move from host to host.

Pricing and availability⁽⁵⁾

- HP 5830 top-of-rack 48-port switch is available now worldwide starting at \$11,990. The 96-port version is expected this fall.
- HP Virtual Connect v3.30 firmware is expected to be available for download in September.
- HP Intelligent Management Center 5.1 is expected to be available this fall with a list price of \$6,995.



— HP TippingPoint Intrusion Prevention System (IPS) with vController+Firewall solution is available worldwide for securing both virtual and physical environments starting at \$40,000.

[HP Converged Infrastructure](#) is essential to the [Instant-On Enterprise](#). In a world of continuous connectivity, the Instant-On Enterprise embeds technology in everything it does to serve customers, employees, partners and citizens with whatever they need, instantly.

HP's premier client event, [HP DISCOVER](#), takes place Nov. 29 - Dec. 1 in Vienna, Austria. The event showcases how organizations can get started on their Instant-On Enterprise journeys.

More information about HP Networking solutions is available at www.hp.com/networking. More information about HP Virtual Connect is available at www.hp.com/go/virtualconnect.

About HP

HP creates new possibilities for technology to have a meaningful impact on people, businesses, governments and society. The world's largest technology company, HP brings together a portfolio that spans printing, personal computing, software, services and IT infrastructure at the convergence of the cloud and connectivity, creating seamless, secure, context-aware experiences for a connected world. More information about HP (NYSE: HPQ) is available at <http://www.hp.com>.

- (1) Based on HP internal calculations.
- (2) "Your Data Center Network Is Heading for Traffic Chaos," Gartner Inc., [Bjarne Munch](#), April 27, 2011.
- (3) "Higher Speed, Lower Downtime, With HP IRF Technology," Network Test, August 2011.
- (4) "Dell'Oro Ethernet Switch Quarterly Report," Dell'Oro Report, Q2 2011.
- (5) Estimated U.S. street prices. Actual prices may vary.

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