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News Advisory

HP Delivers Virtual Application Networks to Power Cloud Computing

Deploys application in minutes, ensures quality-of-service levels, simplifies management for cloud computing

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PALO ALTO, Calif., April 10, 2012 – HP today announced Virtual Application Networks, a new cloud functionality that speeds application deployment, simplifies management and ensures network service level agreements (SLAs) in cloud and other dynamic computing models across the HP FlexNetwork architecture.

A typical data center with 500 servers, including approximately 20 virtual machines per server, requires manual provisioning of more than 50,000 networking attributes on a port-by-port basis. Deploying a new application in this environment requires extensive time and coordination across the server, network and data center administrative teams, which can take up to four weeks.[1]

Virtual Application Networks provide a virtualized view of a network – abstracted from the physical equipment – that transforms a rigid physical enterprise network into a programmable, multitenant and application-aware virtual network. Virtual Application Networks use templates to characterize application-delivery requirements and ensure optimal application performance and reliability. This enables IT staff to deploy new cloud applications to users in minutes rather than weeks and ensure SLAs are consistently met by using templates to automate network orchestration.

"In the cloud era, clients need to be able to deploy applications on the fly to any device and any user accessing the network from anywhere with guaranteed quality of service levels," said Bethany Mayer, senior vice president and general manager, Networking, HP. *"Today, only HP is positioned to provide clients with a completely virtualized network from the data center to the end user, managed by a single platform that is capable of deploying new applications within minutes."*

Unique across HP Converged Infrastructure, Virtual Application Networks tap into the intelligence found directly in server, storage and network hardware to automate provisioning and configuration tasks, while optimizing performance.

Virtual Application Networks actively leverage elements of Software Defined Networking (SDN) technologies, including OpenFlow, which is available on multiple HP Networking switch families that were pioneered by HP with key industry partners.

"Enterprise applications and services are increasingly being delivered from the cloud, and the network plays a critical role. The consumption of media-rich content, explosion of virtualized applications, and rapid consumerization of IT have increased the demands on enterprise networks," said Rohit Mehra, director, Enterprise Communications Infrastructure, IDC. "Legacy networks are typically static, indifferent to applications and require manual management, often resulting in poor service delivery and an inability to adapt to rapidly changing business needs, thereby limiting the potential of the cloud. HP's Virtual Application Network strategy is a good example of a path forward for enterprises seeking to embrace the cloud computing paradigm."

New IMC functionality to support the deployment of Virtual Application Networks
Delivering on the first phase of Virtual Application Networks, HP has introduced new functionality for HP Intelligent Management Center (IMC). HP IMC is a single-pane-of-glass management and virtualization platform that spans the HP FlexNetwork architecture.

New functionality for the HP FlexNetwork architecture includes:

- HP IMC Virtual Application Networks Manager Module speeds application deployment with a set of connection profile templates that include predetermined parameters and policies for server virtual machines (VMs) to manage and configure data center edge switches across the network.

- Virtual Application Networks Manager VMware Plug-in simplifies management of VMware VMs by automating network policy enforcement, allowing administrators to integrate connection profiles in both HP IMC and VMware management platforms.

- HP IMC Extended Application Program Interface (APIs) offer an open and extensible web services platform that enables third-party developers to integrate custom enterprise applications to extend core functions of the HP IMC platform. HP IMC also integrates with HP Network Management Center (NMC) solutions in the HP Business Service Management (BSM) software portfolio. This integration enables technology organizations to tie together their network, server, application and business services monitoring for a comprehensive bottom-up, top-down performance and availability management.

Virtual Application Networks – better than overlay networks, CLI and scripts
Virtual Application Networks tap into the intelligence of server, storage and network hardware to virtualize and automate network profile connections across the physical and virtual infrastructure with the HP IMC management platform.

Competitive approaches using an overlay virtual network do not directly integrate with the hardware at the physical level. Therefore, organizations would need to maintain both the virtual and the physical networks with multiple management tools, adding cost and complexity.

Network command line interfaces (CLI) and scripts, typical for legacy network equipment, require extensive physical device-by-device coding for every network profile, making them error prone, complex and operationally expensive for cloud-based environments.

Managing the economics of cloud deployment with Virtual Application Networks
New HP Network Consulting for Cloud-Ready Networking services allow clients to deploy HP FlexNetwork architecture and Virtual Application Networks to prepare for cloud computing.

HP Technology Services help organizations further optimize their networks with its Virtual Network Protection Service, in which HP leverages best practices to set the baseline for security at the network virtualization management layer to help mitigate common threats. HP also offers a Network Cloud Optimization Service to help clients enhance their network to improve cloud-based service delivery up to 93 percent compared to traditional download techniques.[2]

Pricing and availability[3]
- HP IMC Virtual Application Networks Manager Module is planned to be available this spring with a list price of $9,995. The VMware plug-in is available with the module at no additional cost.

- HP IMC Extended APIs are planned to be available this spring with a list price of $9,995.

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

HP's premier client event, HP Discover, takes place June 4-7 in Las Vegas.

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(1) Based on HP internal testing.
(2) Broadband-Testing Summary WAN Optimisation Test Report Blue Coat Systems vs. Riverbed; 2011
(3) Estimated U.S. street prices. Actual prices may vary.

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