ALCATEL-LUCENT AND VMWARE COMBINE TO HARMONIZE DATA CENTER NETWORKS AND APPLICATIONS
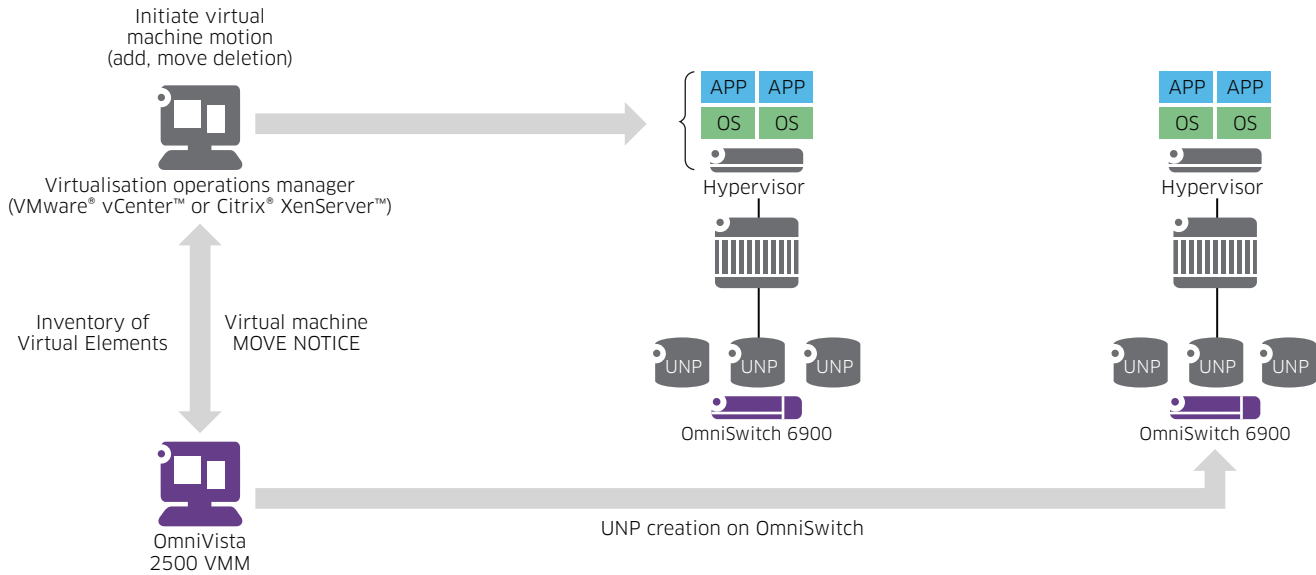
Solution brief

Alcatel·Lucent
Enterprise

As more and more business applications and data are added to the enterprise network, they increase costs considerably in terms of power, space and resources required to keep the host servers running in the data center. IT organizations have increasingly turned to virtualization, which significantly increases efficiency and controls costs by reducing the time and effort required to deploy and maintain servers, and by allowing resources to be dynamically optimized based upon their workloads.

Initiate virtual machine motion (add, move deletion)

Virtualisation operations manager (VMware® vCenter™ or Citrix® XenServer™)

Inventory of Virtual Elements

Virtual machine MOVE NOTICE

OmniVista 2500 VMM

APP APP
OS OS
Hypervisor

UNP UNP UNP
OmniSwitch 6900

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UNP creation on OmniSwitch

Along with its benefits, however, virtualization technology in the data center creates new challenges for network administrators. Virtualization infrastructure requires a different set of management tools from physical infrastructure, making it difficult for network operators to obtain a consolidated and consistent view of the entire network. Because the physical network must be in sync with the virtual network to provide the connectivity services required by applications in a virtual environment, this lack of visibility affects the network operators' ability to ensure smooth operations in virtualized data centers. This is particularly apparent when dynamic events such as virtual machine motion require immediate network provisioning.

Alcatel-Lucent and VMware have combined to provide an application fluent data center network that is completely pre-integrated with VMware's vCenter virtualization hypervisor to support virtual machine mobility, a significant step in breaking down the walls between applications and the network.

The VMware vCenter Server provides centralized management of virtualized hosts and virtual machines from a single console. VMware vCenter Server gives administrators visibility into the configuration of all the components of a virtual infrastructure from one place.

VMware vCenter Server makes virtual environments easier to manage: a single administrator can manage hundreds of workloads, more than doubling typical productivity in managing physical infrastructure.

The Alcatel-Lucent OmniVista™ 2500 Virtual Machine Manager (VMM) – an optional component of the OmniVista 2500 Network Management System – integrates with the VMware vCenter to provide visibility and monitoring for all network operations

BENEFITS OF THE ALCATEL-LUCENT AND VMWARE SOLUTION
- Single pane of view to simplify and consolidate network management and virtualization operations
- Complete correlation view and visibility between virtualization environment and network infrastructure management
- Single efficient workflow to automate network infrastructure configuration to follow virtual machine movement, reducing IT operation

related to the virtual machine life cycle. It constantly monitors, logs and reacts to virtualization events by keeping track of virtual machine location in relations to the physical network.

The OmniVista VMM integrates with vCenter right out of the box without requiring software add-ons, reducing capital expenditure (CAPEX) and operating expense (OPEX) costs related to deployment. No configuration changes are required on virtualization environments, which reduces IT workloads and eliminates the need to coordinate across teams.

The OmniVista VMM automates network provisioning for virtual machine movements by establishing definitions for critical parameters settings, such as VL ANs, QoS and security, and distributing the binding rules between the virtual infrastructure and the data center fabric. The OmniVista VMM adopts a collaborative approach between the virtualization and network infrastructure teams that respects the requirements and objectives of both. This eliminates configuration conflicts between virtual and physical networks, thus reducing finger pointing and increasing the efficiency of day-to-day IT operations.

For more information about how Alcatel-Lucent and VMWare can improve efficiency in your datacenter, please visit:
http://enterprise.alcatel-lucent.com/?product=OmniVista2500VMM&page=overview