



Solution Brief: VMware vCloud Director and Cisco Nexus 1000V



Executive Summary

Agility, flexibility, elasticity and reliability are requirements for the virtualized data center and for private and public clouds. To meet these requirements, organizations are implementing several delivery mechanisms: software as a service (SaaS), platform as a service (PaaS), infrastructure as a service (IaaS), and IT as a service (ITaaS). VMware vCloud Director™ combined with VMware vSphere 4.1 provides the foundational Infrastructure As A Service (IaaS). The VMware vCloud Director with vSphere 4.1 provides a platform on which PaaS and SaaS offerings can be built.

VMware vCloud Director requires interoperability with the existing virtual infrastructure. The Cisco Nexus 1000V® switch, a distributed virtual switch, is one critical element of the existing infrastructure that is embedded in the VMware vSphere servers. This document describes the interoperability of VMware vCloud Director and the Cisco Nexus 1000V.

VMware vCloud Director

VMware vCloud Director enables IT organizations to deliver resources to internal users as virtual data centers (vDC). By logically pooling compute, storage, and networking capacity into these vDCs, IT organizations can manage resources more efficiently with complete abstraction between consumption and delivery of IT services. Instead of providing users or organizations with siloed physical infrastructures, IT teams can deliver isolated virtual datacenters that draw resources from a common physical infrastructure. By pooling these physical resources on the back end, hardware utilization and consolidation increases. This document highlights the integrations between VMware vCloud Director, vSphere 4.1 and the Cisco Nexus 1000V distributed virtual switch.

Cisco Nexus 1000V

The Cisco Nexus 1000V distributed virtual switch extends Cisco's extensive networking features and nondisruptive operational model into the vSphere networking environment. The Cisco Nexus 1000V, an IEEE 802.1Q standards based switch, provides rich NX-OS features such as advanced data center switching, monitoring, security and management functions to virtualized infrastructure. Additionally, it helps enable network administrators to implement consistent network policies across physical and virtual networks and use existing people and procedures, diagnostic and troubleshooting tools, events and statistics collection and analysis tools, etc. in the virtual infrastructure.



Conclusion

As networking requirements for cloud computing evolves so must the joint solutions provided by today's industry leading technology companies. Cisco and VMware continue to work together to drive: innovation, leadership and world class solutions that will power the next generation of cloud computing infrastructures of today and tomorrow.

For more information regarding the products and solutions above, visit

<http://www.cisco.com/go/nexus1000V>

<http://www.vmware.com/products/vcloud>



For more information, visit: www.vmware.com



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