

# VMware and Cisco Virtualization Solution: Develop Data Center Virtualization into a Strategic Asset

## What You Will Learn

Virtualization of data center resources such as servers and storage has been demonstrated to be an effective tactic for reducing total cost of ownership (TCO). However, turning data center virtualization into a scalable business strategy requires an overarching framework that spans technology, management, and operations.

## Introduction

Virtualization in the data center continues to gain popularity as a tool for reducing infrastructure TCO by making better use of data center assets. It has proven to be an effective tool for reducing costs and improving flexibility within each technology area: server, storage, and network. However, virtualization introduces its own challenges to the data center, since it adds a layer of complexity in the data center that can negatively affect overall operations and management. Without addressing these challenges, deploying data center virtualization as a scalable solution will be difficult, and businesses will not be able to fully achieve the cost-reduction and functional benefits of their data center virtualization strategies.

## Business Benefits

Both Cisco and VMware have long understood that a scalable data center virtualization strategy depends on more than a series of point technologies, and both companies have established architecture visions—Cisco® Data Center 3.0 and VMware vSphere—to guide their individual research and development as well as their collaboration efforts. Together, the companies have identified areas where they can work together to make data center virtualization easier to adopt and more useful for their joint customers. This shared vision and collaborative roadmap benefits customers in a number of ways. By understanding the direction that the industry leaders are going, customers can take a more strategic view of their own data center virtualization plans. Similarly, this joint research and solution development removes a large burden of risk for customers; essentially, Cisco and VMware are performing the necessary system integration, testing, and validation, saving customers from having to address these issues themselves.

For example, many benefits of virtualization derive from VMware VMotion, or the ability to dynamically move virtual servers (called virtual machines) from one physical server to another while they are running. This capability can help businesses reduce server sprawl, reduce or eliminate maintenance windows, and greatly improve system availability. Although this capability is extremely useful, it does present some management, operations, and policy compliance challenges for the data center network that ultimately affect the usability of the feature. With the introduction of the Cisco Nexus™ 1000V Series Switches and VMware vSphere 4, Cisco and VMware have collaborated to deliver an innovative solution that addresses the needs of both the server and networking teams. The jointly developed solution expands the usability of VMware VMotion while concurrently simplifying management and operations. The net result is that businesses can now take advantage of the cost and functional benefits of virtualization in a larger number of scenarios and with a broader number of applications.

In a continuation of this R&D collaboration, Cisco and VMware are now jointly developing a solution that will allow running virtual machines to be moved between different data centers while they are running, a feature of obvious benefit to a company's business continuance and disaster recovery strategies.

## Why Cisco?

Cisco and VMware have forged a unique partnership designed to deliver the types of solutions customers will need as they virtualize their data centers. The Cisco Nexus 1000V Series is the first result of the companies' shared vision and joint research and development efforts. Customers benefit from the collaboration of two industry leaders with a solution that offers exceptional value, features, and level of integration.

## For More Information

More information can be found at the following locations:

- <http://www.cisco.com/go/1000V>
- <http://www.cisco.com/go/vnlink>
- <http://www.cisco.com/go/datacenter>
- <http://www.vmware.com/products/cisco-nexus-1000V/index.html>



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