Nimble Storage SmartStack for ROBO Desktop Virtualization with Cisco and VMware

A pre-validated desktop virtualization solution for Remote Office / Branch Office (ROBO) and edge-scale environments.

Businesses are increasingly turning to desktop virtualization as they are forced to re-evaluate how they manage end-point devices, secure data, and enable workplace mobility, but struggle to deliver the storage performance expected by end users. And when it comes to deploying virtual desktops for employees who work at remote or branch offices, the resulting management complexities, infrastructure footprint, and the potentially hefty investment of a storage environment are common pain points that need to be considered up front. Deploying a solution that's "right-sized" for ROBO environments while addressing these pain points is difficult for businesses that often do not have the luxury of IT professionals with deep desktop virtualization specialization co-located on premises.

Accelerate Desktop Virtualization for ROBO Environments

Nimble Storage SmartStack™ for ROBO Desktop Virtualization with Cisco® and VMware® is an edge-scale solution that enables companies with remote branch offices, or many distributed locations that require local IT infrastructure, to efficiently deliver applications that support the business and users at those sites. It helps your IT organization to:

- Achieve aggressive price/performance ratios
- Speed deployment and reduce risk
- Reduce cost and simplify management
- Deliver higher levels of application availability and uptime

Part of the SmartStack solutions portfolio, SmartStack for ROBO Desktop Virtualization leverages the Cisco Unified Computing System™ (UCS) Mini, VMware vSphere™, and VMware Horizon (with View) technology to eliminate the guesswork involved in planning, sizing, and provisioning infrastructure for ROBO and edge-scale environments.

The prescriptive design for deployments supporting up to 500 virtual desktops, with a mix of virtual desktops and remote desktop services (RDS) desktops, in a highly available environment includes:

- **Storage:** Nimble CS-Series array
- **Compute:** Cisco UCS Mini
- **Desktop Virtualization:** VMware Horizon (with View)

The UCS Mini embeds the unified server and networking capabilities of the top-of-rack UCS Fabric Interconnect directly within the UCS Mini chassis, enabling the SmartStack solution to deliver compute, storage and networking into a single, easy-to-manage, compact solution. By deploying an optimized desktop virtualization solution on-site at remote or branch offices rather than a central datacenter, companies can deliver a predictable end-user experience by eliminating network dependent performance issues between sites.

Do More with Less

By leveraging Nimble SmartStack for ROBO Desktop Virtualization, IT organizations can also take advantage of:

Solution Overview

Nimble Storage delivers the ideal platform for desktop virtualization with VMware.

Nimble Storage systems provide:

- **Superior Price/Performance:** Get optimal storage performance that adapts to the demands of the most critical virtualization workloads

- **Simplified Deployment:** Speed up deployments with efficient VMware integration, scale performance and capacity as your user base grows, and monitor from anywhere through InfoSight™

- **Enhanced Protection and Availability:** Enable frequent and fast backup, simplified recovery, and affordable disaster recovery

vmware® Horizon View

cisco

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- **Greater Consolidation:** Nimble's use of high capacity disks and inline compression to accommodate more users in a 3U appliance, as well as the dense compute and expansive I/O capacity of the Cisco UCS blade servers, allows for hundreds of users in a small footprint. IT organizations can see a 30 to 75 percent reduction in their data footprint and as much as a 50 percent reduction in the physical foot print compared to traditional solutions, with no end user impact.
- **High Performance:** Nimble arrays with Cisco UCS servers deliver the adaptive performance to handle rich desktop functionality with a high quality end-user experience, in a compact 3U rack space footprint. This, along with VMware's desktop virtualization platform, allows IT to maintain an exceptional user experience through heavy application use and periods such as boot/login storms, patch operations and upgrades.
- **Flexible Virtualized Workspaces:** VMware Horizon delivers virtualized applications and desktops through a single consolidated platform that supports the needs of different types of end users within an organization. Virtualized workspaces support multiple endpoints and can be delivered over LAN or WAN connections with a great end user experience.
- **Enhanced Protection:** Nimble's native snapshot technology enables frequent, fast data protection, and simplified recovery. In addition, Nimble's replication capabilities can efficiently send data to a remote location for disaster recovery, and are integrated with VMware's Site Recovery Manager for complete workflow automation.
- **High Availability:** Cisco UCS and Nimble arrays both incorporate redundant components, with no single point of failure, along with proactive monitoring and reporting. The result is less end-user and/or application disruption, which means fewer calls to the helpdesk.

Nimble Storage's Adaptive Flash platform includes the patented Cache Accelerated Sequential Layout (CASL™) architecture and delivers:

- Accelerated performance for higher throughput/IOPS and sub-millisecond latencies
- Higher storage efficiency— reduce storage footprint by 30 to 75 percent
- Non-disruptive scaling to fit changing application needs through increased performance, capacity, or both
- Simplified storage management and proactive support with InfoSight™
- Maximized data and storage availability with integrated data protection and disaster recovery

Scalable Infrastructure that Grows with Your Business

While optimized for desktop virtualization in Remote Office / Branch Office (ROBO) deployments, SmartStack for ROBO Desktop Virtualization also leverages the scalability of UCS Mini and CS-Series arrays to seamlessly adapt to growing needs without downtime. Nimble's scale-to-fit functionality lets IT independently and non-disruptively grow storage performance and capacity by upgrading controllers, increasing cache, and by adding additional capacity. Cisco UCS scales by adding blade or rack servers, taking advantage of its stateless computing model based on UCS service profiles for rapid server provisioning, and a scalable I/O architecture.

By adopting a modular building block approach of integrating compute, fabric, storage, and virtualization into a single architecture, IT organizations can further scale deployments beyond a single block as needs grow.

The Bottom Line

As solution and technology partners, Cisco, VMware, and Nimble have created a prescriptive solution for desktop virtualization, optimized for ROBO environments, in a single converged infrastructure stack that is cost effective, simple to manage, and easy to scale. This prescriptive solution takes the guesswork out of planning and deployment, helping organizations accelerate the transformation of their end user desktops into virtual, mobile workspaces.

For more information, visit www.nimblestorage.com/solutions or contact an authorized reseller.

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