Nimble Storage SmartStack for Business-Critical Applications with Cisco and VMware

Converged infrastructure building blocks for deployment of Microsoft Exchange, SQL Server, and SharePoint environments

For many customers, collaboration and email applications such as Microsoft SQL Server, Exchange, and SharePoint are critical for business productivity. But care needs to be exercised in selecting the right storage infrastructure for hosting these applications.

Key requirements include the ability to:

- Meet aggressive performance demands at the required service levels
- Keep the application up and running at all times
- Achieve all recovery point and recovery time objectives through a combination of DR and backup/recovery solutions
- Provision IT resources quickly to meet changing business requirements
- Gain visibility into system status around performance, capacity, system health, and protection
- Scale the environment seamlessly to cater to evolving capacity and performance needs

A Better Way Forward

Nimble Storage pre-validated SmartStack™ for Business-Critical Applications with Cisco® and VMware enables your IT organization to virtualize business-critical environments to:

- Achieve aggressive price/performance ratios
- Deliver higher levels of application availability and uptime
- Simplify application deployment and management

This pre-tested solution leverages Cisco Unified Computing System™ (UCS) and VMware vSphere™ technology to eliminate the guesswork involved in planning, sizing, provisioning, and operating enterprise applications.

At the core of this architecture is VMware vSphere 5.1, which transforms your IT operations to deliver an entirely new level of business value. Accompanying the vSphere technology in the reference architecture are the efficient, flash-optimized Nimble Storage CS-Series arrays and the flexible Cisco UCS B-Series blade servers. Together, they enable IT organizations to implement cost-effectively and scale as needed.

By deploying the Nimble SmartStack solution, IT organizations can:

- **Respond faster to changing business needs while lowering project risks:** Nimble Storage SmartStack includes 500-user building blocks for deploying converged infrastructure for Microsoft Exchange, SharePoint, and SQL Server.
- **Improve business-critical application responsiveness to changing business needs at a lower acquisition cost:** Nimble Storage's flash-optimized hybrid CS-Series arrays with flexible and high performing Cisco UCS B-Series blade servers deliver the necessary storage and compute performance and scalability.
- **Deliver higher efficiency by controlling and reducing costs, enabling IT to accomplish more with less:** Efficient Nimble Storage arrays and dense Cisco UCS servers cut power, space, and cooling costs, complementing VMware vSphere 5.1.
- **Increase business-critical application uptime with enterprise-class availability:** Nimble Storage's snapshot and replication technologies and Cisco's built-in redundant architecture provide efficient data protection and business continuity.

Solution Brief

Nimble Storage delivers the ideal platform for supporting your business-critical applications on VMware. Nimble Storage systems provide:

- **Superior Price/Performance:** Get optimal storage performance for transactional workloads that adapt to meet business-critical application demands.
- **Enhanced Protection and Availability:** Enable frequent and fast backup, simplified recovery, and affordable disaster recovery to meet the needs of MS SQL Server, Exchange, and SharePoint.
- **Simplified Application Deployment:** Speed up business-critical application deployments with efficient VMware integration, and scale performance and capacity as your MS SQL Server and Exchange database needs grow.

- Improve IT productivity across the board by taking on more productive tasks without impacting service levels: Simplified management, automation, and efficient infrastructure reduce deployment and management efforts.

The prescriptive design for deployments supporting up to 500-user MS Exchange, SharePoint, and SQL Server databases in a highly available environment includes:

Storage

- Nimble Storage CS220G Series array

Compute

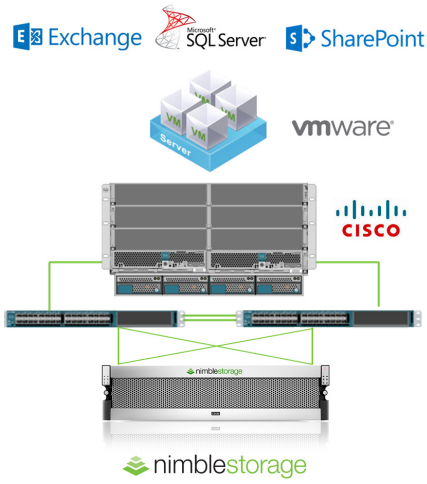
- Two Cisco UCS B200 M3 blade servers
- Two Cisco UCS 6248 Fabric Interconnects

Applications

- Microsoft Exchange 2010
- Microsoft SQL Server 2012
- Microsoft SharePoint 2013

Virtualization

- VMware vSphere 5.1



Using this combined solution approach, business-critical applications run on Cisco UCS B200 M3 blade servers with VMware vSphere 5.1. Leveraging volume cloning, IT organizations can see up to 50 percent reductions in physical storage foot print compared to traditional solutions, with no end-user performance impact.

The Nimble Storage CS220G arrays deliver the storage performance and capacity that MS Exchange, SQL Server, and SharePoint need—in just 3U of rackspace—for hundreds of users. It connects to the UCS Fabric Interconnect using 10-gigabit Ethernet, eliminating any bottlenecks in the storage network. The environment is highly available, thanks to the active-standby storage controllers, redundant network connectivity, and VMware vSphere.

Nimble's application performance policies eliminate the guesswork of tuning your applications. And finally, Nimble Storage InfoSight leverages the power of deep data analytics to proactively optimize your storage arrays for the best performance; deliver detailed reporting on capacity, performance, protection, and system health; identify performance bottlenecks; and enable customers to plan for future needs.

The Bottom Line

As partners, Cisco, VMware, and Nimble Storage have created a prescriptive solution for business-critical applications that is cost effective, simple to manage, and easy to scale. This prescriptive solution takes the guesswork out of business-critical application planning and deployment, helping large and small IT organizations accelerate the move to a virtualized business-critical application environment.

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

Nimble Storage systems are built on the patented Cache Accelerated Sequential Layout (CASL™) architecture and deliver:

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

Complementing the CASL architecture is Nimble Storage InfoSight™, a data sciences-based service for managing the storage lifecycle. InfoSight enables substantial operational efficiencies across a range of storage lifecycle activities such as monitoring and alerting, reporting and case management, and storage planning.

nimblestorage

2740 Zanker Road, San Jose, CA 95134
Phone: 877-364-6253; 408-432-9600
Email: info@nimblestorage.com
www.nimblestorage.com