

Storage Company Increases Scalability of Storage Solution

Data storage and protection company used high-performance, highly-available data-center-class switch for its product development data center.

EXECUTIVE SUMMARY
<ul style="list-style-type: none"> • Data backup and protection technology vendor • California, United States • 300 employees <p>CHALLENGE</p> <ul style="list-style-type: none"> • Improve storage economics and simplify data management • Establish a lab environment to test product capabilities • Continue to use a single platform
<p>SOLUTION</p> <ul style="list-style-type: none"> • Retool data-center infrastructure with high-density, high-performance switches to support product development and testing
<p>RESULTS</p> <ul style="list-style-type: none"> • Reduced the required core switching infrastructure by 50 percent • Eliminated the network obstacles that were previously limiting the scalability of the company's product development effort • Provided a stable reference architecture for customers

Challenge

This leading provider of specialized storage systems helps customers reduce or eliminate the use of tape storage infrastructure with a very efficient disk- and network-based data protection alternative. Building upon its success, the company is expanding its offerings to continue bringing new storage and network efficiencies to the enterprise data storage arena on a single, integrated product platform that will improve storage economics and simplify data management for customers.

Central to this strategy is underlying network infrastructure that will deliver the performance and availability needed to deliver mission-critical storage services. The high-end storage backup appliances that the company uses require line-rate 10 Gigabit Ethernet network connections, especially those in the network core.

Solution

The company uses a lab to demonstrate their solution, validate designs and serve as a reference architecture for customers. The company chose the Cisco Nexus® 7000 Series to update their reference architecture in this lab because of the platform's ability to support their high-bandwidth requirements and because of Cisco's extensive data center industry expertise.

The Cisco Nexus 7000 Series doubled the wire-speed 10 Gigabit Ethernet capacity per chassis to 64 ports, enabling the company's research and development engineers to significantly scale their product testing. Beyond addressing immediate performance and availability requirements, the Cisco Nexus 7000 Series roadmap provides a runway for the company to continue to evolve and innovate with their solution offerings. As a result, the company will use the Cisco Nexus 7000 Series in the development of their next generation of products as well.

Beyond the benefits to the company, the Cisco Nexus Series provides future-proofing for customers that replicate the reference architecture, since they will also be able to depend upon their Cisco Nexus deployment to support future growth and future innovations.

Results

The Cisco Nexus 7000 Series eliminates the network bottlenecks that were limiting the scalability of the company's proprietary storage backup product. The company's data backup products and technology are able to take full advantage of network bandwidth, and with the Nexus 7000 at the core of the 10 Gigabit network, large-scale testing and product development are now possible. Standardizing on a Cisco data center solution helps ensure that the company will have a stable, predictable, and scalable infrastructure on which they can rapidly develop and test new products. Furthermore, it means they have a reference architecture that customers can easily replicate and deploy in their own environments.

The 10 Gigabit density and performance of the Cisco Nexus 7000 have reduced the required core switching infrastructure by 50 percent. This translates to both a lower initial cost for the solution as well as reduced operating costs for the life of the solution.

Beyond performance and density, the Cisco Nexus 7000 includes a number of other innovative features that enhance the company's storage solution. The Cisco Nexus 7000 is built around a "Zero Service Loss" hardware and software architecture to protect mission-critical storage traffic. The switch also supports switch virtualization so a single physical switch can be segmented into multiple, independent virtual switches called Virtual Device Contexts. This is ideal in a lab environment to support multiple development and testing groups, but is also useful in customer environments to separate traffic for, say, regulatory or security purposes. Finally, the Cisco Data Center Network Manager streamlines management, providing a single interface for the provisioning, monitoring, and diagnosis of the data center network. Together, these features and capabilities of the Cisco Nexus 7000 Series switch platform will allow the company to rapidly develop and test products and reduce their costs and time to market.

Furthermore, as Cisco continues to develop the Nexus family of products, the company can easily add capacity (i.e. move to 100GbE) and capabilities (i.e. unified fabric) to its reference architecture without significant redesign.

The company is committed to the Nexus 7000 roadmap. As new features and capabilities are introduced, the company is planning to expand its development and testing environment with the newest Cisco products and technologies.

PRODUCT LIST

- Cisco Nexus 7000 Series switches
- Cisco Data Center Network Manager

For More Information

To find out more about the Cisco Nexus 7000 Series, please visit:
<http://www.cisco.com/en/US/products/ps9402/index.html>



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