



ReadyNAS® 3200 Boosts Financial Services Firm Productivity by Supporting 20 Virtual Machines, Cutting Rack Space by 80% and Costs by Over 50%



Profile

Headlands Asset Management is a financial services company based in San Rafael, CA, just north of San Francisco. Initially founded in 2003 as a mortgage lender, the company now specializes in purchasing and recovering distressed mortgages from banks eager to get defaulting loans off their books. Headlands Asset Management then works with the borrowers to avoid foreclosure proceedings and secure more favorable loan terms, so they can remain in their homes. With more than \$50 million in assets under management, the company requires continuous, reliable access to its data.

Background

The computing environment at Headlands Asset Management was comprised of 50 aging legacy servers, each hosting various components of the company's core infrastructure – from its Web and application servers, to its file and database servers. Aron Smetana, the company's Chief Information Officer, determined that it did not make financial sense to renew the maintenance warranties on the aging systems, but he also could not afford to replace all of them, so he looked to virtualization for the solution. Using Microsoft Windows Hyper-V, he was able to produce 23 virtual machines, and reduce the 50 physical units to fewer than 20.

While most of the legacy systems provided their own local storage, two of the database servers and one application server were stored on a 16U enterprise-class Hitachi/NetApp Fibre Channel SAN. Though the SAN has performed well over the years, it was also aging and was no longer under warranty. Aron knew he had to take immediate action to ensure that his company's business-critical data would continue to be protected. However, the solution had to be cost-effective, as well as reliable.



PROBLEM/OBJECTIVE

ENSURE THE COMPANY'S ESSENTIAL DATA REMAINS PROTECTED, WHILE REDUCING THE COSTS OF ITS CURRENT STORAGE SOLUTION

As he began to assess his options, Aron soon found himself in a quandary. Extending the warranty on the Hitachi/NetApp system would cost the company \$10,000 per year – an exorbitant expense he simply could not justify. However, he determined that replacing it with a comparable current system with the necessary software from EMC or NetApp would cost the company \$40,000, and only deliver 2TB of storage capacity. Aron also concluded that he really did not require what is typically considered an enterprise system – it just needed to be reliable, easy to manage, and not be littered with licensing modules for each feature.

With the cost of both enterprise-class options well in excess of what he was willing to spend, Aron began to assess alternative storage solutions. iSCSI seemed to provide the performance and flexibility he required, at a price he could afford. He bought a NETGEAR® ReadyNAS® Pro and 8TB of raw storage to test at home before committing to the solution for his business, and was pleased with the results. "I use the ReadyNAS as an iSCSI target for my home VMs; the primary storage for my music, video, and photos; and as the music store for my Sonos home audio system", says Aron. "It works great, and has proven to be reliable."

SOLUTION

THE NETGEAR READYNAS 3200 QUADRUPLES CAPACITY AND CUTS RACK SPACE BY 80%

With the successful test on his home network, Aron purchased a NETGEAR ReadyNAS 3200 rackmount storage system with 24TB of hot-swappable storage capacity. The ReadyNAS provides primary storage for the 23 Hyper-V virtual machines, capacity for four physical database servers and several application servers, and file sharing for the whole company. Aron also plans to use the ReadyNAS to host the company's mail server in the near future. "With the ReadyNAS, we were able to get four times the storage capacity we had with our old SAN, for less than it was going to cost us for one year of maintenance on that system", says Aron. "Plus, we were able to reduce the amount of rack space from 16U to 2U."

Aron's environment includes three VLANs, which are connected via a NETGEAR ProSafe® 48-Port Gigabit L2+ Managed Switch. With one dedicated VLAN for the clustered servers, another for the ReadyNAS 3200, and a third for the rest of the network, the ProSafe switch provides Aron with the flexibility he needs, while delivering gigabit performance throughout his virtual network.

Using the built-in rsync capabilities of the ReadyNAS, Aron does a nightly backup, replicating to a NETGEAR ReadyNAS Pro located offsite, approximately 30 miles north of the company's headquarters. "What's really nice about rsync is that it's incremental, block-level backup, so it only replicates the bits that have changed since the previous night's backup", says Aron. "So each night, only a very small amount of data is being transferred. It's fast and efficient. In the event of a catastrophic disaster, it will allow us to return the core systems to a functional state in a matter of hours."

RESULT

A FLEXIBLE, COST-EFFECTIVE SOLUTION

Aron is very pleased with the results. "With the ReadyNAS, we now have more storage capacity and better flexibility than we had with our old SAN, but at a fraction of the price", says Aron. "Pretty soon, I can have my entire environment virtualized, and use the ReadyNAS as primary storage for the entire operation."

In addition to the performance and cost benefits provided by the ReadyNAS 3200, Aron is happy with the flexibility it provides. "In the future, we may use VMware for our virtualization solution, and many users recommend it over NFS", says Aron. "With all other mid-market systems I looked at, I'd have to choose between iSCSI and NFS, but the ReadyNAS already has NFS built in, in addition to all the administrative and management software I need."

Aron could not be happier with his purchase of the ReadyNAS 3200. "The ReadyNAS has truly exceeded my expectations", says Aron. "I wish all my systems were this easy to use and administer, and were this reliable!"



*The 5-Year Hardware Warranty and the Lifetime Hardware Warranty only cover hardware, fans, and internal power supplies, and does not include external power supplies or software. Hardware modifications or customization void the warranty. The warranty is only valid for the original purchaser and cannot be transferred.

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