

Budd Van Lines Upgrades SAN, Video

Executive Relocators

Use Case

Video, data growth, retention, and costs

Requirement

Infrastructure upgrade, virtualization, IP camera solution, lower cost to upgrade

Solution

NexentaStor™ + HA Cluster

COMPANY OVERVIEW

Headquartered in Somerset, New Jersey, Budd Van Lines is a nationwide independent household goods carrier specializing in relocating top executives of Corporate America. Budd Van Lines is an independent nationwide carrier, not an agency system. Its service delivery model, Team Pack and Team Haul, is more efficient, consistent and provides a higher level of quality control and a better solution than a van line agency system.

Every relocation provides a highly personalized, superior moving experience. Having started in 1975, today Budd Van Lines is proud to be recognized as America's top rated carrier in the *Surveys of Corporate Relocation Managers and Relocating Employees*, conducted by Trippel Survey & Research LLC. In addition, the company has received numerous industry awards.

Budd Van Lines currently has service to all 48 contiguous states, with centers in the Southeast, Northeast, Midwest, and on the West Coast, and is strategically adding new facilities nationwide to support its growing customer list. The company conducts more than 6,000 relocations each year. And while company growth is really good, the ongoing accumulation of both corporate data and video surveillance was overwhelming the company's data storage infrastructure.

CHALLENGES

For Budd Van Lines, success, recognition, and growth have come with a price. More information was being captured and retained for longer periods of time. The existing SAN was incapable of functioning at this level without a complete forklift upgrade. And the cost of this upgrade was far too high for the company to absorb.

The current NAS (Microsoft File Server 2003) was overburdened, full, and needed monthly patches, meaning increased downtime for both machinery and personnel. That was becoming a growing problem since the company, virtualized since 2008, wanted to increase the number of in-house VMs.

In addition, recent inclement weather conditions convinced the company that a second SAN, at a different office location, was necessary for data disaster recovery and replication.

NexentaStor + HA Cluster

- Xeon Quad Core 5606
- 144GB memory (primary controller)
- 48GB secondary controller
- 3 x 1GB connections in LACP aggregation
- 36 x 1 TB Seagate 7200 RPM SAS in 18 mirrored pairs
- LSI-9205-8e
- IPMI
- OCZ Talos C Series 2

"Before Nexenta, choosing a SAN was a bit of a crap shoot. All vendors have some sort of magic feature, and most don't let you try before you buy. After you purchase, then you find all the warts that the sales people forgot to mention. Nexenta, being software based, allowed me to test for a sufficient time in the lab first. Now that I'm comfortable with the solution/features, I can't believe all the places it fits. And the price is a quarter of legacy storage!"

Douglas Soltesz
CIO
Budd Van Lines



Adding to the overall need to upgrade storage, the company quickly discovered that its updated IP camera solution, with 1080P video, required many times more storage than its previous CCD system. It was becoming very obvious that the company needed another storage solution, one that would be easy to implement, scale to future company requirements, and not break the bank in the process.

SOLUTION

Initially, the company looked to Dell, its current storage provider, for new avenues for data accumulation and retention. Dell's solution, however, required a complete forklift upgrade at an unreasonably high cost. And it provided no NAS. So then the company looked at Nexsan. But they lacked the high-end features that Budd Van Lines needed. It then reviewed the NetApp solution, but quickly realized that the cost, over the long term, would be astronomical. EMC also was in the running but its video solution was not recommended to run VMware, and it couldn't handle the big data requirements of the video solution in a single share/volume.

VMware / File Server

The company deployed NexentaStor with an HA Cluster. The (36) 1TB drives were set up as 18 mirrored VDEVs. This provided approximately 16TB of usable storage, including a mirrored ZIL (STEC ZeusRAM) and 200GB OCZ Talos Cache drive. This solution replaced the previous SAN running the VMware workload and improved, by a factor of three, on intense I/O tasks.

Using snapshots on the CIFS file system enabled Windows users to go back to previous versions of files without calling on IT. Using NFS for VMware allows monitoring of VM data/resource usage on a per file basis instead of per LUN. Compression and CIFS volumes save about 40% of storage.

Disaster Recovery System

The company has deployed NexentaStor in its Ohio office for replication/disaster recovery. With the same 32TB available, it is set up as 12 RaidZ-1 VDEVs of 3 x 1TB disks. This provides 24TB of usable storage, and allows the company to store more data/backups at the Ohio office and still have a system capable of running the company during a disaster recovery event. Budd currently is using Auto-Sync to move snapshots from NJ to OH, and has separated VMs into folders based on retention and RPO.

Video Storage Solution

Budd deployed a Nexenta core solution, set up in six RaidZ-2 VDEVs of seven 2TB disks. This provides approximately 60TB of usable storage for the video solution shared via CIFS.

BUSINESS BENEFITS

The Nexenta solution provided Budd with:

- Video solution with room to grow
- Reduced downtime, increased productivity
- Lower total cost
- ZFS, which provides the highest levels of data integrity through compression and checksums
- ZIL and SSD Cache Hybrid Storage: multiplies performance with same number of spindles
- Support for NFS and CIFS
- Ability to split drives between 2 JBODs in Raid-10 for ability to survive failure

Lowered Hardware Costs

All of the solutions implemented by Budd Van Lines are cookie cutters of one another. This way, the company can move parts around and keep spares without worry, while keeping component costs down.