Success Story

Wright-Pierce Finds NetApp AltaVault Solution and Amazon S3 Data Storage Cost Less and Easier To Maintain Than Disk-To-Disk Options

KEY HIGHLIGHTS

Industry
Engineering

The Challenge
- Company’s growth means an increasing amount of data must be stored
- Expanding disk-to-disk backup system is too costly

The Solution
- NetApp® AltaVault® cloud-integrated storage (formerly SteelStore) and Amazon S3 cloud storage

Benefits
- Countless man-hours saved by having only one backup appliance to maintain
- Lower backup-related costs (less power and cooling; no need to expand disk-to-disk system; archival storage device retired)
- Greater data security
- Very affordable monthly cloud fee (due to deduplication and competition among cloud providers)
- Restores in minutes (from AltaVault cache) versus several hours with tape

Customer Profile
Wright-Pierce is an award-winning engineering firm specializing in water, wastewater, and infrastructure services for public and private clients. The firm is employee-owned, with 200 engineers and support professionals located in 7 offices.

The Challenge
High volumes of data; problems with disk-to-disk backup
For the past 10 to 15 years, Wright-Pierce has been actively growing its business beyond the company’s Maine headquarters southward to serve the entire Northeast. The firm has been very successful in winning contracts throughout the region. It has also been the recipient of numerous awards, including seven consecutive Circle of Excellence awards from the consulting firm PSMJ Resources, Inc.—a first for any company.

The firm’s growth is driving a corresponding increase in the amount of data that must be backed up and stored. When its original tape system became outdated and difficult to maintain, the firm went to ExaGrid disk-to-disk backup. This improved the speed of restores but fell short in other ways. A technical issue with one of the appliances destroyed a great deal of data, for example, causing Ray Sirois, director of IT at Wright-Pierce, to lose confidence in the system. Also, it was getting too expensive to grow the ExaGrid system to handle the firm’s ever-increasing volumes of data, which in addition to CAD and GIS data now include LIDAR models and color aerial photography.

The Solution
AltaVault saves time and money
Sirois had been researching the trend toward cloud computing and realized that cloud data storage presented a better alternative than continuing to expand the ExaGrid system. “Many compass needles are now pointing to the cloud as an easier way to manage growth, compared to making large capital expenditures every year,” he explains. “I thought backup data would be a good place to start our learning process with the cloud.”

Before making that decision, however, Sirois learned about a product that made cloud data storage even more attractive—the NetApp AltaVault cloud-integrated storage (formerly SteelStore). In addition to providing immediate data...
recovery for the backup and archiving applications, an AltaVault solution protects data by encrypting it in flight (to the cloud) and at rest with SSL v3 and 256-bit AES encryption. Its deduplication functionality addresses the cost of cloud storage by significantly reducing the amount of data that is sent there.

The transition from on-premises data storage to cloud storage was the simple matter of choosing and connecting to a cloud host (Wright-Pierce chose Amazon S3), installing the AltaVault solution, and directing the company’s Backup Exec™ software to the appliance. “It was nice that we could continue using the same backup software we’ve always used,” Sirois notes.

About the AltaVault installation Sirois says, “I was curious if the appliance would be as easy to deploy as NetApp promised and it was. I commend the user interface, too. It’s very clean and gives me the right information quickly.”

**Business Benefits**

**Cost savings and better approach to managing growth**

Sirois sees the transition to AltaVault and cloud data storage as a big improvement over maintaining tape and disk backup systems. For one thing, there’s less hardware for his team to deal with. “We have one device in the rack compared to the four ExaGrid devices we had before and who knows how many we’d have to add eventually,” Sirois explains. He says the number of man-hours the company is saving is “countless.”

Another advantage of this approach is a higher level of data security. “If you do your homework [about cloud hosts], you’re going to get a higher level of security in the cloud than what you can provide at your own facilities,” Sirois adds. Cloud providers implement thorough data security and compliance frameworks and often the protection mechanisms meet or exceed what companies would deploy in their own data centers.

Restore times are much faster when the data is pulled from AltaVault compared to tapes, and about the same as restore times from the ExaGrid system. As a result of AltaVault’s efficient caching architecture, Sirois hasn’t yet had to do a restore from the cloud.

Cost is another area in which the AltaVault and Amazon cloud solution makes more sense, especially given the competition among the major cloud storage providers. Sirois was previously paying Amazon $700 to $800 per month to store 10 terabytes of data. Amazon’s recent price reduction (from 7.5 cents/gigabyte/month to 3 cents/gig/month) reduced Wright-Pierce’s monthly fee to approximately $300.

Additional cost savings come from not having to maintain the tape and disk-to-disk backup systems. Also, Sirois is planning to retire a network-attached storage (NAS) device that’s been used to store project archives and use a few terabytes on the AltaVault solution to house that data. “We have almost unlimited space on the appliance, especially since the Amazon price has come down so significantly and we put so much in the cloud,” Sirois says.

Further savings come from significant reductions in electricity and cooling costs. The AltaVault appliance consumes 20% as much power compared to the four ExaGrids. And because it requires less rack space, the cooling requirement is less as well. “We had been on a trend of needing more and more power and cooling in our server room,” Sirois explains. “Now, due to virtualization and cloud storage, we’ve been able to reverse that.”

Thanks in part to NetApp AltaVault, Wright-Pierce’s first foray into the cloud has been very positive. “Storing data in the cloud means we don’t have to buy too much expensive equipment to keep up with our company’s growth, but we also don’t have to worry about buying too little and then having to go back asking for money again,” Sirois says.