

ARLP sees 70% performance increase with new HPE storage

ARLP reduces storage profile from 290TB to 29TB utilizing HPE StoreOnce backup solution

Objective

Implement full Disaster Recovery system and upgrade storage capacity and performance

Approach

Utilize two HPE StoreOnce 4700s for remote disaster recovery and deploy a hybrid flash HPE 3PAR StoreServ 7400 for greater performance and increased storage capacity. Repurpose existing HPE 3PAR StoreServ F400 for DR storage array.

IT Matters

- HPE deduplication functionality reduces storage profile from 290TB to 29TB
- DR technology supports business continuity with one- to two-hour restore time from one- to three-days
- Solution significantly reduces software upgrade times

Business Matters

- Increases customer and end-user satisfaction
- Provides faster reports and analysis for effective competitive decisions
- Runs applications and reports 70% faster
- Affords \$500,000 in cost effectiveness and richer functionality compared to competition
- Saves \$20,000 to \$30,000 in LTO tape costs
- Eliminating tape backup dependency reduces costs, consumption of IT resources, and the critical time-lag between a real disaster event and full restoration
- Conserves \$3,000 a month in co-location costs due to smaller footprint
- Offers a significant increase in performance
- Delivers substantial savings from deduplication storage gains



In 2014, Alliance Resource Partners (ARLP) upgraded its storage to an HPE 3PAR StoreServ 7400 Hybrid array, to further increase performance for its mission-critical applications. The company also invested in two HPE StoreOnce 4700 Backups for backup and disaster recovery.

Alliance Resource Partners (ARLP) is a diversified producer and marketer of coal to major United States utilities and industrial users. Coal fuels 39% of the electricity generated in the United States each year. In 2014, more than 90% of ARLP coal was dedicated to electric utilities with long-term contractual relationships.

ARLP is the third-largest producer in the eastern United States. The market is fast-paced and highly competitive. Timing and market value determine success. Reliable, highly available data is key to the business in forecasting buying and selling exercises. An existing Hewlett Packard Enterprise (HPE)



storage customer, ARLP re-evaluated the storage field and recommitted to an HPE storage architecture. HPE 3PAR StoreServ storage ensures that ARLP executives can crunch the data quickly to help make the best competitive decisions.

“We originally became HPE storage fans in 2012 when the HPE 3PAR F-Class system soundly thrashed our incumbent’s storage cost/performance ratio,” recalls Chad Morrison, infrastructure manager, ARLP. “When it came time to upgrade for more headroom and performance, we looked to HPE for the latest solutions, but still ran a strict competitive evaluation. The HPE 3PAR StoreServ 7400 and HPE StoreOnce 4700 Backup proved to us that HPE is still the industry leader in technology and innovation.”

The HPE solution along with the performance and availability of corporate Oracle and Microsoft® tools support the decisions that give Alliance its competitive advantage. Tammy Adler, senior database administrator, ARLP says that the new HPE 4-node storage system fulfills the requisite for more space, with capacity to grow and scale. Additionally, the hybrid model is the perfect design to support ARLP’s performance needs.

“We have a need for flash performance, but only on a few of our databases, and everything else runs on spinning disks,” she explains. “The hybrid HPE 3PAR StoreServ 7400 combines a very affordable price with more than enough flash capability for us. It saved a half million dollars over the nearest competitor in our evaluation, and HPE outperformed it handily. Its ongoing performance has been remarkable.”

Morrison finds the speed and performance of the 3PAR StoreServ 7400 equally impressive, whether using flash or spinning disk. The 3PAR StoreServ with a Tier3 hard drive is 50% faster than the F400. The added benefit is flash performance where needed. “We’ve encountered many benefits with our new HPE 3PAR StoreServ 7400, such as 6-nines availability, but the biggest advantage our HPE storage brings, is greatly increased customer satisfaction,” affirms Morrison. “All user tasks are 70% faster. We have many happy users and a great deal of increased productivity—music to our ears.”

Morrison adds that the Oracle R12 E-Business Suite upgrade took six hours in the 7400 environment versus 19 hours previously. He saves close to \$3,000 a month from the smaller footprint. The HPE 3PAR StoreServ 7400 delivers three times the storage in the same footprint and saves the expense of two more racks and higher co-location rent.

ARLP relies on HPE for disaster recovery

It was also time to build a heavy-duty disaster recovery system, and the HPE StoreOnce automated backup and disaster recovery (DR) system looked attractive. Previously, ARLP used IBM TSM (Tivoli Storage Management) and Microsoft DPM (Data Protection Manager) with manual tape libraries to keep certain critical items backed up. Data replication was done between their HPE F400 and F200 systems. By moving to the HPE StoreOnce for backup, the handling of tapes is nearly eliminated.

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Located in Tulsa, OK, ARLP headquarters has vulnerability to both tornados and earthquakes. A disaster event could shut down systems, and play havoc with business continuity. Eliminating tape backup dependency reduces costs, consumption of IT resources, and the critical time-lag between a real disaster event and full restoration.

“The difference is night and day,” according to Eric Travnicek, infrastructure engineer, ARLP.

Prior to implementing HPE StoreOnce, the process included travel to the offsite tape vault and then to the DR facilities to identify a tape library to do the restore. This process could take from one to three days.

“Now, in the event of a disaster, we can restore our environment in full in only an hour or two, maintaining solid business continuity and financial health,” states Travnicek. “Another of the more tangible benefits of the HPE StoreOnce, is the reduced costs of physical HPE LTO tape and the associated offsite storage costs. We instantly cut \$20,000 to \$30,000 of HPE LTO tape costs.”

He also gives an honorable mention to the HPE StoreOnce appliance, which allows him to integrate tightly with multi-vendor backup applications, such as TSM and DPM, and

centrally manage file replication across all systems from a single pane of glass.

“Having StoreOnce support for TSM was a plus,” he admits. “One of the main reasons, we chose HPE StoreOnce, was the ability to replicate data after deduplication without rehydrating the data. HPE deduplication functionality reduced our storage profile from 290TB to only 29TB, resulting in a significant savings in future storage space.”

Morrison and staff now utilize the two HPE StoreOnce 4700s for backup and DR at the data center and a remote DR site. “The fact that we were able to repurpose our HPE F400 as highly compatible DR storage at our remote site was a great demonstration of investment protection in action, and saved us a good deal of money,” notes Morrison. The F200 has created a new home for lab storage.

Morrison figures that by reinvesting in the latest HPE storage technology for his upgrade and DR solutions, ARLP experienced significant savings. “The 3PAR StoreServ was \$500,000 cheaper than the closest competition, and we saved cost on repurposing the F400, and an additional \$200,000 by not having to buy new backup software.”

Case study

Alliance Resource
Partners (ARLP)

Industry

Mining & Distribution

Customer at a glance

Application

ARLP needed hybrid storage and disaster recovery in support of mission-critical applications including Oracle.

Hardware

- HPE 3PAR StoreServ 7400 Storage
- HPE StoreOnce 4700 Backup

Software

- HPE 3PAR Data Optimization Software Suite
- HPE 3PAR Reporting Software Suite
- HPE 3PAR Replication Software Suite
- Oracle R12 E-Business Suite
- Oracle (R11) database
- Oracle Application Server
- Oracle Application Express
- Oracle Hyperion Business Intelligence
- Microsoft® SQL Server®
- Microsoft SharePoint®
- Microsoft Exchange®
- VMware® 5.5
- Red Hat® Linux® 5.7-6.6
- Windows® 2003-2012R2

Services

- HPE Proactive Care

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HPE expert support is like having virtual staff

Morrison and the IT staff undertook a very straightforward implementation that was quick and easy in-house. When they need extra help, they reach out to HPE. For example, an HPE consultant analyzed ARLP’s backup configuration needs and recommended improvements in backup design and best practices for TSM, Oracle, and DPM backups to deploy HPE StoreOnce to its best advantage.

For regular support, ARLP chose HPE Proactive Care for HPE StoreOnce and the HPE 3PAR StoreServ 7400. “We had a drive fail, called HPE, got a quick response, scheduled a replacement and had it done on schedule, just as advertised,” recalls Morrison.

He was introduced to HPE storage when he purchased the HPE F-Series storage a few years earlier. It outperformed other storage offerings. The performance and functionality of the HPE 3PAR StoreServ 7400 continues his appreciation of the HPE vision and architecture. “HPE storage solutions perform well, are very reliable, and continue to evolve exceptionally,” he concludes. “Hewlett Packard Enterprise proved it has the best storage solutions yet again, further cementing our new confidence in HPE as the leading-edge vendor for our future growth and technology.”



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