



Customer Success Story

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—Sean Maisey,
Manager, IT Operations and Engineering

Highlights

Industry

- Education/entertainment

Challenges

- NAS assets approaching capacity limits
- Migrating older data from high-performance tier 1 to less expensive tier 2 storage
- Long-term strategy may require changing storage vendors

Solution

- Clustered F5 Acopia ARX500 devices
- Acopia migration, tiered storage and replication policies

Benefits

- Eliminated the need to acquire new storage capacity, estimated at \$300,000 - \$400,000
- Reduced tier 1 utilization from 95% to 30% by seamlessly implementing an ILM strategy to automatically and transparently place file data appropriately
- Eliminated vendor lock-in and provides freedom of choice in selecting storage vendors going forward

The Colonial Williamsburg Foundation Implements ILM Strategies, Ensures Vendor Flexibility with F5 Acopia

The Colonial Williamsburg Foundation operates the world's largest living history museum in Williamsburg, Virginia, where costumed actors tell the story of the men and women who inhabited the city in the 18th century. The nonprofit foundation employs over 3,000 people and manages a range of diverse operations, including five hotels, a broadcast production facility, a catalog business, retail outlets, a publishing facility, restaurants, and more.

The Challenges

NAS Assets Nearing Maximum Capacity as Outdated Data Consumes Tier 1 Storage

The Colonial Williamsburg Foundation has almost 40 terabytes (TB) of storage residing on three 1.2 TB Network Appliance™ Inc. (NetApp®) FAS250 filers and a 32 TB NetApp NearStore® R200 system used for secondary storage and archiving. The tier 1 filers were regularly filled to capacity, which frustrated employees suddenly unable to save files and resulted in panicked calls to the Help Desk.

Recognizing that 90% of the files stored on the FAS250s were over 90 days old and should be moved to the R200 system, the foundation was considering a plan to replace its current NetApp environment with a clustered file system, a major infrastructure change estimated to cost \$300,000 - \$400,000. However, the foundation still hoped to uncover a solution that would optimize its existing resources.

The foundation outlined several key objectives:

- Simplify migration between filers, ensuring end-user access is never disrupted;
- Improve storage utilization by automating the placement of data, based upon information lifecycle management (ILM) policies;
- Ensure vendor flexibility in the event the foundation elected to change storage vendors now, or at some time in the future.

The Solution

Intelligent File Virtualization with F5 Acopia

After a thorough examination and evaluation of all its options, The Colonial Williamsburg Foundation elected to deploy a clustered pair of F5 Acopia ARX500 devices to virtualize its NetApp Network Attached Storage (NAS) environment.

Shortly after implementing the Acopia solution, the foundation successfully migrated 1.2 TB from a tier 1 filer onto the NearStore, upgraded the filer and then moved 300 GB back to the filer. The migration – which was launched in the middle of the day, while users continued working – was completed flawlessly, Maisey said.

Next, the organization leveraged the Acopia solution's flexible file placement policies to establish ILM policies which automate date movement across multiple storage tiers. This lowered storage costs, improved performance, and freed up space in its Quota Trees which had reached full capacity and were at risk for denying writes and/or producing other errors.





“Before F5 Acopia, we were filling up our FAS250 filers on a regular basis,” Maisey recalled. “Now, we maintain 30% utilization on those filers. Unbeknownst to our users, most of their files are sitting on the NearStore. The Acopia solution has delivered exactly as we were assured it would.”

The Results

Automated Storage Tiering and Reduced Costs

By implementing the Acopia solution, the foundation was able to accomplish its goals of freeing up a significant amount of capacity on its tier 1 NetApp filers, and implement automated ILM policies to ensure capacity always remains at an acceptable level.

Using the Acopia intelligent file virtualization solution the foundation:

- Eliminated the immediate need for new storage capacity, estimated at \$300,000 - \$400,000;
- Successfully migrated multiple terabytes of older data from tier 1 NetApp FAS250s to a lower-cost tier 2 R200 NetApp system;
- Implemented automated tiering policies to more effectively manage file data over its lifecycle without impacting user access to the data.

Summary

Improved Performance and Freedom of Choice in Storage Vendors

Automated storage tiering has dramatically simplified the migration of data between NetApp filers, freeing up both tier 1 capacity and IT staff resources. In addition, while the foundation was able to solve its capacity problems without investing in new systems, the ARX's multi-vendor, multi-protocol support gives the nonprofit organization the freedom and flexibility to change vendors – and migrate data non-disruptively -- if the need arises.

“The beauty of F5 Acopia is that we’re not locked into one vendor. We’ve been happy with the NetApp environment and F5 Acopia’s solution has vastly extended its life,” Maisey said. “On the other hand, if we want to buy storage from another vendor, we can. We have ultimate flexibility.”

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