

## Woodard & Curran – Engineering, science and operation services firm

### Woodard & Curran eliminates NetApp NAS, SnapMirror, and Riverbed with Panzura Hybrid Cloud Storage

By many measures, Portland, Maine-based Woodard & Curran's business is enjoying significant success in the 2010s. The almost 40-year-old engineering, science and operations firm is growing at double-digit rates, posting record annual profits and expanding into new business markets and new territories across the U.S. The company recently reached all-time highs on important industry lists such as ZweigWhite's Hot Firms, Engineering News Record's Top 500 Design Firms and the same magazine's Top 200 Environmental firms.

Despite this string of successes, Woodard & Curran executives identified a pair of issues they felt were threatening to derail the company's momentum: data storage and collaboration.

"We had an aging and ineffective data storage platform from NetApp that was ripe for replacement," said Kenneth Danila, director of information systems at Woodard & Curran. "It was no longer functioning at the scale we need to function to. It wasn't responsive enough to the needs of the company."

Woodard & Curran believed in working as one company regardless of location and focused on cross-geographic and cross-discipline projects. This required project teams across the 900-employee company to collaborate – quickly and efficiently, without friction. The storage and networking systems used to support the storage infrastructure between locations were slowing things down.

Each of its 13 office locations had its own pair of NetApp NAS appliances, NetApp SnapMirror software to replicate data to a third offsite NetApp, a private MPLS network linking the sites, and Riverbed WAN accelerators to speed up the replication between sites. Each location essentially was an "island of storage" that had to be managed separately including capacity planning per site and procuring storage at each site ahead of need.

From a collaboration perspective, administrative rules required that project folders live in one location. So, if a project was started in Bangor, it stayed there. If a teammate in Atlanta needed to do

#### Situation Snapshot:

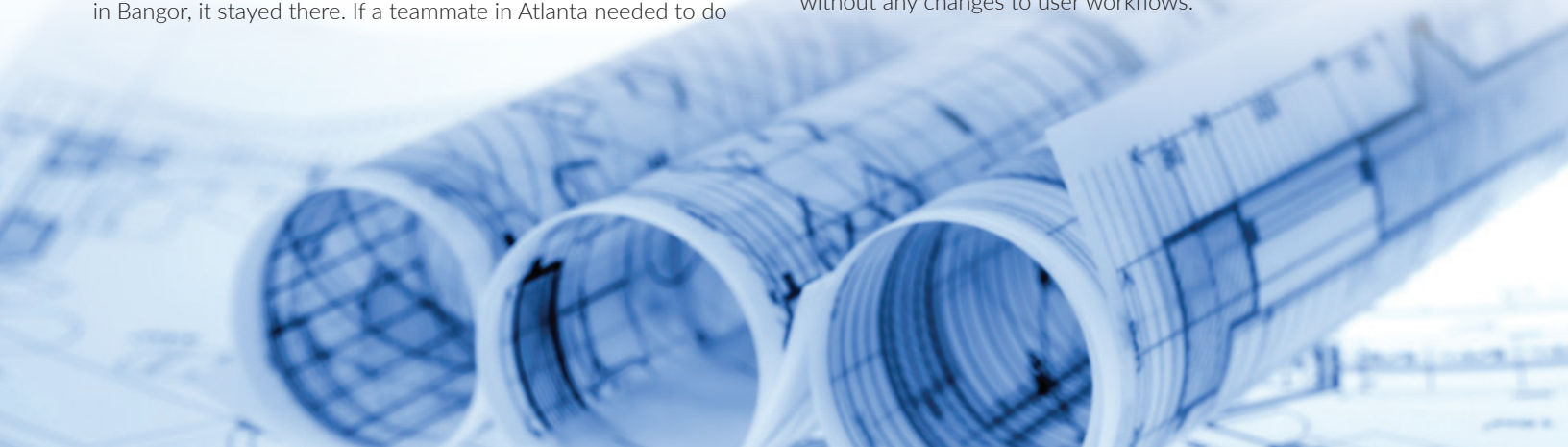
- Environmental operations and consulting firm with 900 employees and 13 locations in the U.S.
- **Key applications:** Autodesk AutoCAD, Plant 3D, NetApp, Riverbed, SnapMirror.
- **Key challenge:** Collapsing an aging and ineffective storage infrastructure into the cloud while improving IT responsiveness to the needs of the business.

work on the file, he would access it over the WAN, do his edits and save. Each location had 500 to 600GB of project files, and larger sites had multiple terabytes. The total project store at that time was somewhere around 12TB total, and files are typically hundreds of megabytes.

"It's great for projects where 100 percent of the staff is in one location, but it breaks down when you start to have teams that are fragmented across multiple locations," Danila said. "That's where we were really struggling. We're trying to become a much more collaborative organization that can put together project teams that are highly effective no matter where the individuals sit, and the data storage was becoming a huge impediment to that. The classic multi-NAS solution plus WAN acceleration was just not working, and we needed a new way of doing things."

### Moving to the cloud

Woodard & Curran embarked on a search for a cloud-connected storage infrastructure where they could pay as they grew, but would also provide the cross-site collaboration capabilities they need to be a more efficient organization. After weighing all options, the company selected a series of Panzura Hybrid Cloud Controllers connecting to the public cloud. The configuration allowed the company to replace on-premise primary, backup, DR and archiving systems and processes. This eliminated the islands of storage by consolidating all tiers of local unstructured data into the cloud – without any changes to user workflows.



"We've migrated all of our projects and the majority of the rest of our data storage onto those systems, and the rest is history," Danila said. "We've been able to accrue quite a few side benefits as well. We went from a slower, more expensive private MPLS network to direct Internet access over fiber that doubled our speed, but saved us over \$225,000 per year."

"It's allowed us to move not just data storage offsite but allowed us to move our telephony, our collaboration, the majority of our servers and our ERP systems all offsite and provide better connectivity to that as well, because we're no longer beholden to the slower, direct-connected MPLS connection. This is a huge deal for us."

## Eliminating islands of storage

*"For me, the best part about this is I never have to worry about buying more storage because we have the Panzura sized to a point where, because of the amount of data we store versus the amount of data that is accessed, as long as we have enough cache to cover what end users are working on, the remainder of that cold data can sit in the cloud and be there forever."*

Woodard & Curran linked up with the public cloud and installed Panzura Controllers to each location, doing a site-by-site migration of data from the existing NAS to the Panzura system over a four-month period. This eliminated the company's islands of storage, linking all the offices in a common data store. This gave the company a "hot-edge, cold core" architecture, keeping active data on the controllers while cloud storage provided the redundancy and availability that obviated the need for DR, backup, and archiving.

"I think we ended up with a lot more stuff on the Panzura controllers than we originally thought would go on them," Danila said. "That really was more of a testament to the platform itself. Initially, we were thinking, we'll put our active projects on it and then we'll find some other storage solution for archives and corporate files. We went ahead and just put everything on it. With the hot-edge, cold-core concept, you can make that cold core as big as you want and pay pennies for it in comparison to buying spinning disc and having an archive NAS sitting in a data center somewhere."

Woodard & Curran started with AWS because it was Panzura's top cloud provider partner at the time. But the customer had started to use Microsoft Azure for certain cloud services, so it asked Panzura to make a switch. Panzura was starting to work with Azure at the time, so did a live migration from Amazon to Azure without any service interruptions.

The shift to Panzura generated cost savings in two areas. First, by removing its NetApp NAS systems, SnapMirror, and Riverbed WAN accelerators, the company eliminated the costs of refreshing the storage and networking equipment, in each office, every three or four years. That saved about \$120,000 a year across all offices. Then there was the shift from regular MPLS networks to faster and less expensive Internet connections that is saving about \$225,000 per year.

## Dealing with ransomware

There was an additional benefit that wasn't on the drawing board when Woodard & Curran embarked on its cloud initiative. The company was hit with a ransomware attack infected many of its files. Because Panzura controllers conduct frequent snapshots, the company was able to write a quick script and restore its files back within about an hour of the infection.

"We keep snapshots back two years, which is another huge advantage of being in the cloud," Danila said. "We're paying pennies for that storage, so we can go back as far as we want."

## About Woodard & Curran

Woodard & Curran Inc. provides integrated engineering, science and operation services in the United States. It employs 900 across 16 U.S. corporate offices and subsidiary locations. It offers contract operation services in a wide variety of disciplines including groundwater remediation, water reuse and wastewater; engineering services including construction, electrical instrumentation and solid waste; and environmental management consulting services.



Panzura, Inc. | 695 Campbell Technology Pkwy #225, Campbell, CA, USA | 855-PANZURA | [www.panzura.com](http://www.panzura.com)  
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### With Panzura, Woodard & Curran was able to:

- Eliminate the need of a technology refresh every 3-4 years, saving more than \$120,000 per year across offices
- Cut MPLS costs by \$225,000 per year by shifting to faster and less expensive direct Internet connections
- Recover from ransomware attacks through Panzura system snapshots
- Eliminate the need for NetApp SnapMirror replication, with all data being available in all sites and in the cloud