

Tegile Systems Arrays Make Dollars And Sense For University Of Northwestern – St. Paul



Budget-conscious educational institution gains \$200,000 TCO savings, adds new functionality by moving from Dell Compellent



Challenges

- Replace aging Dell Compellent storage system having hardware reliability issues
- Upgrade existing feature set and functionality while keeping within limited budget

Solutions

- Tegile Hybrid Storage Array

Results

- Five-year TCO savings of \$200,000 over Dell
- Low cost allowed for purchase of additional SAN at DR site
- Reduced VMware boot storms, leading to fewer user complaints

University of Northwestern – St. Paul (UNW) is a private, not-for-profit Christian liberal arts school located in the Twin Cities suburbs of Roseville and Arden Hills, Minnesota. Founded in 1902, the school offers more than 70 areas of undergraduate study with six master's degree programs to more than 3,300 students.

With the rising costs of higher education, the university has worked hard to avoid a drop in enrollment faced by many colleges and universities today. UNW has maintained four consecutive years of growth with students enrolled through one of four learning venues – traditional undergraduate; PSEO (Postsecondary Enrollment Options) / Early College; FOCUS adult undergraduate; and graduate studies.

Areas of undergraduate study offered include elementary and secondary education, music, business, psychology, broadcasting/electronic media, art, English, mathematics, criminal justice, life sciences, Biblical studies, and Christian ministries. Areas of graduate study include education, human services, business administration, organizational leadership and theological studies.

The Challenge: Updating and Upgrading Storage Infrastructure without Exceeding Budget Limitations

The university began to experience some hardware reliability issues with its existing Dell Compellent storage system and was coming upon the end of support for several components. It was decided that a replacement was due. The hope was to also upgrade the current feature set and some of the functionality while remaining within the constraints of a limited budget many educational institutions face today.

"Originally, Dell was the only vendor we were going to look at just because they've been in here so long and they had been pretty reliable up until that last year or so," said Chad Miller, Northwestern's Technical Director. "But once we started dealing with them, we realized that we were going to be getting essentially the same technology that we already had in place – it was updated and there was some new functionality but there was nothing that was really compelling. And, the price point was really quite high. So we thought, 'You know what? We need to take a step back and look at other vendors.'"

The university engaged its VAR, Cambridge Computing, which brought in a storage expert who evaluated the school's needs before recommending that it take a look at Tegile. After researching the company and finding Tegile's technology compelling while also being impressed by its placement on Gartner's Magic Quadrant and the number of awards the company had won from various trade publications, Miller agreed.

The Solution: Tegile Goes the 'Extra Mile' to Ensure its Flash-Driven Arrays Provide Functionality and Features While Alleviating Budget Concerns

UNW needed a storage solution at a good price point that could do both iSCSI and Fibre Channel, offered compression and deduplication data optimization, and could provide replication to its disaster recovery site, which at that point had been under utilized because the school couldn't afford an additional SAN there.

Tegile's portfolio of Intelligent Flash Arrays are designed to accelerate a wide variety of enterprise applications – from smaller workloads to mission-critical deployments. They deliver a comprehensive set of data management capabilities while seamlessly supporting different storage media (hard disks, dense flash, high-performance flash) under a single storage operating system. Users can dial up or down the amount of flash storage needed to meet the specific performance needs of their applications. Tegile arrays provide the high performance of flash with the economics of disk storage.

Each array is powered by Tegile's IntelliFlash™ software architecture, which seamlessly accommodates different storage media and provides advanced data management capabilities for data protection, data reduction and disaster recovery. With IntelliFlash, enterprises can deploy all-flash or a mixture of flash and hard disk in a single storage system.

Tegile Intelligent Flash Arrays deliver dramatic improvements in the utilization, footprint and cost of the storage infrastructure. The company's arrays enable the consolidation, virtualization and acceleration of enterprise applications with unmatched economics. Integration and certifications from leading enterprise applications ensures performance and compatibility.

The Result: Tegile Offers University of Northwestern A Lot More for a Lot Less

Going with Tegile allowed the school to get the new features it was looking for at an extremely low price point, which enabled it to add a SAN at its DR site. Northwestern implemented Tegile's HA2400 with up to 150TB of RAW storage at its main data center and an HA2100 at its DR site.

"It really came down to numbers for us and those number were pretty compelling," said Miller. "We were able to save \$35,000 a year on support alone. Our TCO over 5 years was close to a \$200,000 savings over sticking with the Dell"

In addition to CAPEX savings, Miller said the school also experienced a big reduction in operating expenses. He was able to reduce floor space requirements of the previous Dell Compellent by 75 percent, with a substantial savings on power as well. Miller estimates they also received a 40 percent data reduction savings after migrating from the old system to Tegile due to compression and deduplication.

University of Northwestern operates in a 100 percent virtualized environment, which Miller said Tegile plays really nicely in. He was able to live migrate the entire environment – Oracle databases, SQL servers, Exchange, ERP, File Shares, and VMware View for the virtual desktop infrastructure – with no downtime at all. Miller also ran a comparative test where he booted identical servers side by side – one connected to the old storage and one to

the Tegile array – with improvements in boot times up to 20 percent shown with the Tegile array.

"You know how you get the general complaints from users, 'Oh, this is slow,' 'That's slow,' 'Accessing this is slow'? That essentially went away due largely to the storage replacement and upgrade," said Miller.

A major initiative currently underway for the university is to increase its existing enrollment base. If successful, Miller sees a need to increase the number of VMs currently deployed in several classrooms across campus as well as the library. He said that part of the decision-making process was finding a SAN that could handle an expanded VDI environment in the future.

"A lot of schools are struggling budget-wise right now, so when you've got a vendor like Tegile that's willing to play nice with schools, they're going to make some headway," said Miller. "Our school is looking to expand enrollment significantly in the coming years. The Tegile solution with dedupe and compression was conducive to that goal. Hopefully, we'll meet our goal and we know that we have a storage vendor that can go along with us."

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