

DXi & Scalar Series

DXi Solution Frees Valuable Resources and Meets Budget Constraints for University's Small IT Department

After Franklin Pierce University's IT team decided to replace its legacy backup infrastructure, the team received an education in the benefits provided by Quantum's DXi deduplication appliances. Backup performance doubled, restore times were cut from hours to minutes, and management time was reduced by nearly 20 percent.

AGING INFRASTRUCTURE AND LIMITED BUDGET COLLIDE

Thomas Rup, Senior Systems Administrator for Franklin Pierce, says he recognized the need to replace the University's backup system on the day he joined the IT Department. With multiple campuses, dozens of servers and a range of mission-critical applications, the New Hampshire-based liberal arts school needed a solid IT backup infrastructure to support its 350 faculty and 2,500 students. But the existing backup system was barely hanging on.

"We were babysitting the backup on a nightly basis," says Rup. "Spending 6 to 8 hours a week swapping tapes and responding to failures is a resource killer for a small IT team. The old system wasn't keeping up with our growing data—the backups were taking so long that some applications didn't have a sufficient window for completion."

Beyond the constant patching and capacity/performance limitations, restores from tape were manually intensive and time-consuming.

Like many non-profit educational institutions, the University has a tight IT budget to go along with its small team. This presented Rup with a challenge: how to replace an entire legacy backup infrastructure with a future-proof backup system providing dramatically improved capacity, reliability and performance while staying within the allotted budget.

QUANTUM MAKES DEDUPLICATION WORK FOR SMALLER ORGANIZATIONS

Rup worked with reseller GHA Technologies to review a broad range of storage and backup options from 8 to 10 different companies, including both startups and established brands such as EMC and Iron Mountain. Together, they zeroed in on server-to-disk-to-tape as the right approach. After talking with Quantum, it quickly became apparent that Rup had found the right partner.

"Quantum was the only organization that took the time to really understand our needs and present a compelling proposal," says Rup. "It wasn't just a 'here's what we've got' conversation; they fully scoped out a personalized solution, spent a lot of time helping us understand the technology, and laid out a system that did exactly what we needed and could work within our budget."

While Rup was familiar with disk-based backup, his past experience had been with local servers and storage, "nowhere near the size and complexity of what Franklin Pierce required," he says. He quickly saw two key opportunities in Quantum's DXi®-Series backup and deduplication appliances. The first was speed and accessibility for both data backup and restore. The second was how Quantum's deduplication technology could elegantly integrate with tape backup to address both near-term storage and offsite archiving.

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Thomas Rup
Senior Systems Administrator

SOLUTION OVERVIEW

- Two Quantum DXi4000 Series appliances
- Quantum Scalar® i40 tape library
- Symantec Backup Exec 2010 R2

KEY BENEFITS

- Doubles backup performance
- Cuts backup time in half
- Restores data in minutes rather than hours
- Saves nearly one day per week in management time
- Eliminates backup reliability concerns
- Integrates easily with tape for long-term retention

Franklin Pierce decided to place two, 4TB DXi4000 Series appliances in the University's main data center and a Quantum Scalar i40 tape library at a remote facility, writing data to the devices using Symantec Backup Exec. As the University's 1.6TB fileshare takes the longest to back up, Rup wanted a single DXi appliance dedicated to that task, which would also allow him to keep three weeks of data available before needing to consider overwriting files. The second DXi would be used to copy everything else, including 1.5TB of database files and email.

"To be honest, the installation was super easy," says Rup. "As NAS boxes, the DXi appliances just hook into the network."

When the University ran into a compatibility issue with the latest release of Symantec Backup Exec, Quantum was right there with a solution.

"We hopped on the phone, the Quantum rep listened, came back with 'here's what we need to do...', and we were up and running. I can't get over how seamless the experience was."

DXi SAVES TIME, ELIMINATES HEADACHES, OPENS OPPORTUNITIES

The University uses the DXi systems for onsite incremental and weekly backups to disk. Then the disk image is periodically backed up to the tape library for compliance with state and federal regulations on long-term retention. This highlights a key strength of the DXi appliance: the ability to flawlessly handle many simultaneous tasks.

"Our previous direct-to-tape configuration was extremely limited," says Rup. "The beauty of the DXi is that I'm running multiple jobs at once without a hiccup. I don't even feel like I'm stressing these things, and it allows me to get a lot more done in a much shorter window—which means I've got much more comprehensive and current data protection."

With the DXi systems, Franklin Pierce is seeing a 50 percent reduction in backup times across the board, with 11-hour incremental backups now taking 5 to 6 hours, and 48-hour full backups cut to 24 hours.

Restores have also been dramatically simplified. In most cases data still resides on the DXi appliances, making a restore seamless and almost instantaneous. On those rare instances where a file needs to be pulled from a tape backup, Rup says it's a simple five-minute process to "remote in" to the server, locate the file and set the tape library to restore it.

The other revelation for Rup has been the power of deduplication.

"The sales rep told me I could see 20:1 reductions, and I couldn't even wrap my head around that," he explains. "Now I'm seeing it every day on our database and email backups."

As a result, Franklin Pierce is now considering an early move to replication across the DXi systems.

"That's always been a long-term goal, but we didn't think we'd get there soon," Rup says. "We had no idea we'd get deduplication ratios that were this significant, which is opening our eyes to new possibilities—and that type of flexibility is another benefit of the DXi design."

However, the biggest benefit by far has been improvement in productivity, resulting in peace of mind for the IT team, according to Rup.

"We used to spend an entire day of work each week just tending to the backup, and this new solution has reduced that time to almost nothing," he says. "In fact, it proactively tells me that everything is happy, so now my team can rest easy and concentrate on new projects. That's more than two months per year of IT time we've recaptured, all thanks to Quantum."

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ABOUT FRANKLIN PIERCE UNIVERSITY

Founded in 1962, Franklin Pierce is a small, private, regionally-accredited university that combines a liberal arts foundation with coursework for professional preparation. The University consists of the College at Rindge and the College of Graduate and Professional Studies. The institutional mission focuses on preparing citizens and leaders of conscience for a new century who make significant contributions to their professions and communities, whether their aspirations are global or local.

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