



NetApp®

Success Story

Guilford College Optimizes Over 62 Applications and Cuts System Management Time in Half with NetApp

GUILFORD
COLLEGE

Another NetApp solution delivered by:



KEY HIGHLIGHTS

Industry

Higher education

The Challenge

Replace an aging, difficult-to-manage storage infrastructure unable to handle escalating administrative and faculty requirements.

The Solution

Transition to two NetApp® FAS2240 storage systems for production and disaster recovery.

Benefits

- Moved approximately 20TB of data to new NetApp storage infrastructure with no data loss and minimal disruption
- Reduced time spent managing infrastructure by 50%
- Reduced a 3TB file share by a full terabyte with NetApp deduplication
- Enabled disaster recovery in minutes rather than days

Customer Profile

Preparing its graduates for success is what Guilford College of Greensboro, North Carolina, does best. One of the premier, private liberal arts colleges in the United States, it is ranked among America's top secondary institutions by such notables as *The Princeton Review*, *The Fiske Guide to Colleges*, and *Forbes* magazine. The college is rooted in the Quaker heritage and known for its commitment to diversity, environmental sustainability, and social justice. It offers a diverse and challenging curriculum, encompassing 36 majors and 53 minors.

The Challenge

On-demand performance and capacity

Guilford College's storage infrastructure was nearing end of life and straining to support a rising number of enterprise applications including business-critical Banner ERP, Moodle course management, and other systems central to the institutional mission. New projects and increasing demand for applications were thwarted by a lack of capacity and throughput. The college's SAN and virtual environment began to show signs of stress, resulting in sluggish

data access, numerous data corruption events, strained failover processes, and frequent outages.

At that time, Guilford College took advantage of a free NetApp infrastructure assessment, which included the use of the NetApp OnCommand® Balance software. It was provided by NetApp Star partner Datalink Corporation. Results showed that the legacy storage infrastructure was at 98% capacity with no viable means to further expand. "The NetApp infrastructure assessment clearly identified the severity of our storage challenges, which helped us gain support for a new SAN," says Bill Rietschel, senior systems administrator at the college.

Seeking a long-term solution to better meet the needs of 5,000 faculty, students, and administrators who depend on more than 62 essential applications, Guilford's IT & S department began evaluating solutions from several storage vendors including NetApp and EMC. Specifications encompassed the ability to provide a reliable, low-maintenance solution that was easy to use but scalable and sustainable enough to support future growth as well as initiatives such as virtual desktops and distance learning.

“NetApp technology enables us to automate storage management and monitor tasks at a level not previously possible. If potential problems arise, we’re notified immediately. We’re already spending about half the time we used to on storage management.”

Bill Rietschel

Senior Systems Administrator, Guilford College

Recommendations for a future-proof solution

Datalink leveraged the results of the NetApp infrastructure assessment and met with Guilford College’s IT management to fully understand the organization’s business and IT challenges, needs, and objectives. Datalink won the business with a NetApp storage solution that best met the college’s desired current and future goals.

“Everything we do must be sustainable, from both environmental and business perspectives,” says Craig Gray, chief information officer at Guilford College. “We don’t have the capital budget or the labor to replace equipment every few years. Datalink’s engineering staff looked at what we had in place, where we needed to go, and how NetApp technology could help us get there.”

The Solution

A streamlined, low-risk transition

With assistance from Datalink, a 48TB NetApp FAS2240 storage system was deployed to support Guilford College’s growing administrative and faculty requirements. A second 28TB NetApp FAS2240 storage system with NetApp SnapMirror® software was deployed to augment tape-based processes and expedite disaster recovery within minutes as opposed to days as previously required.

A phased migration was then orchestrated by Datalink to safely and nondisruptively move approximately 10TB of CIFS-based file shares using SnapMirror, 75 virtual machines to new datastores using VMware® Storage vMotion®, and 5TB of Oracle® block data using file-based copy methods to the new NetApp storage infrastructure. “With Datalink’s extensive knowledge of NetApp technology and data migration best practices, we migrated an entire foundational infrastructure in the equivalent of five days, with no data loss and minimal disruption to our users,” says Gray.

Optimizing the environment with powerful NetApp features and functionality

A primary reason for Guilford College’s selection of NetApp technology is its management simplicity, which is facilitated by a unified storage platform, advanced storage management, and data protection tools. For example, the college’s IT team continues to use NetApp OnCommand Balance to proactively monitor the health of the storage environment and simplify troubleshooting. NetApp Virtual Storage Console for VMware vSphere® and NetApp Snapshot™ and SnapRestore® technologies are also valued for their ability to bring single pane visibility and integrated data protection to an environment that is 90% virtualized.

In addition, NetApp deduplication capabilities have helped the college reclaim a significant amount of storage space, in one instance reducing a 3TB file share by a full terabyte.

Business Benefits

Streamlined management

As is the case at many small colleges, Guilford relies on a lean staff to handle IT management, project support, and help desk functions. Managing the previous storage infrastructure required so much time that there was little time left for other activities, such as building out the IT portfolio. Although it has only been in operation for a few months, the new NetApp infrastructure, in combination with powerful NetApp OnCommand management tools, is already lowering administration requirements across physical and virtual environments. “NetApp technology enables us to automate storage management and monitor tasks at a level not previously possible,” says Rietschel. “If potential problems arise, we’re notified immediately. We’re already spending about half the time we used to on storage management.”

From restriction to freedom

With storage performance, capacity, and reliability challenges no longer a concern, Guilford College can confidently move forward with its strategy to update more of its IT infrastructure.

“With NetApp technology backing us we can easily take on new projects, add new services, or even change direction if needed. It’s a quantum shift for us, from restriction to freedom.”

Craig Gray
Chief Information Officer, Guilford College

Projects include enhanced DR support, application upgrades, a 10 Gigabit Ethernet fiber project, and a virtual desktop initiative. “With NetApp technology backing us, we can easily take on new projects, add services, or even change direction if needed. It’s a quantum shift for us, from restriction to freedom,” says Gray.

SOLUTION COMPONENTS

NetApp Products

NetApp FAS2240 storage systems
NetApp Data ONTAP® 8.1 operating in 7-Mode
NetApp OnCommand System Manager
NetApp OnCommand Balance
NetApp Virtual Storage Console for VMware vSphere
NetApp Snapshot technology
NetApp SnapRestore
NetApp SnapMirror
NetApp deduplication
NetApp My AutoSupport™

Protocols

NFS
CIFS

Third-Party Products

VMware vSphere 5.1
VMware Storage vMotion

Environment

Applications: Over 62 administrative and faculty applications

Databases: Microsoft® SQL Server® 2008, MySQL v5.1, Oracle v11

Server platform: Microsoft Windows Server® 2003, 2008

Partner

Datalink Corporation
www.datalink.com



www.netapp.com

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Go further, faster®

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