



# Backup Express

## Success Story: Hamline University

### Hamline University Gains Enterprise-Class Solution With Backup Express

#### Organizational Profile

- Liberal arts university in St. Paul, Minnesota with 3,500 students

#### Business Needs

- Backup of critical information across heterogeneous environment
- Reduction of failed backups
- Reduced administration time
- Securing data on NetWare clusters

#### Environment

- Windows, Novell and Solaris operating systems
- StorageTek tape library with 40 slots
- SQL and Oracle databases
- Weekly backups of up to two terabytes of data

#### Benefits

- Provides enterprise-wide data protection solution
- Ease of use and performance
- Support for NetWare cluster in a SAN
- Twinning and tape labeling for tape off-siting

*Hamline University efficiently backs up existing critical systems with no service disruption to users, and confidently embraces future changes with the help of Backup Express.*

#### The Challenge:

Founded in 1854, Minnesota's Hamline University caters to approximately 3,500 students. The 44-acre campus in St. Paul offers a mix of undergraduate and graduate programs in education, science and law. Like many institutions of higher learning, Hamline relies on its IT systems to protect all types of valuable information—from classroom data to payroll accounts.

The school was recently troubled by the disparity between its data protection objectives and its existing backup and recovery processes. Among the problems Hamline's IT staff encountered with their Veritas NetBackup solution were failed NetWare backups and excessive manual intervention required on the part of its network administrators. At one point, a spate of simple restore requests forced the staff to realize that they had a problem with improperly labeled and archived tapes. This issue ended up costing considerable time and money to fix. The decision was quickly made to look for new software which would reduce administration time, cut down on failed backups, and offer better twinning and labeling options for tape off-siting.

#### The Solution:

"We were really looking for something that would kind of run itself," stated Network Administrator Anthony Schroeder. Among the products assessed during Hamline's month-long testing procedure were BakBone and CommVault. It was Backup Express from Syncsort Incorporated, however, which really fit the bill. "We conducted our evaluation process by asking ourselves questions like, *'What are the day to day maintenance issues? What does it take for the system to back up our information reliably? How much human time does it all require?'*" Schroeder remembered. Fortunately, Backup Express answered these questions to his satisfaction. Not only did the solution provide the desired level of automation, but it also afforded enterprise-wide backup capabilities.

#### The Benefits:

Schroeder described Hamline's current data protection measures in the following way: "It's not a traditional disk-to-disk-to-tape type backup because we do it to a local disk rather than to a filer." Traditional or not, it works well. Fulls are conducted once on weekends and incrementals are all on weekdays. Volumes are 700 gigabytes and 200 gigabytes, respectively.

The Backup Express master server, which also acts as a device server, is a SUN V240 with dual processors, four gigabytes of RAM, and shared disk space on the 2.5 terabyte SAN. This master server backs up most of the Hamline servers—which total around 25—with two exceptions. The first is a Windows node that acts as a device server and copies email files to a locally attached drive on the SAN at night.

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During the day, that machine backs itself up. The second exception is a SUN Solaris box that runs an Oracle database which is mirrored, explained Schroeder. When fulls are conducted on Saturday nights, Oracle is shut down, the mirror is “broken” to obtain two copies, and Oracle is brought back up again. While Oracle is running, the staff conducts a backup of the mirrored database copy. Finally, when the backup is finished the mirror is resynchronized to start the whole process again for the coming week.

Other data now protected by Backup Express includes SQL databases and a variety of user files from Hamline’s 4,000 faculty, staff and students. These files are backed up over the Gigabit Ethernet, and eventually end up at a StorageTek tape library with 40 slots, and four LTO-1 tape drives. The master server and two device servers are Fiber-attached to the STK library on the Xiotech Magnitude SAN, so LAN-free backups are performed as well to alleviate network traffic.

One of the largest data repositories at Hamline—presently about 80 gigabyte’s worth—resides on a four-node NetWare cluster also on the SAN. Contrary to previous experiences, backing up the NetWare clusters is now smooth sailing. “This was one of our biggest headaches. Securing our data on the NetWare servers was crucial.” Schroeder went on to explain that they try to keep all the nodes in the cluster in an active/active configuration for maximum availability.

Currently on the drawing board are plans for more formalized disaster recovery (DR) initiatives. These preparations have been in part facilitated by Backup Express’s twinning feature, which enables administrators to make two tape copies during any backup routine, saving valuable time otherwise needed for any additional DR backups. At the moment, Hamline sends its tapes to Iron Mountain. Incrementals are stored for two weeks and weekly fulls are kept for a month. Another change in sight is the addition of monthly fulls into the backup schedule.

Other upcoming plans include the implementation of Network Attached Storage (NAS) as a part of an overall storage consolidation strategy. Schroeder and his staff now have the assurance that, as their enterprise evolves, the technology is there to support more sophisticated disk-based strategies. With the help of Backup Express, Hamline University can quickly and efficiently back up critical systems with no service disruption to users, and confidently embrace future changes.

### About Backup Express:

Backup Express is a high-performance enterprise data protection solution with innovative technology and manageability for UNIX, Windows, Linux and NetWare environments. Backup Express is the only solution that integrates heterogeneous snapshot, image and rapid recovery options, supports any combination of UNIX, Windows, NetWare, Linux and NDMP/NAS in a SAN, performs backup of all data directly across the Fibre network, dynamically shares all drives, supports all NDMP incrementals, and controls this entire enterprise environment with a single catalog and browser-based GUI. Backup Express’s distributed architecture allows it to utilize any storage device in the network regardless of platform. For more information, call 201-930-8200 or visit [www.syncsort.com](http://www.syncsort.com).