



Wake Forest University Baptist Medical Center

C A S E S T U D Y

Solution at-a-glance

Company name

Wake Forest University Baptist
Medical Center

Industry

Healthcare

Environment size

Enterprise

Employees

11,000

Customer application

- Data protection
- Storage productivity

StorageTek® solutions

- FlexLine™ 600 Series storage system
- D173 disk system
- T9840B and T9940B tape drives
- TimberLine® 9490 tape drives
- PowderHorn® 9310 tape libraries
- Virtual Storage Manager® (VSM®) system
- Application Storage Manager® (ASM) software
- Professional Services

Other vendor solutions

- IBM mainframe zSeries 800
- UNIX servers
- PeopleSoft financial and human resources applications
- Patient accounting application

Business results

- Decreased tape usage from 30,000 to 600 tapes, saving floor space and time needed for mounting tapes
- Greatly decreased the extensive media failures that had compromised the security and integrity of the data
- Decreased backup times by 53 minutes per day, giving the hospital admissions staff greater access to applications

StorageTek solutions: just what the doctor ordered for top academic medical center.

The institutions that comprise Wake Forest University Baptist Medical Center are at the top of some pretty impressive lists. In 2004, U.S. News & World Report ranked North Carolina Baptist Hospital as one of "America's Best Hospitals" in four categories. More than 100 of the school's faculty physicians were listed in "Best Doctors in America." It was one of the first 14 hospitals in the nation to receive Magnet Recognition for Excellence in Nursing from the American Nurses Credentialing Center.

BUSINESS ISSUES

"The data that our end users are dependent on is very critical," said Bob Massengill, manager of technical services. "Patient care is our primary goal — to supply the best. The data that we supply these users has to be available basically 24 x 365. It has to be accurate and it has to have data integrity behind it."

StorageTek® solutions are helping Massengill's staff to accomplish those goals. By integrating a Virtual Storage Manager® (VSM®) system with high-speed tape drives, Massengill has decreased the number of tapes needed, increased backup speed and improved systems availability.

"Now," said Massengill, "with the FlexLine™ 600 Series storage system, we will be implementing a disk-to-disk backup solution. We were doing open system backups from smaller libraries that we had extended the capacity of. We were looking at upgrading that model. We had extensive media failures, extensive hardware failure, drive failure. We looked at bringing open systems and mainframe into one."

THE SOLUTION

Massengill decided to replace leased drives with StorageTek's T9940 drives, completing the migration in less than six weeks. Massengill praised StorageTek's Professional Services for leading the installation process. "They were here every day, whenever we needed them. They always made sure we got what we needed."

TECHNOLOGY BENEFITS

"We had three different problems that we were trying to solve," Massengill explained. "Our backups were taking too long. The second thing was media failures, which were affecting our data integrity. We were also concerned about the amount of tapes that we had on the floor."

StorageTek provided solutions to centralize nightly backups for more than 260 systems. This has shaved hours off backup times, providing more hours of system availability. Fewer tapes translates into fewer tape mounting and management chores for Massengill's staff. It also allowed the Medical Center to reclaim extensive tape-storage floor space in its data center.

Massengill said, "During our nightly backups, the system would be unavailable for an hour to an hour and a half. By implementing the PowderHorn® 9310 tape library and with the

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Bob Massengill,
Manager of
Technical Services,
**Wake Forest
University Baptist
Medical Center**



VSM improving our backups, that time has been reduced from 60 minutes to 7 minutes or less."

"Implementing the PowderHorn and the VSM has reduced our media failure by about ninety percent," Massengill continued.

Previously the Medical Center had to call programmers in three or four times each week during the night to restart jobs due to media failures. Now those calls are a thing of the past.

A second PowderHorn was installed at a disaster recovery site. By simultaneously writing to it and to the PowderHorn already installed at the primary data center, manual processes involved in moving tapes offsite were eliminated. This further protects data integrity and eliminates tape-handling chores. Better data integrity means archival compliance regulations are met.

BUSINESS BENEFITS

Users at the Medical Center have access to systems more hours per day, so early patient admission processes run smoothly. The technical staff has more time to monitor systems and improve their knowledge of unfamiliar systems, procedures and languages. Media failures no longer compromise data integrity.

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Performance metrics summary

| Goal | Before StorageTek solution | After StorageTek solution | Result |
|---|---|--|---|
| Increase security and integrity of data | Programmers called in during the night three to four times a week to restart jobs due to media failures | Decreased the extensive media failures, which had compromised the security and integrity of the data | Saves on central processing unit cycles previously needed to restart jobs |
| Decrease time needed for daily backups | Backup times hindered staff use of the system. | Decreased backup times from 60 minutes to 7 minutes per night | Hospital admissions staff has greater access to applications |
| Decrease the number of tapes needed for backups | 30,000 tapes used | 600 tapes used | Reclaimed extensive floor space in data center used for tape storage |
| Free the IT staff from tape-mounting chores | Mount times of three minutes | Mount times of a fraction of a second | Reclaimed time for staff to invest in proactive maintenance and education |

Case study company:
**Wake Forest University
Baptist Medical Center**
www.wfubmc.edu

FINANCIAL BENEFITS

Tape usage decreased from 30,000 to 600 tapes, thus saving significantly on media costs. The data center regained much-needed floor space now that it no longer needs to store thousands of tapes. And by a timely migration to StorageTek drives, the Medical Center avoided additional lease payments on older units.

Massengill stated, "Everything StorageTek built for us has been not for what it takes today, but also looking into the future as our needs grow. And we're positioned where we can utilize our resources in the investment we've already made. I feel very comfortable and look forward to continuing the relationship with StorageTek."

ABOUT WAKE FOREST UNIVERSITY BAPTIST MEDICAL CENTER

Three major institutions comprise the Medical Center: Wake Forest University Health Sciences, North Carolina Baptist Hospital and Wake Forest University Physicians. The Medical Center provides patient care, education, research and community service. It has 21 subsidiary or affiliate hospitals and operates more than 100 outreach activities throughout the region, including satellite clinics, health fairs and consulting services.

ABOUT STORAGETEK

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