

# Bayhealth Medical Center Increases Retention, Improves Disaster Recovery with ExaGrid

CUSTOMER SUCCESS STORY



"We have been so impressed with the ExaGrid system that we are considering using it to back up some of our other systems that are still being backed up via other methods. As a healthcare facility, we deal with sensitive data, and backing up to disk is much more secure than backing up to tape. One of the nice things about the ExaGrid is that it is easily scalable and we can increase its capacity at any time to accommodate more data."

Kevin Seiwell  
Network Engineer  
Bayhealth Medical Center

## Customer Overview

Bayhealth Medical Center, southern Delaware's largest healthcare system is comprised of Kent General and Milford Memorial Hospitals, Middletown Medical Center and numerous satellite facilities. Bayhealth is an award winning not-for-profit healthcare system employing over 2,900 with a medical staff of 455 physicians. Its commitment to excellence has been recognized both statewide and nationwide including: HealthGrades Best in Delaware (#1) for Cardiac Surgery and the 2008 list of the Most Wired – the Most Improved by Hospitals & Health Networks® magazine. In the 2008 fiscal year, Bayhealth recorded 73,189 emergency department visits, 17,448 patients admitted to beds and 2,454 births. Last year, as part of its mission, Bayhealth provided more than \$30.9 million in unreimbursed care to patients.

## Retention Issues with SAN Backups

Bayhealth is an award winning healthcare company that prides itself on using cutting edge technology to automate its processes and operations. Bayhealth's IT staff had been backing up the facility's data to its storage-area network (SAN) for some time, but without data deduplication, disk space had become a serious issue. The SAN was only capable of retaining a week of data, and the staff had to copy nightly backups to tape and transport the tapes offsite in case the data was needed for disaster recovery.

"We were out of space on our SAN and initially considered expanding it, but our bigger issue was long term archival of our data. Adding space to our SAN wouldn't have helped us get away from making tapes each day for disaster recovery purposes, said Kevin Seiwell, network engineer at Bayhealth Medical Center. "All in all, we had a fairly labor intensive backup process that no longer fit our needs as an organization."

## Cost-effective ExaGrid Provides Data Deduplication, Replication to Improve Disaster Recovery

Bayhealth's IT staff began looking for a disk-based solution that incorporated data deduplication to reduce the amount of data stored, and replication to improve its disaster recovery capabilities.

After evaluating systems from ExaGrid and a competing solution, Bayhealth chose a two-site ExaGrid system. The ExaGrid system works alongside the facility's existing backup application, CommVault Galaxy™. The primary ExaGrid system is located in Bayhealth's main data center and data is automatically replicated to the second ExaGrid system located in the facility's disaster recovery facility.

"The ExaGrid system was significantly less expensive than a competing system and it was a lot more manageable," said Seiwell. "Its built-in data deduplication enabled us to purchase a much smaller system than we otherwise would have. ExaGrid's data deduplication is doing a fantastic job at reducing our data, and our deduplication ratios are increasing each week."

ExaGrid's post-process data deduplication processes data after it has landed on the system, ensuring the fastest backup times possible. ExaGrid combines last backup compression along with data deduplication, which stores changes from backup to backup instead of storing full file copies. This unique approach reduces the disk space required by a range of 10:1 to 50:1 or more, delivering unparalleled cost savings and performance. ExaGrid delivers extremely fast backup performance because data is written directly to disk, and data deduplication is performed post-process after the data is stored to reduce data.



The data deduplication technology also helps speed the transmission of data between Bayhealth's two ExaGrid systems because only changes are moved between sites, minimizing the amount of bandwidth needed.

"We have a high speed connection between our main facility and our disaster recovery site and the transmission between the two sites is extremely fast," said Seiwell.

## Fast Restores, Easy Scalability

Bayhealth expects to be able to keep a year of data on the ExaGrid system and has significantly reduced the amount of tape used for backup.

"Restoring data from tape was a hassle but with the ExaGrid, our data is now always on-site and available to restore. We are also saving a considerable amount of money on tape, and our operations staff is happy because they don't have to transport tapes over to our disaster recovery site each day," said Seiwell.

ExaGrid's GRID computing software makes the system highly scalable, and when plugged into a switch, different sized configurations can be mixed and matched into a single GRID system with capacities of up to a 60TB full backup plus retention. Once virtualized, they appear as a single system to the backup server, and load balancing of all data across servers is automatic.

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## Superior Manageability, Customer Support

ExaGrid comes packaged as a turnkey appliance and was designed to be easy to deploy and manage and to deliver maximum uptime with redundant, hot-swappable components. All components are fully supported by ExaGrid's trained, in-house engineers dedicated to individual accounts.

"The ExaGrid system integrated nicely with CommVault Galaxy and it's easy to manage and administer," said Seiwell. "We've also been impressed with ExaGrid's customer support team. We have found them knowledgeable and responsive each and every time we call."

## ExaGrid and CommVault Galaxy

CommVault Galaxy Backup and Recovery software contains extensive capabilities to simplify the management of backup media resources.

Galaxy software writes backup data to a broad collection of storage devices, including disk as a media target. This ability to write to magnetic disk as a functional equal of all other media types while exploiting the random access nature of the disk media sets Galaxy software apart.

Organizations using Galaxy can look to ExaGrid as an alternative to tape for nightly backups. ExaGrid sits behind existing backup applications, such as Galaxy, providing faster and more reliable backups and restores. In a network running Galaxy, using ExaGrid in place of a tape backup system is as easy as pointing existing backup jobs at a NAS share on the ExaGrid system. Backup jobs are sent directly from the backup application to the ExaGrid for onsite backup to disk.

## Intelligent Data Protection

ExaGrid's turnkey disk-based backup system combines high quality SATA drives with byte-level data deduplication, delivering a disk-based solution that is more cost effective than standard SATA drives. ExaGrid's byte-level data deduplication technology stores only the changes from backup to backup instead of storing full file copies, reducing the amount of disk needed by a range of 10:1 to 50:1 or more, resulting in a solution that is 25 to 30% the cost of standard SATA drives. The ExaGrid system is easy to install and use and works seamlessly with popular backup applications, so organizations can retain their investment in existing applications and processes.

ExaGrid servers can be used at primary and secondary sites to supplement or eliminate offsite tapes with live data repositories for disaster recovery.

**For more information about ExaGrid, please visit us at [www.exagrid.com](http://www.exagrid.com) or call us at 1-800-868-6985.**