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Success Story

GRAYBILL MEDICAL GROUP

Diagnosis: Time-Consuming Backups of Electronic Medical Records. Remedy: REO® & NEO® Disk-to-Disk-to-Tape Solutions.

Challenges

- Dramatic storage increase resulting from deployment of leading-edge electronic medical records (EMR) system.
- Daily backups of patient files and EMR database were arduous and time consuming.
- HP NAS proved inadequate for disk-to-disk backups.

The Solution

REO® 9000, NEO® 2000

Benefits

- VTL with four library partitions optimize backup performance, reducing backup window by 50 percent.
- Administrative overhead lowered from seven hours to less than one hour managing backups.
- Highly reliable, scalable D2D2T solution produces 100 percent confidence that data is safe.

Graybill Medical Group has been providing responsive, top-quality patient care to families in Escondido, Calif., for more than 75 years. As the largest primary care medical group in the area, Graybill accommodates more than 129,000 office visits annually at its main Escondido facility as well as locations in nearby San Marcos and Fallbrook.

As one of the most technically advanced healthcare facilities in southern California, Graybill has continued to set the pace by using state-of-the-art productivity tools and technologies to improve patient care. In November 2007, the medical group was honored for its best-practices implementation of NextGen's electronic medical records (EMR) solution. As winner in the mid-sized practice category, Graybill was recognized for attaining a 20 percent increase in revenue while producing \$923,000 ROI in its third year since deploying the platform.

"We were well protected during a potentially disastrous situation thanks to Overland. With REO and NEO, we have 100 percent confidence that our data is safe and secure."

Forest Hudson
Information Systems Manager
Graybill Medical Group

According to Forest Hudson, information systems manager at Graybill Medical Group, the decision to go paperless had an immediate impact on the group's technology foundation, which was expanded to include PCs in every patient room and a mission-critical SQL database to house an Image Control System. "Once we started scanning in paper files, our data storage doubled over a three-

to-six month period," he explains. "In addition, our requirements for protecting the influx of electronic records rose dramatically."

The Challenge

Graybill's four-person IT team is responsible for supporting the needs of 45 physicians and 250 users while also safeguarding 300 PCs, 20 Windows file and applications servers, along with two HP network attached storage (NAS) devices with 2 TBs of crucial data. In providing the highest levels of protection and complete compliance with industry regulations, including Health Insurance Portability and Accountability Act (HIPAA), Graybill performed nightly disk-to-disk backups from one NAS appliance to the other before offloading data to a single Overland Ultrium LTO-2 tape drive.

Over time, however, full backups each night became an arduous and time consuming task, often exceeding the allowable backup window while also requiring manual intervention to swap out tapes. Even running incremental backups proved overly challenging, especially since the medical group's SQL server required four hours of maintenance each night in order to re-index the EMR image database. "It started taking up to 18 hours just to back up 1 TB, and the process took up to an hour a day, including weekends, to manage and swap out tapes," recalls Hudson. "As our databases continued to grow, we realized our existing process left too much margin for error."

Graybill also experienced some problems when using its HP NAS appliances for disk-to-disk (D2D) backup. Since the HP NAS platform provided adequate primary storage, the IT team decided to keep pace with ever-increasing backup requirements by seeking a complementary disk- and tape-based backup combination.

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The Solution

Following a recommendation from CDW, Graybill reviewed Overland's expandable NEO tape library family. "I had worked with Overland previously and really appreciated their responsive, excellent customer service and product stability," he says. "I started, and ultimately ended, my search for a dependable and scalable disk-to-disk-to-tape (D2D2T) solution with Overland."

Graybill Medical Group leveraged its close proximity to Overland's headquarters for a tour of the facility and meeting with company representatives. "I explained my recovery point and time objectives as well as having sufficient room to grow beyond two years," notes Hudson. "Overland was able to assess our needs and propose an integrated disk and tape-based solution that would meet both our immediate requirements and longer-term, projected demands."

Overland's NEO 2000 tape library featured expansion-on-demand capabilities that would enable Graybill to simply add more modules to increase capacity and performance by up to eight times. Each module has 30 LTO cartridge slots and two tape drives to provide up to 48 TBs of capacity. "The extra capacity was appealing since we'd be able to retain three blank tapes just in case our needs spiked since the NEO will automatically grab the next tape if one is full," explains Hudson. "We appreciate the cushion it gave us as well as the fact that the NEO featured the same robotics and level of automation as much larger, higher-end tape libraries."

Graybill next reviewed Overland's REO 9000 disk-based appliance and was impressed with its simplicity as well as ease of set-up and operation. "Once the REO is installed and configured, there really isn't any need for further intervention," notes Hudson. "The 'set it and forget it' operation meant less time working on backups." Moreover, Graybill found the high-end REO 9000, which offers up to 66 TBs of raw

capacity, price competitive with less flexible NAS appliances. In September 2006, Graybill moved forward with Overland's REO 9000 and NEO 2000 to form a robust, scalable and reliable data protection foundation.

The Benefits

Graybill has configured its REO 9000 as a virtual tape library (VTL) with four library partitions for optimized backup performance with its Symantec Veritas Backup Exec software. As a result, the medical group has been able to cut its backup window in half, now performing incremental disk backups on the REO and then archiving data to the NEO tape library well within a six-hour window. Full backups, which once took up to 30 hours to complete, are handled on the week-ends in less than 17 hours. Additionally, the D2D2T solution is completely automated and requires little to no manual intervention.

"We used to need more than seven hours a week to manage backups and now we spend less than an hour confirming that all jobs have completed, which is a huge plus," says Hudson. "I've been able to delegate the task altogether and focus on more strategic technology initiatives." The ability to keep nearly two weeks of backups on the REO is another distinct advantage, especially when it comes to expediting restores. "While we've only had to do a few restores, the process was perfect, just flawless," comments Hudson. "Recovering a file from the REO is nearly instantaneous and even restoring data from tape is easy, thanks to Overland's barcode reader feature which really simplifies finding tapes."

In October 2007, Graybill Medical Group shut down several of its offices when wildfires raging throughout San Diego's North County forced widespread evacuations. Fortunately, an employee was able to take the weekend's full backup offsite and all remaining backups

performed automatically while the IT team and medical group ran at a minimum level for several days. "We were well protected during a potentially disastrous situation, thanks to Overland," says Hudson. "With REO and NEO, we have 100 percent confidence that our data is safe and secure."

In the near future, Graybill will undergo a full-scale deployment of an all-digital Picture Archiving Communications System (PACS) for capturing, storing and distributing medical images. While Hudson predicts this latest technology innovation will cause an additional spike in data storage, he remains confident that Overland's REO/NEO combination will provide ample support. "We can scale easily without compromising or giving up any functionality," Hudson concludes. "Overland's D2D2T platform blends best-of-class features, automation and performance to match our continuing focus on delivering world-class patient care."

About Overland Storage

Overland Storage offers the most complete set of smart, affordable data protection appliances that ensure data is constantly protected, readily available and always there. Overland Storage brings enterprise-class capabilities to mid-range customers through affordable and reliable solutions that reduce the backup window, improve data recovery speed, simplify short- and long-term data retention and make cost-effective disaster recovery a reality for all. Overland products include award-winning NEO SERIES® and ARCVault™ tape libraries, REO SERIES® disk-based backup appliances with VTL capabilities, and ULTAMUS™ RAID high-performance, high-density storage. For more information, visit www.overlandstorage.com.



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