Williamson Medical Replaces EMC Data Domain with ExaGrid for Speed and Reliability

Customer Overview
Williamson Medical Center offers comprehensive inpatient and outpatient services, 24-hour emergency care for adults and children, and preventive health screenings and wellness activities. More than 600 outstanding physicians represent more than 70 medical specialties and sub-specialties. The medical center is headquartered in Franklin, Tennessee and was founded in 1957. It has been named among the top 10 percent in the region, the state, and the nation for patient safety in overall hospital, medical, and surgical care.

Slow Backups Lead to Tape Replacement
Williamson Medical Center has over 400 virtual machines (VMs) that need to be backed up daily. Originally, they planned to use a disk-to-disk-to tape approach using EMC Data Domain with Veeam as their backup application, but that strategy just wasn’t fast enough and backups jobs weren’t completing. Williamson Medical took a look at their options and ExaGrid had the results they were looking for.

“I've had previous experience with different backup solutions and VMware,” said Sam Marsh, engineering team lead for Williamson Medical. “When I started working for Williamson Medical Center, I realized that their backups weren’t sufficient for the environment, so I took a look at different solutions to find out what we could implement that would give us the speed we needed to successfully back up all of the different data we have.”

Marsh decided to do a proof of concept with ExaGrid and brought a few appliances in-house. “We were able to configure the ExaGrid systems quickly and got up and running. We tested it and found the speed running two 10GbE NICs out of the ExaGrid was wonderful for what we needed. In addition, the ease of deployment and reliability of the system has been stellar. We have quite a few disk storage systems around here, and as long as we’ve owned the ExaGrid, we’ve never replaced a disk. So kudos to ExaGrid on great hardware,” he said.

Williamson Medical had been doing other backups using EMC Data Domain but experienced some significant drawbacks. “One of the negatives about the EMC Data Domain solution is one of the things that pushed me towards ExaGrid. EMC Data Domain is very good at deduplication but not at fast restores. When I had to do a restore of an 8GB database that was compressed down in the EMC Data Domain system, it took approximately 12 to 13 hours to complete – and took our SharePoint site offline for almost a full day. We consistently had these types of issues,” said Marsh.

ExaGrid’s Architecture Proves Powerful with Veeam
“One of the things that intrigued me about ExaGrid was its unique landing zone and the ability to have disk speed, memory, and processor in each appliance in the GRID. We’ve had 100% success rate in restores from the ExaGrid since we’ve owned it. It’s saved us quite a few times,” said Marsh.

Prior to ExaGrid, Marsh had been dealing with considerable length backup windows that were getting longer by the month, so the speed of the ExaGrid backups made a remarkable difference. “The footprint is fixed and the backup window doesn’t grow. That’s the nice part with ExaGrid; as our data grows, we can keep things consistent,” he said.

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Key Benefits:
- ExaGrid support engineer is ‘extension’ of IT team
- Now spends just 3-5% of time managing backups
- Success rate of ExaGrid and Veeam restores is 100%
- Enjoys ‘set and forget’ reliability

Sam Marsh
Engineering Team Lead
Ease of Management Saves IT Team's Valuable Time

Williamson Medical has one environment with 400+ virtual servers, along with another VMware environment which has approximately 60 servers and three dozen physical servers. They also had several other disparate systems. This was a project, but one that has long-term effect, scale, and cost savings. Williamson now has a two-site solution that provides everything they need.

ExaGrid provides Marsh's small IT team with good balance, manageability, and functionality. “ExaGrid has given us the ability to install the hardware and actually be able to rely on that equipment to work flawlessly. That is unique,” he said.

Marsh appreciates the reliability that the ExaGrid system provides. “It’s nice to be able to implement something and be confident that it’s going to work – and work correctly. ExaGrid is something I can actually count on, and it saves me a lot of time. Most of the systems I install need at least 30% of my time to manage the system, but with ExaGrid it’s closer to 3-5% and I can use that time savings on other efforts. Other than making a specific change, I rarely look at reporting, and daily management is next to nothing. ExaGrid is a ‘set and forget’ backup storage solution.”

Support is Out of This World

“With ExaGrid, we have one assigned support engineer who has worked with us throughout the entirety of our project. Our support engineer is an extension of our own IT staff. It’s nice to know customer support on a first-name basis as well as be able to count on them to be experts at what they’re working on. I’ve noticed that the engineering staff we deal with doesn’t have the turnover like other vendors – it seems like a very stable team and company,” said Marsh.

Williamson Medical is currently installing its disaster recovery and turnover like other vendors – it seems like a very stable team and company,” said Marsh.

Veeam-ExaGrid Combined Deduplication

Veeam uses the information from VMware and Hyper-V and provides deduplication on a “per-job” basis, finding the matching areas of all the virtual disks within a backup job and using metadata to reduce the overall footprint of the backup data. Veeam also has a “dedupe friendly” compression setting which further reduces the size of the Veeam backups in a way that allows the ExaGrid system to achieve further deduplication. This approach typically achieves a 2:1 deduplication ratio.

ExaGrid is architected from the ground up to protect virtualized environments and provide deduplication as backups are taken. ExaGrid will achieve a 3:1 up to 5:1 additional deduplication rate. The net result is a combined Veeam and ExaGrid deduplication rate of 6:1 upwards to 10:1, which greatly reduces the amount of disk storage required.

Scalability

The ExaGrid system can easily scale to accommodate data growth. ExaGrid’s GRID computing software makes the system highly scalable, and when plugged into a switch, appliances of any size or age can be mixed and matched in a single GRID system with capacities of up to 1PB full backup plus retention and an ingest rate of up to 200TB per hour. Once virtualized, they appear as a single system to the backup server, and load balancing of all data across servers is automatic.

GRID Architecture Provides Superior Scalability

ExaGrid uses a GRID-based configuration, where each appliance contains not just disk but also processing power, memory, and bandwidth. When the system needs to expand, additional appliances are simply attached to the GRID. This type of configuration allows the system to maintain all the aspects of performance as the amount of data grows, and you only pay for what you need when you need it. In addition, as new ExaGrid appliances are added to the GRID, the system automatically load balances available capacity, maintaining a virtual pool of storage that is shared across the GRID.

About ExaGrid

ExaGrid provides backup storage with a unique landing zone and scale-out architecture. The landing zone provides for the fastest backups, restores and instant VM recoveries. The scale-out architecture includes full appliances in a scalable GRID and provides for a fixed-length backup window as data grows, eliminating expensive forklift upgrades. Learn more at www.exagrid.com.