Medical Center Gains Superior Data Security and Shorter Backup Windows with ExaGrid

Customer Overview

Parkview Medical Center offers general acute healthcare and behavioral health specialty services. Parkview is licensed for 350 acute-care beds, provides a full range of healthcare services, and is the region's only Level II Trauma Center. Its service area includes Pueblo County, Colorado, and 14 surrounding counties, which combined represent 370,000 total lives. Parkview has successfully expanded facilities that offer the latest in technology advancements, and is a leader in cardiac, orthopedic, women's, emergency and neurological lines of care. The medical center is the largest employer in Pueblo County with over 2,900 employees and provides a skilled medical staff of more than 370 physicians.

A Long Journey to the Right Solution

Parkview Medical Center had been searching for the right storage solution for some time. Bill Mead, Parkview’s network engineer administrator, had tried numerous approaches throughout his long tenure with the company, beginning with Exabyte and SDLT cartridges with individual tape drives per server, eventually upgrading servers to backup to LTO-5 in robotic tape libraries. After upgrading the tape library with a fibre channel connection, Mead was still frustrated with the large backup window he was experiencing, as well as the time taken by the overall process with tape. “We had grown to about 70 HCIS servers, and we were still writing to a fiber channel-attached tape library. Backups were taking close to 24 hours, and the backup window was once a day. So every day, we'd have to go out to the tape library, put the tapes in a box, and then drive them over to our offsite fireproof location.”

Removing Tape Increased Performance and Saved Staff Time

Mead saw a dramatic increase in performance as soon as tape was removed from the environment. “The LTO-5 drives were syncing up at 4GB because the fibre fabric would only operate as fast as the slowest connected device, so my 8GB fabric was being clocked down to 4GB. As soon as we pulled the tape library out of there, performance just skyrocketed. Now we don't have any backup device fibre channel-attached to the upgraded 16GB fabric. We are using BridgeHead backup nodes connected both to the fibre channel fabric and aggregated 20GB Ethernet to push backups to the ExaGrid appliances.”

Key Benefits:

- Parkview now backs up twice as often due to shorter backup windows
- Fifteen hours of staff time saved per week with ExaGrid vs. tape
- Customer support offers ‘out-of-the-box’ problem-solving, making IT life easier
- Scaling out the GRID is ‘so simple’

“ExaGrid performs amazingly. We are comfortable while watching the deduplication and replication after it’s already saved backups, and then sending changed data to the spoke; it makes sense and it’s very quick.”

Bill Mead
Network Engineer Administrator
Mead also appreciates the valuable time savings of eliminating the physical aspects of using tape. “Now we don’t have to burn three hours a day getting tapes together and driving back and forth offsite to store them in a fireproof safe. Those are hours that we no longer have to waste.”

**ExaGrid Customer Support Thinks ‘Out of the Box’**

Mead has found ExaGrid’s customer support staff to be great to work with. “ExaGrid’s support team is down to earth and straightforward, and we’ve found their problem-solving approach to be ‘out of the box.’

“We’ve been running my ExaGrid system for a couple of years and each time a new software upgrade comes out, it functions even better. Our assigned ExaGrid support engineer proactively takes care of upgrades to our environment. ExaGrid is just super easy to work with.”

**Leveraging ExaGrid’s Scalability to Reduce Backup Windows**

“Since switching to ExaGrid, backup windows have increased to twice per day, and we have much better performance and recovery times because now we’re able to back up twice as often, and that’s going to increase as we replace our storage pretty soon. We back up everything to the hub, and now we have two separate landing zones, one for each of the spokes, which each receive a data set over a period of 12 hours,” noted Mead.

Parkview Medical Center stores data at two sites, onto five ExaGrid appliances, using BridgeHead for block-level backup and Veeam for virtual server backup. Mead started off with two EX13000E appliances and expanded the GRID configuration to add an EX40000E and two EX21000E appliances, which work together as one hub and two spokes. “We keep our eye on available and retention space, and when I noticed that our hub was getting low on space, I called my ExaGrid rep and asked about the EX40000E. We received the new appliance within a couple of weeks, added it to the GRID, migrated into our spoke solution, while migrating out the EX13000E appliances. The process is so simple, and the ExaGrid customer support staff were helpful with any questions that we’ve had.”

**Finding Comfort in Data Security**

A major quality of the ExaGrid system that Mead appreciates is the security. “One thing that’s very exciting about the particular ExaGrid appliances that we purchased are the security models. Even if the system powered down, nobody’s getting to our data; they can’t just grab a disk and restore some backups.”

The data security capabilities in the ExaGrid product line, including optional enterprise-class Self-Encrypting Drive (SED) technology, provide a high level of security for data at rest and can help reduce IT drive retirement costs in the data center. All data on the disk drive is encrypted automatically without any action required by users. Encryption and authentication keys are never accessible to outside systems where they can be stolen. Unlike software-based encryption methods, SEDs typically have a better throughput rate, particularly during extensive read operations. Optional data encryption at rest is available for the EX7000 models and above. Data can be encrypted during replication between ExaGrid systems. Encryption occurs on the sending ExaGrid system, is encrypted as it traverses the WAN, and is decrypted at the target ExaGrid system. This eliminates the need for a VPN to perform encryption across the WAN.

“The security between the appliances is great, too,” said Mead. “If you don’t have the site address and the automatically generated screening code, there’s no way you can add another ExaGrid appliance to ‘fool’ the system. The access control lists have access to those shares that deposit the data. Those are all based on Linux security, and we know that they work because we’ve tried accessing it from other devices, and it’s just not possible. There are so many layers of security involved with this ExaGrid that are effective, without being cumbersome. Being able to use one address to just connect to see all of them at one time, you know the security is working properly.”

**ExaGrid and Veeam**

The combination of ExaGrid’s and Veeam’s industry-leading virtual server data protection solutions allows customers to utilize Veeam Backup & Replication in VMware, vSphere, and Microsoft Hyper-V virtual environments on ExaGrid’s disk-based backup system. This combination provides fast backups and efficient data storage as well as replication to an offsite location for disaster recovery. The ExaGrid system fully leverages Veeam Backup & Replication’s built-in backup-to-disk capabilities and ExaGrid’s zone-level data deduplication for additional data reduction (and cost reduction) over standard disk solutions. Customers can use Veeam Backup & Replication’s built-in source-side deduplication in concert with ExaGrid’s disk-based backup system with zone-level deduplication to further shrink backups.

**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](http://www.exagrid.com).