



ExaGrid and Veeam Streamline Penfield Central School District's Backup and Recovery Operations



USA

Key Benefits:

- Backup window reduced from 34 to 12 hours
- Seamless integration between ExaGrid and Veeam
- Source-side dedupe minimizes network traffic; storage-side dedupe minimizes data storage footprint
- Just a few clicks required to restore a VM with no data rehydration required

"We take advantage of Veeam's source-side deduplication as well as deduplication on the ExaGrid. Once the deduplicated Veeam data lands on the ExaGrid system, the system deduplicates it further."

Michael DiLalla
Sr. Network Technician

Customer Overview

Penfield Central School District (CSD) is located in suburban Rochester, New York and covers nearly 50 square miles, including sections of six towns. The district serves approximately 4,500 students in grades K-12 at its six schools.

Critical Decision Criteria: Speed, Reliability and Cost

Penfield CSD moved from tape to backing up to straight disk (NAS) about three years ago.

"Our backup-to-disk solution worked, but it was painfully slow and consumed a lot of disk space which made it very expensive," said Michael DiLalla, Senior Network Technician at Penfield CSD.

"Our vendor, SMP, knew our problem and suggested that we take a look at deduplication solutions, specifically ExaGrid."

The ExaGrid solution's use of deduplication removed the high cost of backing up to straight disk as well as enabling Penfield CSD to retain more data for longer periods of time.

DiLalla said, "Since installing the ExaGrid system, our backup window has gone from 34 hours to just 12 hours. In addition, our Veeam-to-ExaGrid backup jobs have never failed, and the ExaGrid system has never had a problem even though it runs 24 hours a day, 365 days a year. The reliability of ExaGrid is top notch."

ExaGrid's Compatibility with Veeam

Penfield's environment is 100% virtualized, and their solution had to work seamlessly with Veeam.

ExaGrid and Veeam can instantly recover a file or VMware virtual machine by running it directly from the ExaGrid appliance in the event that the file is lost, corrupted or encrypted or the primary storage VM becomes unavailable. This instant recovery is possible because of ExaGrid's Landing Zone – a high-speed disk cache on the ExaGrid appliance that retains the most recent backups in their complete form. Once the primary storage environment has been brought back to a working state, the VM backed up on the ExaGrid appliance can then be migrated to primary storage for continued operation.

"We take advantage of Veeam's source-side deduplication as well as deduplication on the ExaGrid," said DiLalla. "Veeam first deduplicates



its backups to minimize the amount of data written across the network to ExaGrid. Once the deduplicated Veeam data lands on the ExaGrid appliance, the ExaGrid deduplicates it further."

Restores are Quick, Easy, and Reliable

Backing up data in a reasonable amount of time is important. Being able to restore that data in the least amount of time possible is critical.

Veeam uses changed block tracking to perform a level of data deduplication. ExaGrid allows Veeam deduplication and Veeam dedupe-friendly compression to stay on. ExaGrid will increase Veeam's deduplication by a factor of about 7:1 to a total combined deduplication ratio of 14:1, reducing the storage required and saving on storage costs up front and over time.

DiLalla is impressed with the speed and ease of restorations. "If I have a bad virtual machine, it only takes a few clicks to restore from my ExaGrid-Veeam solution. In the past, to restore a server, I had to first install the OS and then restore the data. Now I can quickly restore an entire VM in a single operation directly from the ExaGrid's landing zone."

"Because I know the ExaGrid system is always up and running and all my backups succeed, I know my data is secure and restorable. ExaGrid and Veeam have taken the worry out of my backups," he said.

Installation was a Breeze

According to DiLalla, "The installation process was fantastic. Our dedicated support engineer did a great job installing the ExaGrid system and setting up the initial backups. Since then, the only time I've had to contact him was to schedule a firmware upgrade, which he did without having to get me involved."

Scale-out Architecture Ensures Flexible Upgrade Path

ExaGrid's award-winning scale-out architecture provides customers with a fixed-length backup window regardless of data growth. Its unique disk-cache Landing Zone allows for the fastest backups and retains the most recent backup in its full unduplicated form, enabling the fastest restores.

ExaGrid's appliance models can be mixed and matched into a single scale-out system allowing a full backup of up to 2.7PB with a combined ingest rate of 488TB/hr, in a single system. The appliances automatically join the scale-out system. Each appliance includes the appropriate amount of processor, memory, disk, and bandwidth for the data size. By adding compute with capacity, the backup window remains fixed in length as the data grows. Automatic load balancing across all repositories allows for full utilization of all appliances. Data is deduplicated into an offline repository, and additionally, data is globally deduplicated across all repositories.

This combination of capabilities in a turnkey appliance makes the ExaGrid system easy to install, manage, and scale. ExaGrid's architecture provides lifetime value and investment protection that no other architecture can match.



Intelligent Data Protection

ExaGrid's turnkey disk-based backup system combines enterprise drives with zone-level data deduplication, delivering a disk-based solution that is far more cost effective than simply backing up to disk with deduplication or using backup software deduplication to disk. ExaGrid's patented zone-level deduplication reduces the disk space needed by a range of 10:1 to 50:1, depending on the data types and retention periods, by storing only the unique objects across backups instead of redundant data. Adaptive Deduplication performs deduplication and replication in parallel with backups. As data is being deduplicated to the repository, it is also replicated to a second ExaGrid site or the public cloud for disaster recovery (DR).

ExaGrid and Veeam

Veeam's backup solutions and ExaGrid's Tiered Backup Storage combine for the industry's fastest backups, fastest restores, a scale-out storage system as data grows, and a strong ransomware recovery story – all at the lowest cost.

About ExaGrid

ExaGrid provides Tiered Backup Storage with a unique disk-cache Landing Zone that enables fastest backups and restores, a Repository Tier that offers the lowest cost for long-term retention and enables ransomware recovery, and scale-out architecture which includes full appliances with up to 2.7PB full backup in a single system.

Learn more at www.exagrid.com.