Denver Museum of Nature & Science Discovers Backup Simplicity and Reliability with ExaGrid

DENVER MUSEUM OF NATURE & SCIENCE

USA

Key Benefits:

- ExaGrid simplifies the Museum's entire operation and workflow
- RTL ensures the Museum's data can be recovered in case of a ransomware attack
- Seamless integration with Veeam
- Combined ExaGrid-Veeam dedupe maximizes disk space
- ExaGrid is easy to manage and maintain with proactive expert support

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Nick Dahlin
System Administrator

Customer Overview

The Denver Museum of Nature & Science is the Rocky Mountain region's leading resource for informal science education. As an education-based organization, they believe in the importance of open exchange and learning. The story of the Denver Museum of Nature & Science began in 1868, when Edwin Carter moved into a tiny cabin in Breckenridge, Colorado, to pursue his passion: the scientific study of the birds and mammals of the Rocky Mountains. Almost single-handedly, Carter assembled one of the most complete collections of Colorado fauna then in existence.

Switch to ExaGrid Consolidates and Simplifies Backups

The Denver Museum of Nature & Science was using Veeam to back up its data to several different targets including NAS storage units, Dell Data Domain backup targets, and HPE 3PAR storage. After consideration of a few backup solutions, the museum found ExaGrid and Veeam to be the best fit overall. Their goal was to consolidate all targets into one repository, which they were easily able to do with ExaGrid Tiered Backup Storage.

"We're saving a lot more space with ExaGrid-Veeam as the deduplication is demonstrating very strong results. Overall, ExaGrid has simplified our entire operation and workflow," said Nick Dahlin, the Museum's system administrator.

The ExaGrid system is easy to install and use and works seamlessly with the industry's leading backup applications so that an organization can retain its investment in its existing backup applications and processes.

Confident in ExaGrid Ransomware Recovery

In addition to wanting a streamlined backup solution, security is always top of mind for the Museum. "We have ExaGrid's Retention Time-Lock for Ransomware Recovery implemented. Hopefully, it's not something we will encounter, but I can sleep better knowing we have it," said Dahlin.

ExaGrid appliances have a network-facing disk-cache Landing Zone where the most recent backups are stored in an undeduplicated format for fast backup and restore performance. Data is deduplicated into a non-network-facing tier called the Repository Tier, for longer-term retention. ExaGrid's unique architecture and features provide comprehensive security including Retention-Time Lock for Ransomware Recovery (RTL), and through the combination of a non-network-facing tier (tiered air gap), a delayed delete policy, and immutable data objects, backup data is protected from being deleted or encrypted. ExaGrid's offline tier is ready for recovery in the event of an attack.

Data Deduplication Maximizes Storage Capacity

The backup environment at the Museum is about 95% virtual, with only a couple of physical targets. "ExaGrid works very well with both scenarios. We've sorted our data from most critical to less critical, and back up our more important and often-changed servers daily and keep copies of them for a longer retention and our less critical servers are backed up once a week and have a shorter retention," said Dahlin.

"With the combination of Veeam and ExaGrid, we are seeing very strong deduplication and having everything consolidated is making a huge positive impact on performance," he said. 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.

ExaGrid writes backups directly to a disk-cache Landing Zone, avoiding inline processing and ensuring the highest possible backup performance, which results in the shortest backup window. Adaptive Deduplication performs deduplication and replication in parallel with backups for a strong recovery point (RPO). As data is being deduplicated to the repository, it can also be replicated to a second ExaGrid site or the public cloud for disaster recovery (DR).

Proactive ExaGrid Support Keeps System Well Maintained

Dahlin has been impressed by ExaGrid's customer support from the beginning, "When we first received our ExaGrid appliance, we realized that the rails to mount our rack were incompatible, and our ExaGrid support engineer sent an adapter kit overnight so we were able to get it mounted right away. Then he reached out and we worked together on configuring the setup, which only took one session. It was very simple, pleasant support experience.

"Our support engineer is very easy to work with and highly knowledgeable. I really like the ExaGrid support model. Our support engineer proactively sends us statistics, so we haven't needed to reach out often. To be honest, I haven't had to log into our ExaGrid system since we first set it up because it works so well," said Dahlin.

The ExaGrid system is designed to be easy to set up and operate. ExaGrid's industry-leading level 2 senior support engineers are assigned to individual customers, ensuring they always work with the same engineer. Customers never have to repeat themselves to various support staff, and issues get resolved quickly.

Unique Scale-Out Architecture

The Denver Museum of Nature & Science is forward-thinking, so scalability to support future data growth was important in their decision to choose ExaGrid for backup storage. 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 undeduplicated 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.

ExaGrid and Veeam

The Denver Museum of Nature & Science decided to stay with Veeam to take advantage of the deep ExaGrid-Veeam integration. "What I like best is the simplicity and reliability of the ExaGrid-Veeam solution. It has made my job easier, and I never have to think about it," said Dahlin.

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**.

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