



Backups Twice as Fast and Deduplication Improved by a Factor of Five After Herrfors Switches to ExaGrid



FINLAND

Key Benefits:

- ExaGrid integration with Veeam makes installation and configuration easy
- Since installing ExaGrid, backups are twice as fast
- ExaGrid-Veeam solution improves deduplication by 'a factor of five'
- ExaGrid's scalability a major factor for Herrfors as the IT team wanted a system they 'can run and maintain for a decade'

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Sebastian Storholm
IT Infrastructure Manager

Customer Overview

Since the mounting of its first generator at the Herrfors powerplant in 1907, Finnish electricity company Herrfors has maintained the dedication to its vision to utilize local knowledge and resources to make the local environment a better place for its inhabitants, visitors, and entrepreneurs. Technology is advancing, and new machines replace old ones, but one thing is certain: mankind is always going to need electricity and heat. Herrfors' goal is to answer that demand, now and in the future.

Impressive POC gives Herrfors Confidence in ExaGrid

The IT staff at Herrfors had been backing up the company's data to NAS storage using Veeam, and as the NAS storage reached its end of life, the IT staff decided to investigate other backup storage solutions, particularly one that integrates well with Veeam.

"I first heard of ExaGrid when I met their team at a Veeam event in 2016 in Helsinki, and I thought to myself that I should keep ExaGrid in mind the next time that we needed backup storage," said Sebastian Storholm, IT Infrastructure Manager at Herrfors. "Years later, when we did need a new solution, we looked at different products on the market but decided on ExaGrid due its integration with Veeam, because it offered the best pricing and best performance, and also because ExaGrid stands by its product. It's one thing to trust a vendor, but it's another thing for a vendor to guarantee the performance that they advertise and that was refreshing."

Storholm had a proof-of-concept (POC) with ExaGrid and was impressed with the Tiered Backup Storage, and with how easy the POC process was. "Trying to get a POC with bigger vendors can be difficult as that isn't something they are very interested in doing. The ExaGrid team actually suggested doing a POC first and said they wanted us to be happy with the product before we actually finalized any deals," he said.

Storholm found that the installation process was quick and simple. "It was amazing! ExaGrid shipped us the appliance and we installed it into the rack and connected it. Then we got on a phone call from our ExaGrid support engineer, and we got our ExaGrid system completely up and running and integrated with Veeam in under three hours," said Storholm. The ExaGrid system is easy to install and use and works seamlessly with all of the most frequently used backup applications, so an



organization can retain its investment in existing applications and processes.

Backups 'Twice as Fast' and 'Noticeably Faster' Restores

Herrfors' data consists of VMs, databases, and Windows servers, and Herrfors backs up those up on a daily and weekly basis, depending on the type of data. The combined solution of ExaGrid and Veeam has resulted in improved backup and restore performance. "The backup speeds we are getting now are twice as fast as our old solution, which is excellent," said Storholm. "The restore performance is also noticeably faster – the restores really don't take any time at all."

ExaGrid has integrated the Veeam Data Mover so that backups are written Veeam-to-Veeam versus Veeam-to-CIFS, which provides a 30% increase in backup performance. Since the Veeam Data Mover is not an open standard, it is far more secure than using CIFS and other open market protocols. In addition, because ExaGrid has integrated the Veeam Data Mover, Veeam synthetic fulls can be created six times faster than any other solution. ExaGrid stores the most recent Veeam backups in an unduplicated form in its Landing Zone and has the Veeam Data Mover running on each

ExaGrid appliance and has a processor in each appliance in a scale-out architecture. This combination of Landing Zone, Veeam Data Mover, and scale-out compute provides the fastest Veeam synthetic fulls versus any other solution on the market.

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).



ExaGrid-Veeam Solution Improves Deduplication by “a Factor of Five”

Storholm has also noticed that adding ExaGrid improved deduplication by a “factor of five” which is helpful as Finland is moving from hourly metering of electricity consumption at the point of usage to 15-minute intervals, which will greatly increase the meter data that Herrfors will need to store and back up. “ExaGrid’s deduplication was one of the reasons we decided to choose this solution, to prepare for the metering change before it comes into effect which will quadruple the growth of our largest databases,” said Storholm.

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.

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 Support and Scalability Key to Long-Term Planning

Storholm appreciates ExaGrid’s scale-out architecture and the fact that ExaGrid supports its appliances with no end-of-life or planned obsolescence. “One of the common trends in the backup storage industry that annoys me is when you buy a product and then three years later you want to extend it with additional drives, and then vendors often will say that the product has reached the end of its life and we need to upgrade to a newer version of the product. I wanted a backup storage solution that I don’t need to relearn every three years; I wanted something that we can run and maintain for a decade and ExaGrid’s scalability and support of its product was a major factor with installing it in our IT environment,” he said.

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.

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.