



Waters Corporation adds ExaGrid-Veeam Solution to Improve Backup Performance of Virtual Environment

CUSTOMER SUCCESS STORY

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Joseph Eshak
Systems Administrator

Key Benefits:

- ExaGrid system easy to scale to keep up with growth
- ExaGrid-Veeam solution resolves restore performance issues
- Deduplication saves on storage capacity, keeping up with SLA on retention
- ExaGrid provides Waters IT staff with ‘top-notch’ support

Customer Overview

Waters Corporation (NYSE: WAT), the world’s leading specialty measurement company, has pioneered chromatography, mass spectrometry and thermal analysis innovations serving the life, materials and food sciences for more than 60 years. Headquartered in Milford, MA, with more than 7,000 employees worldwide, Waters operates directly in 35 countries, including 15 manufacturing facilities, and with products available in more than 100 countries.

ExaGrid-Veeam Solution Added for Virtual Environment

The Waters Corporation has been using Dell EMC NetWorker to back up its data to a Quantum virtual tape library (VTL). The company decided to continue to use that solution to back up their physical environment, but wanted to find a better solution to back up their virtual environment.

“As our virtual environment grew, we realized that NetWorker wasn’t great for backing up our virtual machines and servers; the backups were very slow. We did some research and found Veeam was the best product for the virtual environment and we decided to look into backup storage to use with it,” said Joseph Eshak, the Waters Corporation’s systems administrator. “We had a proof-of-concept (POC) with ExaGrid and we were impressed with the speed of the backups and that Veeam and ExaGrid worked so well together.”

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 Tiered Backup Storage. This combination provides fast backups and efficient data storage as well as replication to an offsite location for disaster recovery. Customers can use Veeam Backup & Replication’s built-in source-side deduplication in concert with ExaGrid’s disk-based backup system with Adaptive Deduplication to further shrink backups.



Improved Backup and Restore Performance

Eshak backs up 90TB of the corporation’s data each week, in daily incrementals and a weekly full. The data backed up to the ExaGrid system is mostly file servers, application servers, as well as databases. The weekly full is backed up to ExaGrid, and then copied to tape for additional protection. He has been pleased with the backup performance with the ExaGrid-Veeam solution provides. “We have a larger number of backup jobs, and they all are completed within the desired backup window.”

In addition to the backup performance, Eshak has been pleased with the restore performance as well. “Restoring data with the ExaGrid-Veeam solution is too easy! The file-level recoveries are very simple and image recoveries are night and day, compared with restoring data using NetWorker’s V80P (its virtual backup product). That often was painful experience, as sometimes it would work and sometimes it wouldn’t, and we always needed to call Dell EMC support.”



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 so that an RTO and RPO can be easily met. Available system cycles are utilized to perform deduplication and offsite replication for an optimal recovery point at the disaster recovery site. Once complete, the onsite data is protected and immediately available in its full unduplicated form for fast restores, VM Instant Recoveries, and tape copies while the offsite data is ready for disaster recovery.

Scalable System Keeps Up with Data Growth

ExaGrid's scale-out architecture was a "big factor" in Waters Corporation's choice for backup storage. "We needed something we could add to on the fly with no downtime," said Eshak. "We've been able to add appliances to our ExaGrid systems very easily: we rack it, stack it, and network it, and then our ExaGrid support engineer helps us configure the new appliances remotely."

The ExaGrid system can easily scale to accommodate data growth. ExaGrid's 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 system with capacities of up to a 2PB full backup plus retention and an ingest rate of up to 432TB per hour. Once virtualized, they appear as a single system to the backup server, and load balancing of all data across servers is automatic.

Deduplication Helps Keep up with SLA on Retention

The data deduplication that ExaGrid and Veeam provide helps keep retention manageable. "We have to follow our SLA. Our primary backup is made up of 14 restore points, and then we do a copy job to tape. The copy job is where we keep the retention, which is actually four weeks. We keep the tape backup for five weeks, and some backups are kept for up to 13 to 15 months, if it falls at the month or quarter's end. We have a script that changes that across the board," said Eshak. "We're getting a 9.8:1 dedupe ratio with our ExaGrid-Veeam solution, so that saves on storage capacity."

About ExaGrid

ExaGrid provides tiered backup storage with a unique disk-cache Landing Zone, long-term retention repository and scale-out architecture. ExaGrid's Landing Zone enables the fastest backups, restores, and instant VM recoveries. The retention repository offers the lowest cost for long-term retention. ExaGrid's scale-out architecture includes full appliances in a scalable system. Learn more at www.exagrid.com.

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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 up to 5:1 additional deduplication rate. The net result is a combined Veeam and ExaGrid deduplication rate of upwards to 10:1, which greatly reduces the amount of disk storage required.

'Top-Notch' Customer Support

Eshak values ExaGrid's customer support model. "Our ExaGrid system works well, we haven't really had to touch it. Whenever I have questions, I reach out to my ExaGrid support engineer and he answers them right away. The support is top-notch! Most vendors' support is hit or miss, but ExaGrid's is unbelievable."

The ExaGrid system was designed to be easy to set up and maintain, and ExaGrid's industry-leading customer support team is staffed by trained, in-house level 2 engineers who are assigned to individual accounts. The system is fully supported, and was designed and manufactured for maximum uptime with redundant, hot-swappable components.



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