

MPR Utilizes Disk-Based Backup, Maximizes Storage with ExaGrid-Veeam Data Deduplication

CUSTOMER SUCCESS STORY



"ExaGrid is a solid and reliable solution. Of all the things I manage, it's the one that I have to pay the least amount of attention to because I know that it's working properly. The automated reports help me track how much storage is being used and easily check that all jobs are running successfully."

Katherine Johnson
System Engineer

Key Benefits:

- Deduplication provides savings on storage; MPR stores its 33TB virtual full in just 8TB of storage
- ExaGrid supports both of MPR's backup applications, Veeam and Veritas Backup Exec
- Restores are 'seamless and reliable' using combined ExaGrid-Veeam solution
- ExaGrid support engineer is a direct point of contact and a helpful resource

Customer Overview

MPR Associates is an employee-owned specialty engineering and management services firm founded in 1964, and headquartered in Alexandria, VA. MPR provides solutions to clients in the energy, federal government, and health and life sciences industries. The company brings value to its clients by delivering innovative, safe, reliable, and cost-effective technical solutions across the entire project or product lifecycle.

ExaGrid and Veeam Added to Virtualized Environment

MPR Associates had been backing up data to tape, using Veritas Backup Exec. The company looked into disk-based backup solutions that offered faster recovery options, and decided to install an ExaGrid system, moving tape to a solely archival function.

MPR has virtualized most of its environment, adding Veeam to back up virtual servers, and keeping Backup Exec for the remaining physical servers. Katherine Johnson, MPR's system engineer, feels that ExaGrid works well with both backup applications.

"Veeam and Backup Exec both integrate quite nicely with the ExaGrid system," Johnson said. "I easily added ExaGrid as the backup target in both applications, and backing up data has been straightforward and simple." Johnson backs up MPR's data in daily incrementals and weekly fulls, keeping two weeks' worth of backups on the ExaGrid system before the full backups are archived to tape and sent to offsite storage.

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 seamlessly retain its investment in existing applications and processes. Its unique landing zone retains the most recent backup in its full undeduplicated form, enabling the fastest restores, offsite tape copies, and instant recoveries.



Data Deduplication Maximizes Storage

Johnson has found that ExaGrid's data deduplication has maximized MPR's storage capacity. "Without ExaGrid's deduplication, we would not have enough space for the amount of data that we have. For example, on one backup of our virtual environment, we are able to store 33TB while consuming just a little over 8TB of storage!"

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 a 3:1 to 5:1 additional deduplication



ratio. The net result is a combined Veeam and ExaGrid deduplication ratio of 6:1 to 10:1, which greatly reduces the amount of disk storage required.

'Seamless' Restores with ExaGrid-Veeam Solution

"Restoring data is seamless and reliable using Veeam. I've had to restore single files and entire servers, and I haven't had any issues restoring the data from ExaGrid's landing zone or even from tape!" said Johnson.

ExaGrid writes backups directly to a disk 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 while providing full system resources to the backups for the shortest backup window. 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 undeduplicated form for fast restores, VM Instant Recoveries, and tape copies while the offsite data is ready for disaster recovery.

ExaGrid and Veeam can instantly recover a VMware virtual machine by running it directly from the ExaGrid appliance in the event that the primary storage VM becomes unavailable. This is possible because of ExaGrid's "landing zone" – a high-speed cache on the ExaGrid appliance that retains the most recent backups in complete form. Once the primary storage environment has been brought back to a working state, the VM running on the ExaGrid appliance can then be migrated to primary storage for continued operation.

Reliable Solution with Proactive Support

Johnson appreciates ExaGrid's customer support model of working with a support engineer that is assigned to individual accounts. "I like having a direct point of contact, someone that I can reach out to without calling a technical support line and having to speak with level-one and level-two engineers before the call is escalated. If I have a problem, I typically email my support engineer and we work through it together. He handles all of our upgrades and then configures our settings to be more efficient as well. He checks in regularly to make sure everything is going well and to see if we need any new hardware or any help from him. It's wonderful to have such a resource!"

About ExaGrid

ExaGrid provides hyper-converged secondary storage (HCSS) for backup with a unique landing zone and scale-out architecture. The landing zone enables the fastest backups, restores, and instant VM recoveries. The scale-out architecture includes full appliances in a scalable system and ensures a fixed-length backup window as data grows, eliminating expensive and disruptive

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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 engineers. The system is fully supported, and was designed and manufactured for maximum uptime with redundant, hot-swappable components.

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. ExaGrid fully leverages Veeam's built-in backup-to-disk capabilities, and ExaGrid's zone-level data deduplication provides additional data 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.

ExaGrid and Veritas Backup Exec

Veritas Backup Exec provides cost-effective, high-performance, and certified disk-to-disk-to-tape backup and recovery – including continuous data protection for Microsoft Exchange servers, Microsoft SQL servers, file servers, and workstations. High-performance agents and options provide fast, flexible, granular protection and scalable management of local and remote server backups.

Organizations using Veritas Backup Exec can look to ExaGrid as an alternative to tape for nightly backups. ExaGrid sits behind existing backup applications, such as Veritas Backup Exec, providing faster and more reliable backups and restores. In a network running Veritas Backup Exec, using ExaGrid in place of a tape backup system is as easy as pointing existing backup jobs at a NAS share on the ExaGrid system. Backup jobs are sent directly from the backup application to the ExaGrid for backup to disk.

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