EXAGRID®

MiaSolé's Switch to ExaGrid Improves Data Deduplication, Optimizes Database Backups

MiaSolé®

USA

Key Benefits:

- MiaSolé easily expanded ExaGrid system to comply with more stringent retention policy

- ExaGrid-Veeam combined deduplication maximizes storage

- Data restore times took up to 12 hours from tape; now done in minutes

- Databases back up directly to ExaGrid without a backup application

- IT staff saves six hours per week on backup management

"The deduplication works great. We see a range of dedupe ratios across our data, and overall it has saved us about 40% of actual disk space! We had been getting some deduplication from Veeam before, but it is even better since we've added ExaGrid to our environment."

Niem Nguyen
IT Manager

Customer Overview

MiaSolé, a wholly owned subsidiary of Hanergy, is a producer of lightweight, flexible, shatterproof and powerful solar cells and cell manufacturing equipment. The innovative solar cell is based on the highest efficiency thin-film technology available today, and its flexible cell architecture makes it ideal for a wide variety of solutions ranging from commercial roofing solar modules to flexible mobile energy devices Founded in 2004, MiaSolé has evolved into the world leader in thin-film solar module efficiency. MiaSolé is based in Santa Clara, CA.

Time-Consuming Tape Replaced

MiaSolé's IT staff found that backing data up to tape was very time consuming due to the continuous routine of changing out tapes and moving them offsite every few days, which also made data retrieval difficult. "Restoring data was quite a process; it could take up to five tapes from different locations, and after filling out the necessary paperwork, we had to find the data on the correct tape and then finally restore it," said Niem Nguyen, MiaSolé's IT manager.

Nguyen looked into disk-based backup options, including ExaGrid, Exablox, HPE StoreOnce, and a Dell EMC solution. After a demo and careful comparison of the products, the company chose ExaGrid for its storage capacity and ease of use. "Dell EMC and HPE StoreOnce offer high-end storage, but rely more on software to achieve data deduplication. They claim that we can get 15:1 to 25:1 dedupe ratios, but I didn't believe that, because their estimates didn't take into account what type of data we are backing up. ExaGrid offered more raw storage as well as deduplication."

MiaSolé had used both Veeam and Veritas Backup Exec while using tape and continued to use them after switching to ExaGrid. The ExaGrid system works seamlessly with all of the most frequently used backup applications, so an organization can retain its investment in existing applications and processes.

Restores Reduced from Hours to Minutes

MiaSolé's backups are replicated to a second ExaGrid system at its disaster recovery (DR) site. Nguyen backs up the company's data daily, running a full backup of databases and Exchange servers, daily incrementals of other servers, and a full weekly and monthly backup of all of the company's data.

Much of the company's data consists of Microsoft SQL and Oracle databases. "One of the features I like best is the direct agent functionality, so our SQL data writes directly to the ExaGrid system, making backups and restores from the system incredibly fast." ExaGrid supports Microsoft SQL dumps and Oracle backups without the need to use a backup application and sends Oracle backups using the RMAN utility set directly to the ExaGrid system.

"Restoring data from tape sometimes took up to 12 hours, depending on the job. Now that we use ExaGrid, we can restore data in minutes – it's so fast!" said Nguyen.

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).

Data Deduplication Provides Storage Reduction of up to 40%

Nguyen has been impressed with the data deduplication that the ExaGrid system provides. "The deduplication works great. We see a range of dedupe ratios across our data, and overall it's saved us about 40% of actual disk space! We'd been getting some deduplication from Veeam before, but it's even better since we've added ExaGrid to our environment."

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.

Scalable System Keeps Up with Data Growth Due to Stringent Retention Policy

MiaSolé's legal department established a new retention policy requiring storage of two weeks of dailies, eight weeks of weeklies, and a year of monthlies, resulting in a need for more backup storage. Due to ExaGrid's scale-out architecture, Nguyen simply purchased a new appliance to add to his current system to remain in compliance with the new policy.

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.

'Excellent' Customer Support Keeps System Easy to Manage

Nguyen finds that the ExaGrid system requires very little maintenance, especially with the help of his ExaGrid support engineer. "It's easy to manage the ExaGrid system, and the GUI is very intuitive. I'm saving up to six hours a week on managing our backups, compared to when I was using the tape system.

"ExaGrid's customer service is excellent. Whenever I have a question or need help with an issue, I contact my support engineer and he responds quickly. He's very knowledgeable and makes sure our system is running smoothly. Customer service is very important to me, and it's a major reason why I feel comfortable using ExaGrid and expanding our system with new appliances," said Nguyen.

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.

ExaGrid and Veritas Backup Exec

Veritas Backup Exec provides cost-effective, high-performance 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 Tiered Backup Storage 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 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 ExaGrid for backup to disk.

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**.