

Mississippi DFA Replaces Dell EMC Data Domain and Now Restores Data Faster with ExaGrid

CUSTOMER SUCCESS STORY



"ExaGrid is reliable—we know it's running every night, and we know it's keeping our data for the retention periods that we have set up, so we love it. It's not something we ever have to worry about. We can focus on other things knowing that the system is running tip-top."

Scott Owens
Systems Manager

Customer Overview

The Mississippi Department of Finance and Administration (DFA) is the primary agency responsible for State government financial and administrative operations including employee payroll; vendor payments; employee insurance; construction, maintenance, and protection of State buildings in the Capitol Complex; financial information management systems; management of the State's vehicle fleet; and numerous other related activities.

Landing Zone Avoids Data Rehydration, Provides Better Performance

The Mississippi Department of Finance and Administration (DFA) had been experiencing long backup windows using Dell EMC Data Domain and a Tegile array with Veeam as its backup application. Due to substandard performance, Scott Owens, the department's systems manager, took up the search for a new solution that would increase backup performance and thus shorten his backup window as well as decrease restore times.

One of the solutions that Owens looked into was ExaGrid, which had been recommended by a colleague. He was impressed with how quickly data could be restored from the system's unique landing zone because it retains the most recent backup in its full undeduplicated form to avoid time-consuming data rehydration.

"When it was the time to re-evaluate backup storage, we were already familiar with Dell EMC Data Domain and were looking for something different. We wanted to continue to work with a system that had data deduplication and worked with Veeam, but also needed a solution that would decrease restore times, so we decided to go with ExaGrid," said Owens.

Easy-to-Install System 'Runs Itself'

Owens found that installation of the ExaGrid system was a simple process. "It went smoothly. We racked the system and worked with my assigned support engineer to set it up on the network. She helped us



configure it, helped us set up some jobs from our backup, and made sure everything was working well.

"One thing that I like about using ExaGrid is that once it's set up and running, it pretty much runs itself. There's not much that we've had to reconfigure or change since we installed the system. It's been working well, and I would definitely recommend it to others."

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.

Shorter Backups and 'Very Quick' Restores

Owens backs up the department's data in daily incrementals as well as weekly and monthly fulls. He has noticed a significant reduction in the backup window, particularly the incrementals. "At least two hours have

been saved. Before, it was taking about four hours to do a nightly backup, and now that's down to just an hour and a half!

"Restores are definitely faster now, too. That was one of the biggest changes that we noticed right off the bat once we moved over to the ExaGrid system. The landing zone works well and the restores are very quick," said Owens.

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.

Backup Storage That's Simple and 'Reliable'

Owens finds it easy to manage the ExaGrid system. "ExaGrid is reliable—we know it's running every night, and we know it's keeping our data for the retention periods that we have set up, so we love it. It's not something we ever have to worry about. We can focus on other things knowing that the system is running tip-top."

"We don't have to constantly tinker with it. It pretty much runs itself, and that's exactly the kind of solution we were looking for. We get daily e-mails from the system, and I can easily check on the health of the system anytime using the GUI."

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. The ExaGrid system fully leverages Veeam Backup & Replication's built-in backup-to-disk capabilities and ExaGrid's zone-level data deduplication for additional data reduction (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-Veeam Combined Dedupe

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 up to 5:1 additional deduplication rate. The net result is a combined Veeam and ExaGrid deduplication rate of 6:1 upwards to 10:1, which greatly reduces the amount of disk storage required.

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 forklift upgrades. Learn more at www.exagrid.com.

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