

SDCOE Meets Increased Retention Mandate with ExaGrid-Veeam Data Deduplication

CUSTOMER SUCCESS STORY



SAN DIEGO COUNTY
OFFICE OF EDUCATION

"Our file server is huge! It holds a large amount of data. ExaGrid's deduplication has allowed us to hold our data for a longer period of time using less space."

Willie Williams
Computer Operations
Data Center Supervisor

Key Benefits:

- Backup windows reduced by 30%
- Combined deduplication of ExaGrid and Veeam maximizes storage
- Scaling system is 'seamless'
- 'Excellent' customer support monitors health of system
- Staff time saved due to easy management of backups

Customer Overview

The San Diego County Office of Education (SDCOE) was created in 1948 to support schools throughout the California county with business, curricular, and other services. SDCOE provides a variety of services for the 42 school districts, 124 charter schools, and 5 community college districts in the county.

More Stringent Retention Policy Drives Replacement of Tape Backups

The San Diego County Office of Education (SDCOE) had been backing up its data to tape, using Veritas Backup Exec. As its data grew, backup windows expanded drastically, and trying to store so much data on tape became a challenge. The office decided to virtualize its environment and needed to update its backup solution. In addition, a new policy increased retention requirements, so SDCOE looked into solutions that provided data deduplication to help meet the new mandate.

Willie Williams, computer operations data center supervisor at SDCOE, was eager to replace the archaic tape system. "Retention was definitely a problem with tape. Our data was growing very quickly, and we needed to keep some information in our file servers longer than the eight-week retention period that was in place at the time. Backup jobs ran constantly, especially over the weekend—for almost two days, sometimes! Using ExaGrid has decreased the backup window, and we no longer worry about replacing tapes. A new policy extended the retention period of our file server to 12 weeks, so we have quite a bit of data to back up."

Deduplication Maximizes Storage Capacity

SDCOE installed ExaGrid systems at both its primary and DR sites, and transitioned to Veeam as its backup application. Williams has noticed the significant impact that deduplication has had on storage capacity.



"Our file server is huge! It holds a large amount of data. Veeam's and ExaGrid's deduplication has allowed us to hold our data for a longer period of time without using as much space."

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.

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Backup Window Reduced By Over 30%

Williams is relieved that he no longer needs to worry about tape replacements during backup jobs. In addition, his backup windows have been reduced by over 30%. "When we were using tape, our longest backup jobs would typically run about two days. With ExaGrid, those same backup jobs take up to 17 hours at the most."

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.

'Seamless' Scalability Keeps Up With Data Growth

Williams has scaled SDCOE's ExaGrid system to keep up with its growing data, and found it to be quite easy. "We needed to expand the storage on our ExaGrid system, so we purchased an additional appliance. Installing it was no problem. I worked with my support engineer to configure the appliance and add it to the existing system. It was seamless!"

All of ExaGrid's appliances contain not just disk but also processing power, memory, and bandwidth. When the system needs to expand, additional appliances are simply attached to the existing system. This type of configuration allows the system to maintain all the aspects of performance as the amount of data grows, with customers paying for what they need when they need it. In addition, as new ExaGrid appliances are added to the existing system, ExaGrid automatically load balances available capacity, maintaining a virtual pool of storage that is shared across the system.

ExaGrid's 'Excellent' Support Is 'Number One'

Williams has been impressed with the responsiveness of his assigned customer support engineer. "ExaGrid's customer support is excellent! It's one of the best support groups that we've worked with. They're number one as far as I'm concerned."

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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If there is an issue, a support engineer responds to it right away. They monitor the ExaGrid systems as well as we do! If they see that a hard drive has failed, they send me an email to let me know that a replacement hard drive is on its way. When the replacement shows up the next day, we pop the old drive out, pop the new one in, and keep the ExaGrid system going."

Overall, Williams has found that ExaGrid is easy to manage and saves time. "Once the system is configured and it's up and running, there isn't much to worry about. The first thing I do when I come in is check the status of the systems, which takes only minutes. It's an efficient system, particularly compared to managing tape, which was time-intensive; we had to swap the tapes in and out of libraries, keeping track of which tapes were onsite or offsite. Just organizing tapes took up to an hour and a half every day. Now, our data backs up to the ExaGrid system, replicates to offsite storage, and that's it!"

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 who are assigned to individual accounts. 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. 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.



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