EXAGRID®

ExaGrid Helps School District Manage Data Growth, Improving Backup and Restore Performance

CAMAS
SCHOOL DISTRICT

USA

Key Benefits:

- Backup windows reduced by 72% and no longer run into mornings
- Camas IT staff able to add synthetic fulls due to improved backup performance
- Veeam Instant Restore functionality regained after switch to ExaGrid
- ExaGrid-Veeam deduplication allows for longer-term retention
- ExaGrid Customer Support 'worth its weight in gold'

"ExaGrid is the only storage solution we've used that has ever not only met, but exceeded, the amount of deduplication and compression that was promised to us by the sales team. We're getting better numbers than they told us to expect."

Adam Green
Systems Engineer

Customer Overview

The Camas School District, located in Washington state, strives to provide students with the ability to communicate effectively, use technology, reason, be self-confident, possess mental and physical health, and work effectively with others. In broader terms, its mission is to create a learning community where students, staff, and citizens are involved jointly in the advancement of knowledge and personal growth.

Data Growth Leads to Search for New Solution

The Camas School District had been backing up data to a SAS array using Veeam, but due to data growth and the corresponding expanding backup window, the district's IT staff decided to look into a new backup storage solution.

"We were growing at a rate where the backup windows were starting to bump up against the beginning of the workday. I would start our backup jobs at 6:00 pm, and often times the backups wouldn't finish until about 5:30 am. Some of our teachers and staff arrive at 6:00 am, so the backup window was growing outside of my comfort zone," said Adam Green, the school district's systems engineer.

Green also wanted a solution that would allow for longer retention of backup data, so he decided to look into a solution that incorporated data deduplication. "We had a few companies bid and we looked into a Dell EMC solution as well as ExaGrid. What Dell had proposed was a system that matched what we currently had in place, and would then enable deduplication and compression in the future. I wanted to find something that would offer improvements much sooner than that," he said.

"ExaGrid's pricing was very competitive, which made us skeptical at first, but they guaranteed that we would meet our deduplication goals and that was impressive. We've used different storage solutions for our virtual infrastructure, and ExaGrid is the only storage solution we've used that has ever not only met, but exceeded, the amount of deduplication and compression that was promised to us by the sales team. We're getting better numbers than they told us to expect."

Backup Windows Reduced by 72%, Giving Time for More Backup Jobs

Since installing the ExaGrid system, Green has noticed that backup jobs are much faster.

"The ExaGrid sales team made sure to check our environment to give us the right network card and appliance size, and since we now use 10GbE network cards, our network throughput has tripled," he said. "The ingest speed has been amazing, averaging at 475MB/s, now that the data is written directly to ExaGrid's Landing Zone. Our backup window used to be 11 hours for our daily backups, and now those same backups finish within 3 hours."

Green used to back up the school district's data on a daily basis but has been able to add synthetic fulls to the regular backup schedule, increasing the data available for restoration. "With our previous solution, we were barely able just to get our dailies in, and never have had time to make synthetic fulls for the week or the month. Now, our daily backup jobs are finished by midnight, which leaves Veeam open to do things like biweekly synthetic backups, so I feel we are better protected with multiple restore points that I can go back to in case any data gets corrupted. I could probably add more fulls without any issue."

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).

ExaGrid has integrated the Veeam Data Mover so that backups are written Veeam-to-Veeam versus Veeam-to-CIFS, which provides a 30% increase in backup performance. Since the Veeam Data Mover is not an open standard, it is far more secure than using CIFS and other open market protocols. In addition, because ExaGrid has integrated the Veeam Data Mover, Veeam synthetic fulls can be created six times faster than any other solution. ExaGrid stores the most recent Veeam backups in an undeduplicated form in its Landing Zone and has the Veeam Data Mover running on each ExaGrid appliance and has a processor in each appliance in a scale-out architecture. This combination of Landing Zone, Veeam Data Mover, and scale-out compute provides the fastest Veeam synthetic fulls versus any other solution on the market.

Deduplication Allows for Longer-Term Retention

One of the school district's main reasons for switching to a new backup storage solution was to manage the data growth that the school was experiencing. Green has found that the ExaGrid-Veeam deduplication has helped keep storage capacity manageable and allowed for longer-term retention of backups to restore from.

"With our previous solution, we were only able to restore data that had been backed up within the past 30 days, which was frustrating if someone needed an older file restored. Part of the discussion about choosing a new solution was how to restore data from further back without tripling the amount of volume of just raw storage that we needed. Now we can create an archival backup snapshot in Veeam and then copy that to our ExaGrid system and we've been able to archive everything for a year," said Green. He is also pleased that he still has 30% free space available on the system, despite the continued data growth, due to deduplication he gets from the ExaGrid-Veeam solution.

Veeam uses changed block tracking to perform a level of data deduplication. ExaGrid allows Veeam deduplication and Veeam dedupe-friendly compression to stay on. ExaGrid will increase Veeam's deduplication by a factor of about 7:1 to a total combined deduplication ratio of 14:1, reducing the storage required and saving on storage costs up front and over time.

ExaGrid Increases Restore Performance

Green has found that switching to ExaGrid increases the performance of some of Veeam's key features, such as Instant Restore, reducing server downtime. "With our previous solution, restoring data from disk was much more of a process as we found the Veeam Instant Restore feature didn't work very well with the disk storage so we ended up restoring data and then turning the VM on after. Often, it would take 10 minutes just to boot up into the server, and our server would be down for about 45 minutes," he said. "Now that we use ExaGrid, I can use the Instant Recover feature and run the VM directly from the backup storage. Now, everyone can get back to using the server while I restore the data back and then migrate them over to the active snapshot."

ExaGrid Support 'Worth its Weight in Gold'

Green appreciates working with the same assigned ExaGrid support engineer since installation. "It's super nice to work with one person every single time I call. Usually, he's the one reaching out to me, to let me know when there is an update or if something needs to be taken care of. Recently, he helped me upgrade the firmware to ExaGrid Version 6.0 and he worked around my schedule and sent me some quick documentation to read. I like that ExaGrid doesn't change something for the sake of changing it, and the updates are never so dramatic that I feel lost or that it impacts my day-to-day, which I have experienced with other products," he said.

"ExaGrid is so easy to manage, and we've rarely ever experienced any issues with the system. It just works, so I don't have to worry about it. It's such a relief to know that our ExaGrid support engineer is on top of the system, so I know that it's taken care of – that's worth its weight in gold, and now whenever it comes time for hardware renewal I already know I want to stick with ExaGrid," said Green.

The ExaGrid system was designed to be easy to set up and operate. ExaGrid's industry-leading level 2 senior support engineers are assigned to individual customers, ensuring they always work with the same engineer. Customer's never have to repeat themselves to various support staff, and issues get resolved quickly.

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**.