



ExaGrid Helps Backups Flow Smoothly at Rancho California Water District



USA

Key Benefits:

- A win-win: Got a better backup solution with disaster recovery capabilities for less money
- Easy scalability; simply plug in a new appliance
- Seamless integration with Commvault
- High level of customer support
- Simple 'point and click' file restore process

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Dale Badore
Systems Administrator

Customer Overview

Rancho California Water District (RCWD) is a local, independent district that delivers high quality water, wastewater and reclamation services to more than 120,000 customers. RCWD serves the area known as Temecula/Rancho California, which includes the City of Temecula, portions of the City of Murrieta and unincorporated areas of southwest Riverside County. RCWD's current service area represents 100,000 acres, and the District has 940 miles of water mains, 36 storage reservoirs, one surface reservoir (Vail Lake), 47 groundwater wells, and 40,000 service connections. RCWD is located in Temecula, California.

Rapid Data Growth Pushed the Limit of D2D2T Solution

RCWD had been performing daily incremental backups and weekly and monthly full backups via disk-to-disk-to-tape (D2D2T) to protect all of its data, including its Exchange and file server data, its databases and financial information such as check processing and payroll. But due to rapid data growth, its backups had become too large and the agency was close to running out of disk space.

ExaGrid System Provides Cost-Effective Relief

RCWD initially considered adding additional disk but then realized that a system that incorporated data deduplication would be the best solution for its growing backup needs. The agency looked at disk-based backup solutions from Dell EMC Data Domain and ExaGrid, and chose a two-site ExaGrid system to provide both local backup and disaster recovery. RCWD installed its primary ExaGrid system in its main facility in Temecula, and plans to install a second-site system at its wastewater treatment facility two miles away.

"The cost of the two-site ExaGrid system was far less than the cost of adding a shelf and drives to our SAN," said Dale Badore, systems administrator at RCWD. "We reclaimed the space on the SAN and got a better backup solution with disaster recovery capabilities for less money."

Data Deduplication, Scalability Important Factors

Data deduplication and system scalability turned out to be the deciding factors in choosing the ExaGrid system over Data Domain.

"In doing the research, we felt that ExaGrid's post-process method for data deduplication was more effective than Data Domain's in-line approach," said Badore. "The ExaGrid approach doesn't take any process overhead on the backup server. Also,



ExaGrid's data deduplication technology makes it more efficient to transmit data between our two sites so there are no bottlenecks."

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).

RCWD currently stores 60 copies of its daily, full and weekend backups on the ExaGrid system and has room for more. But looking ahead, system expandability will be important as RCWD's data grows.

"Scalability is an important issue for us, and the ExaGrid system was more expandable than the Data Domain system," said Badore. "With ExaGrid, if we need more space we can just add another unit, plug it in and point Commvault to the system. We couldn't ask for it to be any easier."

ExaGrid's scale-out architecture provides easy scalability, so the system can grow as RCWD's backup requirements grow.

When plugged into a switch, additional ExaGrid systems virtualize into one another, appearing as a single system to the backup server, and load balancing of all data across servers is automatic.

The ExaGrid system works alongside RWDC's backup application, Commvault. "ExaGrid and Commvault work together nicely; as fast as Commvault can push the data out, the ExaGrid can pull it in. If we were writing to tape, everything would have to queue up and it would take forever," Bador said.

Fast Restores, Expert Customer Support

Bador estimates that he needs to restore files two to three times per week, and using the ExaGrid system has saved him valuable time.

"We have an undelete function on our server, but it is limited by the size of the file and the age of the data. When we do need to restore data, it's either a larger file or one that is several days old," said Badore. "Prior to using the ExaGrid, we would have had to dig through tapes to find the correct one, load it in the library, and then check it in and pull the file off. The whole process took at least 30 minutes. With the ExaGrid, I simply point and click, and the file is restored."

"We've experienced a high level of customer support with the ExaGrid team," said Badore. "They have a lot of knowledge in terms of their own product and of backup processes in general. They're dedicated and have spent a considerable amount of time to make sure that our installation is working correctly, and that's something we're always looking for in a technology partner."



ExaGrid and Commvault

The Commvault backup application has a level of data deduplication. ExaGrid can ingest Commvault deduplicated data and increase the level of data deduplication by 3X providing a combined deduplication ratio of 15;1, significantly reducing the amount and cost of storage up front and over time. Instead of performing data at rest encryption in Commvault ExaGrid, performs this function in the disk drives in nanoseconds. This approach provides an increase of 20% to 30% for Commvault environments while greatly reducing storage costs.

Intelligent Data Protection

ExaGrid's turnkey disk-based backup system combines enterprise drives with zone-level data deduplication, delivering a disk-based solution that is far more cost effective than simply backing up to disk with deduplication or using backup software deduplication to disk. ExaGrid's patented zone-level deduplication reduces the disk space needed by a range of 10:1 to 50:1, depending on the data types and retention periods, by storing only the unique objects across backups instead of redundant data. Adaptive Deduplication performs deduplication and replication in parallel with backups. As data is being deduplicated to the repository, it is also replicated to a second ExaGrid site or the public cloud for disaster recovery (DR).

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.