

# City of Aurora Replaces Tape with ExaGrid; Reduces Restores from Days to Minutes

CUSTOMER SUCCESS STORY



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**Danny Santee**  
Enterprise Systems Supervisor

## Key Benefits:

- Restoring data from tape took up to three days; now it takes just half an hour!
- Backups no longer exceed window or disrupt production
- ExaGrid support helps identify and resolve issues with ExaGrid system or backup app
- The city expanded its ExaGrid system by trading in its older appliances for newer ones with the assistance of ExaGrid sales and support

## Customer Overview

Once a budding frontier town of farmers and ranchers just east of the state's capital, Aurora is Colorado's third-largest city with a diverse population of more than 361,000. At 154 square miles, the city reaches into Arapahoe, Adams, and Douglas counties.

## Scalable ExaGrid Solution Chosen to Replace 'Tedious' Tape

Before learning about ExaGrid, the City of Aurora, Colorado had been backing up its data to tape, and the city's IT staff found that restoring data from tape was often a difficult process. "When a user deleted a file, or if a database needed to be restored, we would need to find the tape that the requested data had been stored on," said Danny Santee, the city's enterprise systems supervisor. "Sometimes, the tape would already be offsite by then, so we had to wait for the tape to arrive back onsite, which might require a couple of phone calls to the company that stored tapes for us. The whole process was cumbersome and tedious."

The city decided to switch to disk-based backup and chose ExaGrid, with Commvault as its backup application. "One of the features I love about ExaGrid is its scalability. We will never max out capacity or need a forklift upgrade again, because we can simply add more appliances to the system. Competitors are not able to match that architecture," Santee said.

The data that is backed up at the city's production site is replicated to a disaster recovery (DR) site for added data protection. As the city's data has grown, additional ExaGrid appliances have been added to the systems at both sites. "We've traded in and traded up, and swapping out appliances has been an easy process. The expert ExaGrid customer support engineers continue to support the older models, and have helped to migrate the data from the traded-in appliances to the new ones," said Santee.



The ExaGrid system can easily scale to accommodate data growth. ExaGrid's computing software makes the system highly scalable, and when plugged into a switch, appliances of any size or age can be mixed and matched in a single system with capacities of up to a 2PB full backup plus retention and an ingest rate of up to 432TB per hour. Once virtualized, they appear as a single system to the backup server, and load balancing of all data across servers is automatic.

## Efficient Backups, Quick Restores, and Maximized Storage

Santee backs up the city's 150TB of data with daily incrementals, weekly fulls, and monthly fulls as well as an hourly log backup for its SQL data. After 30 days' retention, the data is copied from the ExaGrid system and archived onto tape.

Santee has found that using ExaGrid has made backups more manageable. "When we were using tape, we had backup windows that were running longer than a 24-hour period, so we had to stagger the jobs and even cut some of them. Since switching

to ExaGrid, our backup windows have shrunk and now even making a disk-to-tape copy of our backups no longer affects the production system like it did in the past.”

In addition to keeping backup jobs running on schedule, switching to ExaGrid has also greatly improved how quickly data is restored. “The management of restores has been where we’ve seen our biggest gain, especially when it comes to restoring SQL data. If an end user accidentally deletes data from a file server, the total time it takes from receiving the ticket request to restoring the data is about half an hour, whereas with tape, it could take up to three days.”

According to Santee, ExaGrid’s data deduplication has allowed the city to buy less storage. 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 unduplicated form for fast restores, VM Instant Recoveries, and tape copies while the offsite data is ready for disaster recovery.

## ExaGrid Support Helps Identify and Resolve Issues

Santee appreciates that ExaGrid is easy to manage, but also knows that an ExaGrid support engineer is easy to reach if any issues do arise. “We really appreciate the ExaGrid customer support model of assigning one support engineer to work with us—not every company does that! The engineer knows our site

very well, and it’s nice not having to speak to a different person every time we call.

“When we upgraded our Commvault software, we ended up having some issues caused by an old dedupe algorithm not working with the new version of the software. All of a sudden, we were running out of space on our ExaGrid system because the data wouldn’t dedupe properly, causing the backups to double in size. Our ExaGrid support engineer helped us determine the cause of the issue, and then worked with us to fix 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 Commvault

Commvault Backup and Recovery software contains extensive capabilities to simplify the management of backup media resources. Commvault software writes backup data to a broad collection of storage devices, including disk as a media target. This ability to write to magnetic disk as a functional equal of all other media types while exploiting the random access nature of the disk media sets Commvault software apart. Organizations using Commvault can look to ExaGrid as an alternative to tape for nightly backups. ExaGrid sits behind existing backup applications, such as Commvault, providing faster and more reliable backups and restores. In a network running Commvault, using ExaGrid in place of a tape backup system 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 the ExaGrid for onsite backup to disk.

## 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](http://www.exagrid.com).

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