

ExaGrid Answers the Call for Better Backups at Clackamas Fire District #1

Customer Overview

Clackamas Fire District #1 is an internationally accredited organization which provides fire, rescue, and emergency medical services to five Oregon cities (including Milwaukie, Oregon City, Happy Valley, Johnson City and a portion of Damascus), as well as the unincorporated areas of Oak Lodge, Clackamas, Westwood, Carver, Redland, Beavercreek, Carus, Clarkes, and South End/Central Point.

Clackamas Fire District #1 has 16 fire stations strategically located throughout Clackamas County with a workforce of more than 200 employees and volunteers and is the second largest fire protection district in Oregon, serving over 166,000 citizens and 194 square miles.

Network Slowdowns Caused by Long Backups

The Clackamas Fire District #1's network traffic peaks early in the morning and then again from noon to 7:00 p.m., when the district's call activity is at its highest levels. However, with tape backups stretching 11 hours or more, the district's system response time often slowed due to network congestion. Weekends were even worse, when the district's IT department ran full backups and its network performance sometimes slowed to a crawl.

"We're a public safety organization so it's important to us that our network run fast as possible," said Oscar Hicks, information technology services director for Clackamas Fire District #1. "We have dedicated point-to-point connections to all of our stations so there really was no reason for the network traffic to be moving slowly. Unfortunately, our long tape backups had really begun to choke our network and our performance was suffering."

The district's slow tape backups had begun to affect response time for its records management and computer-aided dispatch (CAD) system, and the IT staff also had experienced difficulty restoring data from tape. Hicks and his staff decided to look for a new approach that would shorten the district's backup window and provide faster restore times. At the same time, any new solution needed to fit in with the district's long term IT plans to deploy a new storage-area network and to improve its disaster recovery capabilities.

ExaGrid Provides Flexibility to Integrate with SAN

Clackamas Fire District #1 purchased an ExaGrid disk-based backup solution and installed the system in its main datacenter. The ExaGrid system backs up the district's data and the data is replicated to an EqualLogic storage-area network located in a separate facility that acts as a disaster recovery site. The ExaGrid works alongside the district's existing backup application, Symantec's NetBackup.

"We knew that disk-based backup was the direction we wanted to go in, but we needed to address both our immediate backup needs and our long term plan for enhancing our disaster recovery operations," said Hicks. "The ExaGrid system enabled us to alleviate the long backup and restore times and gave us the flexibility to leverage our SAN for additional capacity."

Today, the ExaGrid system backs up Clackamas Fire District #1's data and the compressed data is sent to and stored on the district's EqualLogic storage-area network located in a separate facility. Looking forward, the district is planning on purchasing an ExaGrid iSCSI Backup Gateway to work along with its EqualLogic SAN to provide true replication between the sites. The ExaGrid unit will also be moved to the district's mobile disaster recovery unit to provide an extra layer of protection in case of a natural disaster.

Data De-duplication Technology Provides Effective Compression, Fast Backups and Restores

"We've been extremely impressed with ExaGrid's data de-duplication technology. Our compression rates have been outstanding and we're only using a little less than 25 percent of the capacity of our system. Each week our data compression numbers are getting better and better as the system checks for redundant data," said Hicks.

ExaGrid combines last backup compression along with data de-duplication, which stores changes from backup to backup instead of storing full file copies. This unique approach reduces the disk space required by a range of 10:1 to 50:1 or more, delivering unparalleled cost savings and performance. ExaGrid delivers extremely fast backup performance because data is written directly to disk, and data de-duplication is performed post-process after the data is stored to reduce data. When a second site is used, the cost savings are

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Oscar Hicks
IT Services Director
Clackamas Fire District #1



even greater because ExaGrid's byte-level data de-duplication technology moves only changes, requiring minimal WAN bandwidth.

Using the ExaGrid system, the district has been able to significantly reduce its backup times. Full backups, which had been taking 24 hours with tape, have been reduced to five hours. Nightly incremental backups have been reduced from 11 hours to an hour and ten minutes.

"Our backup times have improved tremendously and our network is no longer bogged down as our backups are performed. Restores are also much faster than they were with tape. We haven't had a real emergency yet but we've tested the ExaGrid system extensively and have been able to delete and restore entire directories in less than 15 minutes."

Easy Installation and Management, Superior Customer Support

The ExaGrid system was designed to be easy to deploy and to manage, with an intuitive interface for fast setup. ExaGrid's industry-leading customer support team is staffed by trained, in-house engineers who are dedicated to individual accounts. The ExaGrid system is fully supported and was designed and manufactured for maximum uptime with redundant, hot-swappable components.

"Initially, we thought that we'd have to hire outside consultants to implement the ExaGrid system, but it was easy to install by ourselves. All we had to do was plug the unit into the switch and it was up and running in about 15 minutes," said Hicks. The ExaGrid is very intuitive to use and to manage and it's easy to create shares via the web interface. In fact, we were surprised at how easy it was to get up and running. ExaGrid's customer support team also called to see if we had any questions and they were able to remote into the system and double-check to ensure that everything was set up correctly. They really went above and beyond the call of duty."

ExaGrid and NetBackup

Symantec's NetBackup delivers high performance data protection that scales to protect the largest UNIX, Windows, Linux and NetWare environments. With complete protection from remote office to center to vault, NetBackup offers a single console for all backup and recovery operations. Organizations using NetBackup can look to ExaGrid as an alternative to tape for nightly backups. ExaGrid sits behind existing backup applications, such as NetBackup, providing faster and more reliable backups and restores. In a network running NetBackup, 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.

Intelligent Data Protection

ExaGrid's turnkey disk-based backup system combines high quality SATA drives with byte-level data de-duplication, delivering a disk-based solution that is more cost effective than standard SATA drives. ExaGrid's byte-level data de-duplication technology stores only the changes from backup to backup instead of storing full file copies, reducing the amount of disk needed by a range of 10:1 to 50:1 or more, resulting in a solution that is 25 to 30% the cost of standard SATA drives. The ExaGrid system is easy to install and use and works seamlessly with popular backup applications, so organizations can retain their investment in existing applications and processes.

ExaGrid servers can be used at primary and secondary sites to supplement or eliminate offsite tapes with live data repositories for disaster recovery.

For more information about ExaGrid, please visit our website www.ExaGrid.com or call us at 1-800-868-6985.

ABOUT EXAGRID

ExaGrid is the leader in cost-effective disk-based backup solutions. A highly scalable system that works with existing backup applications, the ExaGrid system is ideal for companies looking to quickly eliminate the hassles of tape backup while reducing their existing backup windows. ExaGrid's innovative approach minimizes the amount of data to be stored by providing standard data compression for the most recent backups along with byte-level data de-duplication technology for all previous backups. Customers can deploy ExaGrid at primary and secondary sites to supplement or eliminate offsite tapes with live data repositories or for disaster recovery.

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