City Modernizes Backup Infrastructure with ExaGrid System

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Johnna Byers
Director, Management
Information Systems

Key Benefits:

- Two systems cross-replicate and provide DR protection
- Backup window cut by more than half from 15 to just 7 hours
- Customer support monitors system and provides proactive alerts
- GRID architecture allows the City to expand its ExaGrid to handle data growth due to new ERP system

Customer Overview

The City of Cumberland, Maryland is a western gateway city and seat of Allegany County, Maryland. With a population of approximately 21,000, Cumberland is a regional business and commercial center for Western Maryland and the Potomac Highlands of West Virginia.

Overdue Network Refresh Led to Search for New Backup Solution

Like many other municipalities, the City of Cumberland struggled with financial difficulties during the recession and had no funds to refresh its network. So when the economy improved, its IT department put updating the city's backup infrastructure high on the list when additional budget funds became available.

"We had been dealing with old tape drives for years and our backups were inconsistent to the point where we couldn't guarantee that our data was safe and restorable," said Johnna Byers, director of management information systems for the City of Cumberland. "We were also spending a tremendous amount of time and effort just keeping up with tape and troubleshooting backup jobs."

Flexibility to Accommodate More Data and Deploy Second System for Replication

When funds became available to replace its aging infrastructure, the city considered several different approaches before choosing ExaGrid's disk-based backup system with data deduplication.

"We looked at EMC Data Domain and a few other solutions, but the feature that stood out about the ExaGrid was its GRID architecture because it would enable us to seamlessly scale the system as our backup needs increase," said Byers. "We also liked that we could deploy two systems and replicate data between them for disaster recovery."

The city purchased two ExaGrid systems and installed one in its main datacenter in city hall and a second in its public safety building across the street. Data is replicated nightly between the two systems, which work in conjunction with Symantec Backup Exec and Veeam Backup & Recovery to back up both physical and virtual machines.

ExaGrid uses a GRID-based configuration, so when the system needs to expand, additional appliance nodes are attached to the GRID, bringing with them not only additional disk but also processing power, memory, and bandwidth. This type of configuration allows the system to maintain all the aspects of performance as the amount of data grows. In addition, as new ExaGrid appliances are added to the GRID, the ExaGrid automatically load balances available capacity, maintaining a virtual pool of storage that is shared across the GRID."

Backup Times Cut in Half, Deduplication Reduces Amount of Data Stored

Byers reports that since installing the ExaGrid system, backups are completed automatically each night in less than half the time it took with tape.

"Our backups now run flawlessly and they're significantly faster, too. For example, one of our servers with 420GB of data used to take nearly 15 hours to back up to tape, but now it only takes about seven hours," she said. "Also, ExaGrid's data deduplication technology helps to reduce the amount of data we store so that we can maximize the amount of data retained on the system."

EXAGRID™

ExaGrid combines standard compression along with zone-level data deduplication, 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 deduplication is performed post process after the data is stored to reduce data. When a second site is used, the cost savings are even greater because ExaGrid's zone-level data deduplication technology moves only the changes from backup to backup, requiring minimal WAN bandwidth.

Responsive Customer Support

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.

"Prior to installing the ExaGrid system we'd have to check our backup jobs to make sure they ran correctly. Now, we have a high degree of confidence in them because they run flawlessly each night," said Byers. "The other aspect we really like is ExaGrid's support. Our support engineer is very proactive, and in fact, he contacted us just the other day to alert us about a potential problem with a controller."

Byers said that the city is considering upgrading the ExaGrid system in the near future.

"We are implementing a new ERP system in the coming months and we're hoping to acquire two additional ExaGrid systems in our next budget year to handle more data," Byers said. "We really like the flexibility of the system and the fact that we can grow it as our backup demands increase. Also, it's really 'set it and forget it.' We really don't have to even think about our backups anymore."

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.

ExaGrid and Symantec Backup Exec

Symantec Backup Exec is the gold standard in Windows data recovery, providing cost-effective, high-performance, and certified disk-to-disk-to-tape backup and recovery—including continuous data protection for Microsoft Exchange, SQL, file servers, and workstations. It also supports single-drive libraries, encryption, and disaster recovery. High-performance agents and options provide fast, flexible, granular protection and recovery, and scalable management of local and remote server backups.

Organizations using Symantec Backup Exec can look to ExaGrid as an alternative to tape for nightly backups. ExaGrid sits behind existing backup applications, such as Symantec Backup Exec, providing faster and more reliable backups and restores. In a network running Symantec Backup Exec, 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 Systems, Inc.

Customers worldwide depend on ExaGrid Systems to solve their backup problems–effectively and permanently. ExaGrid's disk-based, scale-out GRID architecture adjusts to increasing backup demands due to constantly growing data volumes. It is the only solution that combines compute with capacity as well as a unique landing zone to permanently shorten backup windows and eliminate expensive forklift upgrades. Learn more at **www.exagrid.com**.