City Modernizes Backup Infrastructure with ExaGrid System

USA

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
- Scale-out architecture allows the City to expand its ExaGrid to handle data growth due to new ERP system

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Johnna Byers
Director, Management Information Systems

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 Dell EMC Data Domain and a few other solutions, but the feature that stood out about the ExaGrid was its scale-out 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 appliances 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 Veritas Backup Exec and Veeam Backup & Recovery to back up both physical and virtual machines.

ExaGrid's award-winning scale-out architecture provides customers with a fixed-length backup window regardless of data growth. Its unique disk-cache Landing Zone allows for the fastest backups and retains the most recent backup in its full undeduplicated form, enabling the fastest restores.

ExaGrid's appliance models can be mixed and matched into a single scale-out system allowing a full backup of up to 2.7PB with a combined ingest rate of 488TB/hr, in a single system. The appliances automatically join the scale-out system. Each appliance includes the appropriate amount of processor, memory, disk, and bandwidth for the data size. By adding compute with capacity, the backup window remains fixed in length as the data grows. Automatic load balancing across all repositories allows for full utilization of all appliances. Data is deduplicated into an offline repository, and additionally, data is globally deduplicated across all repositories.

This combination of capabilities in a turnkey appliance makes the ExaGrid system easy to install, manage, and scale. ExaGrid's architecture provides lifetime value and investment protection that no other architecture can match.

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'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).

Responsive Customer Support

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.

"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

Veeam's backup solutions and ExaGrid's Tiered Backup Storage combine for the industry's fastest backups, fastest restores, a scale-out storage system as data grows, and a strong ransomware recovery story – all at the lowest cost.

ExaGrid and Veritas Backup Exec

Veritas Backup Exec provides cost-effective, high-performance backup and recovery – including continuous data protection for Microsoft Exchange servers, Microsoft SQL servers, file servers, and workstations. High-performance agents and options provide fast, flexible, granular protection and scalable management of local and remote server backups.

Organizations using Veritas Backup Exec can look to ExaGrid Tiered Backup Storage for nightly backups. ExaGrid sits behind existing backup applications, such as Veritas Backup Exec, providing faster and more reliable backups and restores. In a network running Veritas Backup Exec, using ExaGrid 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 ExaGrid for backup to disk.

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**.

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