ExaGrid Provides AEDC with Easy, Reliable Backups

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>
> **Robin Hefner**
> **IT Systems Analyst**

Key Benefits:

- ExaGrid support helps familiarize AEDC IT staff with backup environment and best practices

- ExaGrid provides AEDC with reliable backups that stay within desired window

- Data deduplication maximizes storage capacity and retention

Customer Overview

The mission of the Arkansas Economic Development Commission is to create economic opportunity by attracting higher paying jobs, expanding and diversifying state and local economies, increasing incomes and investment, and generating positive growth throughout Arkansas.

ExaGrid Customer Support Eases Transition in IT Department

ExaGrid had already been installed by the time Robin Hefner, IT systems analyst at the Arkansas Economic Development Commission (AEDC), had started her position. When Hefner started there, she was not responsible for the backup environment, but she ended up inheriting backup after personnel changes. "I was a bit nervous because I didn't have training on our backup solution, which is ExaGrid and Veeam. In addition, one of the hard drives on our ExaGrid system needed to be replaced, so my ExaGrid support engineer called to tell me she had shipped a new drive and walked me though the replacement process," said Hefner.

In addition to making sure the hardware ran smoothly, Hefner appreciated that her ExaGrid customer support engineer worked with her to understand the best practices of using ExaGrid and Veeam. "The first time she called, I explained my situation and she accessed the system remotely and walked me through the backup environment, and she's been teaching me ever since. Working with my ExaGrid support engineer has been awesome; she's provided excellent customer service!"

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 level 2 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.

Nightly Backups Easy to Manage

Hefner backs up AEDC's data, mostly consisting of VM servers, SQL databases and user files, on a nightly basis. She has found that the backups are reliable and run within the desired backup windows.

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 undeduplicated form for fast restores, VM Instant Recoveries, and tape copies while the offsite data is ready for disaster recovery.

ExaGrid and Veeam can instantly recover a VMware virtual machine by running it directly from the ExaGrid appliance in the

event that the primary storage VM becomes unavailable. This is possible because of ExaGrid's Landing Zone – a high-speed cache on the ExaGrid appliance that retains the most recent backups in complete form. Once the primary storage environment has been brought back to a working state, the VM running on the ExaGrid appliance can then be migrated to primary storage for continued operation.

ExaGrid-Veeam Combined Deduplication Keeps Storage Manageable

Hefner keeps a weekly full as well as 14 days' worth of retention, so that data is easily restorable if necessary. Data deduplication keeps storage capacity manageable while keeping enough data available to restore from.

Veeam uses the information from VMware and Hyper-V and provides deduplication on a "per-job" basis, finding the matching areas of all the virtual disks within a backup job and using metadata to reduce the overall footprint of the backup data. Veeam also has a "dedupe friendly" compression setting which further reduces the size of the Veeam backups in a way that allows the ExaGrid system to achieve further deduplication. This approach typically achieves a 2:1 deduplication ratio.

ExaGrid is architected from the ground up to protect virtualized environments and provide deduplication as backups are taken. ExaGrid will achieve up to 5:1 additional deduplication rate. The net result is a combined Veeam and ExaGrid deduplication rate of upwards to 10:1, which greatly reduces the amount of disk storage required.

ExaGrid's Unique Architecture Provides Investment Protection

ExaGrid's award-winning scale-out architecture provides customers with a consistent backup window regardless of data growth. Its unique Landing Zone retains the most recent backup in its full undeduplicated form, enabling the fastest restores, offsite tape copies, and instant recoveries.

ExaGrid's multiple appliance models can be combined into a single system configuration, allowing full backups of up to 2PB with a combined ingest rate of 432TB/hr. The appliances virtualize into one another when plugged into a switch so that multiple appliance models can be mixed and matched into a single configuration. Each appliance includes the appropriate amount of processor, memory, disk, and bandwidth for the data size, so as each appliance is virtualized into the system, performance is maintained and backup times do not increase as data is added. Once virtualized, they appear as a single pool of long-term capacity. Capacity load balancing of all data across servers is automatic, and multiple systems can be combined for additional capacity. Even though data is load balanced, deduplication occurs across the systems so that data migration does not cause a loss of effectiveness in deduplication.

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.

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. ExaGrid fully leverages Veeam's built-in backup-to-disk capabilities, and ExaGrid's adaptive data deduplication provides additional data 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 Adaptive Deduplication to further shrink backups.

About ExaGrid

ExaGrid provides intelligent hyperconverged storage 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**.

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