Customer Overview

With campuses in Thurso, Dornoch, Alness and Halkirk, Scotland, the North Highland College UHI is at the heart of the community, providing an ideal platform for learning and progressing into work. North Highland College UHI is one of 13 academic partners and research centres that make up Scotland’s University of the Highlands and Islands.

ExaGrid-Veeam Solution Replaces ‘Antiquated’ Tape Library

The IT staff at North Highland College UHI had been frustrated with backing up to a “cumbersome and antiquated” tape library and disk array. After virtualizing its environment, the college’s IT staff felt it needed to upgrade its backup solution. After some research and a meeting with ExaGrid, the college decided to replace its tape library and disk array, as well as its backup application, Veritas Backup Exec.

“One of the major reasons we chose ExaGrid was its storage capacity,” said Andrew Guttridge, the college’s IT support officer. “When we researched ExaGrid’s data deduplication capabilities, we realized we could store more backups on the system, byte for byte, than on other systems. We also decided to replace Backup Exec with Veeam as we had moved to a VMware system.”

Weekly Backup Window Cut In Half

Andrew runs a full backup of the college’s data every week, which includes file servers and users’ work data. The weekly backups used to exceed the scheduled window when the college was using its previous solution, but are back on schedule after switching to ExaGrid and Veeam. “When we were backing up to our previous system, using Backup Exec, our backups would run past the weekend, even up to Tuesday. Now that we use ExaGrid and Veeam, they are completed within a day and a half—that’s a big difference!”

In addition to shorter backups, the ExaGrid-Veeam solution offers quicker and easier restores. “Restoring data from tape was time-consuming, especially if the data was over a week old and we had to retrieve a tape from secure storage. Now, we keep eight weeks’ worth of full backups on our ExaGrid system and it’s easy to select a week and browse for the file to restore. ExaGrid has streamlined the process so it’s straightforward and much quicker; we are able to restore data in minutes,” said Andrew.

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. 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.

**Data Deduplication Saves on Storage**

Andrew has been impressed by the impact that the combined ExaGrid-Veeam data deduplication has had on the solution’s storage capacity. “Our previous systems hadn’t offered deduplication, and since incorporating it into our backups, we’ve noticed a considerable difference in the amount of storage we use. We’re backing up about 36TB worth of data in just 8.5TB! That’s great!”

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 a 3:1 up to 5:1 additional deduplication rate. The net result is a combined Veeam and ExaGrid deduplication rate of 6:1 upwards to 10:1, which greatly reduces the amount of disk storage required.

**Easily Managed System Takes Hassle Out of Backups**

We used to spend so much time tinkering with Backup Exec to get it to work the way we wanted it to, and we often had to spend time resolving issues with backups that stemmed from that application. We haven’t had to spend much time at all on managing our backups since we’ve installed the ExaGrid-Veeam solution. It’s simple to use, and it’s made my job easier. Our ExaGrid system sits in the corner of our Comms. room, working day after day. All of the hassle of our previous system has been done away with.

“We haven’t had any issues with our ExaGrid system, and whenever we’ve had any questions, our ExaGrid support engineer has been extremely helpful. He routinely checks on the system and updates the firmware. The support has been excellent,” said Andrew.

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 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 zone-level 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 zone-level deduplication to further shrink backups.

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**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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