TissueTech Adds ExaGrid as a Backup Target for Veeam, Automates Offsite Replication for DR

Customer Overview

TissueTech, Inc., based in Miami, Florida, is the leader in technologies that are shaping the future of regenerative medicine using amniotic and umbilical cord tissues. Since its inception in 1997, the Company has pioneered the clinical application of placental tissues to ocular disorders as well as a range of surgical and non-surgical specialties. More than 300,000 patients have been treated with TissueTech products, and the Company’s groundbreaking scientific and clinical achievements have been documented in more than 300 peer-reviewed publications.

Company Seeks Automated Offsite Replication

TissueTech, Inc. had been using Veeam to back up its data to a local disk array and wanted to also replicate to offsite storage for disaster recovery (DR) without manual intervention. ExaGrid was recommended as a solution that works well with Veeam, so TissueTech installed ExaGrid systems both at its primary data center as well as its offsite DR location. Victor Elvir, systems administrator at TissueTech, was glad that ExaGrid supported the existing backup application. “We already had the licensing for Veeam and didn’t want to replace our backup application, so it was great that ExaGrid supports it.”

The ExaGrid system is easy to install and use and works seamlessly with all of the most frequently used backup applications, so an organization can retain its investment in existing applications and processes. In addition, ExaGrid appliances can be used at primary and secondary sites to supplement or eliminate offsite tapes with live data repositories for disaster recovery.

ExaGrid Meets Retention Policy while Protecting Entire Infrastructure

TissueTech’s environment is mostly virtualized, consisting of 60 virtual machines (VMs) and 9 physical servers. Elvir backs up the Company’s data in daily incremental and a weekly synthetic full. Before switching to ExaGrid, he was only able to back up the virtual infrastructure, leaving the physical servers unprotected.

The switch to ExaGrid allowed TissueTech to back up its entire infrastructure and also increased its retention from one week to two weeks’ worth of data, which ensures that the Company’s internal retention policy is met. “Deduplication has been even better than we expected. We no longer worry about storage or need to keep an eye on how much capacity is being used. We’ve never had less than 30% of free space available thanks to the data deduplication with ExaGrid and Veeam,” said Elvir.

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.

Key Benefits:

- Daily backups 75% faster
- Entire infrastructure now backed up by ExaGrid-Veeam
- Retention meets internal policy due to data deduplication maximizing storage capacity
- Reliable ExaGrid-Veeam solution ‘one less thing to worry about’

Victor Elvir
Systems Administrator
ExaGrid will achieve up to a 5:1 additional deduplication ratio. The net result is a combined Veeam and ExaGrid deduplication ratio of up to 10:1, which greatly reduces the amount of disk storage required.

**Daily Backup Window 75% Shorter**

Elvir has been impressed with ExaGrid’s impact on daily backups. “Our backups are significantly faster. Daily incrementals used to take up to 5 hours, and now the backup window is just under 1.25 hours.”

Fortunately, Elvir hasn’t had to restore data yet, but feels confident that he’ll be able to when needed. “During our quarterly DR testing, we have been able to restore our backups in minutes. It’s such a simple process: right-click, hit restore, and everything is up and running.”

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 DR 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 = “One Less Thing to Worry About”**

Elvir appreciates how easy it is to manage his ExaGrid system and how well it integrates with Veeam. “One of the best things about ExaGrid is its simplicity. It’s been straightforward to use since installation and it just works. We didn’t have to do any fancy configurations in Veeam, which instantly identified ExaGrid as a repository. We haven’t had to do any guesswork and everything has been very intuitive. We’re a pretty small shop here; it’s just us two systems administrators. We do anything we can to simplify our environment and processes, and we’re happy that ExaGrid is reliable—it’s one less thing that we have to worry about.”

The prompt assistance provided by ExaGrid customer support is one of the benefits of using the ExaGrid system that Elvir values most. “At one point, one of our drives failed, and I emailed my ExaGrid support engineer as I was leaving the office. When I arrived at the office the next morning, the replacement was already there, and all I needed to do was swap it out. Honestly, we feel like the support with ExaGrid has been the best part of the whole system,” he said.

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.

**Veeam and ExaGrid**

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.

**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).