Customer Overview

Labcyte, a global biotechnology tools company headquartered in Sunnyvale, California, is revolutionizing liquid handling. Echo® liquid handling systems use sound to precisely transfer liquids without contact, eliminating the use of pipettes. Labcyte instruments are used worldwide throughout the pharmaceutical and biotechnology industries, as well as by hospitals, service laboratories, contract research organizations, and academic institutions. Labcyte customers work across a wide spectrum of scientific research, including drug discovery, genomics, proteomics, diagnostics, and personalized medicine. Labcyte has 58 U.S. patents and others internationally.

Next Generation Backup Storage Sets New Pace

Lisa Hazen, IT Project Manager, has been with Labcyte for 14 years. Since the beginning, NAS was all the company had from a vendor that eventually went out of business, so that wasn't going to be a viable backup solution in the long term. They moved to a NAS PHP, which was a bit more robust, until the concept of data deduplication came on the scene, and Labcyte moved over to EMC Data Domain for many, many years.

"Once it became clear that we needed more capacity and our EMC Data Domain system was old, we began our search for an alternative," said then IT Director, Lisa Hazen.

"Because you get a lot of bang for your buck with deduplication, it was going to cost me just as much to upgrade our Data Domain system as it would to look at other solutions. ExaGrid came in and explained the process of having a fully hydrated landing zone that we could utilize if we needed to spin up a VM, as we very quickly ramped up to a highly virtualized environment. And, frankly, because ExaGrid and Veeam are so complementary to one another, it was a very easy choice.

"I was out of the office on one occasion when ExaGrid really saved us. Our voicemail server went down and because people rely heavily on their voicemail, we just couldn't have that system down. We spun it up from the ExaGrid landing zone, and while that was running and keeping the place afloat from that perspective, our admin was busy getting the actual VM restored so that we could continue business as usual. The amount of downtime was so minimal that I don't think the users even noticed. It's a very different concept to utilize your backup target as an actual short-term running space that provides you with an instantaneous way to have something to spin up. That is uniquely different from anything else on the market," said Hazen.

Powerful Solution Built for Speed, Performance, and Storage

"Not only can the landing zone save you in the event that you need to spin up something in an emergency, it also makes backups complete so much faster! We're now ingesting at the fastest rate possible. Using Nimble, we have much more storage, and everything is very fast. Comparing the speed of ExaGrid to what our Data Domain system could ingest, there just is no comparison. ExaGrid solved multiple problems for us. It shortened our backup window, gave us the amount of storage that we needed to back up our primary storage, and provided us with this amazingly fast ability to recover. The ExaGrid
system gives us a bridge to where you can have uninterrupted uptime during a restore process,” said Hazen. “I never really log into the ExaGrid dashboard because everything has been working flawlessly since install. I would estimate we spend 50% less time managing our backup process now.

“The ingest was about 50% faster with ExaGrid than Data Domain, so that was a definite plus for us, and another huge advantage was that we have to compile the data within the ExaGrid so we can transfer it to tape, and that internal data write is now really fast,” said Hazen.

Stress-Free Backup Storage

“The ExaGrid landing zone is a game changer – wow! ExaGrid’s unique offering has saved us tremendously. When you can justify it from two vantage points – from a disaster recovery/business continuity standpoint as well as from just a simplistic backup standpoint – you’ve got far more leverage to get hardware purchased by management,” said Hazen. “ExaGrid helps us get closer to a worry-free environment.

“We used to start backups Friday evenings when everyone had left the building, and we would run all the way through Monday morning. With ExaGrid, we can now back up so much more data. Labcyte is seeing an average dedupe ratio of 8:1 post Veeam.”

Simple Install and Outstanding Support

“The install was so simple that I don’t even remember it! We’ve never had an issue, so we don’t contact customer support that often. Our ExaGrid support engineer helped us analyze and predict our data growth so that we could estimate how much space we’ll need in the next six months, and that determines whether we need an additional appliance or not,” said Hazen.

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.

“Having a support engineer assigned to our account helps that person really understand our environment. That hasn’t been the case with other vendors, and it could be much more of a challenge. ExaGrid’s engineers are extremely fluent in Veeam as well, and the expertise level is very much appreciated,” Hazen said.

GRID Architecture Provides Superior Scalability

ExaGrid’s GRID computing software makes the system highly scalable, and when plugged into a switch, appliances of any size or age can be mixed and matched in a single GRID system with capacities of up to a 1PB full backup plus retention and an ingest rate of up to 200TB per hour. Once virtualized, they appear as a single system to the backup server, and load balancing of all data across servers is automatic.

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.

Veeam-ExaGrid Deduplication

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.

About ExaGrid

ExaGrid provides backup storage with a unique landing zone and scale-out architecture. The landing zone provides for the fastest backups, restores and instant VM recoveries. The scale-out architecture includes full appliances in a scalable GRID and provides for a fixed-length backup window as data grows, eliminating expensive forklift upgrades. Learn more at www.exagrid.com.