Hologic Upgrades to ExaGrid and Veeam for Reliable and Scalable Backup Storage

Customer Overview
As a leading global healthcare and diagnostics company, Massachusetts-based Hologic strives to make advances toward greater certainty for its customers by providing them with cutting-edge technology that makes a real difference. For more than 30 years, Hologic has worked to achieve both incremental and transformational progress to improve patients' lives, pushing the boundaries of science to deliver clearer images, simpler surgical procedures, and more efficient diagnostic solutions.

ExaGrid Solution Provides Positive Backup Results
Hologic used Dell vRanger to back up their VMs in addition to IBM TSM for backing up Microsoft Exchange and SQL, along with some physical boxes. Hologic also had Veritas NetBackup to manage their tape out. Everything being backed up went to tape except for Hologic's Isilon crossovers.

"We had multiple products to do a simple thing -- backup storage," said Mike Le, System Administrator II for Hologic.

Hologic has two headquarters on the east and west coast. The backup project team is in charge of backups for the enterprise, which is worldwide. Each site accounts for approximately 40TB of backup. Because of their strong relationship with Dell, Hologic decided to move forward with their backup solution and purchased Dell DR appliances.

"We started backing up to the Dell DRs and then replicated between our two sites. Our first run came back, it was great; the fulls replicated, everything was fine. Then, as the days went on and incremental occurred nightly, the replication couldn't catch up. We decided to retain the Dell DRs at our smaller sites and convert our main datacenters over to a new solution that had CPU on each system to help with ingest, encryption, and deduplication," said Le.

Hologic had new management in place and immediately directed the IT team to select a new solution -- new software and hardware -- a complete overhaul. When they set out to do a POC, they wanted to do it correctly. Le and his team knew Veeam was number one for virtualized backup software -- that was a given -- and they narrowed the disk-based backup options down to EMC Data Domain and ExaGrid.

"We compared EMC Data Domain and ExaGrid, running Veeam in parallel POCs. ExaGrid just worked better. The scalability seemed almost too good to be true, but it lived up to its hype and it was awesome!" said Mike Le, System Administrator II for Hologic.

"We like the ExaGrid architecture for so many reasons. It was during our transition project time when Dell acquired EMC, and we contemplated buying EMC Data Domain, because we thought it might work better. The concern was that their architecture is almost the same as the Dell DR where you just keep adding cells of storage, but you're still working on just one CPU. ExaGrid's unique architecture allows us to add full appliances as a whole unit, and it all works together while staying fast and consistent. We needed something reliable, and we got it with ExaGrid," said Le.

Key Benefits:
- Outstanding integration with ExaGrid and Veeam
- Backup window decreased by over 65%
- 70% less time spent on daily backup management
- Strong customer support relationship
- Architecture provides scalability needed to keep backup window consistent
Le says that he spent every day monitoring backups, while Hologic continued to run out of disk space. “We flirted with the 95% line constantly. The cleaner would catch up, we would gain a few points and then we’d lose it. It was back and forth – and really bad. When storage reaches 85-90%, performance drags,” said Le. “It was a massive snowball effect.”

With ExaGrid, Hologic runs a report every day to confirm backup job success. Their IT staff especially values how well ExaGrid and Veeam work together for deduplication and replication. Currently, they are seeing a combined dedupe ratio of 11:1. “The ExaGrid/Veeam system is perfect – exactly what we needed. We are now meeting or exceeding every portion of our backup goals,” said Le.

“We’re not eating up a ton of space anymore, especially since Veeam also does their own dedupe. What I care about is the fact that I’m not losing storage, and replication and deduplication are caught up and successful,” said Le.

**Time Savings Matters**

In the past, Hologic’s backup was spread across three different backup apps and took over 24 hours to complete. Today, everything is done in eight to nine hours, which is a 65% reduction in the company’s backup window.

“ExaGrid’s landing zone is a lifesaver. It makes restores easy and straightforward – for example, an instant restore takes around 80 seconds. ExaGrid is amazing, and it means the world! It has made all of our lives so much easier,” said Le.

**Consistent Support from POC ‘til Now**

“Most of the time when you’re doing a POC with a vendor, you get the vendor’s undivided attention. But once you buy the product, support starts to slack off a little bit. With ExaGrid, since day one, our assigned support engineer has been very responsive and highly knowledgeable. Anything that I need, or have questions on, he is on the phone with me within an hour. I’ve only had one failed drive – before we even really were able to acknowledge it, he had already sent me an email informing us that a new drive was on its way,” said Le.

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.

“Our backup report is a custom power shell that will pull data from ExaGrid and make a gorgeous .xml file with all the dedupe rates, in color, so I am on top of every metric. I am loving my new backup storage system and job more than ever,” said Le.

“I now spend only 30% of my time during the day on backup, mainly because we have a number of other smaller offices. Our long-term plan includes getting ExaGrid systems at each of these sites as well.”

**Veeam-ExaGrid Dedupe**

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.

**Architecture Provides Superior Scalability**

ExaGrid uses a configuration whereby each appliance contains not just disk but also processing power, memory, and bandwidth. When the system needs to expand, additional appliances are simply attached to the existing system. This type of configuration allows the system to maintain all the aspects of performance as the amount of data grows, and you only pay for what you need when you need it. In addition, as new ExaGrid appliances are added to the system, it automatically load balances available capacity, maintaining a virtual pool of storage that is shared across the system.

**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](http://www.exagrid.com).