Dycom's Use of Veeam with ExaGrid Triples Retention, Deduplication Maximizes Storage

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> **Systems Engineer**

Key Benefits:

- Largest backup job that used to take up to seven days to finish now completes in just an hour

- Due to tripled retention with ExaGrid over tape, 90% of Dycom's restores can now be done directly from the ExaGrid

- Scalability will enable Dycom to meet its goal of having ExaGrid systems in all 700 of its locations

- ExaGrid customer support compared to that of other vendors is 'night and day'

Customer Overview

Dycom (NYSE: DY) – "The people connecting America from the ground to the cloud." Dycom supplies skilled people to telecom service providers from its workforce of over 12,000 employees, providing specialty services in construction, engineering, underground facility locating, fulfillment, and program management. Operating through 56 subsidiaries in over 700 locations, Dycom serves customers in 48 states, including Qwest, Comcast, Sprint, and Verizon.

Perpetual Backups Necessitate Search for Better Solution

Dycom's backup pain hit an all-time high when some of its backup jobs were taking as long as seven days to complete – essentially running perpetually – and the resulting bandwidth reduction was having an impact on the company's users. Dycom sought to migrate from its Unitrends solution and Veritas Backup Exec to one that better suited its backup needs.

Veeam and ExaGrid 'Amazing' Together

Once Dycom decided to virtualize, they selected Veeam as their backup application, and Veeam is now installed across 80% of the company's 700+ locations. It was through Veeam that Dycom learned about ExaGrid and how well integrated the two products are.

"Veeam told us about the great partnership that they have with ExaGrid, and once we saw the deduplication numbers, we were just blown away," said William Santana, systems engineer at Dycom. "When we looked at ExaGrid's pricing as compared to the other solutions, it was an easy decision."

Santana has found Veeam's assertions about how complementary ExaGrid and Veeam are to be completely correct. "It amazes me how well ExaGrid works with Veeam."

Scalability Provides for a Staged Rollout

Besides ExaGrid's interoperability with Veeam, a big factor in Dycom's selection of ExaGrid was how easy it is to expand ExaGrid's systems. ExaGrid uses a configuration where 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 appliances are added, the ExaGrid automatically load balances available capacity, maintaining a virtual pool of storage that is shared across the system.

"It's simply a matter of getting a new appliance, adding it to the system, and it all ties together. Actually, we moved one of our locations, and it was really straightforward. We bought an extra ExaGrid and we moved a whole site through it. We installed V Center, migrated everything to the ExaGrid, and then shipped the system to the new location. When the ExaGrid was delivered, it came right on, and we migrated everything to the new location – it was all really pretty simple," Santana said.

Dycom's ultimate goal is to have ExaGrid appliances in each of its 700 locations. According to Santana, for the locations that

have good Internet access, Dycom is backing up to its Atlanta location by creating jobs and pushing them to the ExaGrid. For the remaining locations, they'll continue to use local storage for now and send everything to Amazon Web Services (AWS) for long-term archival. Dycom is required to keep archived data for seven years.

Once Dycom has ExaGrid appliances in place in its various locations, Santana hopes to cross-replicate for disaster recovery protection. Currently, Dycom is storing 400TB on its existing ExaGrid systems.

Backup Window Reduced, Deduplication Maximizes Storage

Santana is very pleased with how short his backup window is now. His largest backup job used to take up to seven days to complete; it now finishes in just an hour. The data deduplication ratio that Dycom is seeing with Veeam and ExaGrid combined Santana calls "unbelievable"; the deduplication of the Synology NAS that they've been using "doesn't come close."

Fast Restores and Backup Management Are Critical Time Savers

When Dycom was backing up to tape, Santana reports that restores could take days. The logistics of getting the correct tape, mounting it, locating the data, and restoring the data was cumbersome and time consuming. He found that using Veeam with ExaGrid, restores are typically done in just a few minutes. The overall process of managing backup is now "much easier," freeing up valuable time that the Dycom IT team can dedicate to other IT projects and priorities.

'Fantastic' Customer Support

Like all ExaGrid customers, Dycom works with an assigned ExaGrid level 2 customer support engineer to provide unmatched expertise and support continuity. "Every time I call our engineer, it's a terrific experience. He's always on par and willing to help, even in the beginning when we were having issues deploying. We had a guy come onsite from our reseller to deploy Veeam for us, and he was confusing. I contacted our ExaGrid engineer, and he helped us through the whole process – it was great! I could spend hours just talking about how amazing our ExaGrid engineer is! I kid you not – he's just fantastic!

"When it comes to ExaGrid's support, there's no comparison to other vendors. For example, the other day I was calling a vendor and, seriously, it was close to an hour before I got somebody on the phone. When I call or email ExaGrid, I reach my engineer and get help right away. The difference is night and day," Santana said.

Retention Tripled

When Dycom was backing up to tape, Santana was only able to keep 14 days' retention in-house. He reports that Dycom's retention has more than tripled and is now 48 days. Because of the increased retention, Santana can quickly do restores directly from the ExaGrid system 90% of the time.

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.

ExaGrid-Veeam Combined 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.

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**.