ExaGrid's Scalability Keeps Pace with American Standard's Evolving IT Environment

American Standard

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> **Ted Green**
> **Lead IT Engineer**

Key Benefits:

- Data deduplication maximizes disk space
- ExaGrid supports both of American Standard's backup applications for physical and virtual servers
- Easy-to-use system reduces staff time spent on backup
- Backup windows have 'improved tremendously'
- System easily scales when more capacity is needed

Customer Overview

American Standard makes life healthier, safer and more beautiful at home, at work, and in communities. For more than 140 years, the brand has innovated and created products that improve daily living in and around the bathroom and kitchen for residential and commercial customers. American Standard is a subsidiary of LIXIL, a global leader in housing and building materials, products, and services.

A Long-Term Solution to Keep Pace with Data Growth

American Standard purchased its first ExaGrid system in 2009, after determining that tape could no longer keep up with the company's rapid data growth. American Standard initially installed a total of eight ExaGrid appliances in two locations, including its New Jersey office, which cross-replicates data to its Midwest data center.

"We looked for a backup system to meet our two key requirements, which were tapeless backups and the ability to replicate our data safely offsite," said Steve Pudimott, manager of IT services for American Standard. "Since we planned on installing systems in multiple locations, easy deployment was an important factor, and ExaGrid was also highly cost-effective."

Since 2009, American Standard has added appliances to its existing ExaGrid configurations to keep up with increasing volume of migrated data due to multiple acquisitions. In 2013, American Standard was acquired by LIXIL Water Technology Americas (LWTA), a Tokyo-based global leader in housing and building materials, products, and services. "Since the acquisition, our data has grown almost 20% each year. LIXIL has continued to acquire other companies and their data has been migrated into our environment, resulting in significant data growth," said Ted Green, American Standard's lead information technology engineer.

Over the years, ExaGrid has enabled American Standard to keep pace with its growing storage needs, including at the point that the company decided to virtualize its environment, shifting much of it over to VMware and installing Veeam to manage its virtual backups. The ExaGrid system can

easily scale to accommodate data growth. ExaGrid's 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 system with capacities of up to a 2PB full backup plus retention and an ingest rate of up to 432TB per hour.

Green has taken advantage of ExaGrid's trade-in program, which allows customers to swap out older-model appliances for new ones at a discounted rate. "The capacity at both our production site and our DR site have doubled, if not tripled, since we first installed ExaGrid, so we have added appliances over the years. Working with ExaGrid's sales and customer support teams is a major reason why we have continued to use ExaGrid for so many years."

Disk-based Backup Reduces Time Spent Backing Up/Restoring Data

After first installing ExaGrid back in 2009, American Standard's backup times were significantly reduced. "The ExaGrid system is extremely easy to use, and it made my day-to-day backup duties far easier and stress-free," said Pudimott. "ExaGrid took all of the worry and hassle out of our backups and freed me up to focus on my other responsibilities."

"Using ExaGrid instead of tape means that lost or corrupted data can be easily restored, and the time that it takes to restore data from ExaGrid is a hundredfold better and faster than going through tapes – especially with respect to our VMs; recovery is incredibly fast!" said Green.

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 disaster recovery 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.

Seamless Integration and Support of Most Backup Applications

Green has found that ExaGrid integrates well with both of American Standard's backup applications – Veritas NetBackup and Veeam. "At the time that we virtualized, our ExaGrid support engineer helped us configure our system to work with Veeam, and that was an easy process. When we installed Veritas NetBackup 16 recently on one of our servers, it took all of ten minutes to get it working with ExaGrid, and the ExaGrid plugin to work with NetBackup's OST has been a great feature that has significantly sped up our backups." 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.

Data Deduplication Maximizes Disk Space and Reduces Rack Space

"With ExaGrid's adaptive data deduplication, our data is safe and secure on disk before data deduplication begins. It made more sense to us than other approaches," said Pudimott. "ExaGrid is very effective at reducing our backup storage footprint, allowing us to maximize disk space."

Deduplication not only maximizes the disk space available but it also cuts down on the number of racks needed at American Standard's data centers. "We've always had one dedicated rack for ExaGrid. Now it has shrunk to half a rack at our production data center. That's pretty significant, and it's saved us on costs since we pay for power in our data center because it's a co-

location. Without deduplication, we'd probably need well over two racks by now, but we've been able to decrease from one rack to just half of a rack. The newer models of ExaGrid appliances are much smaller and shorter, so that has also helped us save on rack space, too," said Green.

Green has been impressed with the deduplication achieved by the ExaGrid system. "We get very good deduplication ratios on our physical servers with NetBackup, over 15:1 in most cases, and up to 50:1 depending on the type of data. With Veeam, we see ratios of 5:1 before they are even combined with ExaGrid's deduplication."

Veeam 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.

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 and Veritas NetBackup

Veritas NetBackup delivers high performance data protection that scales to protect the largest UNIX, Windows, Linux, OSX and NetWare environments. Organizations using Veritas NetBackup can look to ExaGrid as an alternative to tape for nightly backup. In a network running NetBackup, using ExaGrid in place of a tape backup system is as easy as pointing existing backup jobs at a NAS share on the ExaGrid system. Backup jobs are sent directly from the backup application to the ExaGrid system for onsite backup to disk.

About ExaGrid

ExaGrid provides tiered backup storage with a unique disk-cache Landing Zone, long-term retention repository and scale-out architecture. ExaGrid's Landing Zone enables the fastest backups, restores, and instant VM recoveries. The retention repository offers the lowest cost for long-term retention. ExaGrid's scale-out architecture includes full appliances in a scalable system. Learn more at **www.exagrid.com**.