EXAGRID®

Fuel Tech Replaces Aging Data Domain with Scalable ExaGrid System for Better Backup Performance

FUEL TECH®
Technologies to enable clean efficient energy

USA

Key Benefits:

- ExaGrid provided Fuel Tech with better performance for Veeam
- ExaGrid's scalability and replication to cloud provides flexibility for future plans
- IT staff able to restore data within a 'matter of minutes' from ExaGrid-Veeam solution
- System maintenance 'seamless' with ExaGrid support model

"We wanted to continue to use Veeam, but realized we needed newer technology; we wanted to find a solution that would be able to grow and adapt to our needs in the future."

Rick Schulte
Systems Administrator

Customer Overview

Fuel Tech is a leading technology company engaged in the worldwide development, commercialization and application of state-of-the-art proprietary technologies for air pollution control, process optimization, combustion efficiency, and advanced engineering services. Incorporated in 1987, Fuel Tech has over 120 employees, of which more than 25% of its full-time staff holds advanced degrees. The Company maintains Corporate Headquarters in Warrenville, Illinois, with additional domestic offices in: Durham, North Carolina, Stamford, Connecticut, and Westlake, Ohio. International offices are located in Milan, Italy and Beijing, China. Fuel Tech's Common Stock is listed on the NASDAQ Stock Market, Inc. under the symbol "FTEK."

ExaGrid Chosen to Replace Data Domain

The IT staff at Fuel Tech had been backing up data to a Dell EMC Data Domain using Veeam. As the company refreshed its infrastructure, it changed its primary storage to a HPE Nimble system, and then decided to update the backup storage as well.

"We wanted to continue to use Veeam, but realized we needed newer technology; we wanted to find a solution that would be able to grow and adapt to our needs in the future," said Rick Schulte, systems administrator at Fuel Tech.

"We looked into another Data Domain system, but realized the technology hadn't changed much, so we decided to look at what other options were out there on the marketplace. Throughout our research, ExaGrid kept popping up as one of the newer and more flexible backup storage systems, and as we learned more about it we realized it would meet our needs, both in terms of storage capacity and in functionality."

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 (DR).

ExaGrid's Flexibility Fits Long-Term Plans

Fuel Tech installed an ExaGrid system at its primary site that replicates to another ExaGrid system at a secondary location.

"We currently have a lease on our rack space at a remote data center, but our long-term goal is to transition our offsite data to the cloud. ExaGrid's

flexibility in terms of system configuration was a major reason we chose the solution. We're hoping that once we are able to replicate to a virtual ExaGrid appliance in the cloud, we can expand our existing ExaGrid system at our primary site with the physical ExaGrid appliance that is currently at our secondary site. It will be a huge financial benefit to eliminate that cost of leasing a rack space at our offsite data center, and it will be nice to not worry about the hardware that's out there," said Schulte.

ExaGrid's onsite appliances can replicate data for DR to the public cloud, such as Amazon Web Services (AWS). All data that is DR data is stored in AWS. A virtual ExaGrid that runs in AWS on an EC2 instance takes in the replicated data and stores it in S3 or S3 IA. The physical primary site ExaGrid replicates only deduplicated data for WAN efficiency to the virtual ExaGrid in AWS. All ExaGrid features working include a single user interface for onsite and offsite DR data, bandwidth throttling, WAN encryption, and all other ExaGrid features.

Reliable System Provides Better Backup and Restore Performance

Schulte backs up Fuel Tech's data on a daily basis and has been pleased with the backup performance. "The memory capacity that's built into ExaGrid allows for much quicker backups than we were getting before. We're also able to restore data in a matter of minutes, and it's very easy to access the files or servers we need to restore," he said.

ExaGrid writes backups directly to a disk-cache 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 for a strong recovery point (RPO). As data is being deduplicated to the repository, it can also be replicated to a second ExaGrid site or the public cloud for disaster recovery (DR).

System Maintenance 'Seamless' with ExaGrid Support

Schulte appreciates ExaGrid's approach to tech support. "Our ExaGrid support engineer is our single point of contact for all of our ExaGrid needs. He's excellent to work with; he's proactive with keeping our system up to date and he's responsive whenever we have a question. With his help, system maintenance is seamless and it's nice that we don't have to work on it by ourselves," he said.

"Since switching to ExaGrid, I haven't had to deal with the constant issues that came up when I had worked with the aging Data Domain hardware. We haven't had any problems with our ExaGrid system and that's eased my mind; it's doing its job so I can get on with the rest of my work without worry," he added.

The ExaGrid system was designed to be easy to set up and operate. ExaGrid's industry-leading level 2 senior support engineers are assigned to individual customers, ensuring they always work with the same engineer. Customer's never have to repeat themselves to various support staff, and issues get resolved quickly.

ExaGrid and Veeam

Veeam's backup solutions and ExaGrid's Tiered Backup Storage combine for the industry's fastest backups, fastest restores, a scale-out storage system as data grows, and a strong ransomware recovery story - all at the lowest cost.

About ExaGrid

ExaGrid provides Tiered Backup Storage with a unique disk-cache Landing Zone that enables fastest backups and restores, a Repository Tier that offers the lowest cost for long-term retention and enables ransomware recovery, and scale-out architecture which includes full appliances with up to 2.7PB full backup in a single system.

Learn more at **www.exagrid.com**.