Hoffman Construction Optimizes Data Protection with Veeam Backup & Replication on ExaGrid's Disk-Based Backup Appliance

HOFFMAN CONSTRUCTION COMPANY

> "The integration of Veeam Backup & Replication and ExaGrid's landing zone architecture is a winning combo for flexibility and scalability."
>
> **Kelly Bott**
> **Field Technician/**
> **Technical Specialist**
> **Hoffman Construction**

Customer Overview

In business for more than 80 years, Hoffman Construction Company is one of the largest general contractors in the United States, building civic, commercial and industrial facilities throughout the northwestern U.S.

The Business Challenge

Hoffman Construction Company has seen tremendous growth in its IT infrastructure over the last three years, almost doubling the responsibilities of its IT team. Based at the headquarters in Portland, Oregon, the IT team supports approximately 600 users who need continuous access to servers and data over WAN connections.

"The job of protecting and archiving our data is a tremendous challenge," said Kelly Bott, field technician for Hoffman Construction Company. "Prior to the ExaGrid/Veeam solution, I was using up half my SAN just for storage, and we didn't have any replication, so it was risky if the SAN went down," he said.

"We support everyone, from corporate office staff members to engineers and supervisors in far-flung trailers in the middle of a field," said Bott. "We have to ensure that all of our users, particularly those in field operations, have adequate connectivity, whether they're using VPN, DSL or microwave links."

Hoffman Construction Company began the move to virtualization in late 2010, with five VMware ESX hosts and 60 virtual machines (VMs). Initially, the IT team used VM snapshots backed up to tape and stored on a SAN as its backup strategy. At the time, the team felt there might be a more efficient way to ensure continuous data protection and facilitate easy data recovery. An outside consultant suggested Veeam® Backup & Replication™.

"We downloaded a trial copy of Veeam Backup & Replication and were simply amazed at the capabilities it offered," Bott said. "We found a comprehensive solution that maximizes the protection of our virtual infrastructure. We have never regretted the decision to use Veeam."

The Veeam/ExaGrid Solution

Hoffman Construction Company first installed Veeam Backup & Replication, and found it to be an ideal solution because it's built specifically for virtual environments and provides fast, reliable backup and recovery for their VMs. In addition, the IT team can automatically verify the recoverability of every backup, a capability Veeam calls SureBackup™.

With Veeam Backup & Replication, backup speed has significantly increased. "Prior to installing Veeam, it took at least six hours to recover one Microsoft SQL Server database, but we now do that in less than half the time," Bott said.

Veeam's On-demand Sandbox feature has been especially important to Hoffman. According to Bott, "We didn't have a test environment prior to Veeam, and this has become a huge asset. It gives us the ability to run VMs from backups in an isolated environment. With this capability, we have a working copy of the production environment for troubleshooting, testing and training. It's magic."

Initially, Hoffman's VMs and the Veeam backups were stored on the same SAN. Storage took up at least half the SAN, which restricted its ability to add more VMs if needed. The IT team discovered that Veeam and ExaGrid have a special configuration that pairs Veeam Backup & Replication with

EXAGRID™

ExaGrid's unique landing-zone architecture to deliver fast, reliable backups and efficient data storage and retrieval.

The ExaGrid appliance, maintains the most recent Veeam backups in their original formats. The ExaGrid technology and architecture, operating in tandem with Veeam Backup & Replication, lets the IT team recover and run an entire VM directly from ExaGrid's disk-based backup storage. While most deduplicating storage only retains a deduplicated copy, often resulting in limited functionality, ExaGrid's architecture allows Hoffman to fully leverage Veeam Backup & Replication's Instant VM Recovery feature — which restores an entire VM from backup in a matter of minutes — to minimize downtime and disruption.

The Veeam and ExaGrid configuration has already had a significant impact on Hoffman's business. "We recently had a major SAN crash and lost all the data stored on our VMs," Bott explained. "Thanks to the Veeam and ExaGrid solution, we were able to restore 100 percent of our VMs almost instantly, with no disruption to our users, and a real catastrophe was avoided. We are confident that our data is protected in the event of a failure. That's peace of mind on a large scale."

Veeam and ExaGrid also facilitate on- and off-site backups that will grow as Hoffman continues to prosper. The IT team can simply plug in more ExaGrid systems to create a larger virtual pool of storage without additional expense and ongoing configuration and management issues. Veeam Backup & Replication recognizes this additional storage, as data loads are automatically balanced across all servers. The additional ExaGrid systems do not affect performance, since processing power, memory, and bandwidth are added along with storage capacity,

"ExaGrid's backup appliance works seamlessly with Veeam Backup & Replication," said Bott. "The combined solution gives us the best of both worlds by allowing us to take advantage of Veeam's backup capabilities andExaGrid's disk-based backup system. The net result is fast, reliable backups, high availability of our virtualized environment, and efficient data storage."

The Results

Provides fast, reliable and verifiable backups
Before the IT team at Hoffman Construction Company deployed Veeam Backup & Replication, the backup of one database took six hours to complete. With Veeam, that can be accomplished in less than three hours, with verified recovery of every backup at any time.

Ensures efficient data storage and improved data protection
When Hoffman first began using Veeam Backup & Replication, backups were stored on the same SAN as the VMs, and storage used over half the available space. Now, with the integrated solution that pairs Veeam with ExaGrid, Hoffman realizes a 4:1 compression ratio and has fast, reliable backups coupled with efficient data storage and retrieval.

Provides scalability to cost-effectively meet future business needs
As Hoffman's data grows, ExaGrid's scalable architecture allows the IT team to plug in additional ExaGrid systems to create a larger virtual pool of storage without sacrificing performance. Veeam Backup & Replication automatically recognizes and takes advantage of the additional storage. Together, ExaGrid and Veeam enable backups to grow without additional expense and ongoing configuration and management issues.

ExaGrid and Veeam

The combination of ExaGrid's disk backup with deduplication appliance and Veeam's industry-leading virtual server data protection solutions provides fast backups and efficient data storage as well as offsite replication for disaster recovery in VMware, vSphere, and Microsoft Hyper-V virtual environments.

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. ExaGrid and Veeam also offer the ability to instantly recover a VMware virtual machine by running it directly from the ExaGrid appliance in the event of a primary storage outage or other issue that causes the primary storage VM to become unavailable. Once the primary storage environment has been brought back to a working state, the VM running on the ExaGrid appliance can then be restored to primary storage for continued operation. This is possible because of the presence of ExaGrid's "landing zone" – a high-speed cache on the ExaGrid appliance that retains the most recent backups in complete form.

For more information about ExaGrid, please visit us at www.exagrid.com or call us at 1-800-868-6985.