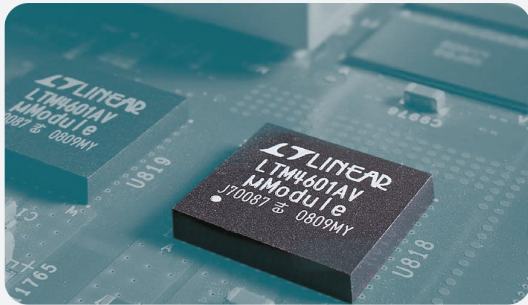




#1 VM Backup

Veeam ONE

Manufacturer Back Online in Minutes Following SAN Crash



"Veeam Backup & Replication is like electricity. You don't need to spend time worrying about where it comes from, you just have confidence that when you turn it on, it will work."

— Dan Birnseth
Network Systems Administrator
Linear Technology

INDUSTRY:

Manufacturing

COMPANY:



Linear Technology Corporation, in business for more than 30 years, designs and manufactures a broad line of high performance integrated circuits for major organizations worldwide. The company's products provide a bridge between the analog world and the digital electronics in communications, networking, industrial, automotive, computer, medical, and military and aerospace systems.

CHALLENGE:

Find a solution that protects data and improves the ability to recover should a mishap occur.

The Business Challenge

Linear Technology operates a manufacturing facility in Camas, Washington and maintains corporate headquarters in Milpitas, California. The manufacturing plant operates 24/7 in a nearly paperless "clean" environment. Like any modern manufacturing facility, most factory systems are automated. Thus, if systems go down or the IT infrastructure is compromised, manufacturing grinds to a halt.

Dan Birnseth, Network Systems Administrator for the plant, is a one-man IT team. He supports the data center that runs all IT operations for more than 300 users in the Camas facility. Approximately 60 percent of the infrastructure is virtualized and includes two VMware ESXi hosts running on Dell servers. More than 70 percent of the 11 virtual machines (VMs) are Windows servers running Microsoft SQL Server, IIS Server, and various automated applications. The other VMs are Linux/Unix servers. Initially, VMs were backed up with manual scripts, just like the 16 physical servers that collect and analyze shop floor data.

"Manual scripts were sufficient for our physical servers, so we thought we could use them for our VMs," Birnseth explained. "Only a small percentage of the data actually changes each day, so our strategy was to back up only the changed files and rebuild a VM if it was ever lost. A two-step backup method for SQL Server included backing up to a secondary disk, then to tape. It was a cumbersome process that didn't address timely rebuilding of multiple servers if critical hardware failed."

Birnseth recognized that manual scripts and tape backups were not the most efficient way to safeguard systems. "I realized that I needed a solution that was specifically designed for a virtual environment so that I could quickly recover a VM," he said.

Birnseth began looking for alternative solutions that met specific criteria. First, he wanted one technology that would provide one-step backup. Next, he required a solution that would automatically back up all VMs in his environment. He also needed VMware monitoring and reporting capabilities.

"We ran into roadblocks as we evaluated products," Birnseth said. "Some were difficult to use and didn't work as advertised. Others had very poor product support and we could never get them running. And then we found Veeam."

Veeam partner Mosaic Technology suggested that Birnseth try Veeam® Backup & Replication™. "We offer only best-of-breed products, and know that Veeam uses superior technology," said Chris Tietz, Account Executive at Mosaic. "Our customers like it because it works. Dan was becoming increasingly frustrated, so we suggested he try Veeam."

"I installed Veeam and was impressed by the simplicity and ease-of-use," Birnseth said. "It delivered everything I needed."

To learn more, visit: www.veeam.com

SOLUTION:**Veeam Backup & Replication™
and Veeam ONE™****RESULTS:**

- Fast, reliable backups support 24/7 IT systems and ensure business continuity
- Easy-to-use technology streamlines backup and recovery
- VMware monitoring and automated reports optimize resource configuration and usage

**ABOUT MOSAIC
TECHNOLOGY**

Mosaic Technology provides IT infrastructure solutions to small, medium, and large businesses around the world. Its consultants and service professionals help companies plan, develop, and implement customized IT solutions for VDI environments, data storage, data management, email, and more. Mosaic is an authorized reseller and implementer of business solutions from, Dell, Microsoft, VMware, Dell EqualLogic, Veeam, Intel, Symantec, Akorri, Liquidwarelabs, Arruba, Wyse, SilverPeak, and other leading vendors. Based in Salem, NH, Mosaic Technology has sales and technical offices throughout the United States and worldwide.

The Veeam Solution

Veeam Backup & Replication proved its worth almost immediately. Very soon after installing Veeam, the plant's SAN crashed. "We lost 100 percent of the data stored on the SAN," Birnseth recalled. "Thanks to Veeam's Instant VM Recovery capability, we were able to restore critical machines in minutes and were fully restored within 48 hours. If not for Veeam, we would have been in serious trouble."

On a day-to-day basis, Veeam simplifies Birnseth's backup process, with much faster, more frequent backups. "I never had daily backups of machine images because it took too long," he explained. "Now I can back up every server, every day in a few hours. And backup for our VMs is easier than the manual scripts we use for our physical servers. I can use an image-level backup to recover at any granularity, from an individual file at any point in time to an entire VM. I can also designate how often each machine is backed up."

The deduplication and compression features are essential. Veeam cuts backup storage and network bandwidth requirements by compressing backup data. According to Birnseth, "It used to take at least five terabytes of storage to back up a week's worth of data. Now we can back up the same data in less than two terabytes of disk space."

Because monitoring and reporting on the VMware environment are also important, Birnseth installed Veeam ONE™ for an easy-to-use solution that provides real-time monitoring, change tracking and documentation. "Veeam ONE's monitoring and performance analysis found problems – such as inefficient use of CPUs – that we didn't even know we had," Birnseth said. "We benefit from scheduled daily reports that catalog VM changes, and monthly reports that document trends and memory usage."

Birnseth is now confident that his data is secure. "Anyone looking for data protection should try Veeam," he said. "I've evaluated many products and Veeam is the best. Veeam not only provides a solid backup of data, it also acts as a temporary virtual hardware backup in case of SAN trouble. In fact, because it works so well for the manufacturing facility, our corporate office is now using Veeam Backup & Replication with great success."

The Results**Fast, reliable backups support 24/7 IT systems and ensure business continuity**

Linear Technology's manufacturing facility operates 24/7 in a clean environment that is highly automated. Any disruption has a serious impact on the company's business. Veeam ensures that there is no downtime while crucial data is backed up, and restores VMs quickly should a crash occur.

Easy-to-use technology streamlines backup and recovery

Prior to installing Veeam, Birnseth used manual scripts and tape backups to safeguard VMs and SQL Servers. With Veeam, he has one tool for all backups that is easy to use, and he can retrieve a single file or an entire VM quickly.

VMware monitoring and automated reporting optimize resource configuration and usage

With Veeam ONE's comprehensive view of the entire virtual infrastructure, Birnseth can easily monitor performance and analyze the environment. Veeam's automated reports generate documentation so he can review changes and ensure the virtual environment is functioning efficiently.

About Veeam Software

Veeam® Software develops innovative solutions for VMware vSphere and Microsoft Hyper-V **virtualization management** and data protection. Veeam Backup & Replication™ is the #1 **VM Backup** solution. **Veeam ONE™** is a single solution for real-time monitoring, documentation and management reporting for virtual environments. **Veeam Management Pack™** and **Veeam Smart Plug-in™** extend deep monitoring to VMware through Microsoft System Center and HP Operations Manager. Learn more by visiting www.veeam.com.

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