



## AVAILABILITY™ for the Modern Data Center

# Veeam Helps Vodafone Netherlands Ensure 24x7 Availability of Telecommunication Services



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— *Jan Spapens*  
*Senior Program Manager*  
*Technology Enterprise Solutions*  
*Vodafone Netherlands*

**INDUSTRY:**  
**Telecommunications**

**COMPANY:**



**vodafone**

As one of the world's largest telecommunications companies, Vodafone provides a range of services including voice, messaging, data and fixed communications. Vodafone has mobile operations in 26 countries, partners with mobile networks in 52 additional countries and fixed-broadband operations in 17 markets. By the end of June 2014, Vodafone had 436 million mobile customers and 9 million fixed-broadband customers.

## The Business Challenge

Vodafone Netherlands operates in a dynamic and competitive environment that requires fast adaptation to customers' changing needs. To automate business operations such as telecommunications delivery, customer support and billing, Vodafone virtualized the IT infrastructure on VMware vSphere. However, protecting the production environment became more difficult as the infrastructure approached 90% virtualization and the number of virtual machines (VMs) increased. At the same time, yet unrelated to virtualization, the customer base grew and data tripled. Vodafone's legacy backup and monitoring tools couldn't keep pace, resulting in slow backup and recovery.

The vSphere environment has hundreds of VMs spread across multiple data centers in the Netherlands that run Microsoft SQL Server, Oracle, SAP, Zend Server and a proprietary back-office portal and service navigator. HP ProLiant servers host HP StoreVirtual VSA storage.

"Only a limited number of VMs could be backed up daily, and they were strictly production VMs," said Jan Spapens, Senior Program Manager, Technology Enterprise Solutions, Vodafone Netherlands. "Backup jobs failed about once a month, requiring us to spend time trying to access our backups. We had no easy way to perform file-level recovery and no clear way to monitor unprotected VMs."

Vodafone put together a list of requirements for data protection and VM management, and Nikola Stojanovski, Technical Specialist, Vodafone Netherlands, reviewed several backup solutions to find the right match.

"Veeam was a perfect fit for us," Stojanovski explained. "We needed the best data protection for our production environment, and Veeam offers frequent and reliable backup, storage integration, a smaller storage footprint, high-speed recovery, replication for failover and improved monitoring and reporting. We didn't have to make any hardware investments, and Veeam integrates seamlessly with HP StoreVirtual."

**CHALLENGE:**

Legacy backup and monitoring tools couldn't scale as the IT infrastructure approached 90% virtualization, the customer count increased and data tripled.

**SOLUTION:****Veeam Availability Suite™****RESULTS:**

- Ensures consistent data center availability
- Avoids data loss through faster backup and recovery
- Provides complete visibility of backup jobs and resources

**The Veeam Solution**

Vodafone Netherlands deployed Veeam® Availability Suite™ across data centers to protect and manage the entire vSphere environment, including production and development VMs. Veeam helps Vodafone ensure high availability of virtualized applications and data—a key requirement for a telecommunications company that provides services 24x7. Vodafone is an always-on company, and Veeam helps Vodafone stay always on.

"Backups with Veeam are so fast that we can back up every VM every day—not only production VMs but also development VMs," Stojanovski said. This is a huge benefit for our development team because they require 24x7 access to their systems. With fast backup, we can also back up critical workloads more frequently."

Stojanovski said recovery with Veeam is not only faster but flexible too. The IT team couldn't recover individual files with its legacy backup tool, but with Veeam's Instant File-Level Recovery, the team restores individual files from any guest operating system and file system, directly from an image-level backup and without starting the VM. The team also uses Veeam to recover individual objects from any virtualized application, such as SQL databases, and Instant VM Recovery™ to restore a failed VM from a regular backup in just minutes.

"Instant VM Recovery was great when we encountered a problem with a corrupt root file during an operating system update," Stojanovski said. "Veeam provides much faster restore than our legacy backup solution, helping us return the necessary resources to production quickly. Another way we avoid disruption to our production environment is by testing new software in Veeam's Virtual Lab."

Backup and recovery performance will be further enhanced when Vodafone backs up VMs from HP StoreVirtual snapshots. Snapshots have little to no impact on VMs; therefore, many Veeam customers take backups from storage snapshots every 30 minutes to improve recovery point objectives (RPOs). To improve recovery time objectives (RTOs), they use Veeam Explorer™ for Storage Snapshots to recover VMs, files and application items quickly. Vodafone's next step is to leverage storage snapshots.

"I think most of the IT team would agree that our favorite Veeam feature is seamless integration with HP StoreVirtual," Spapens said. "I believe this integration will be one of the most useful aspects of our IT infrastructure."

For disaster recovery (DR), Veeam's replication capability is yet another useful feature, and it's part of Vodafone's future plans. If a production or development VM fails, Vodafone can immediately fail over to a VM replica, giving users access to the services and applications they need with minimal disruption while the IT team resolves the issue. While the replica is running, team members can either fail back to the production VM, to a new location or re-home a VM in the DR site. Veeam maintains multiple replica restore points so if the latest replica becomes corrupt, Vodafone can roll back to a previous restore point.

Veeam Availability Suite solved two more challenges that Vodafone encountered with its legacy tools. By combining deduplication and compression in Veeam with deduplication in Windows Server 2012 R2, Vodafone reduced its backup storage footprint by 2½ times. And, with Veeam's monitoring and reporting capabilities, Vodafone gained complete visibility of its vSphere environment.

"As soon as we installed Veeam Availability Suite we noticed variants in our legacy monitoring tool," Spapens said. "Veeam's comprehensive monitoring and detailed reporting are far more helpful. Two people on our team deploy VMs, and we're not always in sync. One of the reports gives us a clear view of which VMs are protected and which ones need to be backed up. Another report tracks the status of backup jobs, and a third report helps us assess performance and utilization. We used this report to decide whether incremental or reverse-incremental backup was the best option for a specific VM and datastore. Veeam is a great solution for virtualized infrastructures."

## The Results

### Ensures consistent data center availability

If Vodafone Netherlands loses production or development VMs, the IT team is confident Veeam Availability Suite will recover them quickly. When data was mistakenly removed from a cluster of VMs running Web servers, rendering them useless, Veeam restored the VMs from backup files quickly, with no impact on users. Veeam ensures an always-on operation.

### Avoids data loss through faster backup and recovery

With Veeam Availability Suite, backup is 80% faster and recovery is 5 times faster than the legacy backup tool. Before Veeam, backing up one of the 50GB VMs that runs Vodafone's Web servers took 10 minutes. With Veeam, backup takes 2 minutes, enabling Vodafone to back up the cluster more often. Before Veeam, recovering a VM took up to 25 minutes. With Veeam, recovery takes fewer than 5 minutes.

### Provides complete visibility of backup jobs and resources

Vodafone monitors and manages resources in its backup infrastructure with Veeam to ensure 24x7 availability of services. Not only does Veeam track protected and unprotected VMs and the status of backup jobs, it also assesses VM performance and resource utilization so the IT team knows when backup repositories are getting full.

## About Veeam Software

Veeam recognizes the new challenges companies across the globe face in enabling the Always-On Business™, a business that must operate 24/7/365. To address this, Veeam has pioneered a new market of *Availability for the Modern Data Center*™ by helping organizations meet recovery time and point objectives (RTPO™) of less than 15 minutes for all applications and data, through a fundamentally new kind of solution that delivers high-speed recovery, data loss avoidance, verified protection, leveraged data and complete visibility. *Veeam Availability Suite*™, which includes *Veeam Backup & Replication*™, leverages virtualization, storage, and cloud technologies that enable the modern data center to help organizations save time, mitigate risks, and dramatically reduce capital and operational costs.

Founded in 2006, Veeam currently has 27,000 ProPartners and more than 121,500 customers worldwide. Veeam's global headquarters are located in Baar, Switzerland, and the company has offices throughout the world.

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