

Civil Engineering Group Builds Framework for High Availability with Veeam and Hewlett Packard Enterprise Storage; Intensifies Competitiveness in RFPs



"Veeam and Hewlett Packard Enterprise give us tremendous confidence in our ability to recover quickly. Now we can tick the boxes in new business opportunities that we couldn't tick before—for DR strategy and business continuity — giving us the opportunity to target clients we might not have targeted in the past."

— Rod Blackie
Director
Soletanche Freyssinet IT UK

The Business Challenge

Data center consolidation is a popular strategy among enterprise companies operating many global sites. Converging computing resources into fewer locations boosts the productivity of IT assets, reduces costs and simplifies management. The Soletanche Freyssinet Group is a prime example of an organisation that consolidated computing systems to create an agile, highly available IT infrastructure that supports the changing needs of a dynamic business and delivers restore capabilities that make it far more competitive in requests for proposal (RFPs) requiring disaster recovery (DR) and business continuity readiness.

The convergence project began in France in 2013 and continued to the United Kingdom before moving west to North America. The UK operation consolidated IT systems in 25 autonomous sites to an IT infrastructure spanning two data centres. Nearly 100% of the infrastructure is virtualised on approximately 400 VMware vSphere virtual machines (VMs) containing 220TB of data. The VMs run critical applications including Autodesk Inventor (a 3D mechanical design tool), Microsoft Active Directory, Exchange, SQL Server, SharePoint and Oracle. The VMs also run databases that support vital business systems such as enterprise resource planning (ERP) and customer relationship management (CRM).

Industry

Architecture, engineering and design

Company



The Soletanche Freyssinet Group is a world leader in soil, structural and nuclear engineering. The group designs, builds, maintains and repairs a wide variety of structures on thousands of worksites around the world. Incorporated in 1956 and based in Rueil-Malmaison, France, the Soletanche Freyssinet Group operates in 100 countries and employs 21,500 people.

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Before the UK convergence project began, five different backup-to-tape tools were used among the 25 sites. The only commonality among the tools was their design. They were meant to back up physical environments but had been retrofitted to back up virtualised environments. VM backup and restore were extremely slow and unreliable, making DR unpredictable. Monitoring, alerting, reporting and capacity planning were non-existent.

"We had no confidence in backup and recovery and absolutely no visibility into the backup infrastructure," said Rod Blackie, Director, Soletanche Freyssinet IT UK. "Each site struggled to maintain availability of applications and data, making downtime a likelihood. Just a few hours of downtime could cost the business hundreds of thousands of pounds."

Blackie said internal service level agreements (SLAs) and recovery time and point objectives (RTPO™) had never been established because they weren't achievable.

"One thing had been established—Hewlett Packard Enterprise is one of our valued partners, so their solutions were part of our convergence plan," Blackie explained. "Our colleagues in France had deployed an availability solution that integrated quite well with Hewlett Packard Enterprise Storage, so we decided to deploy the same solution during the UK consolidation project."

The Veeam Solution

The UK operation deployed Veeam® Availability Suite™ in conjunction with Hewlett Packard Enterprise 3PAR StoreServ, Hewlett Packard Enterprise StoreOnce and Hewlett Packard Enterprise StoreEver MSL Tape Libraries. The result was an agile, highly available IT infrastructure that not only supports the changing needs of the business but also delivers restore capabilities that make the company more competitive in new business opportunities.

"Veeam and Hewlett Packard Enterprise give us tremendous confidence in our ability to recover quickly," Blackie said. "Now we can tick the boxes in new business opportunities that we couldn't tick before—for DR strategy and business continuity—giving us the opportunity to target clients we might not have targeted in the past. We've tested real-life disaster scenarios; and we know Veeam and Hewlett Packard Enterprise can pull us through quickly."

The UK operation uses Veeam to back up VMs in each data centre to Hewlett Packard Enterprise StoreOnce, achieving a deduplication ratio of 80% to conserve backup storage. Hewlett Packard Enterprise StoreOnce retains 1 year of backups to facilitate fast, local recovery with Veeam until Veeam copies backups to Hewlett Packard Enterprise StoreEver MSL 6480 tapes, which are transferred offsite. Veeam also replicates mission-critical VMs between data centres for DR.

Since the VMs reside on Hewlett Packard Enterprise 3PAR StoreServ, the UK operation makes backups from Hewlett Packard Enterprise storage snapshots. Backup doesn't impact the UK's production environment and its 2,100 users, so backups are made as often as needed to ensure an adequate number of restore points.

Hewlett Packard Enterprise

Challenge

The Soletanche Freyssinet Group converged IT systems across the globe to streamline business processes. The group's UK operation consolidated 25 sites to two data centres but had no confidence in VM backup and recovery and no visibility into the backup infrastructure. Just a few hours of downtime could cost the business hundreds of thousands of pounds.

Solution

Veeam Availability Suite

The UK operation deployed Veeam Availability Suite and Hewlett Packard Enterprise Storage solutions to create an agile, highly available IT infrastructure that supports a dynamic business and delivers restore capabilities that make it more competitive in new business opportunities.

Veeam backs up 220TB on nearly 400 VMs that reside on Hewlett Packard Enterprise 3PAR StoreServ to Hewlett Packard Enterprise StoreOnce. Backups are made locally at each data centre for fast recovery until Veeam copies them to Hewlett Packard Enterprise StoreEver MSL Tape Libraries that are transferred offsite. Veeam also replicates VMs between data centres for DR.

Recovery from storage snapshots is fast. Veeam Explorer™ for Storage Snapshots restores files and application items, and Veeam Instant VM Recovery™ restores entire VMs. When a SQL Server VM became corrupted after patching, Instant VM Recovery restored it quickly.

In addition to intensifying the UK operation's competitive advantage in new business opportunities, the combination of Veeam and Hewlett Packard Enterprise Software enabled three "firsts" beginning with the establishment of SLAs and RTPO. The UK operation also saved £50,000 in yearly tape costs because Veeam backs up to disk. Prior to Veeam, 110 tapes were used each month to back up data. The last "first" is visibility. Real-time monitoring and alerting notify the UK operation of backup and performance issues, while resource optimisation and capacity planning remove the guesswork from asset usage. Customised reporting provides concise pictures of resources and workloads.

"Veeam gives us complete visibility into our backup and virtual environments," Blackie said. "We're able to see and resolve issues before they become problems and impact our users and the business. That's one more way we can ensure availability."

The Results

- **Highly available IT infrastructure minimises expensive downtime and data loss**
Veeam Availability Suite and Hewlett Packard Enterprise Storage combine reliable backup and rapid recovery with flexible, scalable storage. The combined solution delivers high availability to the Soletanche Freyssinet Group, which minimises the risk of downtime and data loss. Just a few hours of downtime could cost the business hundreds of thousands of pounds.
- **High-speed recovery intensifies competitive advantage in new business opportunities**
The UK operation uses Veeam to make frequent backups from Hewlett Packard Enterprise 3PAR StoreServ snapshots for multiple restore points and recover from snapshots quickly. Multiple restore points and high-speed recovery enabled the UK operation to establish SLAs and RTPO for the first time and tick the boxes for DR strategy and business continuity in RFPs.
- **Complete visibility supports resource optimisation and proactive issue resolution**
Veeam Availability Suite gives the UK operation complete visibility and control of its backup and virtual environments. Using Veeam, the UK operation gains features it never had before—monitoring, alerting, reporting and capacity planning — that help detect and resolve issues before they impact users and business operations.

Results

- Highly available IT infrastructure minimises expensive downtime and data loss
- High-speed recovery intensifies competitive advantage in new business opportunities
- Complete visibility supports resource optimisation and proactive issue resolution

About Veeam Software

Veeam is the global leader in Intelligent Data Management for the Hyper-Available Enterprise. Veeam Hyper-Availability Platform is the most complete solution to help customers on the journey to automating data management and ensuring the Hyper-Availability of data.

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