



KEY HIGHLIGHTS

SEKTOR: PUBLIC TRANSPORTATION

**CHALLENGE**

To make the IT system secure and minimize the impact of any system outage.

SOLUTION

Implementation of a Disaster Recovery Plan (DRP) using vCenter Site Recovery Manager (SRM).

RESULTS

- Facility for restarting the system in 12 minutes rather than in a minimum of 4 hours
- Data loss estimated at less than 3 minutes instead of 48 hours
- Energy savings estimated at more than 80%

VMWARE TOOLS

- VMware ESX 3.5
- VMware vCenter server 2.5
- VMware Workstation 5.5
- VMware Server
- VMware vCenter Site Recovery Manager

“vCenter Site Recovery Manager (SRM) offers the benefit of being customized for the virtual infrastructure installed and of facilitating quick and simple implementation, thus providing a proper safeguard for our company’s assets.”

Olivier Parcollet, systems and network administrator at SETAO

SETAO produces its Disaster Recovery Plan (DRP) using vCenter Site Recovery Manager (SRM)

SETAO is responsible for public transport and runs the tram and bus network in the city of Orleans and outlying areas. The company carries more than 100,000 passengers every day. It therefore needs to have an IT system with a high level of availability to facilitate conditions for carrying passengers and to inform them in real time of the current traffic conditions.

In view of the critical public service duty involved in ensuring a service is provided 22 hours a day, 364 days a year, SETAO’s management decided to embark on an overall policy of overhauling its IT system and making it more secure.

Olivier Parcollet, systems and network administrator at SETAO, had already opted for a virtual infrastructure using VMware Workstations and for migrating its servers using VMware. He therefore decided to consolidate this deployment by implementing a DRP (Disaster Recovery Plan) solution designed to work around in real time any kind of problem (buses and trams stopping, frequent problems with vandalism etc.), and fulfill the company’s public service duty within the local economic framework.

As a result, in April 2008, SETAO tested several solutions available on the market and ended up selecting vCenter SRM, available since early June 2008.

SETAO chose VMware for the following reasons:

- It was the simplest product to implement in the existing virtual and physical environment, and was up and running straightaway
- SRM offers the same operating mode as the VMware architecture already installed (standardization of solutions)
- SRM supports the storage hardware already installed.

By the end of 2008, SETAO has already tried out four outage scenarios, each of them successfully resolved in record time. vCenter SRM has therefore been implemented on 67 virtual machines, in other words, SETAO’s entire VM installed base.

As part of the project promoting the further structural development of the city of Orleans, with the main highlight being the construction of a second tram line between now and 2012, SETAO decided to implement a DRP intended to work around probable power cuts and tackle any malicious acts against the network, which covers more than 24 kilometers.

vCenter SRM can provide real-time security for all SETAO's business-critical applications, such as its AVMS (Automatic Vehicle Monitoring System), its website or even Mobi Trans, its timetable service for cell phones. It can also ensure continuity in the operation of its public transport network.

vCenter SRM has also enabled SETAO to ensure that it can continue its Green campaign. Since 2003, this campaign has marked a real commitment undertaken by each department in the company to meet ISO 14000 standards (particularly with regard to choice of fuels, waste disposal etc.). vCenter SRM has enabled SETAO to get rid of a significant energy cost, and it is currently looking at regrouping several client workstations, particularly on blade servers.

In the near future, as a result of the Green campaign, SETAO will also be investing in the virtualization of its 300 workstations or so in order to simplify and make its infrastructure more secure. This will also mean replacing full-size workstations with thin clients, offering energy consumption savings that are glaringly obvious.

“With its broad range of products, VMware allows you to be imaginative and therefore aim high so that you can continually upgrade your IT system. Starting off with an initial problem linked to migrating our servers, VMware enabled us to upgrade to a virtual architecture capable of offering us a DRP, and will enable us soon to move on to virtualizing our workstations”

Olivier Parcollet, systems and network administrator at SETAO

Results:

- Total recovery of operations in 12 minutes
- Data loss estimated at less than 3 minutes
- Standardization of IT infrastructure
- Energy savings
- High availability of IT system and critical applications
- Simple, rapid implementation
- Permanent safeguard for the company's assets

ENVIRONMENT DEPLOYED (THE DATA PROVIDED BELOW ARE GIVEN AS AN EXAMPLE)

- 12 physical processors
- 1 V.C 2.5 server license
- Linux Fedora Core 4
- 1 VCB Netbackup server
- 1 Netbackup server
- NDMP & VCB
- 8 Dell 1950 machines – dual QuadCore (32 GB RAM)
- Fedora Core 4 25-node Linux cluster

VIRTUALIZED APPLICATIONS IN OPERATION

- Customized AVMS (Automatic Vehicle Monitoring System) tool that helps manage the gaps between two vehicles to optimize the use of existing infrastructures regulating the traffic. It is also used for providing customers with real-time information at tram stations, on trams, buses, and via cell phones.
- Mobi Trans (tram and bus timetable service for cell phones)

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