



"FalconStor VTL and data deduplication technology has helped us to realize our ambition of decreasing energy consumption in the data center."

– Veronica Anllo, IT Administrator, Cegedel

Cegedel

Leading energy provider creates a greener IT environment using FalconStor VTL and deduplication solutions

Background

The 'Compagnie Grand-Ducale d'Électricité du Luxembourg', commonly known as Cegedel, was founded in 1928. The mission of the Luxembourg-based company is to procure, transport, and distribute electricity within Luxembourg reliably and at competitive prices. Cegedel covers nearly 70% of the country's electricity needs. Approximately 500 people are working for Cegedel and Cegedel Net, the grid operator.

Cegedel is committed to extending its scope and to embracing new and renewable energy sources (such as hydropower, solar radiation, wind, and biomass) as well as cogeneration plants (technology that produces electricity, steam, and cold). "When we needed to redesign the network, energy efficiency played an important role in our decision," says Veronica Anllo, IT administrator and project leader for networking modernization at Cegedel.

Challenge

A five-year data center networking strategy recently came to its end and Cegedel had to re-establish their data center strategy for a new era. "The data of the company is growing very quickly," said Anllo. "We had to find a solution that would take us through the next five years and beyond."

"We used to do a backup at the remote site and then copy data to the other site," Anllo explains. "The LAN was overused; there was too much traffic." In addition, Cegedel wanted to foster a greener IT environment, in line with the company's mission of reducing its carbon footprint and supporting renewable energy. With almost 400TB of total data to back up, the company decided to redesign its backup processes and strive for LAN-free backup.

Industry

Energy

Company Profile

The 'Compagnie Grand-Ducale d'Électricité du Luxembourg' (Cegedel) was founded in 1928. The Luxembourg-based company provides transportation, distribution, and electric power to the Grand Duchy of Luxembourg. Cegedel covers a total of 69.3% of the country's electricity needs. Cegedel and Cegedel Net employ approximately 500 people on its staff.

IT Environment

- > 400TB backup capacity
- > 80 VMware virtual machines
- > HP environment
- > SAP, Microsoft Exchange Server 2007 and SQL Server
- > 3 Oracle servers

Challenges

- > Data growing year over year
- > Too much LAN traffic
- > Too many physical tapes

FalconStor Solution

FalconStor® Virtual Tape Library (VTL) with integrated data deduplication

Benefits

- > Fast and efficient LAN-free backup
- > Reduced carbon footprint for a greener infrastructure
- > Nearly 400TB of logical data stored on 10TB of disk
- > Scalability of virtual tapes, tape drives, and libraries without additional IT investments
- > Minimize software and hardware costs for optimal return on assets (ROA)
- > Physical tape backup reduced to once a month

FalconStor Solution

Together with Comparex, Cegedel's partner in data center solutions, the company put a virtualization strategy in place using VMware technology and embarked on redesigning its storage and backup processes.

Comparex recommended the FalconStor® Virtual Tape Library (VTL) solution with integrated data deduplication for its extensive functionalities including emulation of tape libraries, clustering with failover, replication, redundant data elimination, tape caching, and TOTALLY Open™ architecture, which offers hardware flexibility in a virtualized environment. "Comparex offered us the perfect solution with FalconStor technology and its TOTALLY Open™ architecture," said Anllo.

Deployment Details

According to Anllo, the company maintains two sites, including a remote disaster recovery (DR) site, with matching configurations. Both have a proxy server, backup server, and a FalconStor VTL solution with integrated deduplication. Cegedel has virtualized its servers, tapes, and disks to reduce traffic on the LAN.

Business Benefits

"We reached the goals that were set at the start of the project, that is, having our backup data available in two locations," Anllo begins. "FalconStor VTL is the ideal solution for data protection for our VMware servers."

She continues: "We were able to reduce network bandwidth consumption through the use of FalconStor data deduplication." Only new unique blocks are copied to the DR site, with a deduplication ratio averaging 36 to 1. This is particularly valuable considering that she and her team must perform full system backups to comply with company policies. "In our network we have about 392TB of backup data. Thanks to FalconStor deduplication technology, we only need around 10TB in order to store it."

Where the company's backup once extended into the day, it can now completely back up as much as 6TB each night. After the company performs nightly backups to the FalconStor VTL disk buffer, data is written to physical tape through integration with the physical tape library. This empowers Cegedel with both the reliability of disk and the simplicity of tape, with complete flexibility.

"With this new configuration, we can safely say that our IT infrastructure is greener," surmises Anllo. "First we had a large physical tape library; now we have a small tape library, based on ITIL 3, with only 48 physical tapes. The other tapes are all virtual, thanks to the FalconStor VTL solution. Our database is stored on physical tape, and we only need to do this once a month. We now produce a much smaller carbon footprint."

Future Plans

FalconStor VTL technology allows the company to add as many virtual tape drives and libraries as needed without requiring additional hardware or software investments. Because of this unlimited scalability, Cegedel is fully prepared for future data growth.

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