

Telenor Group

The Telenor Group standardizes and optimizes backup environment at Hungary unit with Micro Focus Data Protector and Micro Focus Backup Navigator.

Overview

Telenor Group is one of the world's leading international telecommunications providers, with more than 214 million subscribers in 13 markets. Its subsidiary, Telenor Hungary, replaced its sprawling backup system with a centralized Micro Focus solution. This provided cost-effective oversight of hundreds of terabytes of data, ensuring Telenor Hungary complied with audits.

Challenge

Like any large company, Telenor Hungary must keep track of a growing volume of data. Yearly audits check internal controls over financial reporting, which requires the company to quickly identify failed data backups. However, prior to 2016, the backup systems in use were making this difficult.

The company needed to back up tens of terabytes of data every day. This included email, and other data created by up to 100 applications for managing customer billing and payroll, as well as many other tasks. Telenor Hungary handled this data using a range of applications, including a data warehouse, Microsoft SQL Server, Microsoft Exchange, and Oracle databases, and across a range of Windows, Unix and virtual platforms.

As the volume of this data increased, it became more challenging for Telenor Hungary to meet service level agreements. For example, the company needed to complete critical backups quickly, but it took 20 hours to back up a 20 TB billing system each day.

Telenor Hungary did not have a single tool capable of backing up everything. As a result, it had implemented seven different backup applications over the past decade. These included its main backup solution—IBM Tivoli Storage Manager—native database and operating system backup mechanisms, customized scripts, and other solutions for backing up its data warehouse and virtual hosts.

The number of backup tools made it difficult to diagnose problems. To find out if backups had failed, IT staff members had to collect logs from each of the seven backup applications. This process could take up to two hours and could interrupt scheduled backup sessions. If this occurred, staff members had to perform those backups again, potentially interrupting prescheduled backup and restoration processes. This reduced the time they could spend performing other tasks.



At a Glance

- **Industry**
Telecommunications
- **Location**
Hungary
- **Challenge**
To consolidate and improve the performance of the company's backup applications
- **Products and Services**
Data Protector
Backup Navigator
- **Success Highlights**
 - + Increased speed of Microsoft SQL Server and file system backups by 20 percent faster
 - + Reduced time to identify backup failures from 2 hours to 15 minutes
 - + Centralized reporting removes need to manually sort through backup logs + Lower backup support and management costs

Telenor Hungary also wanted to improve data backup and restoration efficiency. Slow tape libraries and drives affected backup, restoration, and application performance. Managing backups was expensive and time-consuming. Wanting to improve the performance and reliability of its existing backup system, the company looked for a new backup solution.

Solution

In 2016, Telenor Hungary began consolidating and optimizing its backup environment.

The company chose Micro Focus' backup solution—a decision that took into account more than just technical considerations, says Tamás Lepenye, Telenor Hungary's Head of IT Service Experience Delivery Office, Business Value Sustainability Department. "We didn't choose Micro Focus purely from a technical point of view, but also due to their local experience and willingness to work together with us," Lepenye says. Telenor Hungary also regarded the Micro Focus solution as cost-effective.

To reduce the number of backup applications, the company chose Micro Focus Data Protector, which centralizes management of the backup and recovery of myriad data types stored on different systems. Data Protector replaced many of Telenor Hungary's existing backup tools, including IBM Tivoli Storage Manager.

To identify backup problems more quickly, Telenor Hungary also purchased Micro Focus Backup Navigator. The software uses data analytics to provide detailed reports about many aspects of backup and recovery systems, based on more than 75 key performance indicators. To speed up backups and reduce the number of failures, Telenor Hungary stopped using tapes for primary backups. Instead, it began backing up data to disk first, then later archiving the same data to tapes. It purchased a StoreOnce 6500 Backup disk appliance with

470 TB of disk capacity, and stored its data on the appliance as a virtual tape library. This hardware worked with Data Protector to deduplicate data, reducing the amount of storage required. Micro Focus guaranteed the rate of deduplication and the time it would take to complete certain backups.

The company kept its existing tapes and added StoreEver MSL6480 Tape Library, which contains 12 LTO-6 drives with 6.5 TB per drive, and 472 cartridge slots. It kept its old backup solution for archival purposes.

Telenor Hungary worked closely throughout the delivery of the solution with Micro Focus, independent IT consultant and project manager István Kerese, and Micro Focus partner Axis. They deployed a pilot system to find the optimal backup configuration.

Telenor Hungary then identified, classified, and prioritized the applications and data to migrate to the new backup platform. Next, the company migrated the list of systems and backup policies to be backed up, starting with those expected to take longer to back up. It also analyzed and optimized dozens of backup parameters, such as the size of data blocks, the size of data segments, and agent buffers.

This ensured optimal performance when backing up different applications running on different platforms and devices. Tests confirmed that the new backup solution met performance requirements and service level agreements. Micro Focus also provided training courses and training time with its product experts.

The involvement of all these parties ensured the project proceeded smoothly, says Kerese. "Technological capability is important, of course, but there are many additional factors in the success of a project like this. Managing this project was straightforward because we

had all these participants, including cooperative staff members on the customer's side," Kerese says.

This cooperation meant that by the time the pilot was complete, Telenor Hungary could complete the full rollout itself. Kerese and Axis provided support during the final rollout.

Results

Addresses Compliance Risks

The solution will help address compliance with Europe's General Data Protection Regulation (GDPR), although Lepenye says the GDPR was not a reason for undertaking the project.

"The solution provides the necessary capacity, performance, and management features to achieve compliance with accounting audits, while demanding only a fair amount of resources to operate," says György Fajt, Telenor Hungary Senior IT Infrastructure Specialist, Operations IT Infrastructure.

Saves Time and Lifts Productivity

The IT team is saving hours each week because it is spending less time managing the backup process. The solution speeds up the management of backups in two ways.

First, centralized management tools allow Telenor Hungary's IT team to identify backup failures more quickly. Instead of spending an hour or more sifting through backup logs from multiple applications, Backup Navigator reports alert them to any problems. These reports show the most unreliable devices and provide a timeline showing when each error occurred. Identifying problems earlier also reduces interruptions to backup and restoration.

Backup Navigator also works with Telenor Hungary's support ticket system to streamline the IT team's response to problems. Using this

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approach, the team can identify and respond to backup failures in 15 minutes. “Now we can make certain our experts will take care of incidents quickly,” says Lepenye.

In addition, the monitoring software lists each device’s rate of data transfer and the session flow for each backup client. The IT team can proactively monitor the load on the backup system, and use Backup Navigator to check capacity to avoid running out of storage.

Second, the StoreOnce Backup appliance allows the IT team to back up and recover data quicker. They can back up the Microsoft SQL Server database 20 percent faster than was previously possible, and Microsoft Exchange

database backups are 10 percent faster. The solution is also 20 percent faster at backing up and recovering the company’s file system than the old tape system.

Lowers Costs

Telenor Hungary will not need to spend as much on backup storage in the future because deduplication is reducing the size of its backups. This has shrunk the size of the StoreOnce Backup virtual tape library and reduced the number of physical tapes needed for long-term archiving.

Telenor Hungary’s support costs are also significantly lower now that it has unified its backup solution.