



## NORWEGIAN POST AND TELECOMMUNICATIONS AUTHORITY EXTENDS STORAGE MANAGEMENT REACH WITH COMPELLENT



Much like the Federal Communications Commission (FCC) in the United States, the Norwegian Post and Telecommunications Authority (NPTA) is chiefly responsible for the regulation of the postal and telecommunications sector in Norway. The duties tasked to the NPTA include the planning and distribution of telecommunications frequencies, the

supervision of Internet service providers, standardization initiatives and the governance of the Norway Post.

With a small staff, the IT group of the NPTA found it challenging to manage the organization's growing storage needs. "As a regulatory agency, we generate a large amount of paperwork that needs to be sorted and filed. A high level of integration means external agencies—like the Directorate for Civil Protection or Emergency Planning—might rely on the performance of our systems," says Johan Henrik Kram, IT advisor for NPTA. "We kept running out of storage, so applications like Microsoft Exchange were suffering. That frustrated end users and threatened our relationships with those external constituents."

The NPTA IT group tried what Kram describes as a "SAN look-alike," but found that it lacked the flexibility the agency needed. "Every time we tried to make the system more dynamic, we were faced with, 'Oh, you can't do that. You can't do that. You can't do that,'" adds Kram. "We got fed up and set out to find a system that could."

After investigating options from an array of vendors, NPTA chose the Compellent® Storage Center™ storage area network (SAN). "As a government agency, it's not easy for us to hire extra personnel, and I quickly saw that other storage systems would need an extra person to manage them," says Kram. "The superior ease of use and flexibility of Storage Center showed me that I could accomplish our goals without adding to my staff."



Post- og teletilsynet

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IT Advisor  
Norwegian Post and  
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### RESULTS REPORTED BY NPTA

- » Automated and expanded storage management without the cost of additional staff or complex training
- » Reduced storage provisioning time from a week to about an hour
- » Reduced overall storage management time to an hour a month
- » Provided improved visibility into how storage is being used, helping to avoid unplanned spending
- » Support for VMware controls spending by allowing independent upgrades to processing power and storage
- » Improved Microsoft Exchange performance

### OPERATING SYSTEMS

- » Microsoft Windows Server® 2003

### APPLICATIONS

- » Microsoft Exchange Server 2003
- » Oracle® database software
- » VMware ESX Server

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## EASY TO MANAGE

For Compellent customers, easy to use means being able to manage more storage in less time and accomplish even advanced storage tasks in under 10 minutes.

For Norwegian Post and Telecommunications Authority, easy to use meant rapid implementation, excellent customer support and more time to focus on IT initiatives that make the agency more efficient.

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“With the Storage Center administrative interface, you just click and it’s done. The day after our system was installed, I logged into the system to just play around. In only 20 minutes, I knew how to add a server.”

JOHAN HENRIK KRAM  
IT Advisor  
Norwegian Post and  
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## STORAGE CENTER EASE OF USE ALLOWS NPTA TO FOCUS ON IT DEVELOPMENT

The intuitive Storage Center interface automates time-consuming, repetitive storage management and capacity planning tasks, including logical unit (LUN) mapping and volume creation. “It took a matter of hours to get Storage Center up and running, and only about 30 minutes to connect a server to the storage,” says Kram. “I didn’t even need to read the manual.”

With less time spent managing and provisioning the agency’s storage, Kram and his team are able to focus on other IT initiatives. “By provisioning storage in 10 minutes instead of a week, I can better support efforts like digital archiving and virtualization,” says Kram. “Storage administration now requires only around an hour a month. I save additional time because other IT personnel on my team can now set up new servers and storage without involving me—and they didn’t need specialized training.”

## STORAGE CENTER OFFERS IMPROVED PERFORMANCE TO EXCHANGE AND VMWARE ENVIRONMENTS

Storage Center delivers increased performance to the agency’s Microsoft® Exchange Server environment, eliminating the slowdowns that plagued the application under the previous storage architecture. “We moved Exchange Server from a physical server to the SAN and were astounded by the noticeable increase in speed,” says Kram. “Less lag time definitely pleases our end users.”

Kram’s team is also using VMware® ESX Server software to run 20 virtual machines on two physical servers connected to the Storage Center SAN. Storage Center accelerates data access in a virtual environment by spreading read/write operations across all disk drives in the SAN so multiple requests

are processed in parallel. “The performance Storage Center offers our virtual environment has helped us go from nearly 40 physical servers down to only two,” says Kram. “That kind of consolidation represents a significant reduction in data center space requirements and power and cooling costs.”

## TECHNOLOGY INDEPENDENCE AND THIN PROVISIONING LEAD NPTA TO BETTER PLANNING AND COST SAVINGS

The scalable, modular hardware architecture of Storage Center enables Kram to scale capacity, connectivity, and performance incrementally to match demand rather than purchasing resources up front. And because Storage Center is based on open standards, Kram can take advantage of existing infrastructure and choose the technologies that make the most sense for NPTA. “Storage Center allows us to decide exactly what is right for our environment—no more, no less. That flexibility meant we weren’t locked into expensive technologies that didn’t fit our needs.”

At the same time, Compellent’s Thin Provisioning software, called Dynamic Capacity™, helps the agency save money by allowing it to better utilize disk storage. Dynamic Capacity delivers the highest storage utilization possible by eliminating allocated but unused capacity, allowing NPTA to create virtual volumes of any size while only consuming actual physical capacity when data is written by the application.

Going forward, Kram is confident that Storage Center will help NPTA to adapt to storage needs as they arise. “For now, we’re just using iSCSI connections to Fibre Channel drives,” he says. “But if we need to incorporate Fibre Channel connections or additional drives, we can easily order the equipment and incorporate it into the system. With Compellent, we have the flexibility to grow our storage solution as we see fit.”