

Danish Municipality turns to HP StorageWorks to protect the data that makes government work



NAESTVED



“We needed a new data-protection solution. HP StorageWorks hardware and software provide better protection against data loss or interruption of services to residents – and a simpler, easier to manage, more reliable system.”

– Bo Guntofte, Chief Information Officer, Naestved Municipality

HP customer case study: HP StorageWorks 8000 Enterprise Virtual Array, EML E-Series Tape Library, Virtual Library System, and HP Data Protector Software

Industry: Government

Objective:

Deploy an enterprise-level data-protection solution to support critical applications and enhance the municipality’s ability to maintain service availability in the event of a disaster

Approach:

Switch to HP Data Protector Software, increase capacity of an HP StorageWorks 8000 Enterprise Virtual Array, and add a Virtual Library System and an EML E-Series Tape Library

IT improvements:

- Decreased backup times by approximately 50% (from 10-11 hours to 5-6 hours)
- Reduced total restore times from days to hours – or even minutes in some cases
- Consolidated storage environment, which improves service delivery
- Lowered overall storage management time by 30%

Business benefits:

- Diminished risk of data loss or interruption of municipal services
- Reduced administrative workload cuts cost and frees IT staff for more productive tasks
- Excellent ROI – the municipality expects to receive its return on investment within 3-4 years



National reorganization drives IT upgrades

The Municipal Reform of 2007 changed Denmark’s political structure dramatically, consolidating 273 municipalities into 98 (effective January 2007). The goal was to make local government more efficient by establishing a minimum size of about 30,000 inhabitants in each municipality. “Old” Naestved merged with four smaller, formerly independent municipalities to form Naestved Municipality.

Danish municipal governments are responsible for providing a wide range of services involving local roads, electricity, water, and sewer, community health centers, home nursing care, social benefits, and cultural programs. All of these services rely on IT resources. Naestved’s Chief Information Officer Bo Guntofte heads the 25-person IT staff that supports 4,300 users. “With the new organization, we had to

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focus on infrastructure issues – including data backup and networking,” says Guntofte. “We did a thorough review of our processes for greater efficiency.”

Switching from IBM Tivoli

That review led to the implementation of a new, streamlined data-protection strategy for the municipality, phasing out IBM Tivoli Storage Management (TSM) and bringing in HP Data Protector software. “Our Tivoli system did not function very well,” says Guntofte, “and it was expensive. We reviewed the equipment we needed, and asked, ‘What can HP do?’”

The Naestved IT team looked at several backup solution options, and did an in-depth evaluation of two choices: HP and IBM TSM. “As a public-sector enterprise, we have to make sure we are spending money the best possible way, and we decided to move away from IBM Tivoli.”

Guntofte describes the choice of HP for their data-protection solution as “a natural progression.” At one time the municipality was a “100 percent IBM shop,” but in recent years brought in more HP technology. “We had a good working relationship with the local HP account team,” says Guntofte. “We were already using HP equipment: server blades, networking equipment, two large ProCurve network switches, and many smaller switches. We also had a SAN based on the HP StorageWorks EVA8000.”

The server infrastructure includes both IBM and HP products. However, the municipality is replacing older



IBM products with HP blade servers. Today they have about 90 servers total, most of which are HP c-Class server blades, both Intel- and AMD-based. “The benefit of having HP servers and HP storage working together is that they share the same tools, terminology, management approach, and ways of doing things,” says Guntofte. “That simplifies everything we do.”

Naestved built their new data protection and continuity system around StorageWorks hardware and software. They upgraded their existing HP EVA8000 SAN to 17 TB of storage capacity to manage the growth of data from applications.

For backup, Naestved purchased a new HP StorageWorks 6510 Virtual Library System (VLS) for disk-to-disk backup, which gives them an extra layer of security, while speeding up backup and restore times. The tape backup layer is an HP StorageWorks EML 103e E-Series Tape Library with two Ultrium 960 Tape Drives and 98 media slots filled with HP LTO Ultrium Data Cartridges. HP Data Protector software manages backups to the VLS and EML.

The HP data protection system provides backup and restore services for the municipality’s most essential functions, including: Microsoft Office business applications, SQL databases, financial systems, a 4,300-user Microsoft Exchange e-mail system, VMware consolidated backup, Citrix Presentation Server. This solution yields application access to users across the network, file services, other backend services, and a Fujitsu eDoc document-management system handling 1.3 million documents.

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Saving money and time

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Guntofte cites additional benefits: “With HP Data Protector, we don’t have to spend time analyzing the backup environment every week to make sure that the backups are complete; so, we now have a backup environment with no errors. That releases technicians to do other work, and we can use the technicians’ time to build new servers, work on getting better response time, improving application performance, or optimizing the network.”

The installation of the HP Data Protector solution went smoothly, with no problems, says Guntofte: “It was a turnkey installation. HP Services put together a packaged solution and delivered it ready to go from the factory.”

Naestved capitalizes on their HP storage solution by turning to HP Services for a comprehensive and flexible storage support solution. HP Services provides the precise type and level of storage support enterprise

customers require, delivering storage lifecycle services from design through integration and management. HP Services supports Naestved’s data infrastructure under a service contract that provides varying levels of response, depending on criticality. Naestved obtains 13 hours x 5 days coverage for some servers and 24x7 coverage for critical storage hardware.

Looking forward to a more proactive role for IT

The backup routine at Naestved includes nightly incremental backups and weekly full backups. The IT staff first conducts disk-to-disk backups to the HP StorageWorks VLS6510, and then they create disk-to-tape copies and mount them on the EML E-Series Tape Library. They use one product, Data Protector, to back up to both disk and tape.

Disk-to-disk backup with the VLS has cut backup time from ten or eleven hours each night to five or six hours, enabling backups well within the available window of time. The tape copies of the backups go to an off-site location for disaster-recovery purposes.

Concludes Guntofte, “In the past we had lots of data islands. HP Data Protector is helping us merge the islands into a bigger, more efficient system. Backup is part of the service we provide to our users. It used to be a challenge, now it is not. Before, it took too much of our time. Now, our backups and restores are fast, efficient, reliable - and automated. With the HP solution, we can install and update backup clients faster. We estimate that we have reduced overall storage-management time by 30 percent – an excellent savings for us.

Customer solution at a glance

A data-protection and continuity solution

Primary applications

- Applications, including business applications, e-mail, and document management, supporting the delivery of municipal services

Primary hardware

- HP StorageWorks 8000 Enterprise Virtual Array
- HP StorageWorks 6510 Virtual Library System
- HP StorageWorks EML E-Series Tape Library 103e
- HP StorageWorks Ultrium 960 Tape Drives
- HP LTO Ultrium Data Cartridges
- HP BladeSystem c-Class server blades, both Intel- and AMD-based
 - 3 HP BladeSystem c7000 enclosures
 - 10 BL465c Server Blades (dual core)
 - 28 BL460c Server Blades (dual core)
 - 4 BL460c Server Blades (quad core)
 - 4 p-Class enclosures
 - 7 BL45p Server Blades
 - 11 BL25p Server Blades
 - 5 BL120p Server Blades
- 20 HP ProLiant DL360 servers
- 10 HP ProLiant DL380 servers

Primary software

- HP Data Protector software
- Microsoft® Exchange Server 2003
- Microsoft Windows® 2000/2003 operating systems
- Microsoft Office 2003
- Citrix Presentation Server 4.0

HP Services

- HP Critical Service
- System configuration and integration

About Naestved Municipality

Naestved Municipality (www.naestved.dk) is 75 kilometers southwest of Copenhagen on the island of Zealand, one of Denmark's major islands. Since the Municipal Reform of 2007, Naestved comprises "old" Naestved plus four smaller municipalities and has 82,000 residents.

To learn more, go to www.hp.com

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