

## Collaboration between German federal states provides model for achieving synergies and connecting government to citizens

### Executive Summary

#### CUSTOMER NAME

- Dataport, Germany

#### INDUSTRY

- Public Sector

#### CHALLENGE

- Reduce cost and accelerate delivery of new services to citizens and departments of two German federal states
- Provide a legally acceptable framework for merging the state's ICT departments into a new and accountable single entity

#### SOLUTION

- IP is the underlying 'glue' and foundation enabling the centralised management and development of previously disparate infrastructures
- Standardisation on Cisco solutions has avoided incompatibility issues associated with multi-vendor infrastructures
- Usage of open standards and protocols provided the basis for building scalable and flexible, future-proof communication infrastructure

#### BUSINESS VALUE

- Significant synergies have been achieved leading to reduced costs and faster service deployment
- The new 'outsourced' model has demonstrated that a state does not require its own dedicated ICT department
- Cross-border collaboration with shared services is not only possible but delivers better value and more opportunities for connected government

After several years of working together on discrete projects, the north German federal states of Hamburg and Schleswig-Holstein have merged their Information and Communication Technology (ICT) departments. The new organisation – Dataport – has standardised on IP with Cisco technologies to bring different networks together to provide a seamless architecture for services such as security, mobility and quality of service. A 'build once, share many times' approach is leading to Dataport delivering services to other states, creating a role model for connecting government departments and the citizen.

### CHALLENGE

Germany comprises 16 federal states, including Hamburg and Schleswig-Holstein in the north of the country.

Comprising an area of 755 sq km, with a population of some 1.7 million, Hamburg draws its name from the region's principal city, which is the centre for service and distribution in Northern Europe and the base for numerous foreign corporations.

In contrast, to the north lies Schleswig-Holstein with a population of 2.8 million, living in an area of 15,770 sq km, much of it lakes and inlets which help support local shipbuilding and agriculture.

Since 1999 the two states' ICT departments had co-operated on a number of initiatives, most notably centralising data operations in Hamburg, and concentrating printing and mailing facilities for both regions in Schleswig-Holstein. The resulting economies of scale and synergies led to a growing realisation that a more structured approach to collaboration could yield even greater benefits.



Prepared by Cisco Systems, Inc.  
Internet Business Solutions Group

In Germany it is not unusual for each state to have its own ICT supplier providing services to local and regional administrations, and another providing services to the state administration. Hamburg and Schleswig-Holstein, however, came to the conclusion that only by merging their ICT services provisioning units would it be possible to develop and deploy Web-enabled processes and services within a reasonable budget and timeline.

Matthias Kammer, Dataport's Chief Executive Officer, explains: "Web-based technologies can bring enormous benefits to both the public and local government and public services. They can help put the citizen at the centre by designing government around people's lives and needs rather than administrative convenience. By securely connecting people and information, the efficiency of government can be improved to greatly benefit the communities it serves."

**"CISCO IS NOT ONLY ABLE TO DELIVER MARKET LEADING SECURITY AND STABILITY AT A TECHNOLOGICAL LEVEL, IT ALSO KEEPS US UP TO SPEED WITH DEVELOPMENTS THAT GENERALLY HELP OPTIMISE TOTAL COST OF OWNERSHIP AND MAXIMISE THE EFFECTIVENESS AND EFFICIENCY OF THE NETWORK INFRASTRUCTURE."**

Dr Sebastian Saxe, Chief Technology Officer and Executive Board Member, Dataport

## SOLUTION

The potential benefits of these new technologies were already being demonstrated by the two states. In Hamburg, the region's 560-person strong in-house ICT department, 'Landesamt für Informationstechnik' (LIT), had been working with its long-standing networking technology partner, Cisco Systems, on several projects, including providing equipment for a Web portal called Hamburg Gateway.

Widely regarded as one of the most ambitious IT projects undertaken in Germany, Hamburg Gateway's aim was to modernise local government administration by developing e-Government solutions and re-engineering administrative processes.

In Schleswig-Holstein, ICT was managed by the 'Datenzentrale Schleswig-Holstein' (DZ-SH) team comprising some 550 people, who provided services for both the regional and local administrations in the federal state. While LIT owned and operated its own Cisco-based infrastructure, the DZ-SH team oversaw a managed service from Deutsche Telekom based on a Cisco-based Multi-Protocol Label Switching (MPLS) Virtual Private Network (VPN)

In 2002 the two regional governments decided to merge their respective ICT organisations, including a third – the SfB-IuK – whose team of around 100 people provided services for the local and district administrations within Hamburg.

An early decision was the structure and legal form that the new organisation would take. While it was not the first time that government had out-tasked IT services, more radical was the move to merge two regional departments with the aim of creating a single IT service management organisation.

The solution was to create Dataport as an 'Anstalt des öffentlichen Rechts,' (organisation under public law) a non-profit-making organisation with a company structure and accounting procedures answerable to a controlling board comprising representatives from the two federal states i.e. Dataport's owners, which are also its main customers.

Matthias Kammer, Dataport's Chief Executive Officer, explains the significance of the merger: "Merging the three departments in this way enabled us to create a healthy division between service provision and quality control on the customer side. Our customers decide which services are needed, and manage service provider selection and control of all services. Delivering those services is Dataport's job."

Dataport formally came into existence on 1 January 2004, with great care taken to ensure that employees' existing rights were maintained in moving to Dataport. Transparency and regular communications regarding decisions and the decision making process were important in ensuring that everyone was kept involved and informed.

**"CISCO HAD BEEN A BUSINESS PARTNER TO THE ORGANISATIONS FOR MANY YEARS AND ALREADY KNEW THE TEAMS. THE TECHNICAL WORKSHOPS THAT CISCO REGULARLY CONDUCT WERE – AND STILL ARE – A GREAT WAY OF BRINGING EXPERTS FROM THE VARIOUS ORGANISATIONS TOGETHER AND IN HELPING TO ACHIEVE A COMMON VIEW."**

Dr Sebastian Saxe, Chief Technology Officer and Executive Board Member, Dataport

An important factor for effectively supporting the merging units in this ambitious transformation was the verticalised structure of Cisco's Public Sector organisation and its Internet Business Solution Group (IBSG). "Cisco had been a business partner to both organisations for many years and already knew the teams. The technical workshops that Cisco regularly conduct were – and still are – a great way of bringing experts from the various organisations together and in helping to achieve a common view," explains Dr Sebastian Saxe, Dataport's Chief Technology Officer and Executive Board Member.

The benefit of standardising on IP and the importance of a common Cisco technology base for both states also became clear when linking Dataport's three main sites together because it was achieved simply with a broadband link. Office communications – tools, servers, and procedures – have been standardised, while mainframe computers needed for several customer applications have been centralised at one site. A shared network management system is also being installed. Plans are being finalised for a cross-border network, the 'Northern Germany Network' (Norddeutsches Netz), focused on growing the existing network infrastructures.

In another project, the benefits of leveraging solutions across state boundaries have been proven. Initially started as a project within the DZ-SH organisation, a VPN remote access solution developed with Cisco will be rolled out across the entire Dataport customer base. The aim of the project was to link a large number of teleworkers to the Dataport network via an encrypted and secure Internet connection, not only for stand-alone workstations, but also entire offices and administrative units (for example, the 'Hanse Office', the European representation of Schleswig-Holstein and Hamburg in Brussels).

Dr Sebastian Saxe explains the significance of using the Internet: "By using the Internet we avoid the need for costly leased lines or direct dial-up connections back to Dataport resources. It therefore becomes possible to connect distant administrative units to Dataport without distance having an effect on the cost. Only the Cisco solution was able to comply with our security requirements."

## BUSINESS VALUE

In developing their plans, the three ICT departments used a series of workshops with Cisco to explore technical issues such as bringing the two states' network infrastructures together. Cisco also helped the departments explore the technical options when bringing together the departments and how these could contribute to the expected synergies and economies of scale which will result in savings of at least 10 to 15 per cent.

The new organisation echoes Cisco's view of out-tasking which the company had shared with the two states. Out-tasking is where an organisation evaluates its core competencies and identifies those that it would be best to delegate or receive from a third party. Importantly, by out-tasking to a specialist third party the organisation is able to benefit from that provider's expertise, agility and economies of scale.

One catalyst for the network standardisation project was a series of meetings and events – such as the Government e-Leader's Forum – on the future of eGovernment between City of Hamburg/Schleswig-Holstein and Cisco IBSG consultants, who already acted as Trusted Advisors for Hamburg's administration. The departments' thinking aligned with Cisco's Public Sector vertical advice that Dataport should equally represent the interests of both states.

**“WEB-BASED TECHNOLOGIES CAN BRING ENORMOUS BENEFITS TO BOTH THE PUBLIC AND LOCAL GOVERNMENT AND PUBLIC SERVICES. THEY CAN HELP PUT THE CITIZEN AT THE CENTRE BY DESIGNING GOVERNMENT AROUND PEOPLE'S LIVES AND NEEDS RATHER THAN ADMINISTRATIVE CONVENIENCE.”**

Matthias Kammer, Chief Executive Officer, Dataport

“The main benefits are of a financial nature,” says Matthias Kammer. “There are significant synergies. The cost of providing redundancy through back-up solutions – for networks and data storage, mainframe computers, and the like – can be reduced. Economies of scale also lead to better contracts with hardware and standard software providers. The synergies achieved are reflected in reduced user fees to Dataport's customers which we, as a non-profit organisation, can pass on. Dataport is a large ICT service provider which offers portfolio solutions for almost all of its customers' ICT requirements. This in turn leads to a significant reduction in the co-ordination effort for the customer and thus reduced internal costs.”

The new organisation also means that both states can benefit from developments much faster. For example, the Hamburg Gateway portal concept is being developed with Dataport's key customers to create a public administration Internet portal which will provide the necessary functions and environment – such as secure access, payments, certified letter boxes, and the like – required for the large scale introduction of Internet based applications in a public administration context.

Dataport is also developing e-Government applications such as public register entry and management, a ‘clearing point’ for information/data processing between administrations, and a court mailbox.

The portal will significantly improve communications and co-operation between local administrations, enabling back-office processes and front office solutions to be developed that access the same central information sources, thereby eliminating the ‘multi-information silo’ curse

of local governments found throughout the world. Improved communications could also, with some changes to current legislation, deliver greater employee flexibility with specialist staff at one location able to support other offices when workload permitted.

Above all, the portal and its technology-supported processes will enable government to provide better services to citizens and private businesses, at lower cost and with less inconvenience to the public.

Another significant benefit is that the Dataport model is encouraging collaboration with other federal states. The majority of federal states in Germany have chosen to run a tax administration system that operates on a BS2000 mainframe system. While Dataport no longer runs such a mainframe, the nearby state of Mecklenburg-Vorpommern does. Following negotiations Mecklenburg-Vorpommern has decided to join – as from 1 January 2006 – the state treaty that founded Dataport. The tax data centre will become part of Dataport, and will provide services to the tax administrations of Hamburg, Schleswig-Holstein, Mecklenburg-Vorpommern and another state Bremen, which is also intending to join the treaty at the same time.

**“DATAPORT HAS PROVEN THAT IT IS NOT NECESSARY FOR A STATE ADMINISTRATION TO MAINTAIN ITS OWN DEDICATED ICT DEPARTMENT IN ORDER TO ACCESS THE SERVICES IT NEEDS.”**

Matthias Kammer, Chief Executive Officer, Dataport

Significantly, this solution in Germany would not have been possible if Dataport had been founded as a private company (for example a limited, GmbH, company), as particular tasks, including tax administration, by law can only be undertaken by public service organisations.

Asked if Dataport provides a role model for the public sector, Matthias Kammer, replies: “Dataport has proven that it is not necessary for a state administration to maintain its own dedicated ICT department in order to access the services it needs, and that cross border co-operation between federal states, regional and local administrations is not only possible but is also financially beneficial.”

### TECHNOLOGY BLUEPRINT

The fact that Dataport’s owners are in effect its key customers means that there is a mutual understanding of the need for standardising ICT processes and technologies. A key element in that standardisation has been the selection of Cisco as Dataport’s networking partner.

Dr Sebastian Saxe comments: “Cisco is leader in almost all areas of network components and can offer a solution for almost every part of the infrastructure. This means that no particular thought has to be given to compatibility. In addition, Cisco products show outstanding stability and Cisco provides good technical support. Some routers which were installed seven years ago have been running since without interruption.”

Dataport provides connectivity to centralised services such as SAP, email (MS Exchange), Active Directory and multiple special government applications, and central Internet service to all users.

Seamless services have been implemented on top of the communication foundation.

### Communication Foundation

In Schleswig-Holstein, the state's voice and data networks were consolidated in 2001 to a single Cisco-based MPLS IP VPN infrastructure from Deutsche Telekom. This state-wide network is the service backbone for more than 40,000 employees of the state administration, Ministries, the Police and other connected departments communicating over secure VPNs. For customers with higher security requirements, an optional IPSec (3DES) encryption service is also available to ensure the integrity of sensitive data.

Dataport is also the service provider for the government and ministries of the City of Hamburg, operating the state-wide metro IP backbone as well as the data centre for the different authorities and departments.

The IP backbone is fundamental in helping the City of Hamburg meet the German government's objective of having most of its processes handled electronically by 2007. In addition, many local government entities such as Finance, Justice, the Police and Education have requested multi-bandwidth solutions – both internal and external – in order to build bridges to the citizens and businesses of Hamburg.

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Dr Sebastian Saxe, Chief Technology Officer and Executive Board Member, Dataport

### Security and Mobility Services

The remote access VPN service is based on a redundant VPN concentrator farm from Cisco Systems that allows teleworkers, mobile workers and small offices out of both states to connect to their corporate network via a certificate-based VPN tunnel encrypted with IPSec (3DES) over the Internet. Importantly, access can be via any technology, including mobile cellular communications. Small offices are permanently connected via VPN tunnels, while mobile devices use temporary VPN tunnels via a Cisco VPN software client. The whole architecture was designed to be very scalable. The target is to support more than 1,000 concurrent connected end users.

To protect the corporate network against worms and viruses coming from an infected client PC, the remote access VPN is combined with network admission control (NAC). The clients are checked against a centrally defined security policy before they can access the local network. NAC verifies, for example, that the latest virus definitions and scanning programs are installed and activated. If the anti-virus software is not up to date, the user is granted only access to a quarantine zone where they can download an update.

### Quality of Service

A major driver for building the multiservice IP backbone in Schleswig-Holstein was reducing cost, with legacy telephony services migrated towards Voice over IP (VoIP) with 300 Private Branch Exchanges (PBXs) now communicating via the IP backbone. “Cisco provides the know-how to



support Dataport in its effort to further advance the necessary standardisation and technological stability as we operate across state boundaries,” says Dr Sebastian Saxe. “Cisco is not only able to deliver the market leading security and stability at a technological level, it also keeps us up to speed with developments that generally help optimise total cost of ownership and maximise the effectiveness and efficiency of the network infrastructure.”

## MORE INFORMATION

For further information on Internet business solutions, visit <http://www.cisco.com/go/lbgs>



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