

## SAS's IT subsidiary reaches takeoff speed on WebSphere platform.

### Overview

#### ■ Challenge

Reduce development time using reusable components and Java™ 2 Platform, Enterprise Edition (J2EE) technology

#### ■ Solution

e-business infrastructure using IBM WebSphere® Application Server and WebSphere development tools

#### ■ Benefits

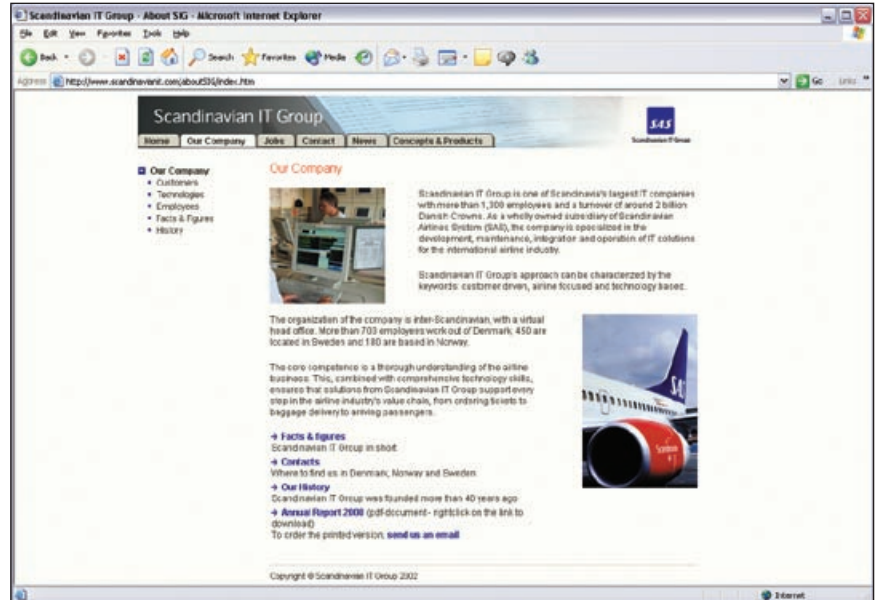
Projected 50% reduction in development time for future applications; reduced administrative costs from ticketless check-in application

#### ■ Software

IBM WebSphere Application Server, Advanced Edition, Version 4.0; IBM VisualAge® for Java; IBM WebSphere Studio Application Developer

#### ■ Services

IBM Global Services



Like its parent company, the Scandinavian IT Group consists of organizations based in Denmark, Sweden and Norway. The Scandinavian IT Group's headquarters are on the Web.

In 1946, Denmark, Norway and Sweden pooled their resources to form an airline that would be able to compete effectively with the private and national airlines of Europe and North America. The resulting consortium, Scandinavian Airlines System (SAS), has done just that, both with outstanding service and with innovative IT approaches that have

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*—Ulf Eklund, IT System Manager, Scandinavian Airlines System*

## ***e-business—redefining the competitive environment in your favor***



*Using Web self-services, passengers can check in at home and avoid ticket lines at airports.*

brought about efficiencies for SAS well before other airlines could catch up. The Scandinavian IT Group, SAS's IT subsidiary, dates back to 1958. With over 1,350 employees and a turnover exceeding US \$200 million, the company specializes in the development, maintenance, integration and operation of IT-solutions for the international airline industry, as well as for other service-oriented businesses. The Scandinavian IT Group is committed to continuously seeking new ways for these industries to improve their overall performance through information technology.

During the past few years, the Scandinavian IT Group has focused on creating a component-based development methodology and software platform to minimize time-to-market for new e-business applications. By leveraging reusable component programming, the Scandinavian IT Group hoped to be able to create new B2B and B2C applications in weeks instead of months.

Seeking a J2EE-compliant, standards-based solution, the Scandinavian IT Group evaluated several vendors for a Web application server. After narrowing its choice down to BEA and IBM, it chose IBM WebSphere Application Server, Advanced Edition, Version 4. The Scandinavian IT Group found IBM's integrated application development environment—featuring IBM VisualAge for Java and, more recently, WebSphere Studio Application Developer—to be unparalleled in the industry. It also concluded that WebSphere Application Server was more stable than other third-party products.

*“With our robust platform based on WebSphere Application Server and J2EE technology, we will be able to easily add new applications to enhance the passenger experience and create new efficiencies for the airline.”*

*—Per Morstrom, Project Manager for IT Support, Ground Handling Area, Scandinavian Airlines System*

e-Gate, a new architecture and functionality for Internet check-in, is the first new application the Scandinavian IT Group has developed using the WebSphere platform. The development of e-Gate took six months, but the Scandinavian IT Group anticipates that the next round of projects, which will include a VIP lounge access application and a duty-free shop application, will be completed in far less time. "We estimate that WebSphere Application Server and J2EE technology will enable us to save at least 50 percent of the development time we would otherwise expect to spend on our next applications," says Ulf Eklund, IT system manager, SAS.

### **Check-in at home for fewer airport delays**

Using the e-Gate solution, passengers can use the Internet to obtain flight information, book tickets, choose seats, check in and enter frequent flyer information. If they have only carry-on luggage, they can proceed to their gate at the airport and board their flight, for a smoother, more convenient flying experience. For the airline, the e-Gate concept reduces the workload at check-in counters, costing less in administrative resources.

"With our robust platform based on WebSphere Application Server and J2EE technology, we will be able to easily add new applications to enhance the passenger experience and create new efficiencies for the airline," comments Per Morstrom, project manager for IT support, ground handling area, SAS.

*"We can continue to build on our WebSphere platform with confidence that it will scale to our growing needs and serve our customers well."*

*—Lars Flodman, IT Architect,  
Scandinavian IT Group*



*The new generation of enhanced passenger handling systems for SAS relies on thin-client, Web-based technologies powered by IBM WebSphere Application Server.*

### **IBM helps with best practices**

For e-Gate, the Scandinavian IT Group created separate presentation, business logic and application layers using Enterprise JavaBeans to interact with its UNISYS-based departure control transaction system. The Scandinavian IT Group has recently moved to IBM WebSphere Studio Application Developer for its development and test environment. "We especially like the integrated environment for running and debugging the complete application locally for all developers" says Lars Flodman, IT architect with the Scandinavian IT Group. The Scandinavian IT Group also uses Rational Unified Process (RUP) for modeling Java classes. IBM Global Services assisted the Scandinavian IT Group with the implementation of WebSphere Application Server and provided advice on best practices and architecture for maximum scalability and availability.

The e-Gate application is the first link in a comprehensive solution for the entire passenger handling chain that will include baggage tracking, airport coordination and aircraft handling solutions. "We can continue to build on our WebSphere platform with confidence that it will scale to our growing needs and serve our customers well," says Flodman.

### **For more information**

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