

SWEDISH NATIONAL POLICE BOARD EXPERIENCES IMPRESSIVE COST SAVINGS WITH JBoss ENTERPRISE APPLICATION PLATFORM

FAST FACTS

Industry	Government
Geography	Sweden
Opportunity	To replace costly proprietary software with reliable open source solutions to reduce acquisition and ongoing costs for the organization's IT department.
Migration Path	Proprietary software and hardware, including Hewlett Packard PA-RISC chip-architecture, HP-UX Unix operating system, Oracle database and BEA WebLogic Server, to open source solutions, including JBoss Enterprise Application Platform
Solution	Hardware - HP Blade System C-class servers with 300 AMD Opteron Dual Core CPUs Operating System - Novell SUSE Linux Enterprise Server 10 Application Server - JBoss Enterprise Application Platform 4.2 Database - MySQL Enterprise Server 5
Benefits	Experienced reduced TCO, increased reliability, enhanced performance, freedom from vendor lock-in, and expects estimated cost savings of approximately €20 million Euros over the next five years

BACKGROUND

Swedish National Police Board (SNPB) is the law enforcement agency for the country of Sweden. The Police Board consists of the 21 Police authorities in Sweden, in addition to the National Laboratory of Forensic Science. The Police Board employees 25,000 staff, including 16,900 policemen and 535 IT department workers.

OPPORTUNITY

The Police Board uses approximately 500 separate IT applications, 70 percent of which are developed in-house by the SNPB IT department. The applications are used to support the functions of the Police force, covering a wide range of activities, including incident reporting, investigations, traffic surveillance, forensics, human resources, and accounting.

The IT department at SNPB has historically used a number of propriety solutions to provide the required services for the organisation's underlying IT infrastructure. Faced with the large costs associated with licensing, support, and maintenance for its proprietary solutions, the Police Board searched for ways to reduce acquisition and ongoing costs for its IT department.

The long-term goal of the Police Board is to replace all the proprietary software running on its servers with open source solutions. In addition to cost savings on licenses, support, and maintenance, the Police Board would benefit from the open standards, freedom of choice, increased competition between vendors, minimized vendor lock-in, reduced TCO, and increased ROI that is associated with open source solutions.

SOLUTION

As it explored open source solution alternatives to its costly proprietary software, the SNPB IT department embarked on a pilot proof-of-concept project to test the viability of using open source solutions within its organization. Looking to replace its existing BEA WebLogic application server with an open source alternative, the SNPB saw only one realistic option, JBoss Enterprise Application Platform.

"The JBoss Enterprise Application Platform was able to deliver the performance that was required and had the professional support necessary to enable us to confidently deploy the software in a production environment," said Per-Ola Sjöswärd, Executive IT Strategist at the Swedish National Police Board.

“The IT department required very little convincing to its suitability as it is well known in the industry as the leading open source application server. Additionally, training was not an issue, as many of the in-house developers had been using JBoss technology before. From a development perspective, JBoss fit well into our existing setup, as all of its in-house development is done in Java.”

The pilot scheme for SNPB’s open source architecture was the migration of the Police photo database, named “PICTURE.” The PICTURE database fulfills three roles at the Police Board. First, it is used to store and search for passport photos – all citizens applying for a passport in Sweden must have their photo taken in a police station, which is then stored on the central database. Second, the PICTURE database is used to store and archive photos taken by police officers with digital cameras. Finally, the database is used as a common service for any other police application which requires access to photographs. As the system uses web services, the application can potentially be accessed by a large range of devices, such as mobile devices. In the near future, police officers will be able to use smartphones and PDAs to access the photo database to verify identification while they are out on duty.

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The existing PICTURE system was built using entirely proprietary software and hardware, including Hewlett Packard PA-RISC chip-architecture, HP-UX Unix operating system, Oracle database and BEA WebLogic Server. The SNPB’s pilot was built by replacing all of these proprietary solutions with open source alternatives. The new architecture utilizes commodity x86-architecture, SUSE Linux Enterprise Server, MySQL and the JBoss Enterprise Application Platform, which replaced the BEA WebLogic server. The JBoss Enterprise Application Platform performs a vital role in the new infrastructure, running the PICTURE application, handling user requests, and accessing the picture database.

System integrator Red Pill provided assistance for the project, with integration and training services. Additionally, the Police Board relies on JBoss for ongoing support and updates through a subscription to JBoss Operations Network.

BENEFITS

During its evaluation of the potential benefits of open source alternatives for the PICTURE system, the Police Board calculated the costs associated with the potential solutions for its IT system. Taking into consideration cost savings from volume discounts, the TCO of the proprietary solution for three years was estimated at €260,000. The team similarly calculated the cost of its proposed open source and commodity x86-architecture solution. At full list price, without allowances for volume discounts for the open source products, the TCO for the open source alternative over three years was valued at €70,300 – a massive 73 percent cost savings when compared to its current proprietary solution.

The SNPB has estimated that by switching to open source solutions and commodity x86-architecture for all new IT-systems, will save approximately €20 million Euros in IT costs over the next five years. With its IT cost savings, the SNPB now has the opportunity to purchase 400 new police cars or hire 70 new system developers during the same five-year time frame.

In addition to costs savings, SNPB’s new open source system has also delivered performance advantages over its former proprietary solution. The average load for the PICTURE system is 3,500 new passport images per day.

“Our initial project with JBoss Enterprise Middleware has been such a resounding success in terms of meeting our performance requirements and the level of professional support we received from JBoss that the Swedish Police Board is planning on migrating a further four large IT systems to the open source architecture in 2008, of which JBoss Enterprise Middleware is a key part, with another 15 new projects in the pipeline,” concluded Mr Sjöswärd.

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