Polish Police Force

Gaining seamless access to data throughout the EU

Overview

The Need
To meet EU free-travel Schengen Zone requirements, Poland needed an infrastructure that could provide police with mobile access to border crossing and visa systems, as well as government databases.

The Solution
IBM designed and built a secure, mobile infrastructure that allows Polish Police Force officers to wirelessly access data stored in multiple repositories.

What Makes it Smarter
Gives police in the field immediate access to comprehensive data—ID, immigration, driver licensing and more—enabling faster, better-informed decision making

The Result
"The new system significantly improves the operational performance of police—It shortens the long waiting time—and also practically eliminates errors and incorrect information."

— Commissioner Andrzej Machnacz, director, IT Projects Center, Ministry of Internal Affairs and Administration

For the Polish Police Force, checking a car registration number or name of a driver through a crackling short-wave walkie-talkie is now a thing of the past. Today, more than 6,500 officers have access to all the data they need, from vehicle registration numbers to the visa information system for the European free-travel Schengen Zone, in just a few seconds.

That's the result of a project that allows police officers to have direct access to data in multiple repositories, including the Schengen Information System & Visa Information System (SIS & VIS), the National Police Information System, the Central Register of Vehicles and Drivers and the Polish Universal Electronic System for the Registration of the Population (PESEL). This access is made possible through wireless communication with the police data network via mobile PDA terminals using GSM/GPRS/EDGE networks and a mobile database access system operated by the police.

The solution utilizes IBM technology that is unique both in terms of functionality and operation. "Similar solutions have been implemented in Great Britain and Germany, but nowhere is it such an integrated system, operating nationwide and connected to all the databases needed in police work, from identifying citizens, to vehicle or driver registration, to the Schengen border system," said Marcin Figiel of IBM Poland.

New tasks, new tools

A prerequisite for Poland's admission to the Schengen Zone was the preparation and deployment of the infrastructure for mobile access to border crossing and visa systems, as well as government agency databases including the Ministry of Internal Affairs and Administration, and the Ministry of Justice. Until December 21, 2007, when Poland joined the Schengen Zone, vehicles and travelers entering the country were checked almost exclusively at the borders, but after joining, officers had to have the ability to perform these checks at any time and any place in the country.

Business Benefits

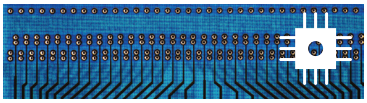
- Gives direct access in seconds to multiple repositories from more than 6,500 wireless devices, spanning data including visa and personal identification, vehicle registration and criminal information for Poland as well as other EU countries
- Integrates seamlessly with central data systems to provide end-to-end access from a single point
- Provides secure, authenticated access to ensure system integrity
- Leverages existing technologies including police data networks and cellular communications networks to speed deployment and reduce costs
- Reduces the time needed to perform roadside checks

The system had to be integrated, secure, and flexible enough to enable data exchange throughout the entire EU. The goal presented to the designers was to enable every police officer, regardless of his or her location, to have direct access to the SIS & VIS systems, the border and visa system of Schengen Zone countries and the NSIS system (the local version for each country in the region), the National Police Information System, the Central Register of Vehicles and Drivers, and PESEL (the central information database for Polish residents).

The project included concept preparation, design and building of the infrastructure, and its integration with mobile networks, the police data-transmission network, as well as essential computer systems in the Polish Police Force, the Ministry of Internal Affairs and Administration, and the Ministry of Justice. The pilot for the project was launched in late 2006, and the first terminals were brought online in June 2007. The solution became fully functional when Poland joined the Schengen Zone, and total deployment was completed in the first quarter of 2008.

Now, police officers equipped with Motorola (Symbol) MC 70 mobile terminals can verify the identification data and immigration status of any given person as well as driver licensing and vehicle registration data. "The project has been successfully implemented thanks to the collaboration of many specialists using unique knowledge and technology, and is working as intended. As an example, I can cite 'Uwaga pirat' (Beware of the Road Pirate), a program on the TVN Turbo television channel, in which I could see for myself many instances of terminals being used by officers checking drivers," explained Tomasz Piktel of IBM Poland.

Smarter Government: Connecting police to all the information they need, anywhere, any time



Instrumented

Wireless PDAs used by thousands of Polish Police Force officers are used to connect to established information systems from anywhere in the country.

Interconnected

A broad spectrum of information systems and databases are accessible through a single device, giving police access to all the information they need.

Intelligent

With quick, direct access to information from the field, police are able to make timely, better-informed decisions and protect the public more effectively.

Solution Components

Software
- IBM Tivoli® Storage Manager
- Linux®

Hardware
- IBM System x® 3250
- IBM System Storage™ DS3200

Services
- IBM Global Financing
- IBM Global Technology Services

The deployment of the system is particularly important in view of the Euro 2012 championship, when tens of thousands of foreign soccer fans will come to Poland. Ease of information access is important because, of the two countries organizing the championship, only one belongs to the Schengen Zone.

Liberated from the radio

Although the system has been prepared for all patrol services, drivers may particularly notice the effects of its operation. Previously, traffic police arriving at the scene of an accident or stopping a vehicle were able to write a report, give a ticket, or—at the most—contact the central office by radio to verify vehicle or driver information. "The operation took as much as an hour, and even then, wasn't always successful," says Marcin Figiel of IBM. "If an accident involved a foreign driver or a vehicle registered outside of Poland, the procedures could be even more complicated."

This situation has now changed; today, a traffic cop inputs vehicle and driver information into a pocket computer and receives the necessary information in seconds. Figiel continues, "a police officer can check whether the vehicle is stolen or being searched for in Poland or another EU country, or whether the driver has a suspended driver's license or is wanted by the police or other authorities in any of the EU countries."

There is also an option to check the data of vehicles and drivers from outside of the Schengen Zone. "In such cases the officer can verify a person's Polish residency status, date of entry into the EU, any conflict with the law during the person's visit, or whether the vehicle is being searched for," says Figiel. All the necessary information appears on the police terminal's display in just five to seven seconds after data entry.

"Similar solutions have been implemented—but nowhere is it such an integrated system, operating nationwide and connected to all the databases needed in police work."

— Marcin Figiel, IBM Poland.

"The new system significantly improves the operational performance of police working in the field. It shortens the long waiting time, typical in the past, for inquiries submitted to operators by radio, and also practically eliminates errors and incorrect information," summed up Commissioner Andrzej Machnacz, Director of the IT Projects Center at the Ministry of Internal Affairs and Administration. "Other improvements include simplified data readout from documents, using an Aztec barcode and two-dimensional code scanner built into the terminal."

Mobile data security

Security and the integrated system concept were the determining factors in selecting the IBM technology-based solution. The computers supplied to police officers provide access to the enormous data resources of Polish and European law enforcement agencies and judiciary authorities. The model created uses the classic GSM cell network (sending data as packets using GPRS or EDGE technology), but with a stand-alone access point exclusive to the needs of the Polish Police Force.

In practice, it is an independent data transmission network, using only the existing infrastructure of cell network operators. The mobile terminal operating in the GSM network is functionally equivalent to a normal palmtop and connects via a proxy server. This in turn assigns access to the Police Data Transmission Network through the Central Access System designed and developed by IBM. A user can get access to specific databases and registries only after authentication and verification of authorization.

In accordance with Polish Police Force requirements, mobile terminals used within the system are resistant to damage and weather conditions. They are also thoroughly safeguarded, so their loss or theft will not pose any threat to the systems from which the data are retrieved or to police operation. "The SIM card is assigned to a specific terminal and access point, which is verified by cross-checking certificates. If the certificates are not compatible, the device will not turn on," said Andrzej Machnacz. "An additional security feature is that one unit is assigned a maximum of three user profiles consisting of login and PIN code."

Acclaim by professionals

This innovative solution has received wide acclaim from IT experts. In June 2008 the system received the top award in the "Government" category at the 20th commemorative gala of "The Computerworld Honors Program." This prestigious award, which is presented for technological and IT projects designed to benefit society, was conferred by the award committee consisting of representatives from major global technology companies, top technical educational institutions from over 50 countries, and the U.S. government.

The Polish Police Force project was one of the few European projects that qualified this year, and the only project from Poland in all ten categories. This award may contribute to making the Polish expertise available to other countries and uniformed services. Government services of Austria, Bulgaria, Denmark, Romania, and Hungary have already expressed interest in this project. Thus the expertise of IBM specialists and Polish police may help improve the security and efficiency of police work, not only in Poland, but also beyond its borders.

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