Information Builders

Information Builders helps organizations transform data into business value. Our business intelligence, integration, and data integrity solutions enable smarter decision-making, strengthen customer relationships, and drive growth.

Estonia Police Department

Snapshot

Organization
The Estonia Police Department is the law enforcement agency of the Republic of Estonia, a country in the Baltic region of Northern Europe with 1.3 million citizens.

The Challenge
As the department's data warehouse grew to contain information on 300,000 misdemeanors and more than 50,000 criminal offences, analysts were challenged to automate data quality procedures.

The Strategy
Automatically identify errors in source data to ensure accurate reports and sustainable business processes. Use iWay Data Quality tools to monitor discrepancies as new source data is entered in the warehouse.

The Results
Accurate information in the data warehouse leads to better police decisions, which improves services to citizens.

Information Builders Solution
WebFOCUS BI and Analytics Platform, iWay Data Quality Suite, and Data Profiler.

Estonia Police Department Boosts Data Quality With WebFOCUS and iWay

Accurate Information Ensures Better Informed Officers and More Comprehensive Police Services

The Estonia Police Department is the law enforcement agency of the Republic of Estonia, a country of 1.3 million citizens in the Baltic region of Northern Europe. The department is under the supervision of the Ministry of Internal Affairs, which supervises the Police Board, the Security Police Board, the Police and Border Guard Board, and the Rescue Board.

With a grant from the European Union, the Estonia Police Department set out to improve its analytic capabilities. Crime analysts at the department envisioned a new data warehouse, an agency-wide reporting portal, and a predictive policing system that could help officers make decisions based on their analysis of recent crime trends.

Data quality was an important part of the project. The team wanted to minimize the accrual of inaccurate data so that police reports and procedures would be consistent and correct.

To mitigate this problem, the department looked for technology that could help clean up its existing database and create a reliable source of police information on an ongoing basis. The department purchased Information Builders' WebFOCUS business intelligence (BI) and analytics platform and the iWay Data Quality Suite to automate data quality and data profiling activities.

Cleaning Up the Data Warehouse

The Estonia Police Department has a Sybase data warehouse that is fed by 10 source systems, including an SAP R/3 enterprise resource planning (ERP) system and several police information systems. The warehouse includes information about the operational management of mobile units; the location coordinates of police vehicles; and details about traffic accidents, misdemeanors, and criminal offenses. It also includes personnel records, data on police vehicles, and financial data, and will soon include information from the Police and Border Guard Administration.

As the data warehouse grew to contain information on 300,000 misdemeanors and more than 50,000 criminal offenses and their proceedings, data quality became increasingly important. Bad data can impact each level of the organization and lead to inaccurate decisions regarding how resources are allocated, public order is maintained, and police procedures are conducted. For example, an incorrect date or time field can lead to an inaccurate evaluation of work performance.

"We need good data to offer high-quality police services to citizens, police partners, and to our own staff," says Ružena Allas, police expert analyst at the Estonia Police Department.

According to Allas, data quality initiatives involve identifying and correcting errors in the upstream source data to ensure accurate information and sustainable business processes in the downstream reports. Improving the quality of information in its data warehouse was a two-step process: audit existing information for consistency and carefully monitor the addition of new data as it is entered.

iWay Data Quality tools allow the department to set up business rules to monitor and maintain data quality, now and in the future. iWay Data Quality Server is invoked during an iWay DataMigrator process to generate a log of executions. This log is used for internal reporting and communication.

When problems are detected during the processing, iWay sends a list of anomalies for remediation. The department continues to use these iWay tools on a day-to-day basis as new information is loaded into the warehouse.

Integrated Reporting and Analytics

The department uses iWay Data Quality Suite in conjunction with WebFOCUS to conduct data quality audits. "iWay detects problematic cases that we were not even aware of," Allas says.

> **"The process of obtaining data used to take several days but now we can turn inquiries into usable information within seconds."**
>
> **Ružena Allas**
> **Police Expert Analyst**
> **Estonia Police Department**

Find Out More

"If police officers have the right information to make better decisions, citizens will directly benefit."

Ružena Allas
Police Expert Analyst
Estonia Police Department

WebFOCUS plays a role in the department's data quality initiative by generating reports that summarize errors and anomalies in the source systems. The department was already using WebFOCUS for operational reporting so it was a simple matter to create these additional data quality reports.

WebFOCUS anchors an agency-wide reporting system with an intuitive, role-based user interface, which increases security and enables the police to work more quickly and efficiently. This reporting system is not only fast, but also flexible and reliable.

Each morning a situation report is sent to the director general of the police department, which includes details about that day's important cases and trends. Analysts can prepare new reports and submit queries themselves, without any programming or technical development.

WebFOCUS is easy to use, which has encouraged adoption. Approximately 500 people use WebFOCUS and the user base is constantly growing.

Soon many of the Police Board's 4,000 employees will have access to the reporting system. It used to be difficult to view and interpret the types and numbers of crimes. Now users can drill into crimes by region, police authority, the nature of the case, and other variables. They can help themselves to the information via a simple web browser interface.

Accurate Data Equals Better Services

According to Allas, system reliability has increased since the police department started using WebFOCUS and iWay. If errors occur in the process of entering data, it is much easier to detect them and fix the problem.

Better information leads to better decisions, which improves services to citizens. For example, police analysts have analyzed data about traffic accidents to look for correlations in their causes, including weather, road conditions, and profiles of the people involved (age, vehicle type, previous offenses, the impact of the imposed punishment, and other data points).

Understanding these patterns helps the department position its mobile units to improve road safety by preventing similar types of accidents in the future. For instance, the Police Board cautioned road users about moped accidents as soon as the number of such accidents increased. The department also uses the data obtained from the data warehouse to prepare campaigns and evaluate results for the Road Administration.

In the future, the Border Guard Administration plans to use the data warehouse as well, which will require the integration of additional source systems. WebFOCUS and iWay will be central to these enhanced capabilities.

"If police officers have the right information to make better decisions, citizens will directly benefit," Allas sums up. "The process of obtaining data used to take several days but now we can turn inquiries into usable information within seconds."

Worldwide Offices

Corporate Headquarters

Two Penn Plaza
New York, NY 10121-2898
(212) 736-4433
(800) 969-4636

United States

Atlanta, GA* (770) 395-9913

Boston, MA* (781) 224-7660

Channels (770) 677-9923

Chicago, IL* (630) 971-6700

Cincinnati, OH* (513) 891-2338

Dallas, TX* (972) 398-4100

Denver, CO* (303) 770-4440

Detroit, MI* (248) 641-8820

Federal Systems, D.C.* (703) 276-9006

Florham Park, NJ (973) 593-0022

Houston, TX* (713) 952-4800

Los Angeles, CA* (310) 615-0735

Minneapolis, MN* (651) 602-9100

New York, NY* (212) 736-4433

Philadelphia, PA* (610) 940-0790

Pittsburgh, PA (412) 494-9699

San Jose, CA* (408) 453-7600

Seattle, WA (206) 624-9055

St. Louis, MO* (636) 519-1411, ext. 321

Tampa, FL (813) 639-4251

Washington, D.C.* (703) 276-9006

International

Australia*
Melbourne 61-3-9631-7900
Sydney 61-2-8223-0600

Austria Raffeisen Informatik Consulting GmbH
Wien 43-1-211-36-3344

Brazil
São Paulo 55-11-3285-2716

Canada
Calgary (403) 718-9828
Montreal* (514) 421-1555
Ottawa (416) 364-2760
Toronto* (416) 364-2760
Vancouver (604) 688-2499

China
Peacom, Inc.
Fuzhou 86-15-8800-93995
SolventoSOFT Technology (HK) Limited
Hong Kong 852-9802-4757

Estonia InfoBuild Estonia ÖÜ
Tallinn 372-618-1585

Finland InfoBuild Oy
Espoo 358-207-580-840

France*
Suresnes +33 (0)1-49-00-66-00

Germany
Eschborn* 49-6196-775-76-0

Greece Applied Science Ltd.
Athens 30-210-699-8225

Guatemala IDS de Centroamerica
Guatemala City (502) 2412-4212

India* InfoBuild India
Chennai 91-44-42177082

Israel SRL Software Products Ltd.
Petah-Tikva 972-3-9787273

Italy
Agrate Brianza 39-039-59 66 200

Japan KK Ashisuto
Tokyo 81-3-5276-5863

Latvia InfoBuild Lithuania, UAB
Vilnius 370-5-268-3327

Lithuania InfoBuild Lithuania, UAB
Vilnius 370-5-268-3327

Mexico
Mexico City 52-55-5062-0660

Middle East
Barmajiat Information Technology, LLC
Dubai 971-4-420-9100
- Bahrain - Kuwait - Oman - Qatar
- Saudi Arabia - United Arab Emirates (UAE)

Innovative Corner Est.
Riyadh 966-1-2939007
- Iraq - Lebanon - Oman - Saudi Arabia - UAE

Netherlands*
Amstelveen 31 (0)20-4563333
- Belgium
- Luxembourg

Nigeria InfoBuild Nigeria
Garki-Abuja 234-9-290-2621

Norway InfoBuild Norge AS c/o Okonor
Tynset 358-0-207-580-840

Portugal
Lisboa 351-217-217-400

Singapore Automatic Identification Technology Ltd.
Singapore 65-69080191/92

South Africa InfoBuild (Pty) Ltd.
Johannesburg 27-11-064-5668

South Korea UVANSYS, Inc.
Seoul 82-2-832-0705

Southeast Asia
Singapore 60-172980912
- Bangladesh - Brunei - Burma - Cambodia
- Indonesia - Malaysia - Papua New Guinea
- Thailand - The Philippines - Vietnam

Spain
Barcelona 34-93-452-63-85
Bilbao 34-94-400-88-05
Madrid* 34-91-710-22-75

Sweden InfoBuild AB
Stockholm 46-8-76-46-000

Switzerland
Wallisellen 41-44-839-49-49

Taiwan
Azion Corporation
Taipei 886-2-2356-3996
Galaxy Software Services, Inc.
Taipei 886-2-2586-7890, ext. 114

United Kingdom*
Uxbridge Middlesex 44-20-7107-4000

Venezuela InfoServices Consulting
Caracas 58212-763-1653

West Africa InfoBuild FSA
Abidjan 225-01-17-61-15

* Training facilities are located at these offices.

Information Builders