

CHANGE – A GOOD THING...

SQL migration... How & why we did it

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MS SQL versus: Oracle Change for the better solution

Customer Name:

POLISH PRISON SERVICE

Customer Type / Market Segment:

GOVERNMENT – MINISTRY OF JUSTICE

Main Product(s):

SQL SERVER 2008, Windows SERVER 2008, ISA Server,

Project \$ Value:

500K\$

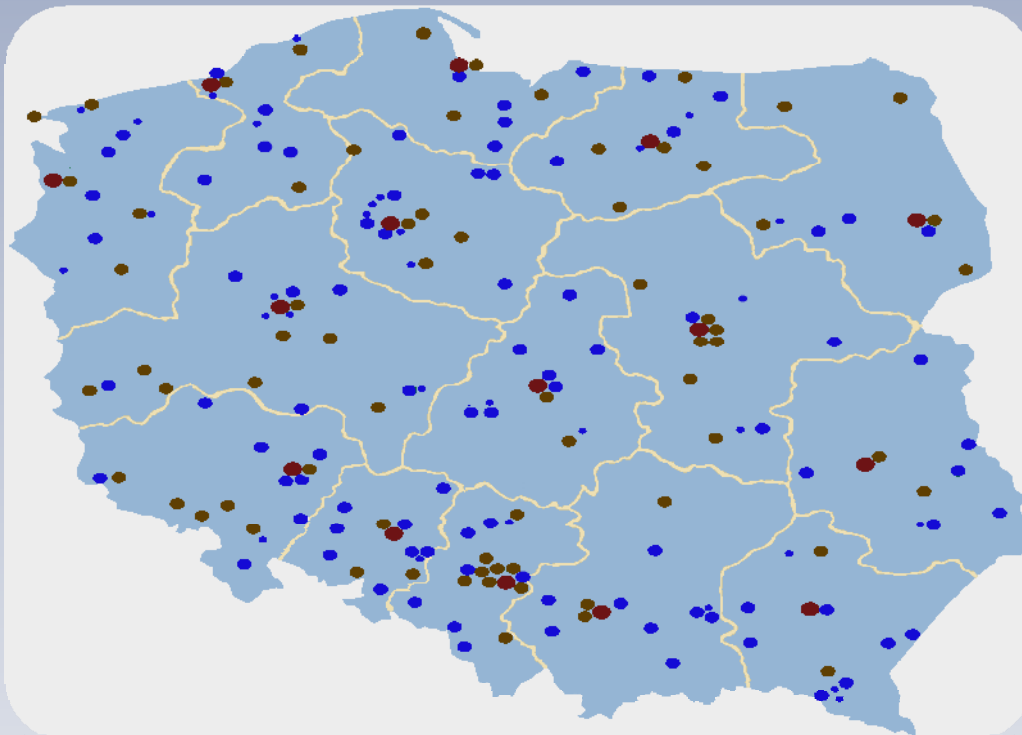
Main Customer COMPETE Objections overcome:

Cost (TCO / ROI), functionality, scalability, security

Key Best Practise(s) / Learning(s):

Migration scenarios (over 5 000 000 records!)

Polish Prison Service – organization units



- Regional Prison Administration centers = 15
- Remand centers – 70
- Prisons = 87

One of the main problem – number of employees versus number of prisoners

Country	No of employees (incl.officers & civil workers)	No of prisoners (incl. arrested)	Ratio – no of employees to prisoners
Sweden	~ 5.000	4.762	1 : 0,95
England	~ 48.000	83.240	1 : 1,73
Hungary	7.843	14.983	1 : 1,91
Czech Republic	10.376	20.727	1: 1,99
Romania	~ 12.500	26.212	1 : 2,09
Austria	3823	8248	1 : 2,16
Lithuania	3400	7800	1 : 2,29
Poland	27.958	83.152	1 : 2,97

NOE – main system collecting prisoner's data

- **1997 – first version of NOE** – approx. 100 prisoner's data collected (local databases on every prison & pre – detention centre)
- **2001 – NOE Odyssey** – more than 500 prisone's data collected, transportation logistycs included, data exchange between organization units
- **2003 – NOE Avalon** – approx. 800 prisoner's data collected, module for Branch units included, more than 2000 users, exchange data with police, prosecutors & courts systems
- **2005 – Noe.NET** – Central Database of People Deprived of Liberty – central on – line database system, integrated modules, smart cards authorization, all organistation units connected, main system of Polish Prison Service

CHALLENGE

- The **Central Board of Prison Service (CZSW)** is an institution which governs Poland's prisons and remand centers.
- In the course of operation, CZSW gathers data about detainees. Noe.NET, the application used so far for this purpose, stored the data in the **Oracle/Solaris** environment. **However, in 2008 it neared the limits of its capacity.**
- Replacing this environment with a new one while conserving the valid Oracle licenses would necessitate the additional purchase of prior technical support. However, **the prospective costs were beyond the budget of CZSW**, and the only reasonable option was to **migrate** the data to a new environment.

Challenge – what the Prison Service expected?

*“We wanted to implement a database server which would offer **low maintenance costs** and **transparent, trick-free** licensing conditions. Using foresight, we were also interested in unassisted development of the environment. SQL Server 2008 more than lived up to these requirements,”*

SOLUTION

- At the end of 2008, after conducting financial simulations and initial technical tests, the IT Department at CZSW **decided** to transfer its data to a new environment based on **Microsoft SQL Server 2008**. The arguments that weighed in favor of choosing this particular environment were multiple, and of **both technical and financial nature**.
- The project of replacing the environment lasted from January till May 2009 and ended in a **successful migration of the data from Oracle 9i to Microsoft SQL Server 2008**. This operation proved to be highly complicated.

Solution – why Microsoft SQL Server?

*“The obvious technical differences between Oracle 9i and Microsoft SQL Server 2008 were accompanied by **challenges** to do with the actual construction of the database. Its **structural complexity** is determined by historical reasons and functional requirements resulting from diverse laws and orders. Add to this the problems of scale – **several million of records, a considerable number of users** – and the particular rules for exchanging data between systems run by the police, law courts and prosecution,“*

BENEFITS

- The greatest benefit stemming from the data migration process undergone at Prison Service **is dealing with the source of risk and of operational problems. The old environment reached the limits of its capacity**, the new one leaves CZSW with a wide scope for development. The whole process of migration was completed in merely six months. Considering its scale and the extent of complexity of the source database, such a short completion time of the project may be considered as a great achievement.
- The second major benefit of the migration worth noting **is the fact that Prison Service has liberated itself from a business relation the financial strains of which it could no longer bear.**

BENEFITS ...

- The third benefit for CZSW is the **long-term reduction in costs** of maintaining the database environment. Merely because **Microsoft always prices its database servers drawing on the number of processor sockets per server**, and not on the number of cores and their capacity. But also because **the costs of technical support are included in the price of licenses**, which by the way is significantly cheaper than Oracle licenses.
- The need for unassisted development of minor tools or smaller applications has also been satisfied. Employees at the IT and Communications Department now have at their disposal a state-of-the-art **data management platform, an integration environment, an analytical server, a report server as well as tools which help build simple applications of various type.**

Benefits – Customer feedback

*“Purchasing the new server hardware and software, the access licenses, and the migration process itself came out to be **considerably cheaper** than reinvigorating the Oracle environment on the Unix/RISC platform,”*

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