## Summary

Client: LPP S.A.
Country: Poland
Industry: clothing distribution
LPP brands: Reserved, House, Cropp and Mohito are sold in over 1,000 clothing stores in 11 countries. The company employs 5,000 people.

## Situation

As a result of LPP S.A.'s rapid development in recent years, the existing BI solution based on Retek Data Warehouse and Microstrategy tools no longer met the functional expectations. Modifying the solution was considered pointless. Buying a new one using the Oracle database was potentially too expensive. The company needed an alternative.

## Solution

What turned out to be the alternative was the Microsoft BI platform. After carrying out the pilot project LPP S.A. assisted by WEBCON implemented the BI solution based on the SQL Server 2008 R2 Enterprise Edition platform including Excel Services and PerformancePoint Services, as well as Office Excel as the basic analytical tool.

## Benefits

- Thorough daily assessment of the company's business situation in the areas of sales and distribution
- Information necessary for decision-making available at all levels of the organization
- The prospect of embracing all crucial areas (sales and distribution as well as orders, internal logistics and supply chain) with multidimensional analyses
- The form of providing information tailored to users' needs and preferences
- Relatively low implementation costs resulting from lower license costs and efficient use of available functions offered by the SQL Server 2008 R2 platform.

**LPP S.A. has replaced Retek Data Warehouse and Microstrategy analytical tools with an integrated solution based on Microsoft® SQL Server 2008 R2, Microsoft® SharePoint Server 2010 Enterprise Edition and Microsoft® Office Excel 2010.**

*"SQL Server 2008 R2 handled the collection, processing and sharing of data in the form of OLAP cubes several times faster than the existing solution based on Oracle technology. The test data warehouse contained about 1 billion records"*

**Arkadiusz Ruciński**, IT Director at LPP S.A.

Faced with the implementation of a BI solution, a company has a relatively short time to make sure what its business model is or how to assess the effectiveness of the key processes. However, it is obvious that the original objectives must be verified over time. What implementation strategy should therefore be adopted? How far should one reach forward and back in order to predict the needs?

It turns out that it is best to retain common sense. When in 2003 LPP S.A. was implementing ERP solutions based on the Retek system, it was decided to use Retek Data Warehouse for carrying out analyses and generating reports in combination with Microstrategy tools." It was the simplest way to achieve the goal - it may not have been the cheapest solution but it guaranteed fast implementation and gaining insight into cross-sectional information about the business. Moreover, at that stage of company development RDW was quite efficient"- says Jacek Kujawa, Vice President of LPP SA

After several years LPP S.A. changed beyond recognition. From a company operating through several dozen stores In Poland, LPP S.A. transformed into a concern which has over 1,000 stores in 11 European countries. The number of brands and models has multiplied which resulted in increased needs for analysis. In addition, the foreign part of the business which initially developed largely independently, grew significantly and required closer integration with the central office.

"Slowly we began to realize that due to significant changes in the business we were outgrowing the current solution. When we started to write down requirements for potential changes, it became clear that the further development of the existing platform did not make much sense. This led us to a substantial review of the market"- says Arkadiusz Ruciński, IT Director at LPP S.A. Initially, LPP S.A. looked for solutions based on Oracle technology on which the Retek System operates. However, the estimates amounted to great sums and that is why LPP S.A. started looking for alternatives. One of them was the Microsoft BI platform, which LPP S.A. did not think was able to sustain the volume of data owned by the company. However, the doubts were dispelled by a pilot project organized by WEBCON together with Microsoft. "SQL Server *2008 R2 handled the collection, processing and sharing of data in the form of OLAP cubes several times faster than the existing solution based on Oracle technology. The test data warehouse contained about 1 billion records." –* emphasizes Arkadiusz Ruciński.

After a year the implementation is at the halfway point, but the effects are already visible. The analyses and reports on sales and stocks are used daily by ca. 250 employees in LPP S.A. offices and by all store managers.

Microsoft® SQL Server®

## Situation

LPP is Poland's leading manufacturer of clothing collections. Its brands: Reserved, House, Cropp and Mohito are sold in more than 1,000 clothing stores in 11 countries. Over 15 years from a small company LPP evolved into a concern which employs 5,000 people. LPP built its success on the independent design of collections (offices in Gdańsk and Kraków) and an independently developed sales network.

Business development has prompted the company to invest in information technology. In 2003 LPP S.A. implemented a solution based on the Retek software (now Oracle) for companies distributing apparel collections. Soon, in 2005 an analytical and reporting solution strongly connected with the ERP system was implemented. Its background was Retek Data Warehouse which drew data directly from the ERP system tables, and users were supplied with Microstrategy tools modern at the time.

"It was the simplest way to achieve the goal - it may not have been the cheapest solution but it guaranteed fast implementation and gaining insight into cross-sectional information about the business. Moreover, at that stage of company development the RDW solution was quite efficient"- explains Jacek Kujawa, Vice President of LPP S.A.
The company's needs in terms of analyses and reports evolved. What contributed to that evolution was the rapid increase in the number of stores, the development of foreign sales network and of course the systematically growing experience and awareness of the users. As a consequence of all that, already in 2007 LPP S.A. 'refreshed' its RDW solution.
"The original objectives were verified in practice. It turned out that not all reports were now necessary, that the level of processing and particularly clear indicators were very important for the quality of decision-making,

that in some places the granularity of information needed to be changed."- says Arkadiusz Ruciński, IT Director at LPP S.A. However, time drifted by and as it did, the actual activity of LPP S.A. became more and more remote from that which the RDW-based solution was designed for.
"We slowly began to realize that due to significant changes in the business we started to outgrow the existing solution. When we started to write down requirements for potential changes, it became clear that the further development of the existing platform didn't make much sense. This led us to a substantial review of the market. "- says Arkadiusz Ruciński.

## Solution

### Requirements not entirely homogeneous
After initial internal discussions, LPP S.A. came to the conclusion that its needs in terms of analyses and reporting were not homogeneous.
"We realized that interactive data processing was actually done only by the Planning Department staff. The other employees who had specific tasks to execute within their fields mainly needed ready reports of suitably prepared structure and content. Having examined the matter more closely, we also discovered that analysts did not want to learn and struggle with another analytical tool, but expected only to be able to load data into Excel. It has changed our perspective."- explains Jacek Kujawa.

### New objectives for architecture
An obvious objective was to use the technology of OLAP databases which in the meantime became popular and matured.
"Each year we put several hundred thousand stock keeping units (SKUs) on the market and any current analysis includes data from three years back. Thus, the vol-

ume of data is huge and each time we reach to the data warehouse, it is too expensive in terms of efficiency" - explains Arkadiusz Ruciński. "Additionally, for logistics needs we track warehouse movements in each store in daily cycles but for the decision-making purposes we tend to use model colours usually embracing several SKUs. Hence the need for utilizing units which were not even taken into account in the old system"- agrees Jacek Kujawa.

**The question of scale and efficiency**
Initially, LPP S.A. looked for solutions based on the Oracle technology that the Retek system operates on. However, the estimates amounted to great sums and LPP S.A. began to look for alternatives. One of them was the Microsoft BI platform which LPP S.A. did not consider suitable to support the huge collection of data gathered by the company. However, following the suggestion made by WEBCON, a Microsoft partner which several years earlier implemented a document workflow in LPP S.A., the company decided to at least give it a try. For a company which so far had used mainly solutions based on Oracle technology, the results of the pilot project conducted by WEBCON together with Microsoft turned out surprising. "So far, the SQL Server functioned in our company as a platform for a document workflow supporting solution. The solution proved great in all respects and is valued by the users, and that is why we decided to try it out also in the BI field. It turned out that the Microsoft platform passed that test really well. SQL Server 2008 R2 handled the collection, processing and sharing of data in the form of OLAP cubes several times faster than the existing solutions based on Oracle technology. The test data warehouse contained

about 1 billion records"- emphasizes Arkadiusz Ruciński.
For Łukasz Wróbel, Consulting Director at WEBCON, SQL Server 2008 R2 performance was not at all surprising. For years the company has been developing and implementing the WEBCON Business Process Suite system supporting process and document management (also in LPP S.A.). The system efficiently supports installations in which hundreds of thousands of documents and millions of tasks are processed. The server used by LPP S.A. to support the BI solution uses 4 processors, each of which contains 10 cores, and 1 terabyte of RAM. "Purchasing a server this well equipped was possible also because the solution proposed by WEBCON and Microsoft was much cheaper than solutions based on Oracle technologies"- says Arkadiusz Ruciński.
The efficiency of the solution as a whole does not stem solely from the hardware. Equally important is the software which can make effective use of the available hardware resources.
"In the BI solution for LPP S.A. we decided to use standard and proven features of the SQL Server R2 platform: database partitioning and multithreaded processing. Instead of one large table, the SQL Server processes dozens of partitions in parallel, which is much more efficient as it allows to use the full potential of multi-core processors"- explains Łukasz Wróbel.

**Two-phase processing**
The Retek system remains the main data source for analyses and reports, but data warehouses also receive auxiliary data coming from other systems such as webPDM of Gerber Technology and from the warehouses that have been used so far

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(older historical data). The data are downloaded every night in incremental mode. "The Retek system provides data for analyses and reporting via dedicated views. Loading applications operating in the environment of SQL Server integration Services downloads the data, processes them and then places them in a data warehouse of star topology."- says Łukasz Wróbel

Each morning, just before work starts in the company, the warehouse is supplemented with data from foreign companies, which results in the need to make calculations also in the analytical database. "To prevent users from having to wait because of the morning wave of reporting, LPP S.A. uses the mechanism of pre-filling the server cache memory (cache-warmer) that is built in the SQL Server and is called by a script"- says Arkadiusz Ruciński.

**Business on a single sheet**
LPP S.A. has built its infrastructure and launched the BI solution in the field of sales and store distribution. And although the implementation is only at the halfway point, the company already feels the benefits resulting from it.
"Each store manager receives a report which fits onto one side of an A4 sheet. The content of the report comprises at least 7 tables, many indicators, a few charts and sometimes photos. Thanks to the report the manager knows everything he/she needs: which goods rotate best and which the worst, how the results of the store look compared with other stores etc."- explains Arkadiusz Ruciński
Analogous reports are sent to regional managers responsible for brands, as well as to the management board and specialists. The reports generated by the SQL Server 2008 R2 Reporting Services and distributed

via the company intranet are used by ca. 250 people in LPP S.A..
The Planning Department, as requested, does not use ready reports but connects with analytical databases using Excel. To make this possible, efficient and convenient, WEBCON prepared a data warehouse optimized for reporting in Excel, using mechanisms available in SQL Server 2008 R2, including dedicated units and semi-additive measures. Additionally, Excel Services and PerformancePoint Services have been launched on the SharePoint 2010 Enterprise Edition server side.

**Further implementation steps**
The company's ambitions do not stop here. In the near future LPP S.A. intends to expand the BI solution into new areas. "Sales and store distribution are already closed topics. Currently, together with WEBCON we are working on order and delivery logistics, and later we will analyze the movement of goods in our logistics center. The crowning achievement, although perhaps purely symbolic, will be having the BI solution embrace the chain of deliveries which in our case is based on the Just-In-Time strategy principles"- predicts Arkadiusz Ruciński

Benefits
- Thorough assessment of the company's business situation in daily cycles
- Information needed for decision-making available at all levels of the organization
- The perspective of embracing all crucial areas (sales and distribution, orders, internal logistics and delivery chain) with multidimensional analyses

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*"Sales and store distribution are already closed topics. Currently, together with WEBCON we are working on order and delivery logistics, and later we will analyze the movement of goods in our logistics center. The crowning achievement, although perhaps purely symbolic, will be having the BI solution embrace the chain of deliveries which in our case is based on the Just-In-Time strategy principles"*

**Arkadiusz Ruciński,** IT Director at LPP S.A.

- The form of providing information tailored to the needs and preferences of various groups of users
- Relatively low implementation costs resulting from lower license costs and efficient use of available SQL Server 2008 R2 functions.

Microsoft SQL Server

Microsoft SQL Server is a comprehensive solution that combines the functions of a database server and information platform, offering a complete set of technologies and enterprise-class tools which help in extracting the maximum value from information at the lowest total running cost. Enjoy the high level of performance, availability and security, and use more productive tools for programming and management; share insightful analyses with intelligent self-service business analysis (BI). Microsoft SQL Server is a complete and integrated platform combining key features allowing to extract more value from the existing IT skills and assets, increase productivity and effi-

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ciency of IT departments and enable rapid creation of flexible and innovative applications.
More information about Microsoft SQL Server can be found at http://www.microsoft.com/poland/sql-2012/dlaczego-sql-server.aspx.

WEBCON
It is a company producing the WEBCON Business Suite system for support of workflows in medium and large enterprises. It also builds data warehouses and Business Intelligence systems based on the Microsoft SQL Server and SharePoint Server.

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