# Customer Case Study

## Basler Versicherungen: tcVISION replicates DB2 z/OS to DB2 on Windows



#### **MAKING YOU SAFER**

The Basler Versicherungen was founded in 1863 as Basler Versicherungsgesellschaft gegen Feuerschade, insuring habitants of the Swiss city of Basel against damage from fire. In the following year, the company's business expanded to covering life and transportation, as well as expanding geographically within Switzerland and abroad. Growth and diversification of the company has continued throughout its long history.

#### **BUSINESS BACKGROUND**

Headquartered in Bad Homburg, Basler Versicherungen, part of the Basler Group Germany, has been active in the German market for nearly 150 years. The Basler Group Germany's insurance portfolio consists of Injury, Accident and Pension plans. With total revenues of approximately 1.4 billion Euros, the group is amongst the most important insurance companies in Germany. The Basler Group Germany is a subsidiary of Bâloise Group, Basel, Switzerland.

#### SYSTEM PROFILE

Basler operates an IBM mainframe with the z/OS operating system with DB2 as the production database. Stefan Peuser, IT Specialist, describes the scenario, "In addition to our production DB2 on the mainframe we also operate a data warehouse. The requirement is to perform a daily feed to the data warehouse with current DB2 data. In addition, the reporting from the DB2 tables needs to be performed not on the mainframe but on a mirrored DB2 database on a Windows server.

#### **BUSINESS ISSUE**

While Basler already had in-house developed processes in place to create the data store, those processes were very cumbersome, and maintenance intensive and inflexible. In spring of 2008, a B.O.S.

tcVISION Newsletter caught their attention and, according to Mr. Peuser, "The information regarding tcVISION aroused our curiosity. We asked B.O.S. for a presentation of tcVISION which convinced us that the DB2 log file processing component of tcVISION was exactly what we needed. Our main requirement was to keep the data on the Windows server current on a daily basis. After a short introduction in early December 2008, we started the project."

#### **TECHNOLOGY SOLUTION**

The replication solution is now in production with tcVISION implemented on both test and production environments. Mr. Peuser highlights the implementation, "The production implementation of tcVISION supports more than 370 DB2 tables. We replicate our operational changes to mirrored DB2 tables on the Windows server as part of our daily IT operations. The online systems and batch applications are responsible for the changes applied to DB2. All tables that are replicated have the attribute "DATA" CAPTURE CHANGES" and all the changes are kept in the DB2 log. As soon as the online logs are archived by DB2, the log files are sent to the replication server via FTP. Once received, tcVISION processes the log files on the replication server. In order to capture the changes, tcVISION must understand the structures





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Treehouse Software is a B.O.S. partner, offering the most comprehensive and flexible portfolio of solutions available anywhere for integration, replication, and migration of data between mainframe sources and any target, application or platform; and virtually any mainframe application modernization project. Using ETL, CDC and SQL/XML technologies, we anything to anything. We offer enable mainframe customers to leverage their investments in legacy systems—employing virtually any data source with data integration, data warehousing, modernization and conversion, Service-Oriented Architectures, and other new technologies.

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Email: sales@treehouse.com Website: www.treehouse.com of the DB2 tables. This metadata is stored in a central Repository, which also is a DB2 database."

tcVISION provides import functions for creating the metadata from the DB2 source database. This metadata is used for the initial load of the DB2 tables to the server. as well as for the processing of the DB2 log files. The initial load of the DB2 tables on the replication server is performed by the BULK TRANSFER function of tcVISION. Input is a DB2 image copy that has been sent via FTP to the replication server. The copy is processed and loaded to DB2 through a LOAD statement generated by tcVISION. After this, the tables are available on the server and changes are subsequently applied via the log file processing.

A special challenge has been the DB2 Compression Dictionaries and the fact that during the daily operations the structures of the tables can be changed. The information about to the compression algorithm used is stored in the central Repository when tcVISION imports the metadata. According to Mr. Peuser, "In our implementation of DB2 z/OS we store each table in a table space of its own. The critical issue is that the different dictionary versions and corresponding compression algorithms are kept in the Repository; hence, tcVISION can always use the correct algorithms for the decompression when processing the log files or image copies. The metadata reflects the structure of the data at the time of the import. tcVISION maintains a history of the structural information during a new import after a structure change. tcVISION recognizes changes of the data structure and is able to apply the changes to the target tables in accordance with the structure that was in place at the time when the change was been performed. This way, all DB2 structural information is refreshed every day via an automated process. This automated processing always guarantees

that the correct metadata and compression information are used. tcVISION provides tools and utilities to remove historical Repository entries that are no longer required."

Daily processing for all of the DB2 changes is almost completely automated. REXX programs on the mainframe and on the Windows platform are the basis for this automation. During the implementation phase, Basler was supported by the technical support team of B.O.S. Mr. Peuser added, "The support we received from B.O.S. was very professional, always prompt and responsive. During the implementation we also faced situations where corrections and adaptations to the software were necessary. B.O.S. always took care of any issues and reliably resolved the situations."

Since its implementation at Basler, tcVISION has been installed at other companies of the Basler Group Germany. At these other sites, the replication from DB2 z/OS to a DB2 on Windows is performed in real time and not via log files. Another requirement was to process change data capture for other data sources such as DB2 LUW, ADABAS or flat files. Mr. Peuser concludes, "We are happy that we can react very quickly to those requirements with tcVISION. Our experience with B.O.S. gives us confidence to flexibly manage new replication challenges in the future."