



## Beyond Traditional Data Integration

### Keeping You Safer

**Basler Versicherungen has been active in the German market for nearly 150 years. The company is headquartered in Bad Homburg and part of the Basler Group Germany.**

**The Basler Group Germany offers indemnity, accident and life insurances. The company positions itself as an insurance that provides intelligent prevention, the "Safety World". With a total revenue of approximately 1.4 billion Euros, the group is among the most important insurance companies in Germany.**

**The Basler Group consists of Basler Versicherungen and its affiliated companies Basler Securitas Versicherungs-AG, Basler Versicherung AG Direktion for Germany and Basler Leben AG Direktion for Germany, Deutscher Ring Lebensversicherungs-AG, Deutscher Ring Sachversicherungs-AG and various sales companies. The Basler Group Germany is a subsidiary of Baloise Group in Basel, Switzerland.**



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The IT of Basler Versicherungen (Basler) operates an IBM mainframe with the z/OS operating system. DB2 is the production database. Basler is a long-standing customer of B.O.S. Software. In Spring 2008, a B.O.S. tcVISION newsletter caught their attention. Stefan Peuser, IT Specialist, remembers, "In addition to our production DB2 on the mainframe we also operate a data warehouse. The data warehouse had to be fed with current DB2 data on a daily basis. Additionally, the reporting from the DB2 tables should not be performed on the mainframe but on a mirrored DB2 database on a Windows Server. We already had in-house developed processes in place to create the data store; unfortunately, these processes were too inflexible and required a great deal of maintenance effort. tcVISION made us curious enough to ask B.O.S. for a presentation." The B.O.S. presentation convinced Basler, so a licence for the DB2 log file processing component of tcVISION was obtained. Stefan Peuser, "Our main requirement was to keep the data on the Windows Server up-to-date. After a short introduction of tcVISION in early December 2008, we started the project."

The replication solution has been in production for a couple months. tcVISION is currently implemented on both test and production environments. Stefan Peuser describes 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 replication server. The replication processes are part of our daily IT operations. The online systems and batch applications are responsible for the changes applied to DB2. All tables that are supposed to be 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 servers using FTP processes. Once received, tcVISION processes the log files on the replication server. To process the log files and to capture the changes, tcVISION has to understand the structures of the DB2 tables. This meta data is stored in a central repository which is also stored in the DB2." tcVISION provides import functions for creating the meta data from the DB2 source database. This meta data is used for the initial load of the DB2 tables to the server as well as for the processing of the DB2 log files. Stefan Peuser, "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 is sent to the replication server via FTP. The copy is processed and loaded to DB2 with the help of a LOAD

statement generated by tcVISION. Then, the tables are available on the replication server and changes can be applied via the log file processing."

A special challenge was presented by the DB2 Compression Dictionaries and the fact that the structures of the tables can be changed during the daily operations. The information about the compression algorithm in use is scanned by tcVISION while importing the meta data and stored in the central repository. Stefan Peuser, "In our implementation of DB2 z/OS, we store each table in a table space of its own. The different dictionary versions and corresponding compression algorithm are kept in the Repository, so tcVISION can always use the correct algorithms for the decompression when processing the log files or image copies. The meta data reflects the structure of the data at the time of the import. tcVISION historicizes this structural information during a new import after a structure change. This way, tcVISION recognises changes of the data structure and is able to apply the changes to the target tables in accordance with the structure in place at the time the change was performed. That is why all DB2 structural information is refreshed every day by an automated process. This automated process guarantees the correct meta data and compression information to be used. tcVISION provides tools and utilities to delete all the historical repository entries that are no longer required."

The daily processing of all the DB2 changes is nearly 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. Stefan Peuser, "The support we received from B.O.S. was very professional. I'd like to especially point out the fact that the support was always prompt and responsive. During the implementation we also faced situations where corrections and adaptations to the software were necessary. B.O.S. took care of any issues and reliably resolved the situations."

In the meantime tcVISION has been installed at other companies of the Basler Group Germany. At these sites the replication from DB2 z/OS to a DB2 on Windows is performed in real-time and not via log files. Another requirement is to process change data capture for other data sources like DB2 LUW, ADABAS or flat files. Stefan Peuser, "We are glad to be able to react quickly to those requirements with the help of tcVISION. Our experiences with B.O.S. make us confident to be able to face new replication challenges in the future."

Contact:  
Stefan Peuser  
Basler Versicherungen  
Mail: [Stefan.Peuser@basler.de](mailto:Stefan.Peuser@basler.de)

Peter M. Horbach  
B.O.S. Software Service und Vertrieb GmbH  
Fon: +49-89-4619930  
Mail: [Peter.Horbach@bossoftware.de](mailto:Peter.Horbach@bossoftware.de)