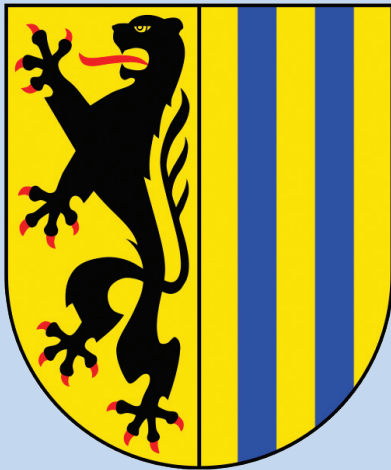


Customer Case Study

City of Leipzig: tcACCESS connects Mainframe IMS to Windows and JAVA Resources



Leipzig is a Kreis-free town in the north west of the Free State of Saxony. With more than 510,000 inhabitants, Leipzig is the most populous city in Central Germany. Leipzig is known for the musical tradition that is primarily based upon the works of Johann Sebastian Bach and Felix Mendelssohn Bartholdy. The "Gewandhaus" orchestra and "Thomaner" choir have an excellent worldwide reputation.

BUSINESS BACKGROUND

The IT activities of the City of Leipzig are being provided by LECOS GmbH. LECOS runs a modern IT data center and offers 24/7 services for all 365 days of the year. One of the primary services provided by LECOS is the processing of large data volumes for municipal authorities as well as the printing and collating of mass printed papers.

SYSTEM PROFILE

LECOS uses an IBM mainframe with the z/OS operating system. The various municipal responsibilities are covered by the corresponding processes (taxes, budget and cash policies, welfare). Some of these processes use IMS databases and the IMS transaction monitor.

BUSINESS ISSUE

In the past, employees of the city treasury used data entry applications to execute the transactions. Most processes were batch oriented. The input data was transmitted to the city treasury by the different agencies using individual forms. These forms had to be entered into the system.

At the end of the last century, the City of Leipzig initiated research with the objective to implement a new standardized processing flow that could be used by all agencies to submit their data to the city treasury. The City of Leipzig called for tenders and the project was given to a Dresden based company. The new system should be implemented on a Client/Server platform and was called ELFI. The primary requirement for the new system was a transparent integration of the existing IMS databases and IMS programs.

TECHNOLOGY SOLUTION

B.O.S. Software was invited early summer of 2000 to present the tcACCESS solution and it was decided to use tcACCESS as the transparent gateway between ELFI and the legacy IMS environment.

Ralph Liske, ELFI and tcACCESS manager at LECOS GmbH: "tcACCESS is the central connector between ELFI and the mainframe. We use the various connectivity methods

provided by tcACCESS to access our IMS databases and to integrate the IMS programs. We use the tcACCESS ODBC and JDBC connectivity and we can directly access WINDOWS and JAVA resources from our mainframe programs."

ELFI is in production use at City of Leipzig for more than three years. The following tcACCESS functions are being used:

SQL access to mainframe data

For the processing of credit and debit accounting information, certain unique transaction numbers must be obtained from a pool that is maintained on the mainframe in IMS databases. SELECT statements are being generated from the ELFI application to retrieve these numbers which will be inserted into the application screens. The tcACCESS ODBC component is used to perform this task. Ralph Liske: "The access to the IMS data is completely transparent. The access to IMS is performed by tcACCESS."

Integration of IMS programs

Ralph Liske: "This requirement was very important to us, because we wanted to use the already existing business logic on the mainframe from our ELFI application. Also, this integration form is transparent to the user. Certain values are inserted into screen fields, the cursor is tabbed to the next field and the remaining screen fields are automatically filled with information that have been created by IMS programs. The key to this is the use of tcACCESS Stored Procedures. The ELFI application simply CALLS the IMS programs via tcACCESS ODBC. Input data is passed to the IMS programs and the programs return data that is used by ELFI. This is secure and fast processing, but most importantly, we can use our existing business logic. It is important to mention that no changes were required to our IMS programs."

Transactions

All transactions that must be performed by the city treasury are collected into an ORACLE database throughout the day. When the daily batch processing starts a JAVA program reads the ORACLE database and uses tcACCESS JDBC to transfer the data to the mainframe.



Treehouse
SOFTWARE



ABOUT TREEHOUSE SOFTWARE

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 connect your enterprise—from anything to anything. We offer software and services that 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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Here, the transactions are being processed with the batch programs.

Ralph Liske: “tcACCESS also plays an important role in the day-end closing. During the batch processing certain tcACCESS tasks are being started that retrieve data from network servers and integrate the data into the batch processes.”

Another application is the start of print processes from the IMS transactions. The IMS programs create the print output, and this output is sent to a tcACCESS JAVA component (tcACCESS JAVA listener). The JAVA listener uses SQL statements to retrieve the print data from the mainframe and the data is printed on selected network printers.

Mr. Liske: “tcACCESS helped us to transparently integrate our IMS applications and IMS data into the new ELFI system. Whenever we needed support and help from B.O.S. we could contact them. We always participate at the B.O.S. user conferences where we are being informed about new functionalities that we can use in our applications.”

Application Example for the City of Leipzig

The top screenshot shows the login interface for the ELFI application. It features a header with the City of Leipzig logo and the text 'Bitte melden Sie sich in ELFI an:'. Below this are input fields for 'Nutzer:' and 'Passwort:', along with 'Anmelden' and 'Leeren' buttons. The bottom screenshot displays the 'Auszahlungsanordnung - Überweisung' screen. It contains a form with various fields for transaction details, including 'Auftragsnr.', 'Abschlagszahlungsnr.', 'GKZ', 'HJ', 'HHST', 'Betrag', 'Z-Empf. ZED-Nr.', 'Name', 'Straße', 'PLZ', 'Ort', 'BLZ', 'Konto', and 'Institut'. It also includes a 'Bemerkung' field and a 'Bestätigungsmerkmal' section with radio buttons for 'Die Mittel stehen haushaltsrechtlich zur Verfügung' and 'über-/außerplanmäßige Ausgabe; § 79 SächsGemO wurde beachtet...'. The interface is displayed in a Microsoft Internet Explorer browser window.

tcACCESS performs a central role in the ELFI application used by the City of Leipzig. Different tcACCESS functions are being used by the application.

If data is being entered into certain screen fields automatically IMS programs are being started on the mainframe using the tcACCESS function “Stored Procedures”. The IMS program returns data to the ELFI application that is being inserted into screen fields.

Other functions of the application use SQL-statements to access IMS databases via tcACCESS.

During the batch processing for the day-end closing, tcACCESS is used to retrieve data from an ORACLE database.