

## **Case Study – tcACCESS** **Operating System: OS/390** **DB2 – IMS DL/I – VSAM**

**The tcACCESS customer is one of the European subsidiaries of a world-wide operating multinational corporation and has established a leadership in the gas- and oil-industries.**

Since the beginnings in the 70th until today, the IT-System consists of heterogeneous platforms with different operating systems. The mainframe operates an OS/390 system. The production files consist of more than 700 GB in VSAM-files, DL/I- and DB2-databases. CICS-programs with a daily transaction volume of approximately 400.000 transactions and more than 1000 batch-programs access the data.

The growing importance of the "Open World" demanded the usage of reliable and well performing systems to provide data exchange between the mainframe and the new platforms.

The customer uses tcACCESS of B.O.S. Software to perform this important task. Thanks to tcACCESS the customer is now capable of transferring massive amounts of data from the mainframe. The transfer is done in a synchronous and asynchronous way. Without tcACCESS it would be very difficult and time consuming to make this data available to the Open World.

As of today different applications have been developed that process queries on the mainframe using tcACCESS. These applications run on UNIX-, Linux- and Windows-Servers and use an interface that has been developed by the customer. This interface passes the queries to tcACCESS.

In most cases "queries" and "calls" to mainframe-data and –programs will be processed. Several thousand accesses per day are being performed in that way and the customer is extremely pleased with the response times of the applications.

Because of a very special configuration of the mainframe DB2 the customer had to implement a gateway-server. Application development and the users itself have no direct access to the mainframe archives.

This Gateway-Server contains a security system that connects itself to the RACF security definitions of the mainframe and integrates these with the internal security capabilities of tcACCESS.

A very important log file is being maintained on that server. The log keeps track on error conditions and is also being used to control the accesses and the performance.

These processes are being used by several hundred of the more than 3000 mainframe users.

The Gateway-Server is a web-service that has been developed using JAVA. The server connects to tcACCESS using the tcACCESS JDDBC component. SOAP/XML is the communication protocol that is being used with the applications.

The internal security of tcACCESS can be used for anything related to the tcACCESS SQL-engine it cannot directly be used for DB2. For this reason the customer has developed DB2 views for the SQL-Engine. These views will be used to read the DB2 data. For database modifications the server checks the access authorities for these views and passes them to the DB2.

tcACCESS supports the direct call of CICS-programs from an Open System application. This feature is called: Stored Procedures.

The customer uses this technology to call existing programs that will access the legacy data. If the programs return more data, the data will be written into a Temporary Storage (TS)-Queue and be processed from there.

A requirement was to define a TS-name that contains the terminal name. It should be avoided that, when using a "Connection Pooling", every started query would create a new terminal name. The result would be a loss of the synchronization between the process and the returned data.

To get around this problem, the customer has implemented a mechanism that allows the communication of multiple queries to the server and still using the same terminal name.

During the implementation of these rather complex tasks the customer could count on the valuable and competent support of B.O.S.



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