

# 3 BANKEN IT AND BOI A SUCCESS STORY



#### CUSTOMER PROFILE & FACTS 2016

- 3 Banken IT is the general contractor for all IT services of the 3-Banken-Gruppe
- Employees: 230 Turnover: 54.73 Mio. EUR Investments: 8.92 Mio. EUR
- 255 branches with 1.55 Mio. accounts
- 10 Mio. online transactions per day

## 3 BANKEN IT AND BOI

40 years of success and confidence.

The collaboration of the 3 Banken IT GmbH (in short 3 Banken IT) and BOI GmbH is a success story that began nearly 4 decades ago.

1979 marked the beginning of a cooperation that is still going strong. The joint idea of the former Oberbank AG and BOI was to develop a flexible, high-performance table access system for the regional bank. That idea was the starting point for the development of TABEX.

TABEX was developed for table access within mainframe environments. Many requirements of the Oberbank AG were taken into account in the design and implementation of TABEX. Through close collaboration, a tailor-made product was developed for fast table access and for the maintenance of parameter and control data

The Oberbank AG is now part of the 3 Banken Gruppe. Since1991, the 3 Banken IT has been the Group's IT service provider.



## A SUCCESS STORY

If all software products ran as reliably and smoothly as TABEX, we would have no more worries.



THE DAILY BUSINESS OF 3 BANKEN IT runs smoothly with TABEX:

## 99 %

of all in-house developed programs access

TABEX.

## 100%

And that to the utmost satisfaction of the bank employees. The close cooperation between 3 Banken IT and BOI has continued steadily over the years, with 3 Banken IT's requirements being implemented in TABEX successor products. Today, BOI offers with the product family TABEX4 a cross-platform, auditable table-maintenance and table-access system that can be used for all major relational databases.

How well TABEX supports the business processes of 3 Banken IT can be seen in the degree of utilization of TABEX4. For 3 Banken IT's daily business processes, TABEX is now indispensable: 99 % of all in-housedeveloped programs rely on TABEX access, which is to the complete satisfaction of the bank employees. The access amount is at tens of billions on peak days. The use of TABEX means reduced burdens on and costs for the IT department.

### THE BEGINNING

40 years of TABEX. A project of success for generations.

In 1979 the Austrian regional bank Oberbank – Bank of Upper Austria and Salzburg (now part of the 3 Banken Gruppe) approached the newly established BOI GmbH with a request to develop a table-access system.

The result was the creation of TABEX. The basic idea of TABEX was to store variable data (so-called parameter data) and key values, such as interest rates and control data, in read-access tables, rather than encoded in programs. This has significantly reduced program maintenance, since table data stored in this way can be used many times, and can easily be centrally maintained.

A further aim was to transfer responsibility for data maintenance to the operating departments. For this purpose, TABEX had to give assurance that all aspects of safety would be maintained in the online handling of sensitive data.

Through versioning of tables the validity of table versions could be defined. Thus, data in productive operation, such as interest rates, can be activated time-controlled.



### 3 BANKEN IT TODAY

The VTAS-TABEX adapter enabled us to immediately switch all VTAS programs to TABEX and then use TABEX as the main system.



Dipl.-Ing. Robert Fleischer Head of Systems Engineering and Production of 3 Banken IT



OBERBANK headquarter in Linz, Upper Austria

#### THE CHALLENGES

Three banks - one system and migration VTAS.

The Oberbank AG is now part of the 3 Banken Gruppe, which has approximately 4,300 employees, and operates across Austria and its neighboring countries.

3 Banken IT is an IT service provider that operates the data centers of the Austrian 3 Banken Gruppe. It was founded in 1991 as a 100% subsidiary of the 3 Banken Gruppe to utilize the synergies of the three banks and centrally manage their IT. Thus, the data centers were merged, and the application development and maintenance of bank applications were centralized and unified.

One of the challenges of unifying the software associated with the pooling the data centers of the three banks was the replacement of VTAS, a virtual table and file management system that had been in use in one of the banks. For this purpose, a VTAS-TABEX adapter was designed by BOI, so that the VTAS functionalities could be replaced by TABEX without costly changes to the program sources.

In the fiscal year of 2016, 3 Banken IT had over 230 employees, serving a total of 255 branch banks, 1.55 Mio. bank accounts and 6.000 terminals. 3 Banken IT ensures the smooth running of nearly 10 million online transactions per day.

More than 30 years after its first implementation at the Oberbank AG, TABEX is now indispensable as a strategic product of the 3 Banken Gruppe. After numerous generations of the product, TABEX4 is now in use at 3 Banken IT and embedded in their system.



## TABEX4 AT 3 BANKEN IT

In the banking sector, modern corporate governance and legal provisions place high demands on a table management system. The traceability of all data changes is imperative in this regard. TABEX meets these demands completely.

Dipl.-Ing. Robert Fleischer Head of Systems Engineering and Production of 3 Banken IT

#### TABEX FUNCTIONS

- **1.** High-performance table access
- 2. Data maintenance
- 3. Job generator

#### 1. High-performance table access

Logically prepared table data are provided by TABEX for common high-performance access, ensuring that the billions of table accesses that occur each day are secure, fast and error-free.

Fast and secure access to table data such as interest rates is a must in the banking sector. Compared to DB2, TABEX offers a much higher access performance. Therefore, in 3 Banken IT, "read-only tables", which are accessed very often, are stored as TABEX tables in shared storage, and accessed with TABEX APIs.

Through the integration options for all major relational databases to TABEX, DB2 tables can also benefit from access to TABEX by being loaded via TABEX into the main memory (shared storage).

3 Banken IT uses the TABEX database in addition to the relational database DB2. Depending on requirements, either the DB2 database can be accessed with SQL, or preloaded TABEX tables can be accessed via TABEX APIs. DB2 is mainly used for tables that change periodically, such as control or parameter tables. 3 Banken IT uses approximately 100,000 DB2 tables and 10,000 TABEX tables.

#### 2. Data maintenance

TABEX offers a variety of maintenance functions for TABEX and DB2 tables. Maintenance can be carried out via batch processing or via a web-browser interface. TABEX adapts to the needs of the business: different maintenance interfaces can be configured for different clients (multitenancy).

Thanks to its extensive maintenance options for highly sensitive data, 3 Banken IT also uses selectively TABEX for maintaining DB2 tables. Thus, all the tables can be edited with one standardized tool.



### BENEFIT

We are extremely pleased with the professional support of BOI and its short response times.

Dipl.-Ing. Robert Fleischer Head of Systems Engineering and Production of 3 Banken IT

TABEX4 FACTS AT 3 BANKEN IT

10,000

TABEX Tables are used in the bank products.

## 100 Mio.

accesses can have approx. 20 Tables on peak days.

## 1 Billion

times a peak day a table is accessed. The audit compliance in the maintenance of tables with TABEX, regardless of where they are stored, is a definite advantage for 3 Banken IT. The comprehensive logging and documentation of business processes, the flexibly configurable authorization system, the integration of external authorization systems as well as the release procedure, with its principle of dual control, guarantee TABEX full auditability.

### 3. Job Generator

TABEX is also used as a job generator for periodic processes, as an evaluation and monitoring program, and for replicating table data across multiple environments.

When Robert Fleischer was asked which of the benefits of TABEX he most appreciates for 3 Banken IT, he stated:

"TABEX is stable in the heterogeneous 3 Banken IT system landscape. The product has been used successfully for decades. The introduction of TABEX resulted in greater transparency for our company`s processes, which led to a significant reduction in the error rate, and thus to savings in maintenance and monitoring. The instance concept available through TABEX, allows convenient management of many different tables, resulting in significant improvement of administrative processes of cross-client tables. At 3 Banken IT, over 20 environments are in use; four of which are in productive use, the rest are used for development and testing."



#### FUTURE PLANS

Should we decide in the future for "Java for TABEX", one thing is clear for us: The implementation would – as in the past – be made in close cooperation with BOI.

Dipl.-Ing. Robert Fleischer Head of Systems Engineering and Production of 3 Banken IT

> Joost Meuwissen, TABEX expert at 3 Banken IT, adds, that staffing requirements for the care of TABEX remain quite manageable, despite the immense importance of TABEX for 3 Banken IT, "The maintenance of all TABEX4 installations is carried out centrally by 3 Banken IT. Currently, two system administrators manage the entire operation of TABEX over two to three days each per month".

Since TABEX is constantly being developed and adjusted to the needs of the market (hardware, operating systems, database systems), 3 Banken IT can be sure that TABEX will meet all future requirements and will provide efficient solutions.

### THE FUTURE

BOI has begun to expand the table access and maintenance functions using Java. On the one hand, tables that are stored centrally in TABEX or relational databases can now be accessed directly via Java. On the other hand, these tables can be directly maintained with Java programs. In addition, the automatic replication of table contents across platforms for high-performance Java access, e.g., in web applications, is currently being implemented.

"Java for TABEX" is also of interest for 3 Banken IT, providing tables as Java objects for read and write access.

Because one thing about BOI is particularly appreciated by the 3 Banken IT staff: The good and expert support from the software engineers that have developed TABEX and know the product down to the smallest detail.



BOI Software Entwicklung und Vertrieb GmbH 40 years of success and innovation. Your specialist for data management.

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