



COMMERZBANK

» Utilizing integrated mainframe management from BMC to enable and enhance availability, performance and data integrity

BEFORE

- » Needed to ensure 24x7 access to online banking applications
- » Needed to manage IMS and DB2 databases in two separate data centers
- » Needed to ensure data integrity, application availability, and optimal performance

AFTER

- » Deliver the 24x7 service customers need, with no interruption
- » Proactively control IMS and DB2 using unified console
- » Reorganize parts of the most important IMS databases with no outage
- » Ensure data integrity, application availability and performance



GEOGRAPHY

Germany

INDUSTRY

Financial Services

SOLUTIONS

BMC MAXM Reorg/Online for IMS
 BMC POINTER CHECKER PLUS
 BMC System Performance for IMS
 BMC Fast Path Enhanced Online Suite
 BMC MainView solutions
 BMC Database Administration for DB2

It's a tricky balancing act: keeping your databases online, well structured, and operating at peak performance, while continuing to offer customers an uninterrupted online service experience. Not for Commerzbank though. By standardizing on a comprehensive portfolio of BMC Mainframe Management solutions, the leading German bank is often able to reorganize portions of an IMS database with no service outages. As a result, the bank is able to deliver the 24x7 service customers need, with no interruption.

GERMANY'S SECOND-LARGEST BANK

Following the takeover of Eurohypo, Europe's largest institution specializing in financing real-estate and public-sector projects, Commerzbank has risen to become Germany's second-largest bank and one of the leading banks in Europe. It positions itself as an efficient provider of financial services—primarily for private customers and small to medium-sized companies. At the same time, it serves numerous major corporations and institutions around the world. Commerzbank operates a network of more than 800 branches in Germany and is represented in more than 40 countries.

The bank's IT Production department manages the large-scale technology infrastructure. Its primary role is to support internal customers—other departments within Commerzbank—although it also markets its services to external customers. Its objectives are to ensure fast, direct access to data in a 24x7x365 environment and to process payments and bond orders in real-time or near-time.

Two data centers are collectively responsible for up to 15 million transactions per day. The primary site located in Frankfurt is the operations hub, and processing is split across to the second site nearby. The combined MIPS total more than 17,000. Each mainframe manages eight terabytes of data, they are logically partitioned and each site utilizes the parallel sysplex architecture.

AROUND-THE-CLOCK TRANSACTION PROCESSING

Online banking and around-the-clock transaction processing are placing greater demands on Commerzbank's two data centers to provide application availability. In spite of the fact that the already small batch window is shrinking, databases still need to be reorganized frequently to maximize operating efficiency to meet demands. Traditionally, when a database is being reorganized, it must be offline and unavailable to users, potentially resulting in lost revenue. The challenge for Commerzbank was to reorganize IMS databases without any outage. Uwe Streiber is the Database Manager at Commerzbank IT Production, and it was the job of his team to fix it.

“Commerzbank prides itself on the quality of service it provides to customers,” he says. “Part of that means ensuring customers can access online services at any time of the day or night, and that payments can be processed in near real-time. One of our major concerns was that the original IBM tools we were relying on in the IMS environments were unable to cope with our growing demands for online database de-fragmentation.”

Commerzbank has been a satisfied BMC Software customer for more than 10 years in the IMS and DB2 arena, and it was BMC they turned to for advice on how to tackle the IMS database reorganization issue. “We wanted the solution to integrate tightly together and we needed a proven solution which would manage the reorganization process,” says Streiber. “BMC was the right choice.”

Commerzbank has deployed a comprehensive portfolio of integrated mainframe management solutions, including BMC MainView, BMC Database Administration for DB2, BMC Fast Path Enhanced Online Suite, BMC MAXM Reorg/Online for IMS, BMC System Administration for IMS, BMC System Performance for IMS, and BMC integrity products.

COMPREHENSIVE IMS/DB2 MONITORING AND MANAGEMENT

At the heart of the solution is BMC MainView, which provides the bank with comprehensive, user-friendly IMS and DB2 monitoring and management tools. It delivers a variety of features including full data-sharing support, tuning wizards, customizable displays, multiple displays on one screen, and extended I/O analysis. This way, Commerzbank is capitalizing on a single interface to take proactive control of the IMS, DB2 and WebSphere MQ environment, the ability to manage the DB2 systems across the two locations, and the capability to monitor DB2 to catch degradation, issue early warnings, and drive automation to manage exceptions.

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UWE STREIBER
DATABASE MANAGER, COMMERZBANK

Similarly in the IMS environment, MainView for IMS Online manages and monitors Commerzbank's IMS workloads. It simplifies IMS management by providing the same interface for managing traditional implementations and sophisticated data-sharing groups—such as the parallel sysplex environment deployed in the data centers.

The demand for online defragmentation arises from the fact that there are a number of IMS databases used for processes which run almost continuously. This means that Streiber and his team must avoid /DBR commands which would de-allocate the databases from the online systems.

Here, BMC MAXM Reorg/Online for IMS has been deployed to reorganize the parts of the databases causing performance problems with no outage: it virtually eliminates the downtime required for complete database reorganizations. BMC MAXM Reorg/Online for IMS provides multiple types of reorganizations: the classic way with unload/reload and online defragmentation. With the first, the IMS database is reorganized to shadow databases, so the original database remains intact, and a DBRC-registered image copy is created during the reorganization process. The original database is available for read-only access during the reorg, and if an error occurs, Commerzbank can revert to the original database instead of recovering it. The Online Defrag feature reorganizes portions of a database that are causing performance problems without any downtime! With BMC MAXM Reorg/Online for IMS, the Commerzbank team can reorganize the parts of the database, reorganize the entire database and leave it online for updates during the bulk of the reorganization, or run individual reorganization tasks.

Commerzbank is using BMC POINTER CHECKER PLUS to increase data integrity and availability by identifying internal database problems. Application availability and performance are improved through the proactive monitoring of database space utilization. The solution validates DL/I structural elements and it collects, reports, and monitors statistics. It provides utilities to perform additional database management tasks. "The overall secondary index utility is very valuable," Streiber says, "and BMC POINTER CHECKER PLUS (PCP) gives us the information we need concerning the database structure. Almost all BMC utilities write their statistical reports into a PDX file (and so does PCP) and we feed off the PDX files to DB2 tables. The net result is that we can reorganize the DB2 tables automatically over the weekend."

BMC UNLOAD PLUS for DB2—a component of the BMC Database Administration for DB2 solution—provides an important part of the DB2 data migration tasks that Commerzbank needs.

MANAGEMENT WITH THE SYSTEMS ONLINE

The large-scale, integrated BMC Mainframe Management solution has transformed the way Commerzbank manages its database organization. Most importantly—reflecting the tight window available for reorganization—an image copy of the database is available online. This means that almost all database maintenance and management can be conducted while the systems are online, without stoppages. According to Streiber, that makes a considerable difference to Commerzbank's customers. "You'd be

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The bottom line for Commerzbank? "BMC lets us do a great job," Streiber concludes. "Our databases are up to date and well-structured. With this efficient monitoring and management, the bank is benefiting from high performance. This cascades down into a faster, more rewarding and more reliable experience for our customers."

ABOUT COMMERZBANK

Commerzbank is Germany's second-largest bank and one of the leading banks in Europe. It positions itself as an efficient provider of financial services—primarily for private customers and small to medium-sized companies. At the same time, it serves numerous major corporations and institutions in Europe as well as multinationals worldwide. Commerzbank operates a network of more than 800 branches in Germany. Altogether, Commerzbank is represented in more than 40 countries.

BUSINESS RUNS ON I.T. IT RUNS ON BMC SOFTWARE

Business thrives when IT runs smarter, faster, and stronger. That's why the most demanding IT organizations in the world rely on BMC Software across both distributed and mainframe environments. Recognized as the leader in Business Service Management, BMC provides a comprehensive and unified platform that helps IT organizations cut cost, reduce risk, and drive business profit. For the four fiscal quarters ended March 31, 2010, BMC revenue was approximately \$1.91 billion. Visit www.bmc.com for more information.

