

## REFERENCE



# BADEN IT GMBH

Security in the event of user errors but also during SAP® upgrades and migrations

**Industry**  
IT Services

**Software**  
SAP® MaxDB™  
Libelle **DBShadow**

**Hardware**  
IBM Server

**Application**  
SAP ECC 6.04  
2-Tier Landscape

2010

### CHALLENGE

One of badenIT's classic services is the operation of its customers' SAP environments in its own data centre. For badenIT, high availability means more than just functioning hardware. It also includes a lifebelt in the event of user errors. A cluster solution proved to be unreliable and more complex to use than expected.

### SUCCESS

Fast and automated reaction, especially in the event of user errors. Additional benefit: The shadow database enables offline backups. This shortens the waiting time for release changes or migration projects tremendously. badenIT can offer its customers high-quality SLAs.

### SOLUTION

Libelle **DBShadow**





## So simple - that impressed us all

Victor Schmieder  
badenIT GmbH



In the course of the deregulation of the market for gas, water and electricity, utility companies are not only battling with a larger number of competitors for their customers, but also with IT challenges. In many cases - especially due to the legally required separation of network and sales – utility companies rely on external IT partners for this. One of these IT partners is badenIT GmbH - a subsidiary of badenova in Freiburg. As a certified SAP® Competence Center, the company also takes over the operation of its customers' high-availability SAP environments in its own data center, among other things. By high availability, badenIT means more than „just“ functioning hardware. After all, the reliability of hardware for servers and storage has improved enormously, as has disaster protection in data centers. Floods and fires are among the rather rare risks in everyday IT life.

### Challenge

#### Life belt in case of user errors - guaranteeing system availability in any case

In itself, badenIT could do without a special availability solution, but „there are situations that either cannot be planned for or in which speed is a competitive advantage,“ explains Victor Schmieder, badenIT: „Just last year, we had a critical situation that arose because a user had obviously overestimated his SAP competence a bit.“ In the course of database maintenance, a user with the appropriate rights wanted to edit the entries in a table in his SAP environment. However, instead of calling SAP support, which would have been enough with a phone call or an e-mail, the user himself tried to fill the table, which only contained around 100 data records, with his own data, which was business-critical information. During this attempt, however, all entries in the table were deleted by mistake. The table thus existed, but no longer contained any valid entries. While the cluster-based high availability techniques carefully took care of duplicating the faulty table, the missing database entries could only have been recovered by a costly restore. However, reconstructing the table using conventional techniques would have shut down the SAP environment for several hours or required a separate environment.

### Solution Approach

#### High availability is more than just functioning hardware

A previously favored cluster solution hardly allowed an error-free recovery of the SAP environment after disruptions. Even tests rarely ran as reliably as promised by the provider. A simulated manual switchover to the mirror in the cluster environment proved to be more time-consuming than expected. Therefore, the decision was made in favor of the data mirroring solution Libelle **DBShadow**.

It backs up two system landscapes with SAP ECC 6.04 on servers from IBM under AIX, to which storage systems from IBM are connected via a SAN with switches from Brocade. Another Libelle **DBShadow** license protects a MaxDB-based B2B solution for exchanging data between different utilities.

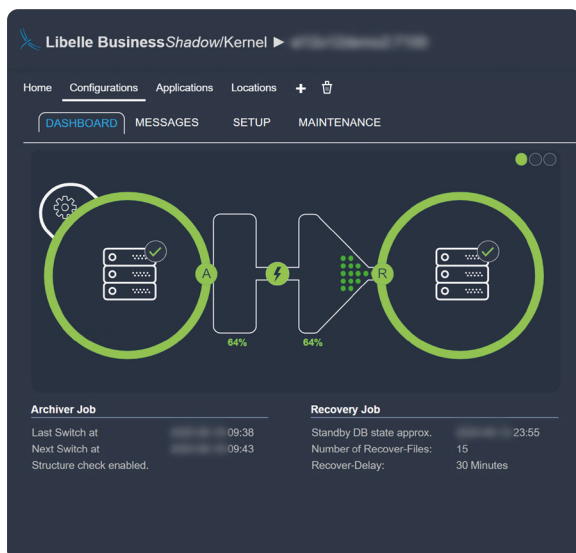
„We are particularly proud that we, building on our experience with a previous installation by Libelle - set up a second Libelle **DBShadow** implementation without outside help in a very short time,“ Schmieder reports. The installation could be done during a normal shift. Schmieder: „So simple - that impressed us all.“



### Success

#### Fast and automated reaction especially in case of user errors

After an initial copy of the SAP databases, all transactions run into a buffer called „time funnel“. The size of this funnel was configured by badenIT to four hours. This is sufficient for day-to-day operations, but can be modified as needed. In case of logical errors (for example user errors, corrupt software updates or similar) the production system can be switched to the shadow database and all valid transactions, up to the



## Libelle Insights

### High-quality SLAs for badenIT customers

After the successful proof of concept, our software was installed within one weekend at that time. With time-delayed data mirroring, badenIT can offer its customers high-quality SLAs. This is just fine with the customers, as they need a reliable, highly available SAP environment almost around the clock for business processes such as invoice tracking, customer service and call center operations - especially and above all during release upgrades and backups.

time before the failure, can be transferred to the shadow database. In the example of the user error, the shadow database can simply be started in read-only mode. And since the incorrect transaction has not yet been transferred from the time funnel to the mirrored database, the table can be exported from the shadow database one by one - in the shortest possible time and using significantly fewer technical resources.

### Additional Benefit: Enormous reduction of waiting time for release upgrades or migration projects

In everyday SAP operation, i.e. when no user errors need to be corrected, badenIT has discovered a completely new application for the shadow database and can thus ensure data security during release upgrades and system maintenance. „The time windows for backups and release changes are extremely short at our company. Anyone who thinks there is time for data backups at night is mistaken. On many days, system utilization is higher during the night hours than during normal office hours. This is due to simulations and forecast calculations that our customers perform then,“ explains Schmieder. These calculations are intended to help utility companies better estimate future consumption of gas, water, or electricity. Schmieder: „The shadow database enables us, for example, to perform offline backups at any time. This also significantly reduces the waiting time during release upgrades or migration projects. Thus, our production environment is not affected by the high I/O load.“ This saves seven to eight hours during a regular backup of the approximately three terabyte database. Another seven to eight hours can be saved for the additionally required backup of the production system after the release upgrade. „These 15 hours of time saved are also a commitment for us to our customers,“ says Schmieder.



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