



HUBTEX Fulda/Germany Protecting SAP with BusinessShadow® for MaxDB

Overview

Challenge:

Protecting the centralized SAP systems against hardware failures including software and user errors.

Solution:

Implementing **BusinessShadow®** to protect the SAP landscape.

Benefits:

Ensuring High Availability; minimizing the risk of data loss by protecting against the consequences of any hardware and software failures; rapid failover capabilities due to simplified operation.

About HUBTEX

HUBTEX GmbH & Co. KG is a leading supplier of specialized materials handling equipment for many years. The production of "application engineered" industrial trucks (side loaders and specialized machinery for moving long, difficult and bulky loads) forms the core of the business.

HUBTEX's business is designed to meet the demand of their customers. Access to information must be given at any time. Issues in IT operations need immediate response. Therefore headquarters in Fulda operate two data centers, where systems for central services, primarily for the operation of the SAP system, are provided.

High Availability for SAP-Systems

When HUBTEX had to experience a major downtime incident, the whole team was on board to redefine the requirements for High Availability.

Since there is no cluster in place, the solution should not only protect against the consequences of software and user errors, but also against hardware failures.

In addition, the solution should be easy to manage and not add additional unnecessary complexity.

Approach

The project team of HUBTEX and their SAP consulting firm untersee started the project with analyzing of the current environment with the new HA requirements.

The clear results of the analysis showed that **BusinessShadow®** with the components **DBShadow®**, **FSShadow®**, and **SwitchApplication** is the first choice, in particular in regards to the simplicity, the SAP certified integration, and Libelle's experience in SAP projects for MaxDB.

Investments were minimized

The new High Availability approach was built on the existing HP server and storage infrastructure. The SAP test system was designated as failback server. In case of a problem the test server is taking over production.

The hardware independence of Libelle **BusinessShadow** made it possible that the investment in additional hardware was zero.

The basis for HUBTEX architecture is a two-tier-concept. The SAP system was set up in two separate data centers which were largely identical in terms of hardware. The SAP installation was spread over the two data centers:

- SAP Central Instance and the production database with MaxDB 7.6 (Site A).
- SAP Development System with a database MaxDB 7.6 (Site B).
- SAP Test System. The additional instance of the **BusinessShadow** is placed here as well (Site B).

All servers run on SUSE Linux Enterprise Server 9.

*„Thanks to **BusinessShadow**, we significantly increased our protection against disaster incident“*

*Christian Schreiner
(SAP-/EDV-Administration)*



Industry

Manufacturing

Application

SAP ERP 2005 ECC 6.0
3-Tier-Architecture

Software

MaxDB 7.6
Suse Linux SLES9
Enterprise Server
Libelle **BusinessShadow®**

Hardware

HP DL-380 G4

Partner

Untersee GmbH
Konstanz, Germany





Protection for the SAP database and SAP-Files

After setting up the mirror and the non-recurring process of the initial copy, all changes in the production MaxDB database are mirrored to the test system using **DBShadow**. The resource overhead on the mirror system is very low, so that the mirroring does not affect the everyday essential function of the test system.

When the mirror system receives changed data, they are applied to the mirror database after a dynamic time-delay. In HUBTEX's case a time-delay of two hours was set during normal working hours. During night hours changes are not applied to the mirror system, but remain in a "funnel" and will then be pulled in the mirror system the next working day. This allows appropriate reactions to software or user errors such as data corruptions, faulty batch jobs etc.

The same applies to the flat files critical to operate SAP. The most recent SAP data, like profiles, the `usr/sap/trans-index` etc., which are held in the file system are mirrored with **FShadow**.

FShadow operates with a time-delay just as the **DBShadow**. When switching over, all current flat files are available on the mirror site as well.

Simplified switch-over and -back of the complete SAP landscape

In case of a failure of the production system, or a complete site failure, the mirror system can now be activated.

DBShadow and **FShadow** ensure the activation of the mirror system with a consistent set of data set during. In addition to that, the component **Switch-Application** plays an important role: It activates the IP address of the production on the mirror system. This requires no additional manual intervention from the perspective of the application server or SAP to redirect traffic. Another noteworthy point is the simplistic approach of the planned switch-back to the production system after a crash.

After fixing hardware on the production site, it takes only a few mouseclicks to re-copy the database and initiate a planned switch-back to the original state of the mirror.

Proof-of-Concept and Training brings piece of mind

After implementing Libelle **BusinessShadow**, and before final handover to the customer and training, a failover test was performed.

The failover process worked as expected after a few mouseclicks using the **DBShadow** GUI. SAP was started properly within a couple of minutes on the secondary system with the production SID. Switching back to production, including re-copying the database, ran as smooth as the initial switchover.

HUBTEX is now well prepared.



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