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SAP NetWeaver BIA – High Availability

Status Quo and Roadmap

**Development & Product Management EIM,
SAP AG**



High Availability Today

High Availability – Development Plans

High Availability Scenarios

■ Scheduled maintenance work

- ◆ Hardware maintenance: blade, storage system, network
- ◆ Software maintenance: OS or BIA patching
- ◆ Landscape changes: removing or adding blades

■ Unplanned downtime of hardware components

- ◆ One or more blades
- ◆ Storage
- ◆ Switches, controller etc.

■ Disaster Recovery

- ◆ Human errors: unintentional deletion
- ◆ Software errors: corrupt files, destroyed index
- ◆ Natural hazards (fire, earthquake, ...) or terrorism

High Availability Features

■ No single point of failure

■ Hardware precautions

- ◆ Redundant hardware components: power supply, switches, controller etc.
- ◆ RAID-5 to ensure operation after failure of one disk (in the disk array)
- ◆ Optional spare blade(s)

■ Software features

- ◆ Definition of backup servers
- ◆ Advanced monitoring and administration features
 - Automatic activation of backup blade and automatic re-distribution of index after failure (during BIA downtime, queries go directly to the database)

■ Further information

◆ SAP Developer Network

- SAP NetWeaver > Business Intelligence > BI Accelerator
> BI Accelerator (BIA) High Availability (PDF, 1.3 MB)

◆ SAP Note 984034



High Availability Today

High Availability – Development Plans

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High Availability Roadmap

- **Logical errors**
 - ◆ **Synchronous backup/recovery**
- **Disaster Recovery**
 - ◆ **Full hardware switch-over in 2nd data center**

Synchronous Backup/Recovery:

■ Scenarios

- ◆ point-in-time recovery of the BI database (e.g. database corrupt, load of wrong data, unintentional deletion etc.)
- ◆ severe hardware issues with the BI accelerator

■ Concept

- ◆ Backup of BIA files using synch points that are also kept in BI to ensure consistent recovery

■ Status

- ◆ Development plans implementation until Q1 / 2008

Hardware-based Hot Switchover Solution

■ Scenarios

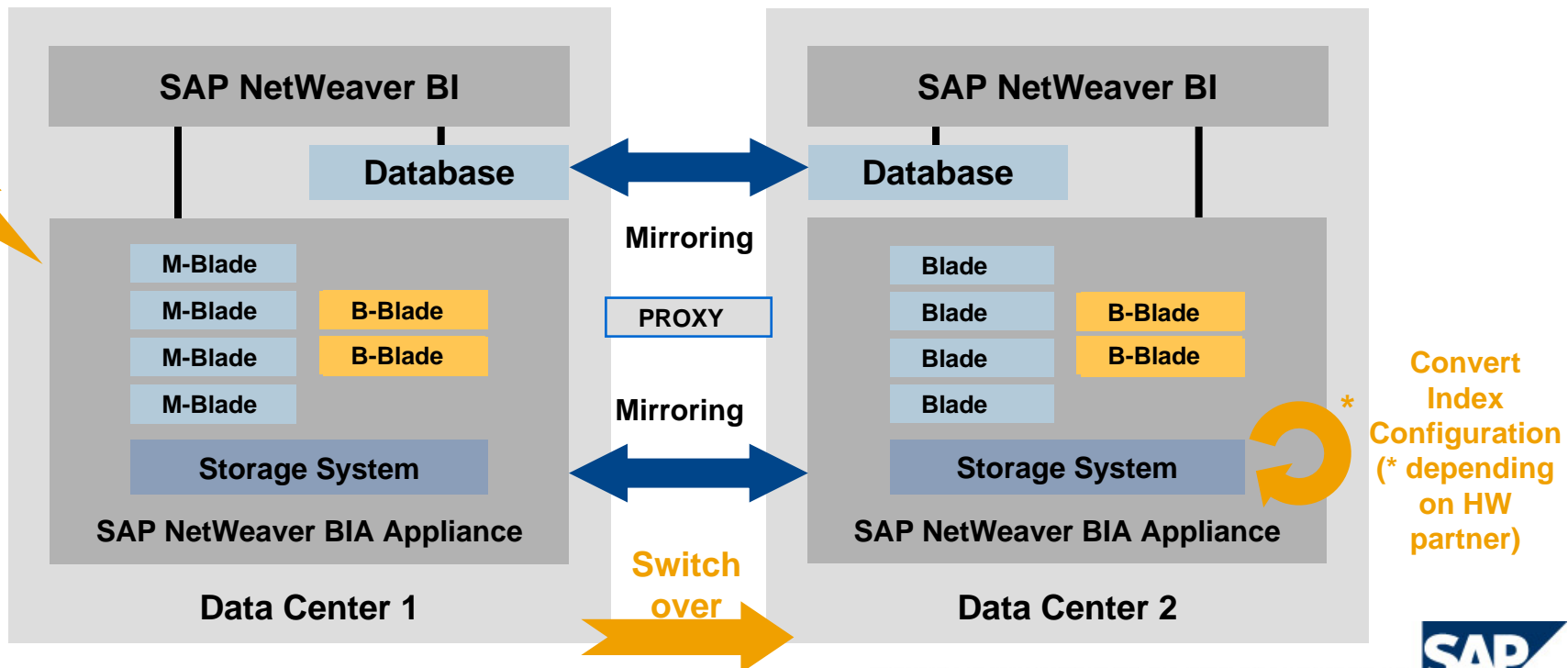
- ◆ One data center fails (due to fire, power outage, earthquake, terrorist attack etc.)

■ Concept

- ◆ Redundant data center (including redundant BIA appliance)
- ◆ Synchronous mirroring

■ Status

- ◆ Offering by hardware partner
- ◆ Planned for Q1 2008



Summary

- **Scheduled maintenance work** → **Done, Backup Blade concept**
 - ◆ **Hardware maintenance: blade, storage system, network**
 - ◆ **Software maintenance: OS or BIA patching**
 - ◆ **Landscape changes: removing or adding blades**
- **Unplanned downtime of hardware components**
 - ◆ **One or more blades** → **Backup Blade concept**
 - ◆ **Storage** → **RAID-5**
 - ◆ **Switches, controller etc.** → **redundant components**
- **Disaster Recovery**
 - ◆ **Human errors: unintentional deletion** → **backup**
 - ◆ **Software errors: corrupt files, destroyed index** → **backup**
 - ◆ **Natural hazards (fire, earthquake, ...) or terrorism** → **Switchover**