



Tivoli Software

IBM Tivoli Storage Manager and SAP MaxDB

ADINT/TSM Overview

Abstract

SAP MaxDB is a relational open source database by SAP AG.

It is mainly deployed in SAP environments in different applications, such as

- central ERP database
- Content Server (Document Management)
- LiveCache (Advanced Planning and Optimization)

ADINT/TSM provides a seamless interface between SAP MaxDB and IBM Tivoli Storage Manager (TSM) to combine SAP MaxDB backup/restore/recovery functionality with the automated and production-oriented storage management capabilities of TSM.

By enabling a one-step, direct data transfer between SAP MaxDB and TSM, ADINT/TSM

- eliminates the cost of extra temporary disk storage
- minimizes the backup window
- reduces the administration effort

ADINT/TSM is a Service Offering with central support and maintenance. This new release V2R4 enhances the established functionality and platform coverage of ADINT/TSM:

- support for dual log copies and automatic password generation
> High Availability and Automation
- extended platform support
 - AIX 6.1
 - LINUX SuSE SLES 11, Red Hat RHEL 5
 - Windows 2008

Important Notices

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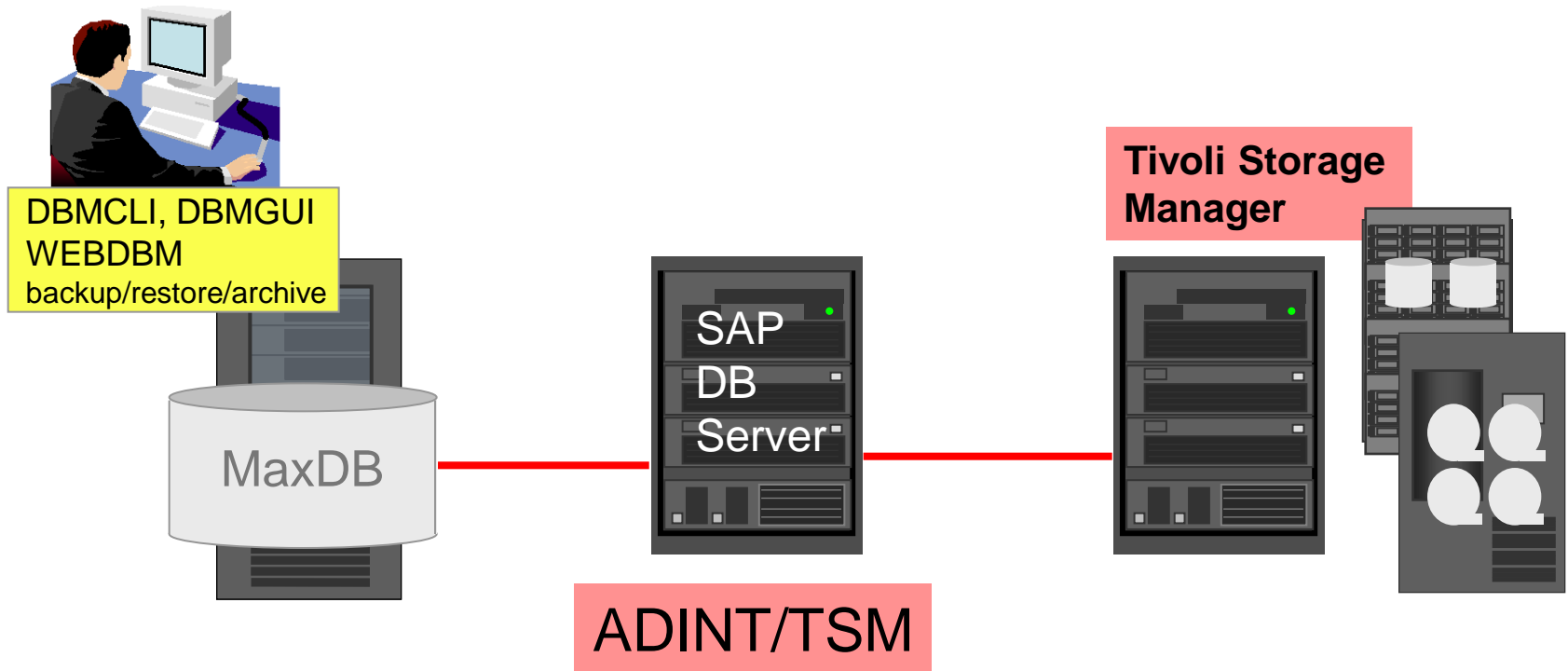
Agenda

Highlights

Built-in Functions

Logistics and Support

ADINT/TSM – *the TSM client for SAP MaxDB*



ADINT/TSM is a Service Offering built on TSM product components:
TSM API, TSM Server and TSM for SAN (opt.)

ADINT/TSM Architecture – *foundation for excellence*

❖ Seamless interface

- synergy of specific capabilities
- clear assignment of control

❖ Direct Connection

- single-step data transfer > no intermediate data storage
- robust, simple and performant

❖ Intelligent Integration

- built-in added-value functions
- optimized for target environment

ADINT/TSM - *the intelligent link for a seamless connection*

Administrator

*works with
SAP MaxDB utilities*

- single point of control ensures completeness and consistency of backups

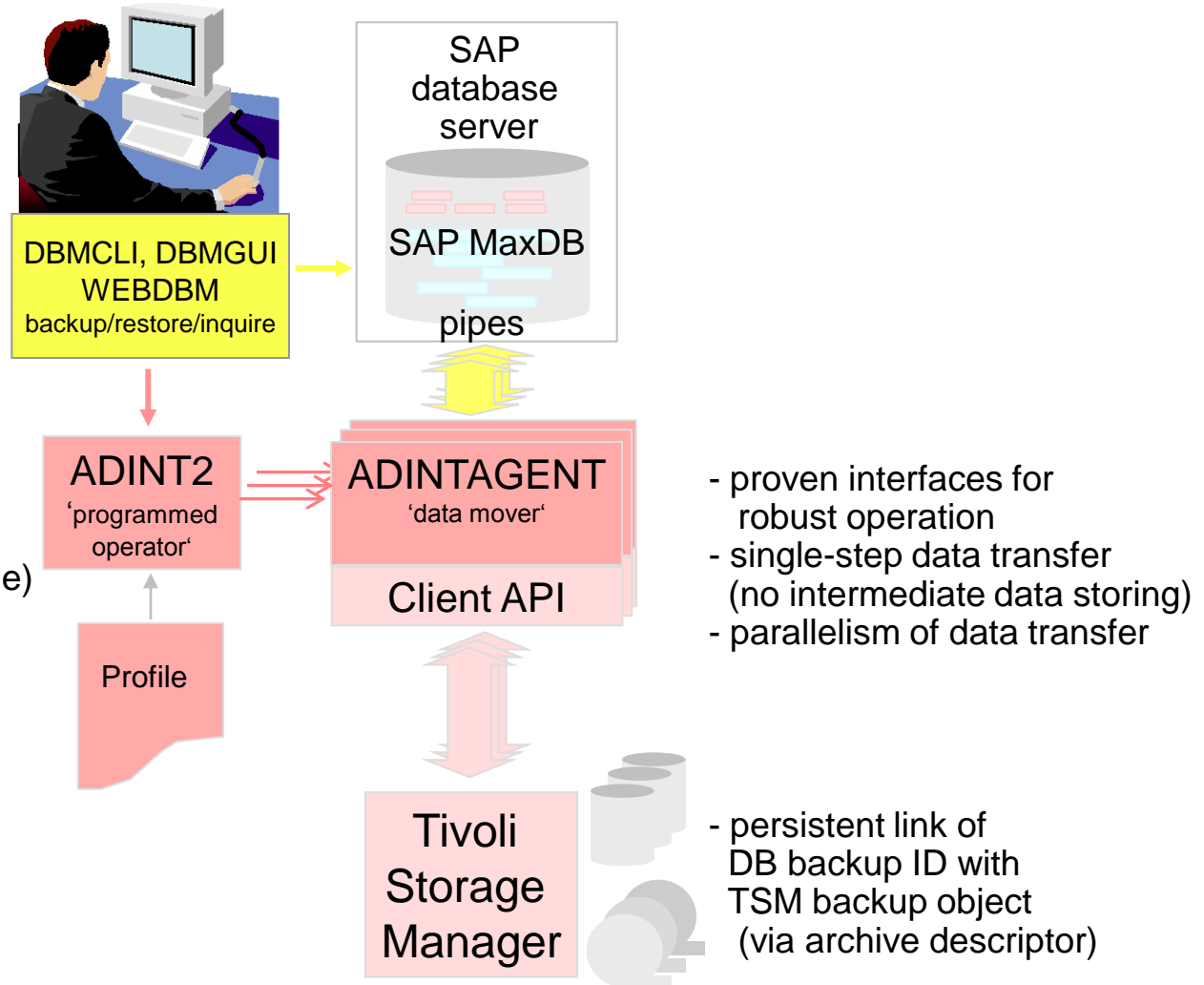
ADINT/TSM

*seamlessly connects
SAP MaxDB and TSM*

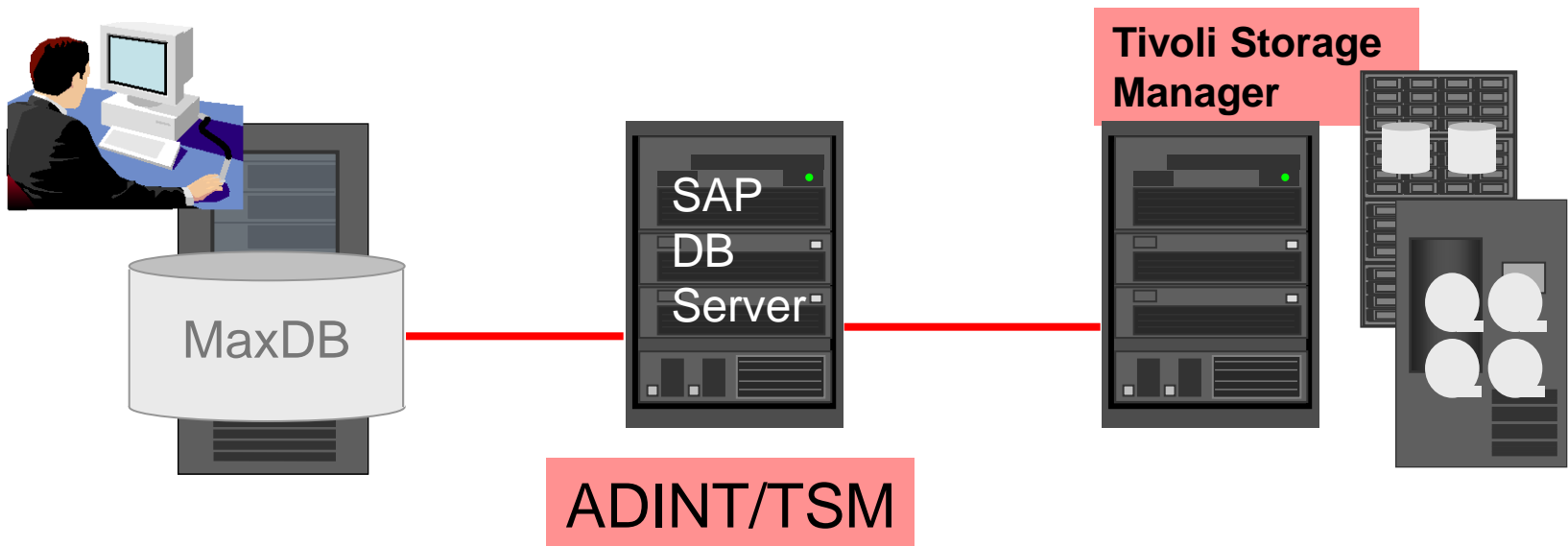
- individually customizable (profile)
- built-in capabilities for optimum functionality

TSM

*transparently manages
the backup repository*



ADINT/TSM – *the solution of choice for SAP MaxDB backup/recovery processes*



dependable
 proven interfaces
 resilient design
 single point of control

- **performant** -
 single-step data transfer
 parallelism
 customizable

productive
 scalability
 automation
 built-in optimization

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ADINT/TSM – *Built-in Function Overview*

Dependability

- TSM server switchover
- Log backup duplication (**NEW** in this release!)

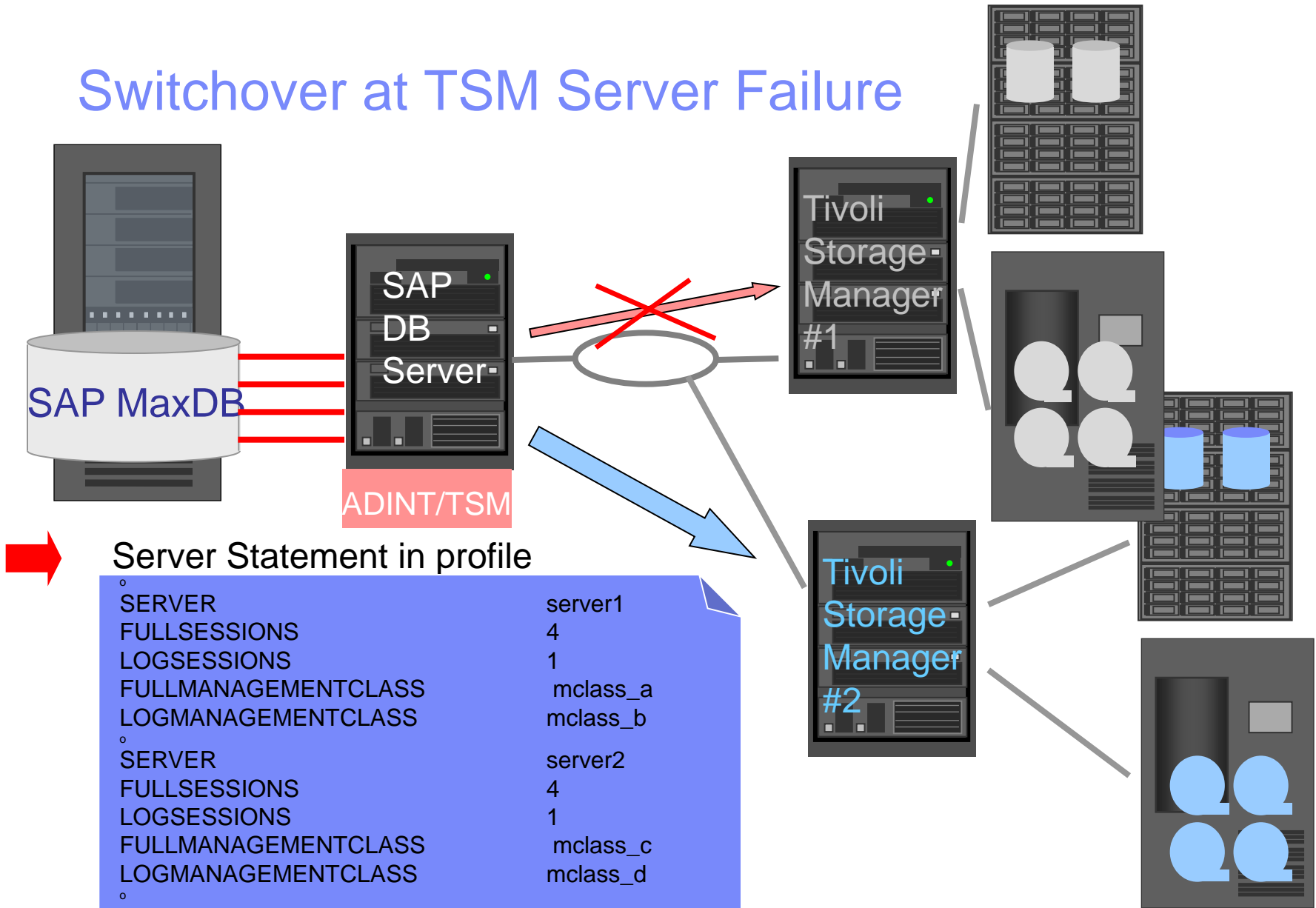
Performance

- parallel data transfers on all levels
- bulk data transfer directly over SAN

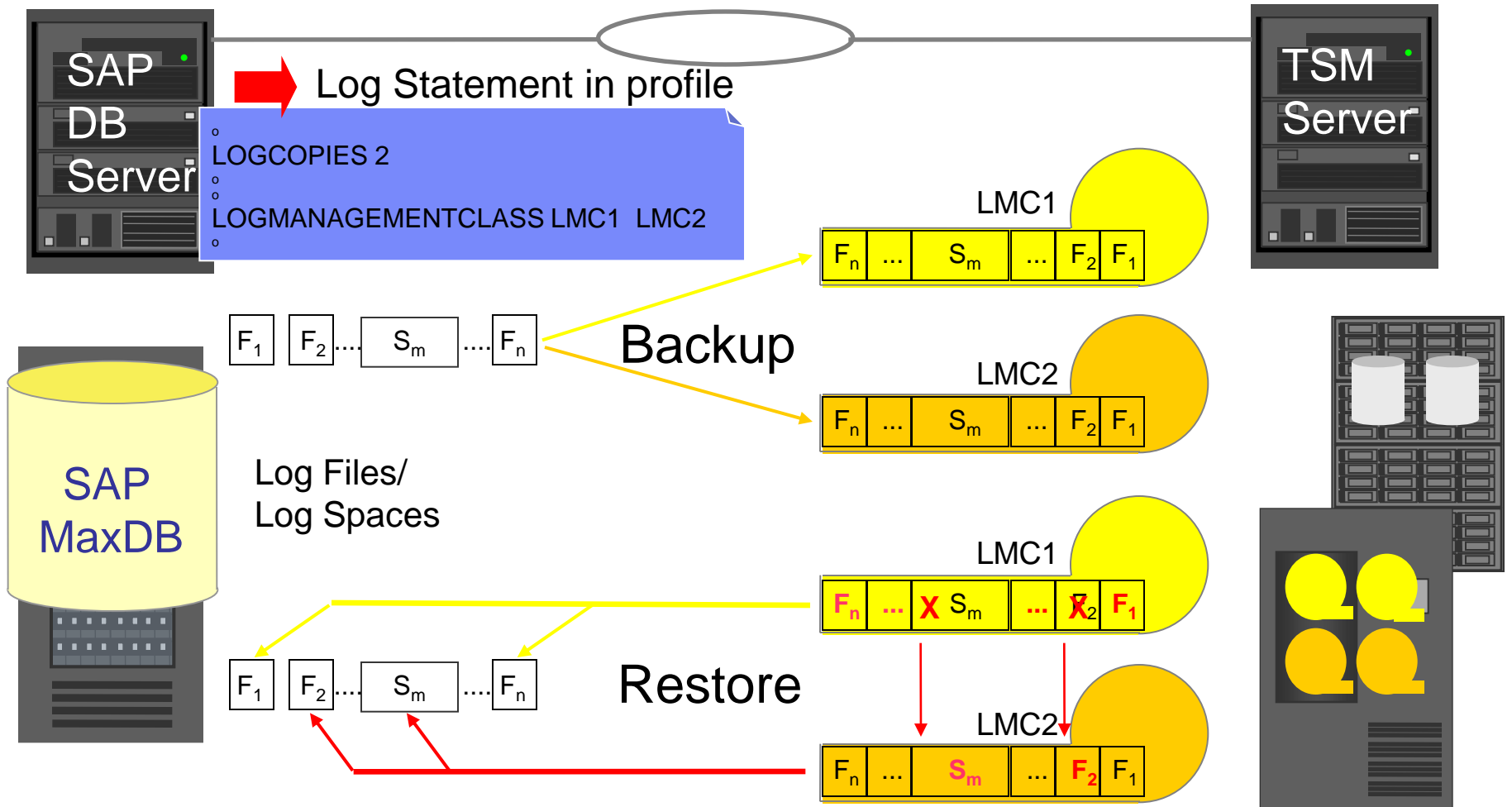
Productivity

- dynamic selection of storage media
- deletion of old backup generations

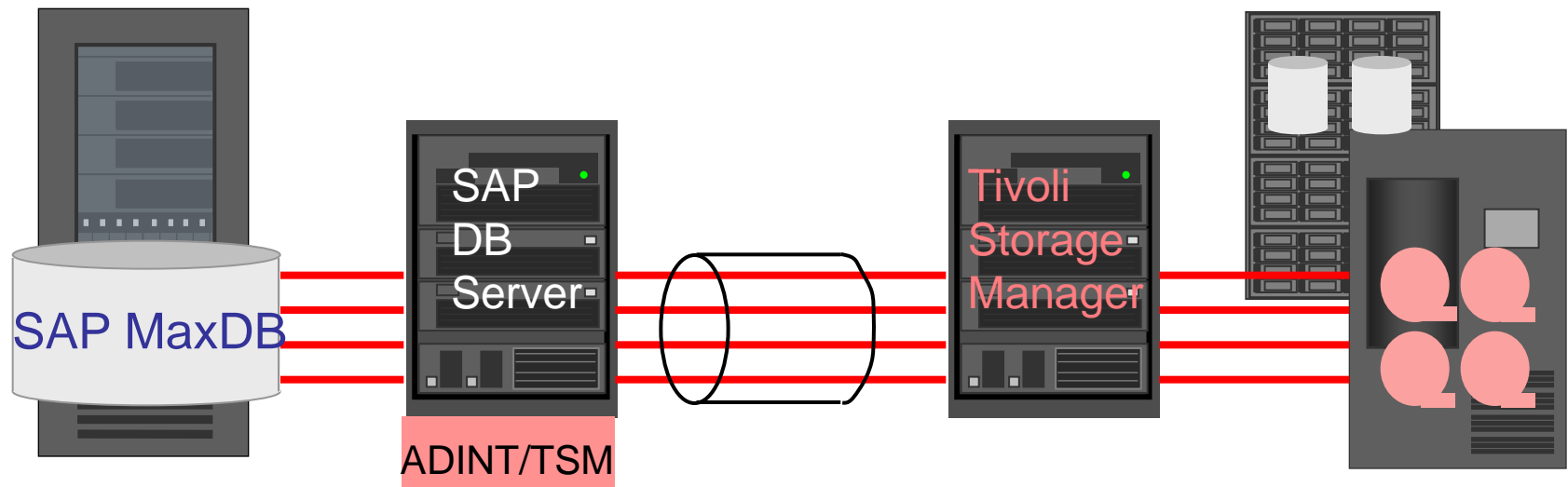
Switchover at TSM Server Failure



Duplicate Log Copies (NEW)



Multisession Backup and Restore



FULLSESSIONS

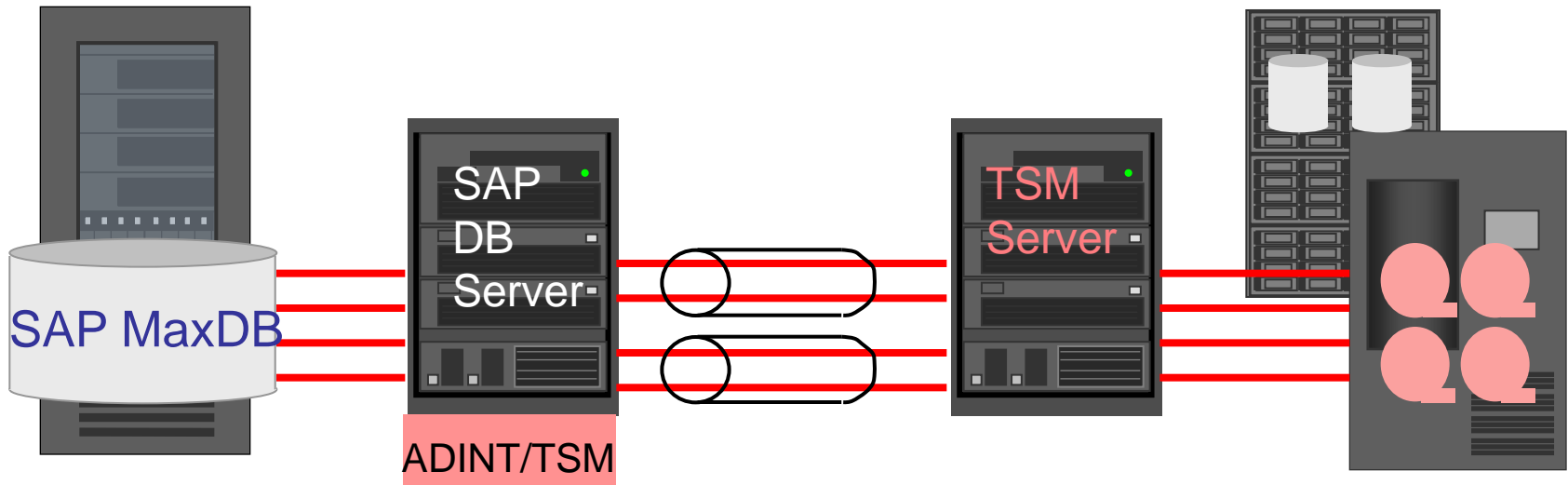
Parallel datastreams

- multiple pipes from SAP MaxDB
- multiple tape drives with TSM



Maximize data transfer rate between SAP MaxDB

Parallel Network Paths



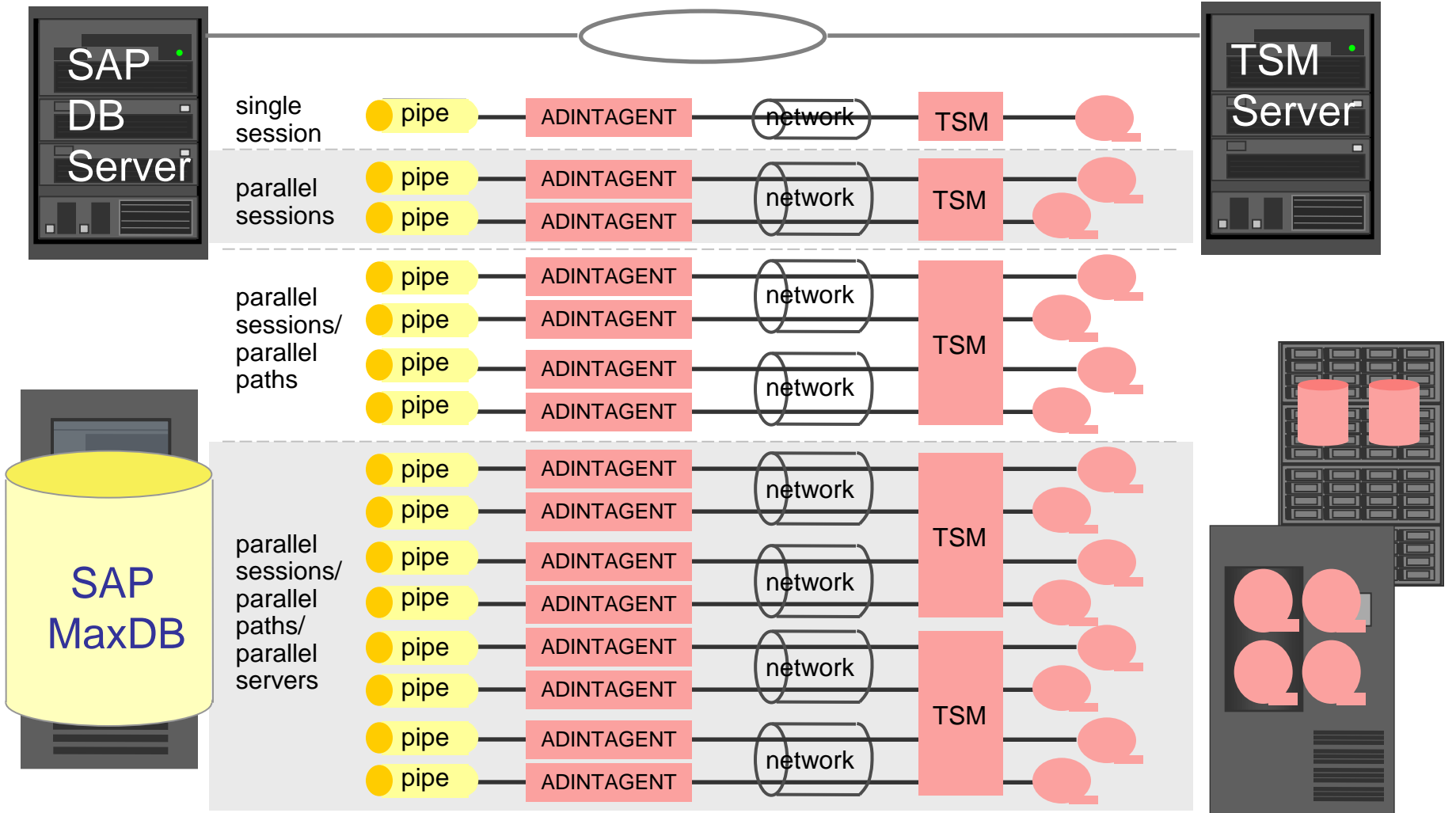
Multiple server statement

Data transfer distributed over multiple network connections
- number of sessions can be specified per connection
to account for different bandwidths

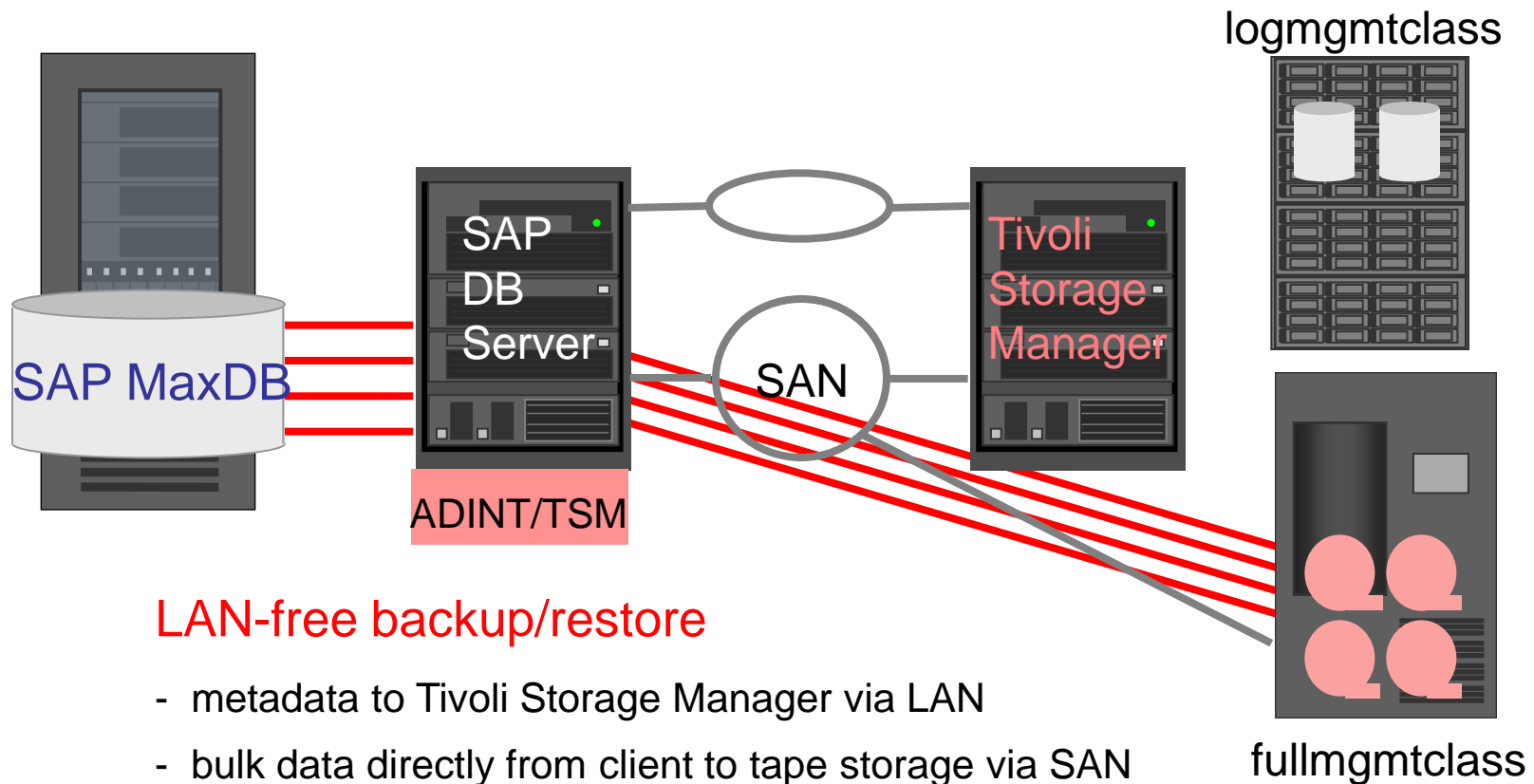


eliminate networks bottlenecks

Parallelism on all Levels



Data Transfer via SAN



LAN-free backup/restore

- metadata to Tivoli Storage Manager via LAN
- bulk data directly from client to tape storage via SAN



utilize SAN bandwidth
minimize impact on LAN bandwidth for user communication

Performance Features of ADINT/TSM

Multiprocessor optimization

- pipe thread & TSM thread within each session
- dedicated buffers with adjustable size

Direct data transfer from SAP MaxDB to TSM

- no intermediate storing of data

Data Transfer over SAN (TSM for SAN)

- offloads user LAN from bulk data traffic

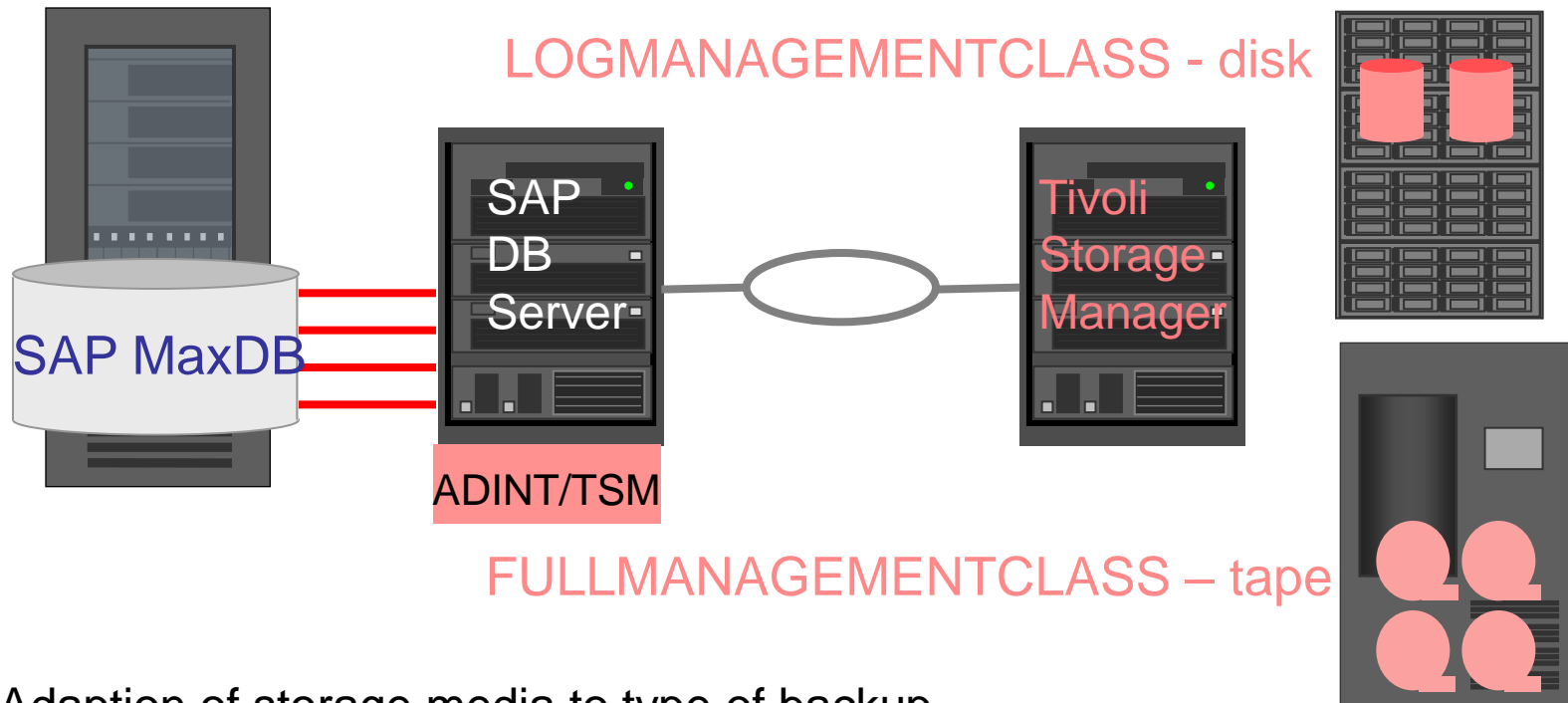
Multisession Backup and Restore with TSM Server

- one ADINTAGENT per session/tape drive

Parallel Network Paths and Servers

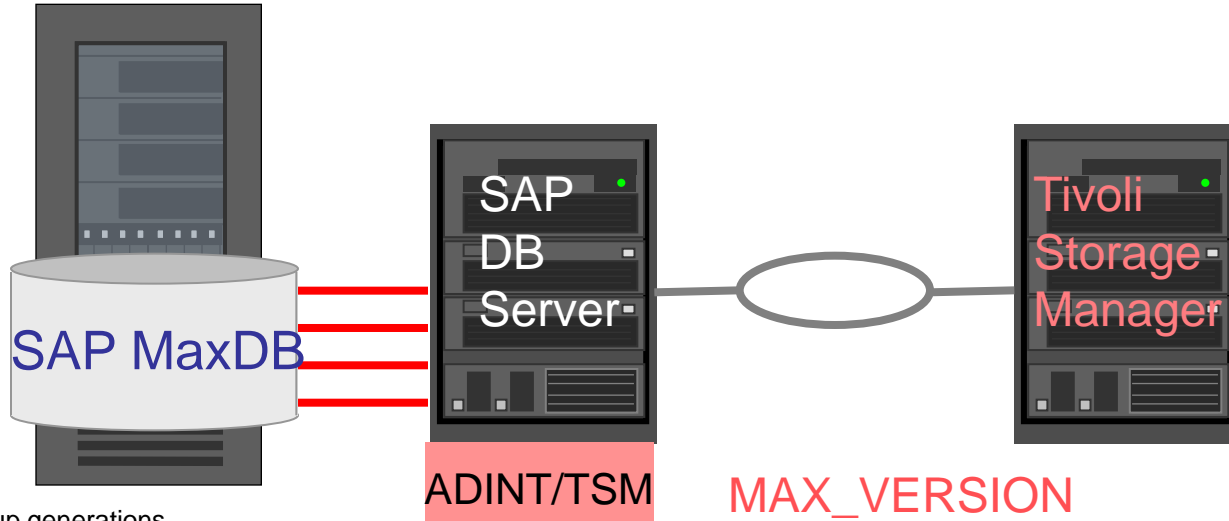
- eliminates network and/or TSM server bottlenecks

Selectable Storage Media

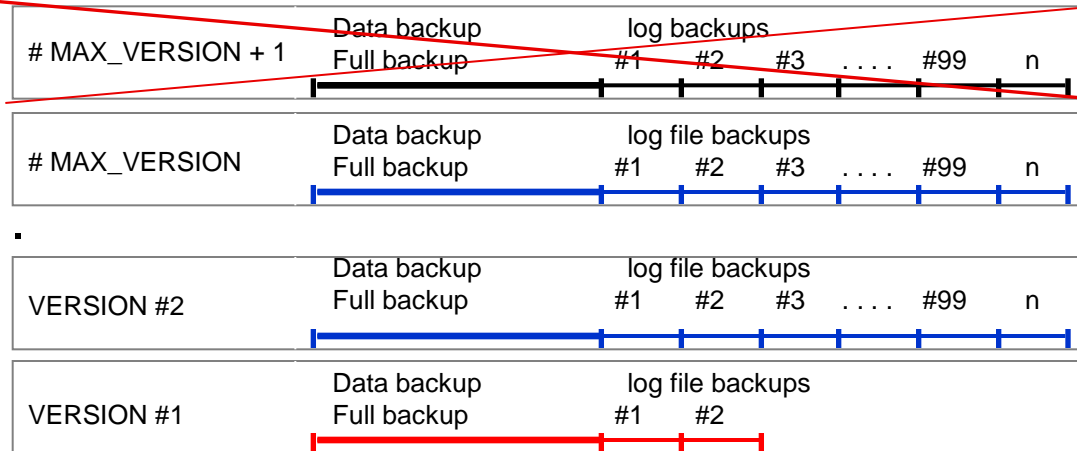


- ➔ Adaption of storage media to type of backup
- > minimize tape mounts, optimize cost/performance, e.g.
 - data backups transferred directly to tape
 - log backups transferred to disk, then migrated to tape (storage hierarchy)

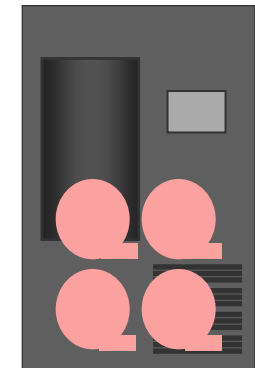
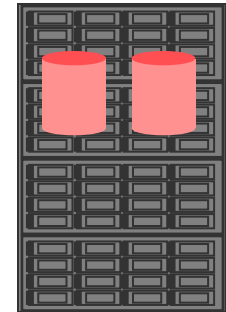
Backup Version Control



old backup generations exceeding a specified limit are automatically deleted



current backup generation



Big Points for ADINT/TSM

Seamless integration of SAP MaxDB with Tivoli Storage Manager

Single point of control for dependable SAP MaxDB backup/restore/recovery processes

- full, incremental, log backup, online/offline
- restore/recover

Streamlined data exchange

- Single step data movement - no intermediate data storing
- Parallel data transfers

Optimized for SAP environment

- individual customization
- Built-in intelligence for value-add functions

Professional storage management through TSM

- storage optimization (e.g. hierarchies - high performance to low cost)
- automated media management, e.g. tape library control, expiration, reclamation
- openness through broad platform support
- integrated tool for different tasks, e.g. cloning, archiving

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Service Offering History

First customer installation Version 1	(4/95)
First customer installation Version 2	(1/98)
Tivoli Storage Manager support	(4/99)
SAP DB support	(1/00)
Release 2.2	(2/03)
Release 2.3	(10/05)
Release 2.4	(2/10)

Supported Platforms V2.4

AIX 5.3, 6.1	System p	64bit
HP-UX 11iv2 , 11iv3	(Itanium)	64bit
Solaris 9,10	(SPARC)	64 bit
LINUX SuSE SLES 9, 10, 11 Red Hat EL 4, 5	(x86_64 or Power)	64 bit
Windows 2003, 2008 EE	(x86_64)	64bit ¹⁾

Note 1: ADINT/TSM executes in 32 bit mode

Ordering and Deliverables

Service Offering ordered through Tivoli Services

- non-exclusive Right-to-Use contract
(incl. 1st year support/maintenance)
- annual Support and Maintenance Contract

Package content (download or CD)

- Release Notice
- User Manual
- Install Package
installer with executables and sample files

Support

ADINT/TSM Service Offering

- Central Support via Hotline (tightly linked to development)

- Built-in problem determination aids
(error messages and extensive tracing)

- Close cooperation with SAP MaxDB development

TSM Product Components

- Standard product support

Contacts

Info	Most current technical Information, Tips and Hints, Support info, Download pls check the ADINT/TSM Web pages at www.de.ibm.com/entwicklung/adint_tsm
Presales	US: Cyrus Niltchian niltchian@us.ibm.com EMEA: Rainer Diederichs rainer_diederichs@de.ibm.com
Services	for quotes and contracting contact your country Tivoli/SWG Service function . A most current list of country focal points can be found at www.de.ibm.com/entwicklung/adint_tsm > How to Order
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