

Overview

SAP® MaxDB™ Database Technology from SAP



THE BEST-RUN BUSINESSES RUN SAP™



Agenda



SAP MaxDB – The SAP Database

SAP MaxDB Today and Tomorrow

History of SAP MaxDB



1977-1997 Start as a research project at the Technical University of Berlin, subsequently owned by Nixdorf Computer AG, Siemens-Nixdorf Informationssysteme AG, Software AG

1993 DBMS for SAP R/3

1997 Acquisition by SAP AG

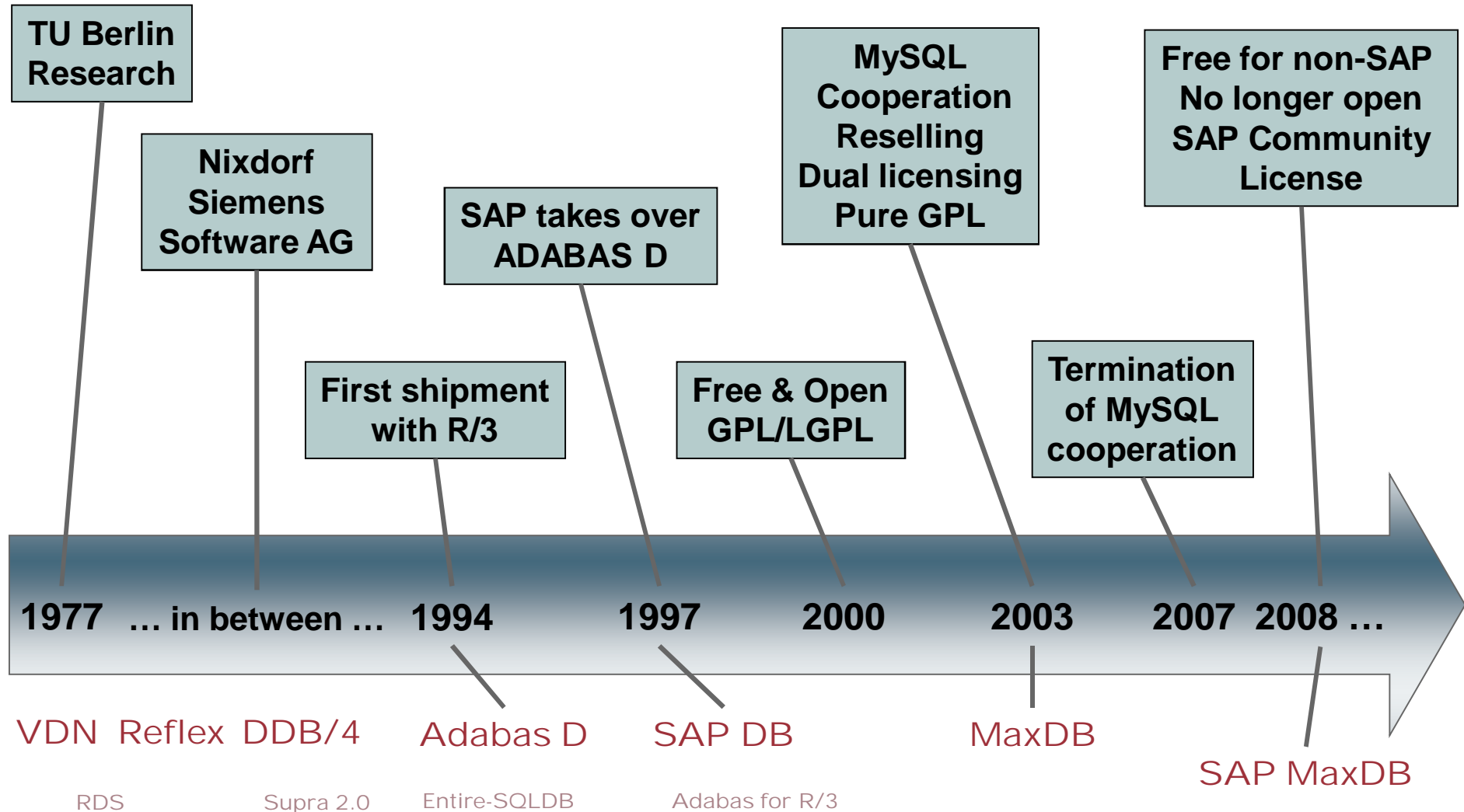
2003 Rebranding to MaxDB

2007 Approved name: SAP MaxDB



17 years of experience in the SAP database scenario

History of SAP MaxDB



SAP MaxDB is Affordable, Simple and Reliable



✓ Is affordable (lower cost of ownership)

- **Lower license costs:** as much as 50% of other databases
- **Lower maintenance costs:** works out of the box and is optimized for SAP solutions

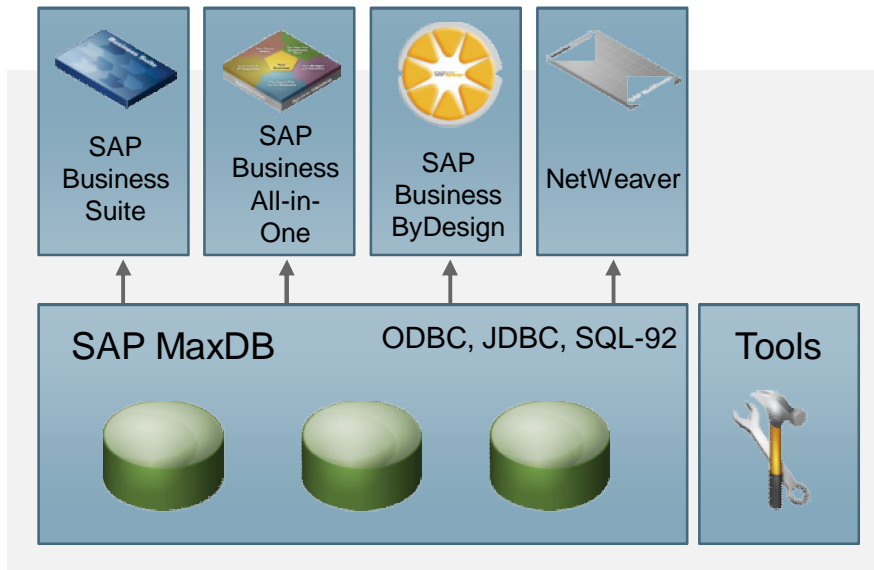
✓ Is simple to use

- **Easy-to-use tools:** for minimal administration
- **Standards-based:** provides familiar SQL92, JDBC and ODBC interfaces
- **Completely integrated:** DBA Planning Calendar, Alert Monitor
- **Strongly automated:** Important administration tasks like e.g. backing up log entries to ensure that the database can be restored at all times, collecting and managing statistics for future analysis

✓ Is reliable

- **By SAP, for SAP:** rigorously tested with and fully integrated into SAP applications
- **Scalable:** works invisibly from desktop to very large servers

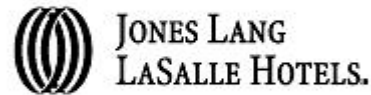
SAP MaxDB is Owned, Developed and Supported by SAP



Application, platform and DBMS integrated and delivered by SAP

- ✓ SAP MaxDB is SAP's own database - specifically designed to have lower TCO for SAP applications
- ✓ SAP is investing in the development of SAP MaxDB, a strategic and safe alternative for you
- ✓ SAP MaxDB is a robust and reliable technology, optimized to run on all major SAP solutions
- ✓ SAP MaxDB is SAP's preferred choice for SAP Business All-in-One fast-start program
- ✓ SAP MaxDB's performance is comparable to other databases
- ✓ SAP MaxDB is used in over 15,000 commercial installations at approximately 6,500 customer sites world-wide

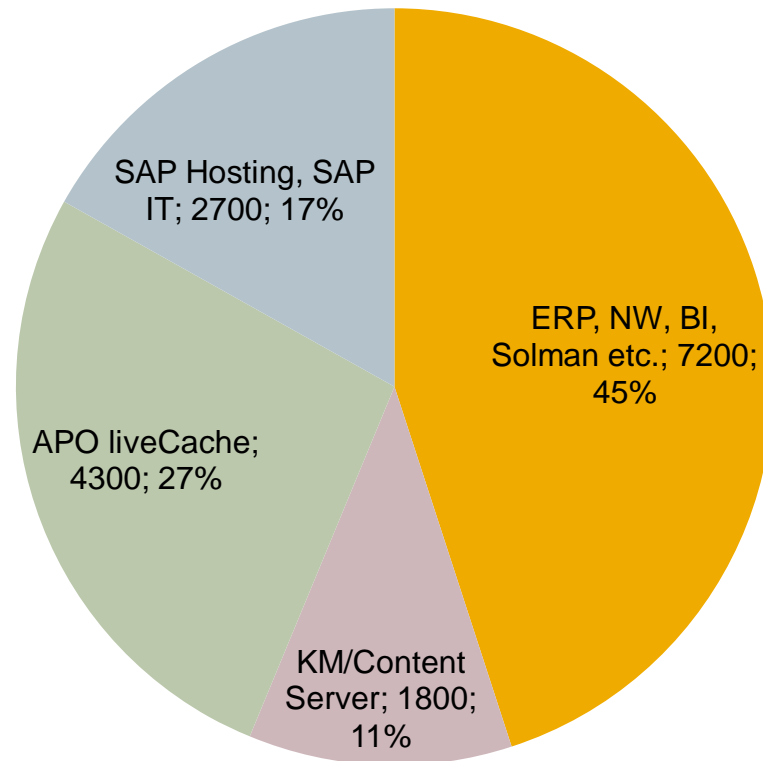
SAP MaxDB Customers (OLTP and BI)



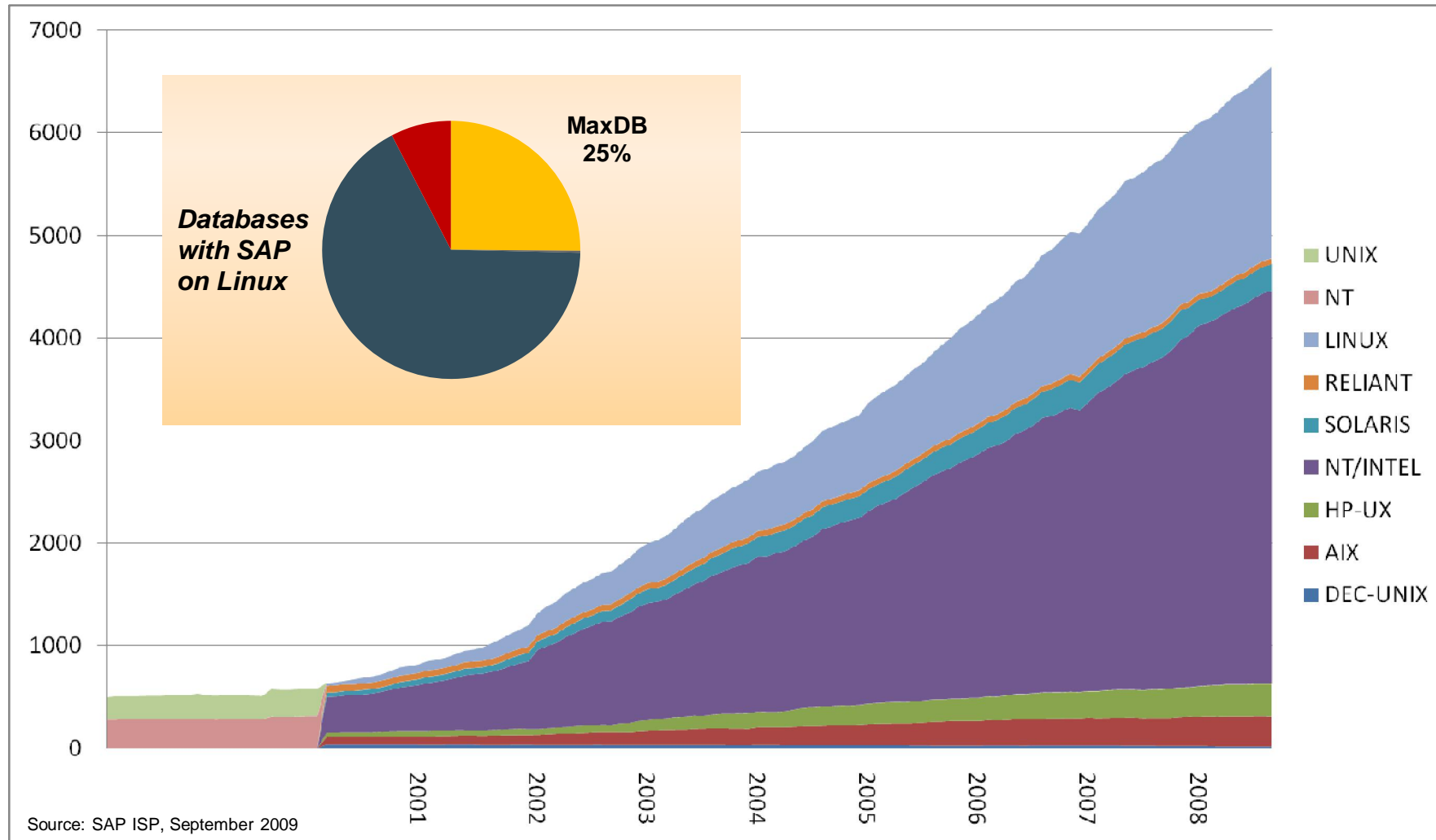
Pfeifer & Langen



SAP MaxDB Technology Installed Base (Installations, March 2010)



SAP MaxDB Customer Installations Timeline and Linux Share



liveCache and Content Server installations (KM) not included

SAP MaxDB Instances – Examples on FAQs



Are there size restrictions in SAP MaxDB?

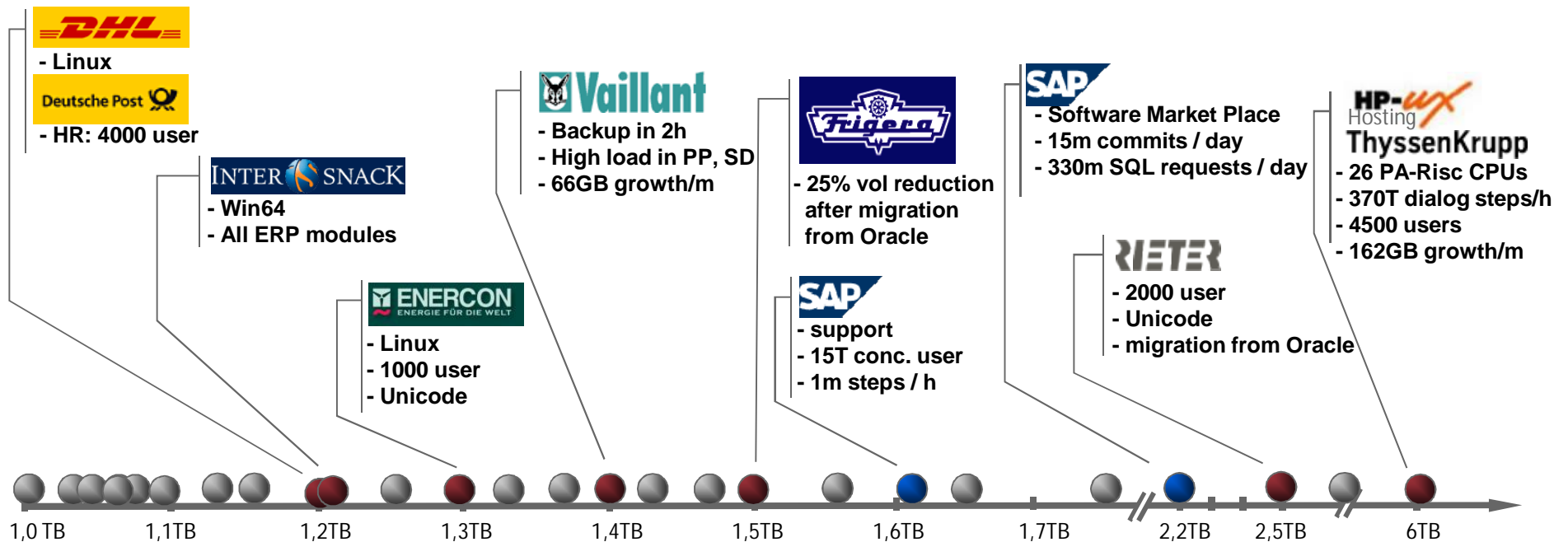
- Yes, the maximum size of current releases is 32TB

Are there customers using SAP MaxDB with data volumes bigger than 1 TB?

- Yes, many customers and SAP installations have databases with 1TB and beyond.

Are there customers using SAP MaxDB with data volumes bigger than 5 TB?

- Yes, we have even one reference customer with a database size of 5,8 TB.



Agenda



SAP MaxDB – The SAP Database

SAP MaxDB Today and Tomorrow

SAP MaxDB - Development Rationale



Your Requirements

Safety, availability, scalability, performance,
Ease of use, automatic administration, adaptiveness

Our Vision

The invisible database – Self-maintenance is best

Our rationale

Essential, substantial – Less is more
Do things right – Simply elegant
Fight complexity – Elegant simplicity

Your advantage

Lowest cost of ownership
High level of comfort
Simplicity

SAP MaxDB's Ease of Use: Central Monitoring (DB59), Integrating Systems



Database System Edit Goto System Help

MaxDB/liveCache System Overview

Connection Test Define Type Assistant Integrate Database Integration Data

Name	Database Ty...	Description	Database Na...	Database Se...	Cent...	Alert M...	Inte...	Changed On	Time
LCAX	liveCache		LCAX	itanium07	X		✓	09.05.2005	16:01:48
LCIB	liveCache		LCIB_759	10.18.95.60	X		✓	19.01.2005	14:33:55
LCI_LCIB	liveCache		LCI	p70744	X		✓	12.11.2004	11:35:10
LCKK	liveCache		LC75	10.18.95.22	X		✓	01.12.2004	14:48:35
LCKK76	liveCache		LC76	10.18.95.35	X		✓	17.01.2005	15:14:42
LCRS7518	liveCache		LC7518	10.18.92.114	X		✓	03.11.2004	10:37:42
LCRSBW	liveCache		LCBWTEST	10.18.92.114	X		✓	26.11.2004	09:59:13
LC_SA	liveCache		LCA	p70778	X		✓	12.03.2005	15:59:42
LD403_A	liveCache	SLES9	LCA	ld0403	X		✓	03.11.2004	01:06:30
LDA	liveCache		LTA	hs0043	X		✓	10.08.2004	13:44:21
LEA	liveCache		LTA	hs0043	X		✓	17.01.2005	16:47:27
LNL001_76	liveCache	x86 Linux gcc	LC76	10.17.73.23	X	X	✓	16.07.2005	07:48:53
LTA	MaxDB		LTA	hs0043	X		✓	07.09.2004	14:26:25
LXIA_A	liveCache		LCA	ld0403	X		✓	17.08.2004	14:26:06
LXIA_A_ATP	liveCache		LCA	ld0403	X		✓	17.08.2004	14:26:33
LXIA_C	liveCache		LCC	ld0403	X		✓	04.01.2005	18:18:18
LXIA_N	liveCache		LCN	ld0403	X		✓	20.01.2005	09:46:16
LXIA_P	liveCache		LCP50	ld0404	X		✓	06.05.2005	13:48:04
LXIA_Q	liveCache		LQ50	ld0404	X		✓	16.03.2005	15:30:08
LXIA_Y	liveCache		LCY	ld0403	X		✓	24.05.2005	14:35:45
MH_MYDB2	MaxDB		MYDB2	10.29.14.173	X	X	✓	26.07.2005	16:33:37
MH_MYDB3	liveCache	TechEd-Demo	MYLC3	10.29.14.173	X	X	✓	25.07.2005	16:31:08
MH_MYLC3	liveCache	TechEd Demo	MYLC3	10.29.14.173	X	X	✓	25.07.2005	16:18:11
MH_TMYDB	MaxDB	TechEd Test	MYDB	10.29.14.173	X	X	✓	15.07.2005	11:03:48
MH_TMYLC	liveCache	TechED Demo	MYLC	10.29.14.173	X	X	✓	20.07.2005	09:10:53
MH_TMYLC2	liveCache	TechEd Test	MYLC2	10.29.14.173	X	X	✓	19.07.2005	17:29:27
NT678_S	liveCache		LCS	pwd0678	X		✓	12.01.2005	11:25:28

LC5 (1) (100) bs0130 INS

What is minimal Cost of Ownership ?



DBA HR planning at SAP Hosting (2005)

DB Size/Instance	SAP MaxDB	System A	System B	System C
0 - 30 GB	0.1	0.2	0.2	0.2
30 - 100 GB	0.1	0.2	0.5	0.5
100 - 500 GB	0.2	0.4	0.5	0.5
500 GB – 1 TB	0.2	0.5	1.0	1.0
> 1 TB	0.3	1.0	1.5	1.5

Customer View (End customer and Hosters)

DBMS license costs	Low impact
DBMS maintenance costs	Low impact
Hardware resources	Medium impact
DBA resources	High impact

TCO means people !

Low License Costs



With only **5% of your SAP application value**, SAP MaxDB license costs are considerably lower than license costs for other databases.

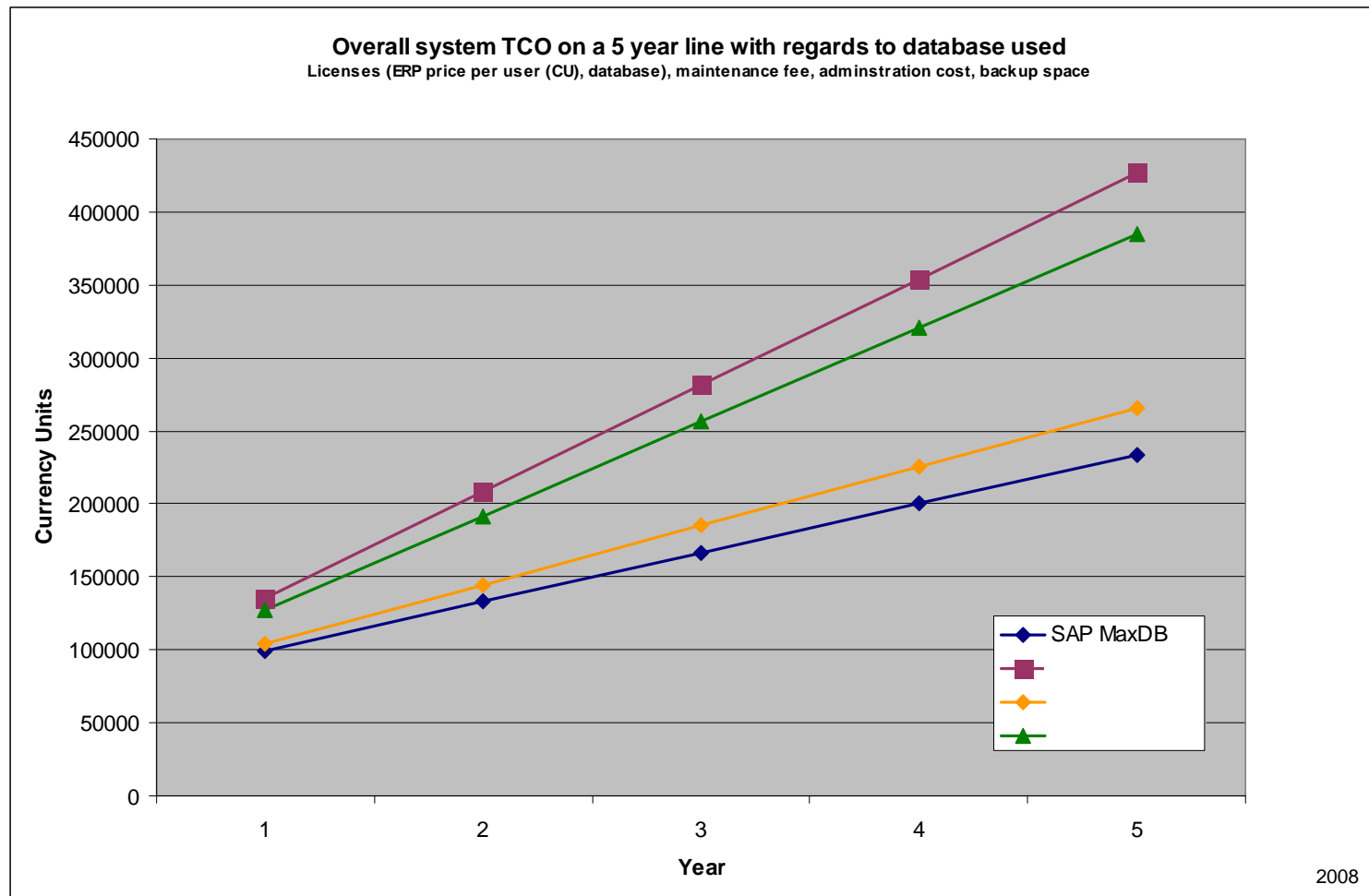
	SAP MaxDB	Oracle	IBM DB/2	Microsoft SQL Server
License Costs* (Percentage of SAP Application Value)	5%	11%	8%	8%

* according to SAP Master Pricelist 2010, Section Databases

Save up to 60% With SAP MaxDB



SAP MaxDB is **considerably cheaper** in comparison to other available databases (5 year cost estimate for databases as part of SAP Business All-in-One).



2008

You Have the Choice: Broad Platform Support, Low Hardware Costs

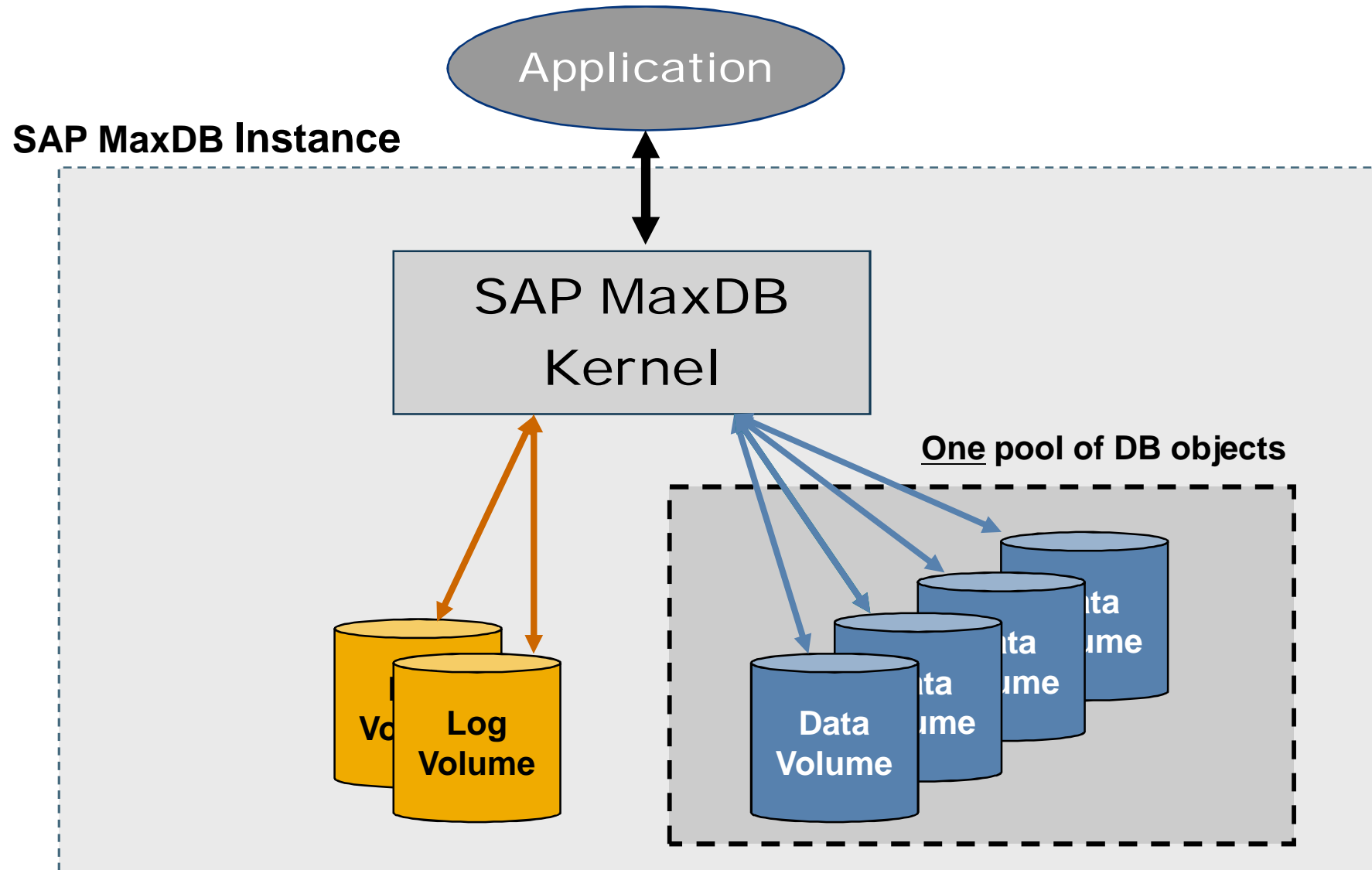


Hardware is an important cost factor, and it comes with vastly different price tags.

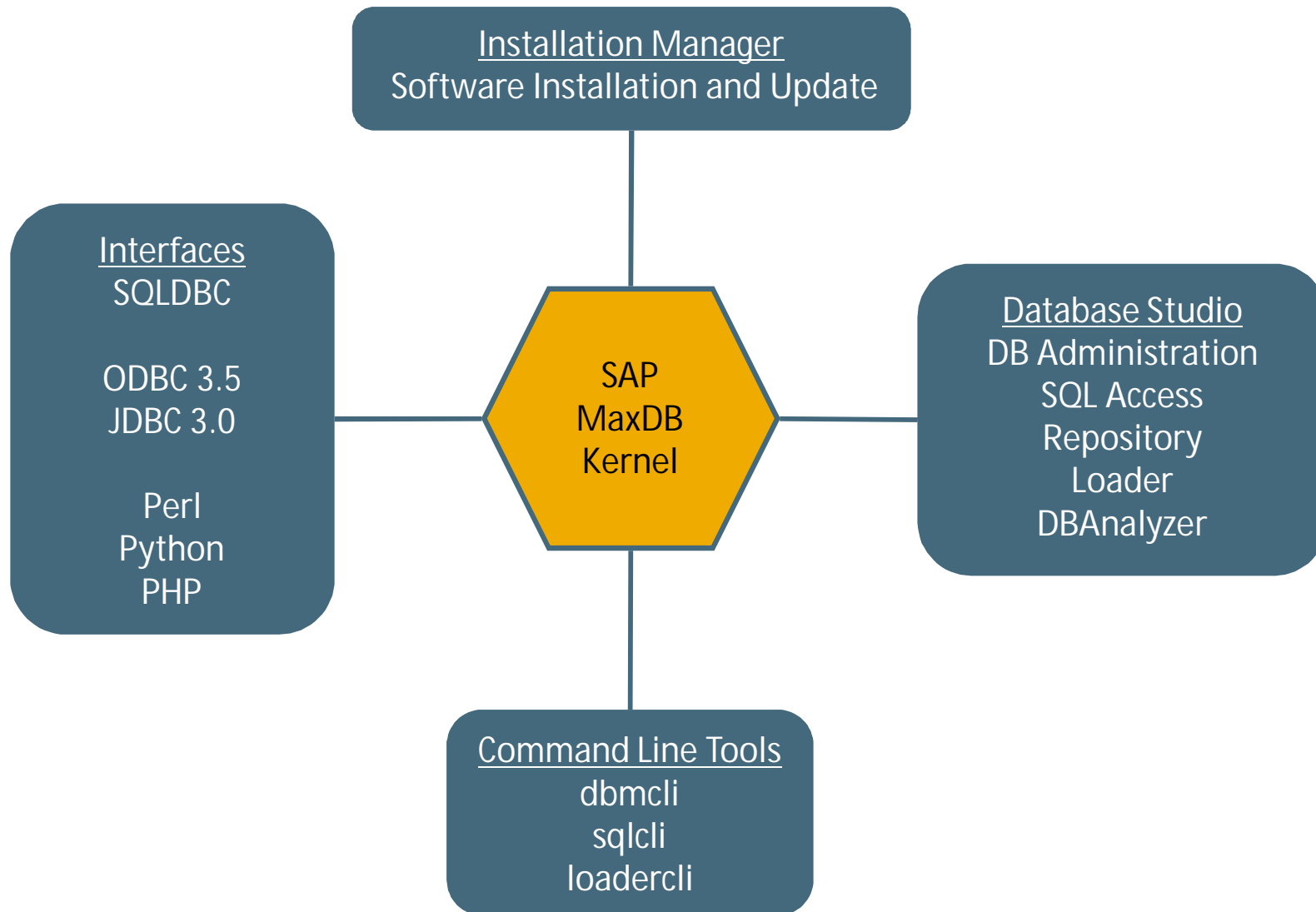
SAP MaxDB runs on all major operating systems. This means that you are free to choose the platform that suits your business needs best.

Vendor	Operating System	Architectures
Hewlett Packard	HP-UX 11.11, 11.23, 11.31	PA-RISC, IA64
IBM	AIX 5.1, 5.2, 5.3, 6.1	Power
Linux (Novell, Red Hat)	SUSE Linux Enterprise Server 9, 10, 11 Red Hat Enterprise Linux 4, 5	IA32, IA64, X64, Power
Microsoft	Windows 2000, XP Windows Server 2003, 2008	IA32, IA64, X64
SUN	Solaris 9, 10	Sparc, X64

Simple Anatomy of a SAP MaxDB Instance



SAP MaxDB Component Portfolio



SAP MaxDB Installation Manager



Few-clicks-only installation

- Mobile clients / Laptop
- Workstations / PC
- Embedded DBMS

Template-based installation & configuration

- Silent mode
- Template selection
- Optional demo data

Automatic operation option

- Restart, shutdown
- Backup, recovery
- Database extension

GUI

- Platform-independent

The image shows two overlapping windows from the SAP MaxDB Installation Manager. The top window, titled 'MaxDB Installation Manager [7.7.04.10]', displays the 'Installation Manager' interface. It has a header with the MaxDB logo and the text 'Select database configuration'. Below this, there are two radio buttons: 'Desktop PC / Laptop' (which is selected) and 'Custom'. To the right, a 'Description' box contains the text: 'Typical installation for a single user environment. Can be used during development of simple database applications, for the MaxDB tutorial or for testing purposes.'

The bottom window, also titled 'MaxDB Installation Manager [7.7.04.10]', shows the 'Database configuration [Desktop PC / Laptop]' screen. It has a header with the MaxDB logo and the text 'Database configuration [Desktop PC / Laptop]'. Below this, it says 'Specify database name and provide authorization data'. There are three input fields: 'Database Name' with the value 'MAXDB1', 'Database Size (MB)' with the value '256', and a checked checkbox for 'Load Tutorial Data'. Below these fields is a section for user authorization, featuring a small icon of a person and three input fields: 'User Name' with the value 'DBADMIN', 'User Password', and 'Confirm Password'. At the bottom of the window, there are three buttons: 'Back', 'Forward', and 'Cancel'.



Managing SAP MaxDB landscapes

- User management
 - User, Usergroup w/ same profiles
- Database Management
 - Central repository for DB access information
 - Same information available at every work place

Multi-database support

- Multiple databases running within the same instance
- Individual Backup/Recovery for every database of an instance
- Easy exchange of resources between databases
 - Adaptive memory management
 - Adaptive task management
- One main target group: Hosting vendors

Database Studio



Database Studio - <Local>:MAXDB3 - Administration - SAP MaxDB Database Studio

File Edit Navigate Search Project Run Window Help

Administration

My Repository

- My Objects
- Shared Objects
- Local User Folder

My Landscape

- Servers
 - <Local>
 - MAXDB3
 - DBADMIN
 - DBM
 - TEST
 - TEST
 - BERN00174908A
 - DB760512 (xserver inactive)
 - DBADMIN
 - TEST
 - MAXDB (xserver inactive)
 - DBADMIN
 - MAXDB4
 - pwdf2907
 - QADBDEVL
 - D024845
 - TESTER

<Local>:MAXDB3

Data: 1,84 %
Total: 1.310.688 KB Perm: 16.488 KB Temp: 88 KB Used: 24.128 KB Free: 1.286.560 KB

Log: 0,35 %
Total: 357.752 KB Used: 1.248 KB Free: 356.504 KB

Sessions: 13,33 %
Max: 15 Used: 2 Free: 13

Overview | Data Area | Log Area | Analyzer | Task Manager | Activities | Caches | Parameters | Backup | Snapshots | Command Line

Name: <Local>:MAXDB3
State: ONLINE since 25.09.2009 13:08:15
Version: 7.7.06.05
Operating System: Windows Server 2003 family (WIN64)
Installation Path: C:\Program Files\sdb\7704
Independent Program Path: C:\Program Files\sdb\programs
Independent Data Path: C:\Documents and Settings\All Users\AppData\Local\Temp
Run Directory Path: C:\Documents and Settings\All Users\AppData\Local\Temp

Settings

- Automatic Log Backup: ON
- Command Monitor: OFF
- Resource Monitor: OFF
- Database Trace: ON
- Database Analyzer: OFF
- Data Area Extension: OFF
- Automatic Statistics Update: OFF
- Database Event Dispatcher: OFF
- Snapshots: AVAILABLE

Data Cache

- Data Cache Size: 18.912 KB
- Data Cache Hit Rate: 100,00 %

Console | Properties | Actions

Local | <Local>:MAXDB3:DBADMIN

Database Studio – Integrated Tool-Platform for SAP MaxDB

Plug-ins for

- Landscape management
- Database management
- SQL-Queries, Reporting
- Loader
- DBAnalyzer

SAP MaxDB is

- ✓ a low-cost enterprise-class DBMS,
- ✓ developed intensively,
- ✓ fit for the job and tuned for SAP applications,
- ✓ and means one-stop-shopping.

Supportability

SIMPLE

Self-Tuning

ROBUST

Adaptiveness

FLEXIBLE

Enterprise Class Database Technology from SAP for SAP

Further Information



Public Web

SAP Developer Network:

<http://www.sdn.sap.com/irj/sdn/maxdb>



Related SAP Education Training Opportunities

<http://www.sap.com/education/>

ADM515, Database Administration MaxDB

TEWA60, SAP APO LiveCache Monitoring

UMEW50, MaxDB Empowering Workshop Administration

UMEW60, MaxDB Empowering Workshop Performance Monitoring and Optimization

WB550, MaxDB Internals Workshop

SAP MaxDB @ SAP Community Network

Our Information Pool



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Über uns | So können Sie mitwirken | Mein Profil | Sprachen | Abmelden
Herzlich willkommen Joerg Hoffmeister

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Application Lifecycle Management
Business Intelligence
Enterprise Information

Home > SAP NetWeaver Product > Complementary Offerings > **SAP MaxDB**

SAP MAXDB - THE SAP DATABASE SYSTEM

SAP MaxDB is SAP's own database technology. SAP business applications run on SAP MaxDB. SAP MaxDB is available in a range of installation sizes: from small to large. SAP MaxDB has to pass rigorous tests to ensure high reliability and performance.

SAP MaxDB can not only be used with SAP applications, but you can also download it for use with non-SAP applications – for free. For more information, read the [SAP MaxDB Community License](#) and visit our [wiki](#) and [forum](#).

Only minimal administration is required to run SAP MaxDB. Automation plays a big role: the system can for example automatically back up log entries for restore, adjust the database size, or collect statistics for future analysis. SAP MaxDB is based on industry standards, with interfaces such as SQL92, JDBC and ODBC. It is available on Microsoft Windows, Linux and Unix, and for the most prominent hardware platforms.

Updates for SAP MaxDB 7.6 and 7.7 Available for Download New!
Spring cleaning at SAP MaxDB!

We have just published updates for our SAP MaxDB community edition:

- SAP MaxDB 7.6.06.10
- SAP MaxDB 7.7.07.16

As always, you can download the new software packages for free. 23 Mar 2010

Further SAP MaxDB Online Training Sessions
Further SAP MaxDB online training sessions are planned for Q1/Q2 2010. The sessions are free of charge.

Our online training sessions cover a wide range of topics and provide you with in-depth knowledge about the SAP MaxDB database. 04 Feb 2010

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[SAP MaxDB](#) (FAQ included)

<http://www.sdn.sap.com/irj/sdn/maxdb>

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SAP MaxDB & Fast Start



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SAP MaxDB Add to Favorites

SAP MAXDB

THE DATABASE CHOICE FOR SAP BUSINESS ALL-IN-ONE

Lower Your Total Cost of Ownership

A database is a solution requirement for SAP Business All-in-One, so why not select a reliable product backed by the same vendor that provides your solution? SAP MaxDB provides reliable database functionality to store both application logic and business data; it is a central component of any SAP Business All-in-One solution.

Simple & Reliable - Ideally Suited for the Midsize Company

Midsize companies need a solid, affordable, low-maintenance database that works seamlessly with SAP and non-SAP applications. That's MaxDB! This database scales to let your customers manage their growing business and changing markets. And, because SAP developed this database it's been optimized for SAP applications.

When it comes to purchasing the database component of a solution your customers may see similar prices from competitive database products, but due to its simplicity SAP MaxDB administration costs are considerably lower. SAP MaxDB works out of the box, is completely integrated with SAP solutions and only requires minimal administration resulting in low training and staffing costs.

For Channel Partners - MaxDB Means Greater Margins & Easier Sales!

Channel partners will greatly benefit by selling MaxDB as the database with their solution. With your SAP PartnerEdge discount you can make more money selling MaxDB than third-party vendors' databases. And when you're talking to prospects MaxDB gives you a competitive edge, because now you're able to offer integrated ERP and CRM functionality that is affordable, will scale with their business and a database that is fully supported by SAP.

Additional Resources

- Individual Enablement Opportunities
- Online Learning for MaxDB
- Overview - From SAPHIRE
- Solution Brief
- Solution in Detail
- Success Story - Media
- Success Story - Mills Products

Certification Benchmarks

- HP
- Fujitsu Siemens Computers
- Sun Microsystems

SAP Business All-in-One
Hot Topics
Fast-Start
Active Quality Management

Solutions

- Solutions Snapshot
- CRM Functionality
- Business Intelligence**
- SAP Best Practices
- MaxDB**
- Selling SAP Services
- Solution Demonstrations Call

Sell

Market

Develop

Implement

Support

Manage

A-Z Index

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