SAP migration to IBM DB2

Cost optimization made easy

Good reasons for a migration to DB2

Now is the right time to reduce the costs for your IT infrastructure and make way for new, innovative solutions.

Now is the time to switch to DB2

A solid, scalable and low-cost basis for your SAP environment – whether you use SAP ERP, the mySAP Business Suite or the integration and application platform SAP NetWeaver. DB2 is always a good choice! The fact that the migration from Oracle to DB2 works simply and is standardized is another reason to decide for DB2 immediately:

Profit from the current IBM migration offers.

Low complexity for your IT administration

With the tight integration between the database solution DB2 and the SAP applications, you ensure other advantages: The DB2 database is installed in a time-saving manner within the SAP installation process and – at the push of a button – given an optimized configuration for SAP. Autonomic computing functions automate administration tasks and reduce the workload of the database administrator.

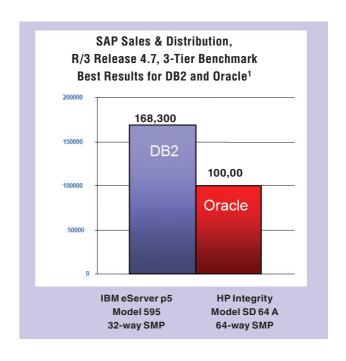
Your advantage: Lower administration overhead, low complexity, high productivity.

Shrink the size of your database

DB2 brings to the table a significant advancement with its new compression feature. This feature allows databases to be compressed by 45% on average thus reducing storage costs and improving performance in many cases. In addition, backup images are now half the size and therefore backup/restore operations now finish in almost half the time. *Your advantage: save space, time and money.*

Profit from a strong partnership

SAP and IBM DB2 have been working together closely for many years. IBM and SAP announced a new dimension to this cooperation: DB2 V9 optimized for SAP solutions – more to come over the next few years. *Your advantages:* Simplified configuration, more performance, and higher availability for your SAP systems.



Increase in SAP performance

In the new DB2 SAP SD 3-Tier Benchmark, a total of 168,300 SD users was achieved – 68% more than the best comparable result with Oracle! Your advantage: Outstanding performance, fast processes, and high availability.

Low overall costs

Low administration overhead and low license fees mean that DB2 involves extremely favorable overall costs. If you purchase the license for DB2 through SAP, the license fee for Linux®, UNIX®, and Windows® is only 8% of the SAP application value.² If you purchase a corresponding Oracle license through SAP on the other hand, you pay 11% of the SAP application value², i.e. 37.5% more. As the annual maintenance fee for software purchased through SAP is calculated on the basis of the total list or contract price, the annual DB2 support is correspondingly lower-priced.³ When switching from Oracle to DB2, attractive migration offers are available to you (see case study on page 3). The bottom line is: **DB2 saves money. Now is the time to switch from Oracle to DB2.**

Secured future with DB2

DB2 9 is available since August 2006, representing a major step in the seamless integration with SAP solutions. DB2 9 one of the milestones of a planned long-term cooperation between IBM and SAP, assuring investment protection for this solution. It represents a significant intensification of the cooperation that has already existed for many years.

DB2 Information Management is a major line of business for IBM, and has a comprehensive portfolio. IBM offers integrated middleware solutions, automatically providing interfaces to other IBM solutions. For example, DB2 provides a free backup/restore interface to the Tivoli Storage Manager.

Migration - a proven process

Within the framework of the migration process, free SAP tools are deployed in a proven process specified by SAP. Coordinated with SAP, IBM supplements the migration process to include a number of tools to accelerate the time required for migration.

This makes it possible to carry out – even large-scale – migrations with a downtime of one week-end. Alongside the suitable tools, IBM has acquired a wealth of experience out of successful migration projects.

Both – tools and experience – support you in minimizing the risks and the costs of migration.

Migration planning Μ Hardware order, contract changes o n SAP checks project plan h SAP sends migration tool Migration test $3 - 4^{\circ}$ W SAP application test e \mathbf{e} Going live migration test k Production migration 4-6 weeks* Going live after production migration test migration

*) Values based on experience from IBM customer projects

On the business side, SAP license extensions, upgrade to mySAP ERP, or the renewal of a database license are favorable points in time for a switch of the existing database software. In general terms, any point in time that involves a technical or business change to the database can be viewed as favorable. Contact us and we will determine the best point in time for you at low cost.

The right time to migrate

Nowadays, migrations are a standard process, whereby the duration and scope depend very heavily on the customer environment. An ideal point in time to change the information base is an SAP release upgrade or a switch to Unicode. The additional overhead for a simultaneous change of the database is very low. System consolidations, hardware or operating system changes are also suitable for a database migration: A switch to DB2 can be performed with low additional overhead.

Assessment - free of charge

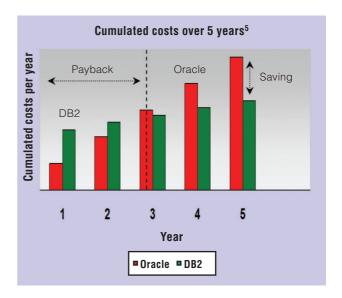
Experienced consultants of IBM Software Services for DB2 Information Management check your existing SAP system environment with regard to the planned database migration. The main purpose of the analysis is to illustrate the possible individual cost savings and to provide a clear picture about the migration effort. In addition, you are shown other possibilities to optimize your SAP system environment, where applicable. From a technical perspective, this allows us to enable the smooth and rapid migration of Oracle, SQL Server, Informix and MaxDB to DB2. The result of the analysis serves as the basis for planning the other activities of the migration process.

Our offer

Our offer is formed by attractive DB2 license and maintenance terms. These are individually tailored to your needs on the basis of the preceding analysis of your SAP system environment. We also provide special low-cost migration services within the framework of this offer. This is made possible by the exact knowledge of your SAP environment and the extensive experience of our migration experts based on numerous highly varied migration projects. In addition, the migration time is minimized by means of the proven IBM DB2 migration tools.

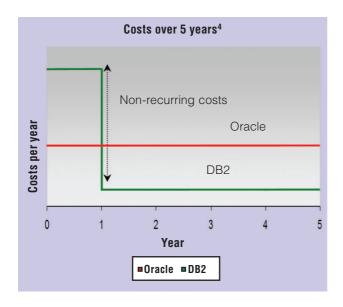
To accompany the migration, there is a course contingent for customers who are planning or have already decided to make the change. The aim of the training courses is to ensure the smoothest possible operation of the migrated systems.

Even after a payback period of less than 3 years, there was a significant cost benefit, which continued to grow in years 4 and 5.



Case study

The following diagram shows the representative costs over time for the database switch of a customer over a period of 5 years. After non-recurring costs in the course of the migration, the costs have dropped considerably as of the 2nd year.



Some customer examples

Thousands of companies worldwide from a wide variety of sectors and of many sizes use DB2 for SAP applications. An excerpt from the list of reference customers include:

E.G.0

• SAP migration from Oracle to DB2/AIX

Fresenius

• SAP migration from Informix to DB2 / Solaris

Kone

• SAP migration from Informix to DB2/HP-UX

TFX IT Europe

 SAP migration from MS SQL Server to DB2/Windows

Mahle

• SAP migration from Oracle to DB2/AIX

rku.it

• SAP migration from Oracle to DB2/AIX

University of Toronto

• SAP migration from Oracle to DB2/AIX

Teck Cominco

• SAP migration from Oracle to DB2/Linux

Central Michigan University

• SAP migration from MS SQL Server to DB2/AIX

These and many more customer reports can be viewed at **ibm.com**/solutions/sap under the heading "Case studies".

The opinions of our customers

"We were surprised how quickly we learned to use DB2.

Alongside the simple DB2 user interface, the valuable assistance from DB2 / SAP support at IBM was responsible for this."

Manfred Leistner, Data Center Manager, E.G.O. Group, Oberderdingen

"We identified three main cost elements: licensing, maintenance and the migration cost including the training of employees to use a new database. We then compared the offering from our existing vendor – Oracle – with the DB2 UDB solution. We concluded that DB2 UDB would cost 40 per cent less over five years, including licensing, maintenance and migration."

Ulrich Klenke, CIO of rku.it

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Further information

SAP and DB2 Information Management Software

ibm.com/software/data/db2/sap/

SAP Informix to SAP DB2 Migration Offer

ibm.com/software/data/db2/sap/informix-db2.html

Alliance between IBM and SAP

ibm.com/solutions/sap/us/en



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- 1) The benchmark was performed by IBM in Beaverton, OR. USA on May 11, 2005 and May 13, 2005, certified with the following data: 168,300 SAP SD users; 1.95 seconds average response time; 16,896,670 processed order line items/hour: OS: AIX 5.3: RDBMS: DB2 UDB 8.2: R/3 Release 4.70: database server: IBM eServer p5 Model 595, 32-way SMP, POWER5, 1.9 GHz, 32 KB(D) + 64 KB(I) L1 cache per processor, 1,92 MB L2 cache and 36 MB L3 cache per 2 processors, 256 GB main memory (Cert #2005021). The Oracle SAP SD Standard R/3 Enterprise 4.70 Application Benchmark was performed by HP in Cupertino, CA, USA on October 14, 2004 and on November 8, 2004, certified with the following data: 100,000 SAP SD users; 1.75 seconds average response time: 10.210.330 processed order line items/hour: OS: HP-UX 11i; RDBMS: Oracle 10g; R/3 Release: 4.70; database server: HP Integrity Model SD64A, 64-way SMP, Intel® Itanium 2, 1.6 GHz, 32 KB L1 cache, 256 KB L2 cache, 9 MB L3 cache, 256 GB main memory (Cert #2004068). More information on SAP benchmarks at: www.sap.com/benchmark
- ²⁾ See list of prices and terms and conditions SAP Software 2005, Version 3.0, page 73.
- 3) See list of prices and terms and conditions SAP Software 2005, Version 3.0, page 87.
- 4) The costs for DB2 in the first year are composed of non-recurring license costs and project costs for the migration. The costs in subsequent years are the maintenance fees for DB2. In the case of the costs for Oracle, no license costs were applied (as it is assumed that these have already been paid in the past), rather only continuous maintenance fees.
- 5) The diagram accumulates the costs over 5 years. In the case of Oracle, these are the maintenance fees for this period of time. In the case of DB2, these are license fees and project costs for the migration in the first year and DB2 maintenance fees in the subsequent years.
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