

COMPETITIVE ANALYSIS

Worldwide Relational Database Management Systems 2007 Vendor Shares

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IDC OPINION

2007 was a year that saw continued steady growth in the relational database management systems (RDBMS) market, with plenty of dynamism up and down this important market. The leading vendors have put an increased emphasis on performance and manageability as well as greater flexibility and utility of such features as standby databases, while other more niche vendors emphasize unique pricing, performance, and scaling capabilities. In short, 2007 was characterized by:

- Growth through features that offer greater flexibility and manageability in deployment
 - Growing competition for the midmarket segment
 - Increasing emphasis on enhancements such as security and data compression
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IN THIS STUDY

This IDC study examines the relational DBMS market for the period from 2005 to 2007. Worldwide market size is provided for 2007, with trends from 2006. Revenue and market share of the leading vendors is provided for 2007. This study also provides profiles of leading vendors and identifies the characteristics that vendors will need to be successful in the future.

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The vendor shares and competitive analysis contained herein update those found in the relational DBMS section of *Worldwide Database Management Systems 2007–2011 Forecast and 2006 Vendor Shares* (IDC #209611, November 2007).

Methodology

See the Learn More section for a description of the data collection and analysis methodology employed in this study.

In addition, please note the following:

- The information contained in this study was derived from the IDC Software Market Forecaster database as of June 4, 2008.
- All numbers in this document may not be exact due to rounding.
- For more information on IDC's software definitions and methodology, see *IDC's Software Taxonomy, 2008* (IDC #210828, February 2008).

Relational DBMS Market Definition

The relational database management systems market includes multiuser database management systems (DBMSs) that are primarily organized according to the relational paradigm and that use SQL as the foundational language for data definition and access. Also included are RDBMSs that have been extended to support embedded tables or other nonrelational enhancements or to include extended attribute types (such as graphical, geospatial, and audio), object-oriented formalisms (such as data encapsulation), or direct support for XML data.

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SITUATION OVERVIEW

The Relational DBMS Market in 2007

The RDBMS market is estimated to have grown by 12.6% from \$16.7 billion in 2006 to \$18.8 billion in 2007. The top 5 vendors drove market growth for the most part, gaining share as a group over the rest of the market. The top 3 vendors grew at rates ranging between 13% and 14%, which is to say, they grew at roughly the same rate.

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Performance of Leading Vendors in 2007

Table 1 displays 2005–2007 worldwide revenue and 2007 growth and market share for relational DBMS vendors. Most of the top vendors kept pace (roughly) with overall market growth, much of which is attributable to currency fluctuations. Overall, growth was quite uneven, with many entrenched vendors growing at low single digits, but interesting jumps were shown by vendors seen as somewhat on the fringe, such as data warehouse appliance vendor Netezza and open source RDBMS vendor Ingres.

Performance by Geographic Region in 2007

As shown by Figure 1, North America represents just under half of the worldwide RDBMS market. Western Europe gained some considerable ground in 2007, but this was as measured in U.S. dollars; when tracked in constant currency, the gain was much less dramatic.

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Performance by Operating Environment in 2007

Figure 2 shows that Windows has clearly demonstrated dominance as the leading worldwide RDBMS operating environment, while the mainframe has slipped to fourth place. Linux continues to gain ground, mostly at the expense of Unix.

TABLE 1

Worldwide Relational Database Management Systems (RDBMS) Revenue by Vendor, 2005–2007 (\$M)

	2005	2006	2007	2007 Share (%)	2007 Growth (%)
Oracle	6,389	7,358	8,336	44.3	13.3
IBM	3,119	3,489	3,953	21.0	13.3
Microsoft	2,442	3,052	3,479	18.5	14.0
Sybase	531	591	658	3.5	11.3
Teradata	542	558	630	3.3	12.9
SAS	233	243	258	1.4	6.0
Progress Software Corp.	238	238	246	1.3	3.5
Fujitsu	191	196	158	0.8	-19.6
Siemens	53	60	72	0.4	18.8
Hitachi	72	67	65	0.3	-2.4
HP	57	51	59	0.3	16.6

TABLE 1

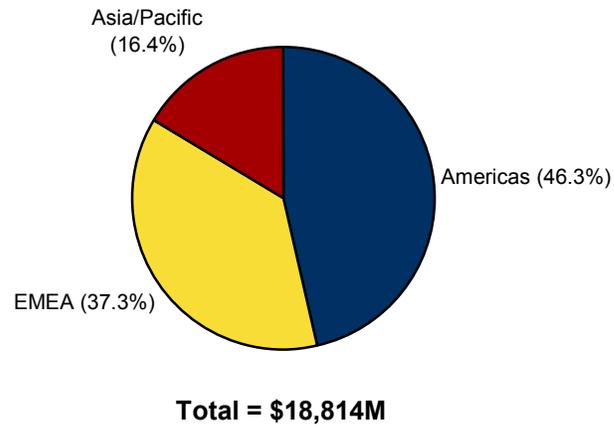
Worldwide Relational Database Management Systems (RDBMS) Revenue by Vendor, 2005–2007 (\$M)

	2005	2006	2007	2007 Share (%)	2007 Growth (%)
Netezza Corp.	22	31	49	0.3	58.3
Empress Software	32	35	39	0.2	12.1
MySQL	16	34	38	0.2	10.9
4D Inc.	30	32	36	0.2	9.5
Ingres Corp.	9	9	28	0.1	206.6
Unisys	18	17	18	0.1	2.0
NEC	17	15	15	0.1	-3.7
Kognitio	9	10	14	0.1	34.4
Solid Information Technology	11	12	13	0.1	10.8
UNIFY Corp.	4	4	6	0.0	54.6
CodeGear	7	6	5	0.0	-17.5
Pervasive Software Inc.	5	5	5	0.0	2.2
Cincom Systems Inc.	3	4	4	0.0	-7.9
Birdstep Technology	3	3	3	0.0	-6.7
Lawson Software	-	-	1	0.0	NA
Halo Technology	1	1	1	0.0	11.0
Four Js Development Tools Inc.	-	1	0	0.0	-49.7
CA	22	-	-	0.0	0.0
Subtotal	14,075	16,121	18,186	96.7	12.8
Other	575	594	628	3.3	5.8
Total	14,650	16,715	18,814	100.0	12.6

Source: IDC, June 2008

FIGURE 1

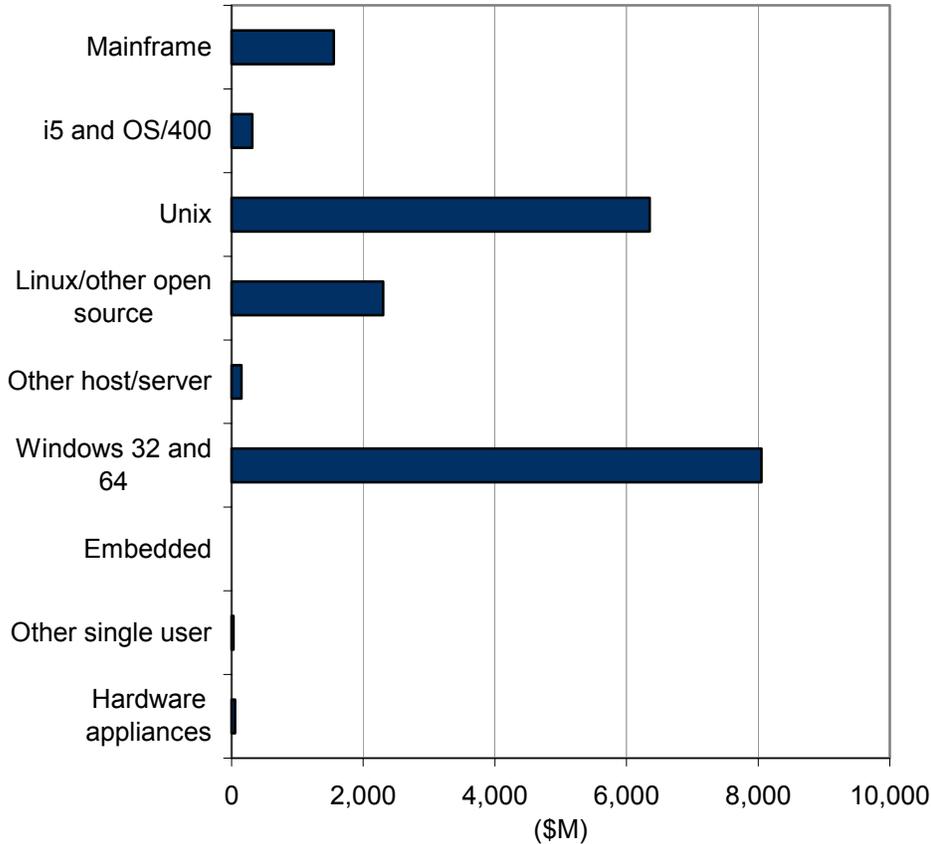
Worldwide Relational Database Management Systems Revenue Share by Region, 2007



Source: IDC, June 2008

FIGURE 2

Worldwide Relational Database Management Systems Revenue Share by Operating Environment, 2007



Source: IDC, June 2008

FUTURE OUTLOOK

For the top 5 RDBMS vendors, success is to be found in appealing to the largest users with advanced enterprise database features, and to the midmarket with a combination of ease of use and deployment, and flexible pricing. In addition, these vendors are increasingly tying their RDBMS product strategies to larger information platform strategies: In the case of Teradata, this is a business intelligence platform; for the others, it is an enterprise information management and, in some cases, an application integration and deployment platform. Oracle, IBM, and Microsoft have made their database and platform strategies virtually inseparable, offering competing visions for the future of the integrated enterprise IT.

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Yet, although the top 5 RDBMS vendors represent over 90% of the worldwide market, there is plenty of dynamism and growth potential in the remaining 10%, which tend to offer differentiators that include low-cost, extraordinarily high throughput, embedability, and unusual architectures aimed at niche data management

requirements. These vendors certainly bear watching as time goes by. It is worth noting that a number of such vendors in the past years, including TimesTen, Sleepycat, and Solid Information Systems, have been acquired by large vendors eager to exploit their unique capabilities in their own more comprehensive data management portfolios. More detail on future growth trends will be offered in the *Worldwide Relational Database Management Systems 2008–2012 Forecast* (forthcoming).

Vendor Profiles

The following profiles outline the strategies and successes of the top 5 RDBMS vendors.

Oracle

IDC estimates Oracle's growth at 13.3% from 2006 to 2007, with roughly four of those points directly attributable to currency exchange shifts (these figures are in U.S. dollars). Based on these estimates, Oracle once again led the RDBMS market and increased its market share in 2007. Much of this growth is attributable to the sale of options for Oracle Database, especially Database Vault, Partitioning, Real Application Clusters (RAC), and Audit Vault. Oracle Database 11g has experienced unusually high early adoption rates for a major release, probably due to demand for some of its new features, especially Real Application Testing.

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IBM

According to IDC's estimate, IBM's RDBMS revenue increased by 13.3% from 2006 to 2007, enabling the company to maintain its second-place position in this market and increase overall share. Based on IBM earnings statements, roughly 5 of these points can be attributed to currency fluctuations. Mainframe DB2 has been a steady source of revenue for IBM in recent years, but an increase in the growth of DB2 on Linux, Unix, and Windows (LUW) is a significant driver behind growth in this market. It should also be noted that Informix Dynamic Server (IDS) has played an increasingly significant role in IBM's RDBMS revenue growth.

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Microsoft

Microsoft SQL Server license revenue growth seems to have slowed, judging from recent reports. IDC estimates RDBMS software revenue growth at 14% from 2006 to 2007. This slowdown is consistent with the normal growth curve of a product that has reached maturity in the market. Roughly 4 percentage points of this growth may be attributable to currency conversion effects.

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Teradata

Teradata posted 10% overall product revenue growth. Based on this and other information, IDC estimates that core RDBMS grew slightly ahead of this rate, at 10.9% in constant currency. Adjustments for currency fluctuation put total RDBMS growth in U.S. dollar terms at 12.9%. Teradata has been benefiting from the ongoing steady growth of data warehouse- and business intelligence-related software and services over the past decade.

Sybase

Sybase reported 9% year-over-year RDBMS license revenue growth, with a 5% increase in overall maintenance revenue, according to publicly available documents. These figures excluded its mobile RDBMS, SQL Anywhere, however. Adding in that revenue, and considering Sybase's ratio of license to maintenance, the actual growth rate was 11.3% in overall RDBMS software revenue. Sybase reported very strong growth for its column-wise data warehouse-oriented Sybase IQ, which presumably contributed significantly to the company's RDBMS software revenue increases.

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ESSENTIAL GUIDANCE

The dominance of the top 5 vendors in this market should not discourage entrepreneurs from entering this space because there is plenty of opportunity to be found among poorly served segments of the market. These are currently being addressed by such specialized technologies as in-memory RDBMS and by alternative business models such as open source.

With that said, one can expect that the top 5 vendors will continue to explore even opportunities such as these. Indeed, already some have invested in:

- Native or quasi-native XML support
- In-memory RDBMS for both caching and distributed high-performance database support
- Replication to standby databases with read-only capability (formerly, standby databases were unavailable for any access)
- Column-wise data organization and bitmap indexing for faster random access to data

LEARN MORE

Related Research

- IDC's Software Taxonomy, 2008* (IDC #210828, February 2008)
- Summing Up DBMS in 2007: Success Tinged with Sadness* (IDC #210232, January 2008)
- IBM to Acquire Solid Information Technology: Adding Another RDBMS Arrow to Its Quiver* (IDC #210241, January 2008)
- Worldwide RDBMS 2006 Vendor Analysis: Top 10 Vendor License Revenue by Operating Environment and 2007 Year in Review* (IDC #209965, December 2007)
- Worldwide Embedded DBMS 2007–2011 Forecast and 2006 Vendor Shares* (IDC #209653, December 2007)

- ☒ *Worldwide Database Management Systems 2007–2011 Forecast and 2006 Vendor Shares* (IDC #209611, November 2007)
 - ☒ *Oracle Database 11g Uses Automation to Target Operational Costs* (IDC #207931, July 2007)
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Methodology

The IDC software market sizing and forecasts are presented in terms of packaged software revenue. IDC uses the term *packaged software* to distinguish commercially available software from custom software, not to imply that the software must be shrink-wrapped or otherwise provided via physical media. Packaged software is programs or codesets of any type commercially available through sale, lease, rental, or as a service. Packaged software revenue typically includes fees for initial and continued right-to-use packaged software licenses. These fees may include, as part of the license contract, access to product support and/or other services that are inseparable from the right-to-use license fee structure, or this support may be priced separately. Upgrades may be included in the continuing right of use or may be priced separately. All of the above are counted by IDC as packaged software revenue.

Packaged software revenue *excludes* service revenue derived from training, consulting, and system integration that is separate (or unbundled) from the right-to-use license but does include the implicit value of software included in a service that offers software functionality by a different pricing scheme. It is the total packaged software revenue that is further allocated to markets, geographic areas, and operating environments.

The market forecast and analysis methodology incorporates information from five different but interrelated sources, as follows:

- ☒ **Reported and observed trends and financial activity.** This study incorporates reported and observed trends and financial activity in 2007 as of the end of April 2008, including reported revenue data for public companies trading on North American stock exchanges (CY 1Q07–4Q07 in nearly all cases).
- ☒ **IDC's Software Census interviews.** IDC interviews all significant market participants to determine product revenue, revenue demographics, pricing, and other relevant information.
- ☒ **Product briefings, press releases, and other publicly available information.** IDC's software analysts around the world meet with hundreds of software vendors each year. These briefings provide an opportunity to review current and future business and product strategies, revenue, shipments, customer bases, target markets, and other key product and competitive information.
- ☒ **Vendor financial statements and related filings.** Although many software vendors are privately held and choose to limit financial disclosures, information from publicly held companies provides a significant benchmark for assessing informal market estimates from private companies. IDC also builds detailed information related to private companies through in-depth analyst relationships and maintains an extensive library of financial and corporate information focused on the IT industry. We further maintain detailed revenue by product area models on more than 1,000 worldwide vendors.

☒ **IDC demand-side research.** This includes thousands of interviews with business users of software solutions annually and provides a powerful fifth perspective for assessing competitive performance and market dynamics. IDC's user strategy databases offer a compelling and consistent time-series view of industry trends and developments. Direct conversations with technology buyers provide an invaluable complement to the broader survey-based results.

Ultimately, the data presented in this study represents IDC's best estimates based on the above data sources as well as reported and observed activity by vendors and further modeling of data that we believe to be true to fill in any information gaps.

The data in this study is derived from all the above sources and entered into the Software Market Forecaster (SMF) database, which is then updated on a continuous basis as new information regarding software vendor revenue becomes available. For this reason, the reader should note carefully the "as of" date in the Methodology discussion within the In This Study section, near the beginning of this study, whenever making comparisons between the data in this study and the data in any other software revenue study.

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