

EXCERPT

Server Workloads Forecasts and Analysis Study, 2005-2010

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IN THIS EXCERPT

This Excerpt is taken from the IDC Document, "Server Workloads Forecast and Analysis Study, 2005-2010," by Matthew Eastwood and Michelle Bailey. The following sections are included: IDC Opinion, Tables 10 and 11.

IDC OPINION

The year 2006 may prove to be pivotal in the evolution of server workloads research. While the overall server market expanded modestly in 2005, IDC witnessed the mainstream adoption of server virtualization in x86, reduced instruction set computer (RISC), and mainframe platforms. Virtualization is when a single, larger server is partitioned into two or more physical or logical servers. The outcome is that a single server appears to be multiple servers, capable of running multiple operating system (OS) instances and/or applications in isolation on dedicated hardware resources. This technology decouples the application from its underlying hardware and therefore has the potential to disrupt the traditional workload models that IDC has tracked for close to 10 years.

There are several consequences of virtualization. For example, customers tend to buy more richly configured systems, and the choice of where to deploy applications no longer comes down to merely a platform decision. Other considerations such as risk of shared resources, software licensing models, internal charge-back mechanisms, availability, and systems management enter into the decision.

IDC has long believed that a strategic fit exists between server platform and workload, and we see this becoming more important to track as virtualization pervades the market. Understanding this relationship can help IT suppliers target hardware solutions to their customers more effectively. Server resource consumption varies significantly by CPU type and operating environment, and clear differences can be observed in server usage by company size and vertical industry.

While we expect that, for the forecast period, scalable workloads will continue their shift to volume systems, virtualization may potentially accelerate this trend as customers virtualize their mission-critical applications. In fact, for the first time, volume servers captured over 50% of all server revenue on a worldwide basis. In addition to changing workload profiles, virtualization may in fact prove to disrupt the evolution to scale-out architectures.

IDC's key findings for this market are as follows:

- ☒ The server and storage markets continue to track very closely by workload. This relationship is most apparent when looking at these markets by OS and server price band.
- ☒ Many workloads (particularly collaborative, IT infrastructure, and Web infrastructure) continue to be very divisible and, as a result, very distributed in nature.
- ☒ Other workloads, such as mission-critical business processing and decision support, elicit very different resource profiles. These applications are much more demanding in nature; therefore, the servers that support them are much more feature laden. These workloads are also more likely to have a need for systems integration services associated with them.

Workloads typically associated with higher-end systems will continue to make their way onto smaller systems, as the technology becomes available. As a result, pricing pressure on these higher-end, mission-critical workloads will remain significant.

Table 10 breaks down database and application server spending by operating system. Overall, 31.1% of server spending goes toward systems supporting database platforms. Looking at these percentages, several clear observations emerge:

- ☒ Unix remains the leader in customer database server spending, with 45.3% of the database market. This is greater than the platform's 35% share of the overall server market, but down somewhat from 47.2% a year ago.
- ☒ Both Windows and Linux increased their share of database spending in 2005. Windows grew from 21.5% in 2004 to 22.7% in 2005. Linux grew from 4.4% in 2004 to 6.2% in 2005.

TABLE 10

Worldwide Database and Application Server Revenue by Operating System, 2005

	Revenue (\$M)			Share (%)		
	Database	Application	Total	Database	Application	Total
Windows	3,881	15,317	19,197	22.7	40.6	35.0
NetWare	119	948	1,067	0.7	2.5	1.9
Linux	1,064	4,986	6,050	6.2	13.2	11.0
Unix	7,739	11,084	18,823	45.3	29.3	34.3
i5/OS	883	1,211	2,095	5.2	3.2	3.8
z/OS	2,343	2,526	4,868	13.7	6.7	8.9

TABLE 10

Worldwide Database and Application Server Revenue by Operating System, 2005

	Revenue (\$M)			Share (%)		
	Database	Application	Total	Database	Application	Total
Other	1,053	1,698	2,751	6.2	4.5	5.0
Total	17,082	37,770	54,852	100.0	100.0	100.0

Source: IDC, 2006

Table 11 illustrates how the major database independent software vendors (ISVs) affect the overall market, detailing the server hardware revenue, shipments, and ASVs associated with the top-selling database platforms. Several key points emerge:

- ☒ Oracle continues to be the leading database platform vendor, with a 40.1% share, up from last year's 38.9%.
- ☒ IBM's DB2 comes in at second, with 24.2%. This represents a decline of 1.6 market share points, after a gain of 4.3 points the year before.
- ☒ In unit shipments, Microsoft SQL Server increased its market share to 41.1%, up from 37.7% in the previous year. Oracle followed in second place, with 29.0% of units shipped, consistent with the previous year's 28.7%.
- ☒ As would be expected, ASVs are the highest on IBM platforms, given their strong mainframe presence in this market space. IBM's DB2 platforms command an ASV of \$38,919, up slightly from the previous year.
- ☒ Microsoft SQL Servers have the lowest ASV, \$4,379, down from 2004.
- ☒ Oracle's strongest segment is business processing, which provides 42% of its revenue. More than half (57%) of IBM's revenue comes from this category.
- ☒ Oracle remains strong in decision support, with nearly 45% of revenue.
- ☒ Microsoft increased its share of the collaborative segment, shipping over half (53%) of the systems deployed for collaborative workloads, reflecting the growing strength of its Exchange platform.

TABLE 11

Worldwide Server Customer Revenue, Shipments, and ASVs by Workload and ISV, 2005

	IBM DB2	Informix	Microsoft SQL Server	Oracle	Sybase SQL Server	Other	Total
Customer revenue (\$M)							
Business processing	2,371	129	444	2,890	195	1,145	7,174
Decision support	892	101	583	1,997	150	729	4,451
Collaborative	110	10	442	245	26	168	1,002
Application development	280	30	261	588	46	238	1,442
IT infrastructure	275	23	394	456	39	260	1,448
Web infrastructure	116	25	241	397	33	178	991
Technical	75	14	59	250	19	91	507
Other	15	2	3	34	2	11	66
Total	4,134	334	2,427	6,857	510	2,820	17,082
Shipments							
Business processing	27,637	4,936	91,885	91,284	8,252	45,161	269,154
Decision support	25,309	5,524	126,011	94,968	9,200	53,493	314,506
Collaborative	11,766	1,743	106,411	41,113	5,007	32,483	198,522
Application development	11,557	2,529	63,179	44,288	4,330	24,134	150,018
IT infrastructure	14,052	3,007	96,803	52,364	5,701	39,765	211,692
Web infrastructure	11,563	3,718	57,615	49,073	4,603	29,004	155,577
Technical	3,987	1,250	11,676	17,241	1,470	9,147	44,771
Other	337	59	648	1,054	88	467	2,653
Total	106,209	22,766	554,228	391,385	38,652	233,653	1,346,893

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Worldwide Server Customer Revenue, Shipments, and ASVs by Workload and ISV, 2005

	IBM DB2	Informix	Microsoft SQL Server	Oracle	Sybase SQL Server	Other	Total
ASV (\$)							
Business processing	85,792	26,083	4,828	31,664	23,689	25,349	26,654
Decision support	35,229	18,196	4,629	21,033	16,276	13,625	14,154
Collaborative	9,346	5,963	4,154	5,966	5,185	5,179	5,047
Application development	24,201	11,721	4,128	13,278	10,533	9,877	9,613
IT infrastructure	19,584	7,672	4,075	8,703	6,856	6,541	6,838
Web infrastructure	10,032	6,831	4,188	8,099	7,212	6,134	6,372
Technical	18,705	11,248	5,027	14,473	12,802	9,989	11,326
Other	45,815	28,874	4,065	31,880	27,386	22,601	25,006
Total	38,919	14,650	4,379	17,521	13,203	12,070	12,682

Source: IDC, 2006

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