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PROFILE

The Economic Impact of Microsoft's Windows Vista and Windows Server 2008 in the U.S.

Sponsored by: Microsoft

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IN THIS PROFILE

This Profile quantifies the forecasted economic impact that Microsoft's Windows Vista and Windows Server 2008 operating systems will have in the United States during 2008, the first full year they will both be shipping. The impact is seen in IT employment, revenues to firms in the Microsoft ecosystem, and investment in products and services working with or supporting the new operating systems.

EXECUTIVE SUMMARY

Windows Vista, Microsoft's first major PC operating system since Windows XP appeared in 2001, began became available in late 2006; the Windows Server 2008 operating system, once code named "Longhorn," is expected later this year.

For Microsoft, these one-two launches are significant milestones and will drive a significant portion of Microsoft revenues for years to come.

But the impact of Windows Vista and Windows Server 2008 will reach far beyond Microsoft, driving revenues and growth for many of the 1 million IT companies worldwide that sell hardware, write software, provide IT services, or serve as IT distribution channels.

The IDC research indicates that:

- By the end of this year, over 90 million copies of Windows Vista should be in place worldwide, more than 35 million copies in the U.S. By the end of next year, that will be over 150 million worldwide, and 65 million in the U.S.
- By the end of next year, Windows Server 2008 should be installed on more than 3.5 million servers worldwide, nearly 1.3 million in the U.S.
- In the U.S., by the end of 2008 nearly 30% of all software sold will run on either Windows Vista or Windows Server 2008.
- In 2008 in the U.S., Windows Vista and Windows Server 2008 related employment will reach almost 30% of IT employment.[1] The 200,000-plus IT

[1] See Definitions and Methodology section for a description of the calculations.

companies that produce, sell, or distribute products or services running on Windows Vista or Windows Server 2008 will employ nearly a million people; another 2 million will be employed at IT-using firms.

- For every dollar of Microsoft revenue in the U.S. in 2008 from Windows Vista and Windows Server 2008, the ecosystem beyond Microsoft will reap $18 or so in revenues. In 2008 this ecosystem should sell more than $120 billion in products and services revolving around Windows Vista and Windows Server 2008.

- To achieve those revenues, the companies in the Microsoft ecosystem are expected to have invested more than $40 billion by the end of 2008 developing, marketing, and supporting products and services built around Windows Vista and Windows Server 2008.

BACKGROUND TO THIS STUDY

Since 2002, IDC has been conducting studies on the economic impact of IT, software, and the Microsoft ecosystem and partner community on local economies. This impact comes in the form of job creation, company formation, and increased IT spending. Over the years, IDC has developed an Economic Impact Model (EIM), which ties local IT spending to these economic metrics. The economic impact and reach of the Microsoft ecosystem, which we call the Microsoft Footprint, have been studied in more than 40 countries since 2004.

In the fall of 2006 and spring of 2007 IDC extended its Microsoft Footprint research to look specifically at the economic impact Windows Vista would have in its first full year of shipment, 2007, in a number of countries and states.

With Windows Server 2008 about to launch, Microsoft asked IDC to extend this research to include the new server operating system and extend the research horizon through 2008. This profile addresses that request.

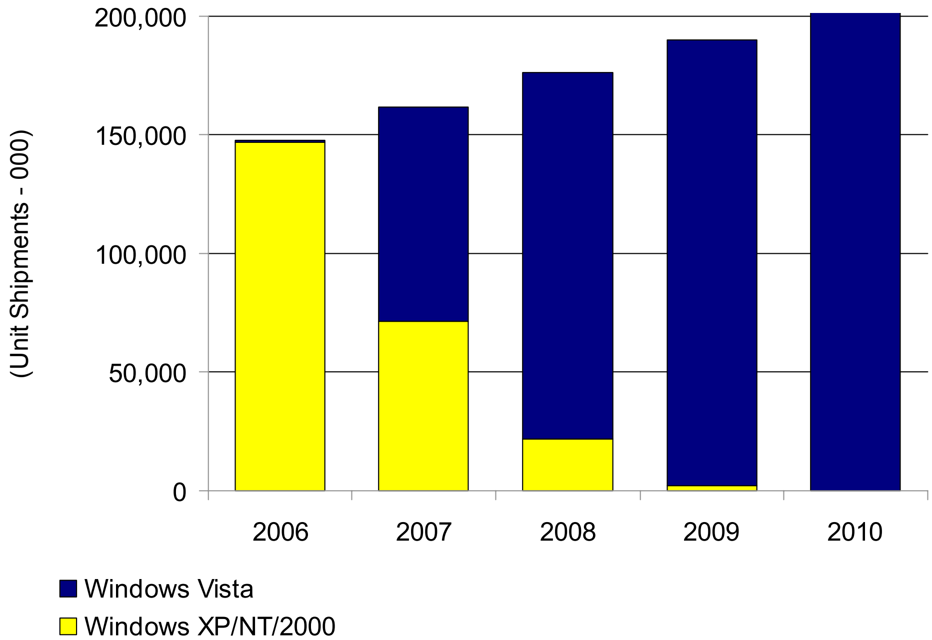
ADOPTION OF THE NEW WINDOWS OPERATING SYSTEMS

As of this writing, Window Vista has been shipping for half a year and Windows Server 2008 is in Beta 3. It is expected to ship before the end of 2007.

Figure 1 shows IDC's published forecast of Windows Vista unit shipments worldwide by year compared to Windows XP, NT, and 2000.

FIGURE 1

Microsoft Client OS Forecast — New License Shipments



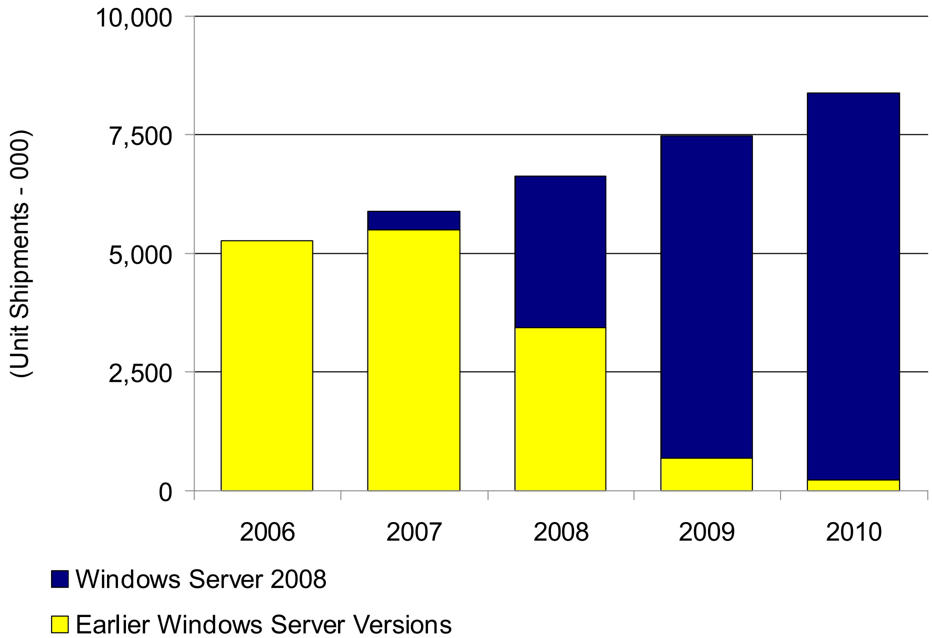
Source: IDC, 2007

On a worldwide basis, IDC forecasts more than 90,000,000 units of Windows Vista will ship in 2007 and 150,000,000 in 2008. In the U.S. that means more than 100 million units of Windows Vista should be in place by the end of 2008.

Figure 2 shows the IDC forecast for new license unit shipments of Windows Server 2008. By the end of 2008 Windows Server 2008 should be shipping on more than 40% of the volume servers shipped in the U.S.

FIGURE 2

Microsoft Server OS Forecast — New License Shipments



Source: IDC, 2007

In the scheme of total IT spending, Microsoft's Windows Vista and Windows Server 2008 revenue will be small — barely 1% of total IT spending in the U.S. in 2008 and perhaps 5% of total spending on software. But Windows Vista and Windows Server 2008 mean more than revenue to just Microsoft. They also drive revenue for hardware companies, other software companies, service firms, and channel firms.

To understand this overall impact requires first understanding the role of software in the economics of IT.

THE IMPORTANCE OF SOFTWARE

On a worldwide basis, packaged software accounts for about 20% of total IT spending, in the U.S. for 28%. That's spending on operating systems, applications, and development tools for everything from ultra portable computers to large mainframes. But this software generates related activity. People in service firms install, integrate, support, and train others on software. People in computer stores, system resellers, and distribution companies spend time selling and delivering software.

Because software is more complex to sell, service, and support than hardware, dollar for dollar, software generates more downstream economic activity than hardware.

IDC's analysis of the IT services market shows that for every dollar of packaged software sold, there is another $1.25 in revenue to IT service firms. That software revenue and additional services revenue also drives revenue in the distribution channel. These multiple revenue streams pool to help fund employment.

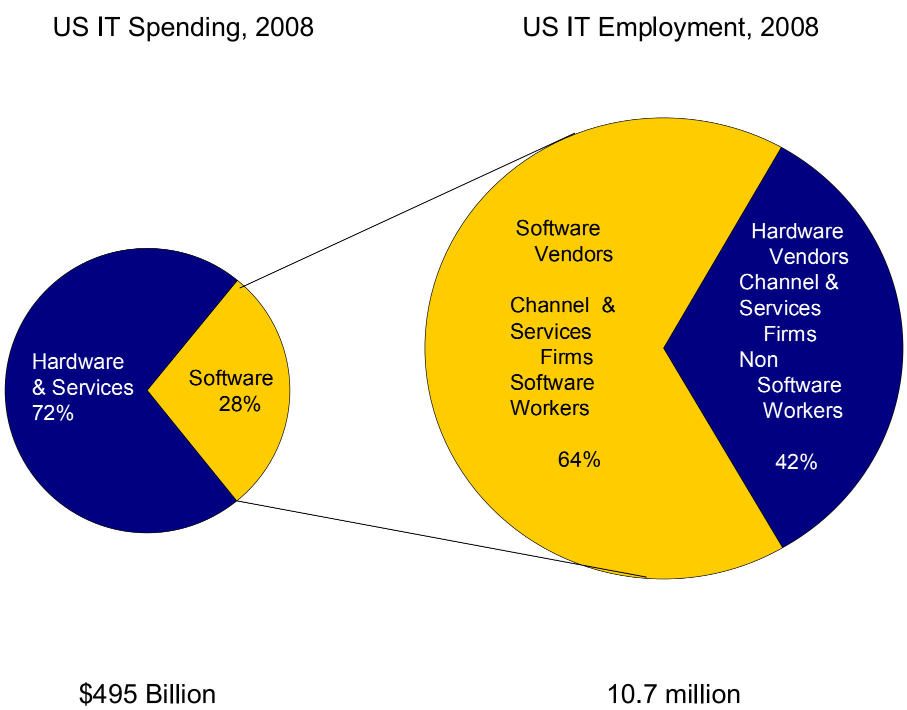
IDC's interviews with user organizations also confirm that in IT organizations, the allocation of staff is quite disproportionate in favor of software in comparison to software's share of the external IT budget.

Figure 3 shows how spending on software compares to employment driven by software. In short, while packaged software accounts for 28% of IT spending in the U.S., it *drives* more than 60% of IT employment.

This is one of the important reasons why Windows Vista and Windows Server 2008 can have a much larger impact on an economy than Microsoft's revenues alone.

FIGURE 3

Software's Outsized Influence



Source: IDC Windows Vista & Windows Server 2008 Economic Impact Study, 2007

THE IT LANDSCAPE

The U.S. will show modest but healthy growth in IT spending between now and the end of 2008, when Windows Vista and Windows Server 2008 will have been shipping together for a full year.

The overall U.S. forecast for 2007 and 2008 looks like this:

- IT spending, $468 billion and $495 billion respectively
- Packaged software spending, $125 billion and $135 billion
- Hardware spending, $146 billion and $152 billion
- Services spending, $197 billion and $208 billion
- IT employment, 10.3 million and 10.7 million
- Software-related IT employment, 6.6 million and 6.9 million

This is the environment into which Windows Vista and Windows Server 2008 will be shipping. Conditions are good for the investment required of user companies and Microsoft business partners in making the rapid transition from Windows XP, NT, or Windows Server 2003 to these new operating systems.

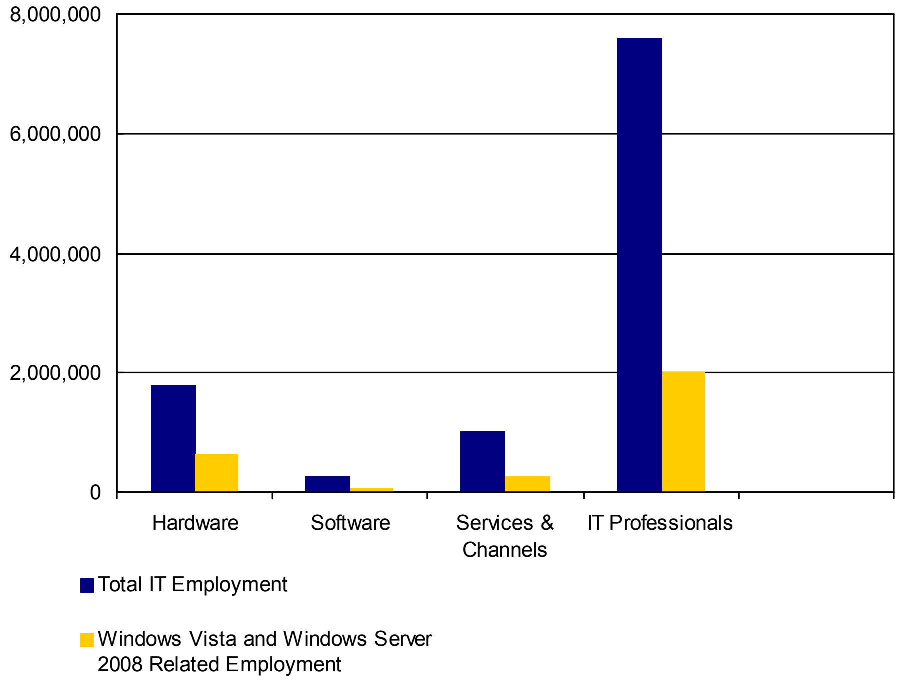
THE IMPACT OF THE NEW OPERATING SYSTEMS

Applying the same methodology used to determine software-related employment, IDC has determined Windows Vista and Windows Server 2008 related employment. As a subset of the software market, Windows Vista and Windows Server 2008 will drive a subset of employment. As operating systems, however, they will drive a larger share than the average application package or development tool, since they are, after all, software platforms.

Figure 4 shows how Windows Vista and Windows Server 2008 related employment compares to total IT employment. In the U.S. 28% of IT employment – 3 million – will be Windows Vista or Windows Server 2008 related by the end of 2008.

FIGURE 4

Windows Vista and Windows Server 2008 Related IT Employment



Source: IDC Windows Vista and Windows Server 2008 Economic Impact Study, 2007

THE WINDOWS VISTA AND WINDOWS SERVER 2008 EFFECT

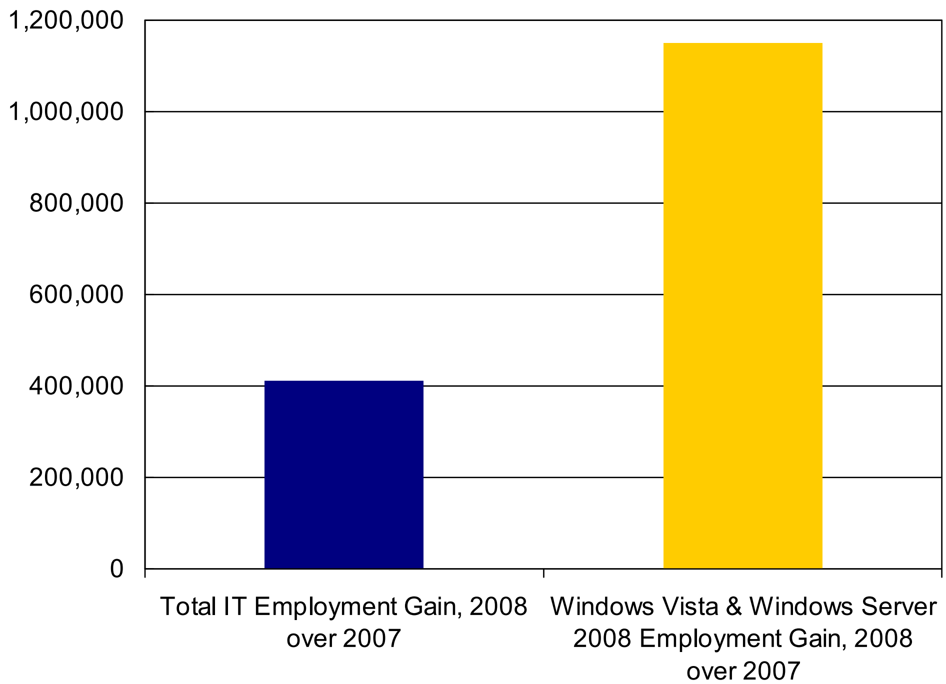
The methodology so far only depicts the total employment related to Windows Vista and Windows Server 2008 in 2008. But how do their economic impact in 2008 compare to 2007? What if they weren't in the market?

Is there a significant net gain, or economic "bounce," from Windows Vista and Windows Server 2008?

Figure 5 shows *net difference* between the economic impact of Windows Vista and Windows Server 2008 in 2008 compared to 2007. Employment relayed to the new operating systems is expected to jump by more than a million jobs.

FIGURE 5

The Windows Vista and Windows Server 2008 Effect



Source: IDC Windows Vista and Windows Server 2008 Economic Impact Study, 2007

Much of this gain in Windows Vista and Windows Server 2008 related employment will come about as the new operating systems increase their share of market in 2008 from 2007. The number of Windows Vista units shipped will nearly double, and Windows Server 2008 will really be just ramping up in 2008.

But the previous economic impact studies on the impact of Windows Vista alone in 2007 indicate that the new operating systems will create *net new* jobs.

Based on expected growth in overall IT employment IDC believes that as much as 20% of the gain in overall Windows-related employment in 2008 will be specifically related to Windows Vista or Windows Server 2008. It is growth that IDC believes would *not* occur were these operating systems not in the market.

THE REACH OF THE MICROSOFT ECOSYSTEM

While it is easy to think of Microsoft as simply the world's largest software company, it is more than that. It is an economic force that has a direct, positive impact on the economies in which it operates.

Microsoft partners and OEMs sell PCs and servers running Windows; software vendors write applications that run on Windows using Microsoft application development tools; retail outlets and resellers employ people to sell and distribute these products; and service firms install and manage Microsoft-based solutions, train consumers and businesses on Microsoft products, and service customers for their own applications.

If you add up all the spending on hardware and software that run on Microsoft operating systems as well as all the services around installing and maintaining Microsoft applications and solutions, you quickly come up with a number much bigger than Microsoft's revenues. It grows even *larger and more significant* when compared to the subset of Microsoft revenues for operating systems.

With Windows Vista and Windows and Windows Server 2008, ecosystem companies will drive their own revenues by:

- Reselling the new operating systems
- Reselling other Microsoft software that runs on the new operating systems
- Selling their own software
- Selling services on the Microsoft software
- Selling services on their own software and that of others that run on the new operating systems
- Reselling partner-developed software that runs on the new operating systems
- Selling or reselling hardware that runs the new operating systems

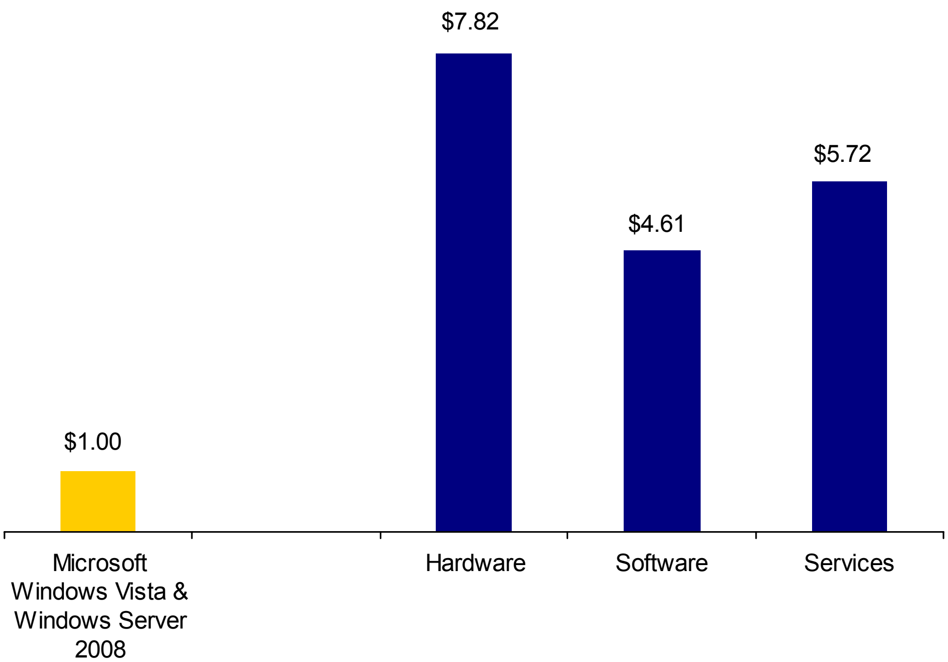
These permutations and combinations of revenue generating activity should lead the Microsoft ecosystem – as many as 200,000 companies in the U.S. – to bring in more than $70 billion in revenues in 2007 and more than $120 billion in 2008 related to Windows Vista and Windows Server 2008.

Figure 6 shows the dollar relationship between estimated Microsoft revenues from Windows Vista and Windows Server 2008 in the U.S. in 2008 and revenues to others on Windows Vista and Windows Server 2008 enabled hardware, software, and services. For every dollar of Microsoft revenues from the new operating systems, other companies make more than $18.

To obtain these revenues, ecosystem firms are expected to invest more than $15 billion in 2007 and $28 billion in 2008 developing, marketing, and supporting their products and services that work with or run on Windows Vista and Windows Server 2008.

FIGURE 6

Windows Vista and Windows Server 2008 Ecosystem Revenues



Note: For every dollar of Windows Vista and Windows Server 2008 revenue expected in 2008, IDC expects $18.15 to be generated in revenues by other companies in the Microsoft ecosystem.

Source: IDC Windows Vista and Windows Server 2008 Economic Impact Study, 2007

THE MICROSOFT PARTNER COMMUNITY

Within the Microsoft ecosystem is a subset of vendors that are recruited and supported by Microsoft as OEMs and registered partners. Depending on the level of business and commitment to Microsoft products, there are different tiers of partners.

Microsoft partners are a diverse group of companies, running the gamut from large international vendors, like major PC manufacturers, to very small national resellers and software entrepreneurs. In aggregate, Microsoft partners account for most of Microsoft's revenues and a good portion of Microsoft-*related* revenues.

Because these companies often have a specialty in the Microsoft product line and invest in additional training and certification, they tend to get more out of their investment in Microsoft software than non-affiliated members of the general ecosystem.

IDC research supports the idea that the more partners invest in Windows Vista and Windows Server 2008, the more that investment pays off. In a worldwide study last year of companies with the highest level of certification in Microsoft operating systems, IDC found that in 14 key performance indicators, partners with the highest certification levels had better results than companies without that certification in almost every category. This top echelon had revenue growth, deal growth, and customer growth twice that of the other baseline companies. Sales cycles and delivery cycles were a third faster. Daily billing rates and capacity utilization were 10% percent higher.

SUMMARY AND OUTLOOK

The IDC research shows that the advent of Windows Vista and Windows Server 2008 will precipitate cascading economic benefits, including increased employment in the country and a stronger economic base for those 200,000 or so firms selling and servicing products that run on them. Nearly three million IT professionals and industry employees will be working with these new operating systems in 2008.

These direct benefits will help local economies grow, improve the labor force, and support the formation of new companies. The indirect benefits of using newer software will help boost productivity, increase competitiveness, and support local innovation.

While the U.S. is just one part of a heterogeneous global market, it is also a leading indicator of global trends in the IT sector. Windows Vista and Windows Server 2008 are important new products for Microsoft, but they are even more important for a much larger and more extensive community around the world.

DEFINITIONS AND METHODOLOGY

Economic Impact

IT Spending — Spending by consumers, businesses, governments, or educational institutions on information technology, including hardware, software, services, and data networking, as measured in the IDC's *Worldwide IT Spending Trends* reports (The Worldwide Black Book). This spending *excludes* all telecommunications revenues and some smaller emerging technology areas, such as videogames (although PC gaming software *is* included).

IT Employment — The number of people employed (full-time equivalent) in hardware, software, services, or channel firms and those managing IT resources in an IT-using organization (e.g., programmers, help desk, IT managers). The definition *excludes* employment in occupations in IT-related industries, such as Web graphics design, venture capital, trade magazine publishing, etc.

Headcounts by category were first modeled based on estimated IT revenue per employee for hardware, software, or services companies based on standard ratios, and by levels of spending per employee by technology type for channels employees and IT professionals. Over time, these headcounts have been validated with government and other sources, although they often vary from these sources as a result of definitional differences.

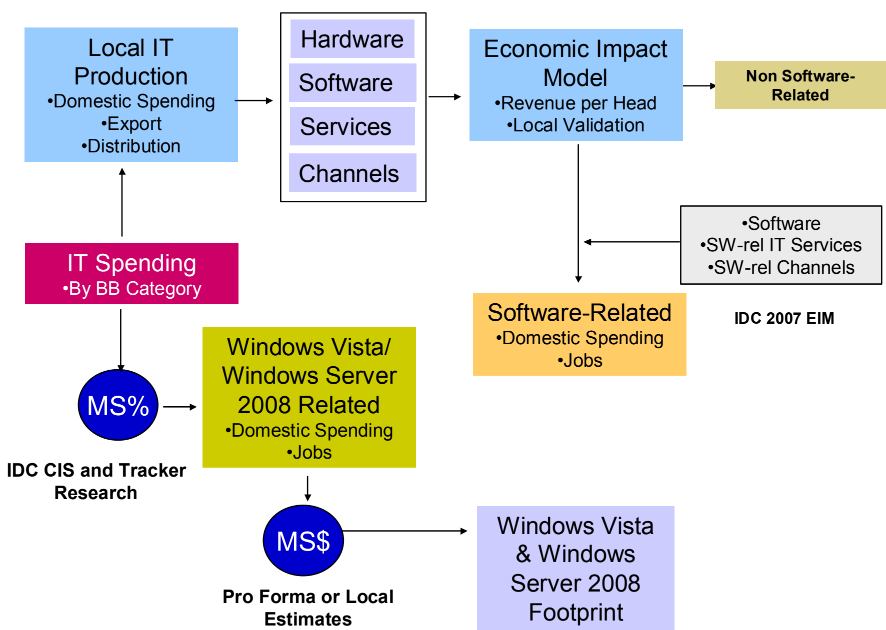
In its forecasts, IDC was conservative in how much growth in IT spending would result in IT employment — in general, if IT spending were to grow 10%, IT employment would grow something less than that. This varied by category.

Channel revenues — Within calculations of employment, IDC used a figure for channel revenues to drive estimates of employment. In this case, channel revenues were equated to 100% of IT spending. Most of that goes back to the hardware, software and IT services suppliers, but it is that revenue that funds employment. Within its tracking of IT *spending*, IDC looks only at channel mark-up, which is the difference between IT spending and vendor revenues.

Figure 7 illustrates the methodological flow of the study.

FIGURE 7

Economic Impact Methodology



Source: IDC Windows Vista and Windows Server 2008 Economic Impact Study, 2007

Software-Related Revenues and Employment

This is the percentage of spending or employment that can be associated with creating, installing, servicing, or distributing software. It was developed by first analyzing 13 service categories and using IDC research to determine the percentage of that activity devoted to software (e.g., what percentage of IS outsourcing is outsourcing software management and what percentage is related to managing hardware.) This led to a ratio of software spending to services spending. For the purposes of allocating employment, internal IT departments were assumed to resemble external service organizations and headcount is allocated accordingly. The allocation of channels activity to software is the midpoint between the percentage of software spending to the total of software and hardware spending and the percentage of IT services that is software related.

Windows Vista and Windows Server 2008 Related Economic Impact

Windows Vista and Windows Server 2008 related employment was derived using country-level estimates of the percentage of IT spending in 2008 by IT category for products running on the new operating systems or for services supporting them.

- For hardware we counted newly shipped PCs or servers that we expected to run on Windows Vista or Windows Server 2008 in 2008 based on IDC forecasts for Windows Vista and Windows Server 2008 adoption.
- For software we counted all software that we expected to be shipped that would run on Windows Vista or Windows Server 2008, including Microsoft software. We started with data from the IDC Software Forecaster on revenues by software category (e.g., development tools, CRM software, collaboration tools) by operating system and adjusted this based on additional research on client and server software usage.
- For services we counted all services related to the design, deployment, management, support, and training for Windows Vista or Windows Server 2008 We excluded maintenance and support on hardware running Windows Vista or Windows Server 2008 under the assumption that maintenance was more likely to be related to equipment failures.
- For Windows Vista and Windows Server 2008 related IT professionals we used the general ratio of services to come up with estimates of headcount percentages in user organizations.

To determine the amount of Windows Vista and Windows Server 2008 related IT spending per dollar of Windows Vista and Windows Server 2008 revenue, we took the Windows Vista and Windows Server 2008 related spending percentages developed above and compared them to estimates of Windows Vista and Windows Server 2008 revenue. In the final calculation, we subtracted Windows Vista and Windows Server 2008 revenues and Microsoft revenues from its own software (e.g., Office 2007) that would run on Windows Vista or Windows Server 2008 from the total to come up with the total Windows Vista and Windows Server 2008 related spending that wasn't revenue to Microsoft.

We performed these calculations for both 2007 and 2008.

Ecosystem Revenues and Investment Levels

The exercise above yields a ratio of Microsoft revenues to those in the ecosystem, which leads to a revenue calculation for 2007 and 2008.

IDC then used these revenues and applied estimates of investment in R&D, product development, sales and marketing, and customer support to determine Windows

Vista and Windows Server 2008 investment levels. These were patterned after standard industry ratios.

Partner performance information was based on a database of information on Microsoft partners maintained by IDC and updated using surveys several times a year. The most recent sample used for this calculation was 300 firms that were Microsoft partners that specifically developed solutions based on Windows client operating systems — product-oriented partners, service-oriented partners, and value-added resellers platform solution providers. The database information includes average software revenues, average services revenues, and average revenues from resale.