

Cost is still an issue, but competitive edge will be a driving force in the coming year, as companies look to make the most of what they have in terms of servers, software, and data, our research finds

Running Start

By Aaron Ricadela

AS TECHNOLOGY MANAGERS take their marks for the sprint into the new year, competing budget, labor market, and project-list pressures weigh heavy on their minds. But those poised to exploit existing resources, while dealing with the handicaps of security, regulation, and overhead, might well have a running start.

According to *InformationWeek* Research's Outlook For 2007 survey of 300 business technology managers, fielded in November, IT spending is forecast to rise, but cost-cutting is still top of mind. That may help explain why new technologies that let companies consolidate computer systems and get a better return on their assets are soaring in popularity. Business technology managers put PC upgrades at the top of their project lists this year but say one reason for those refreshments—Microsoft's new Windows Vista operating system—has been overhyped. And while compa-



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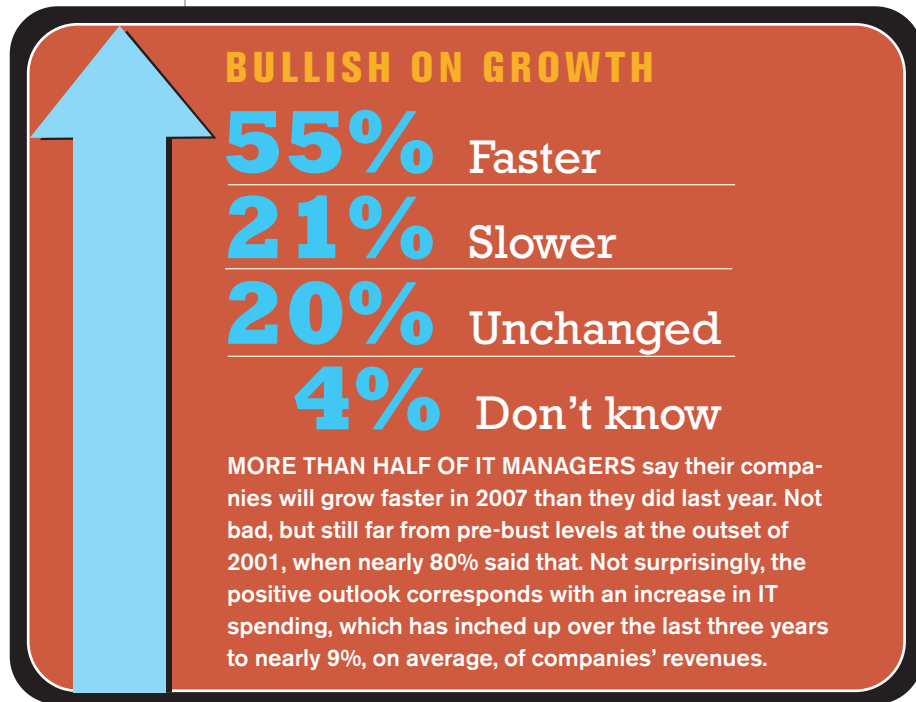
nies count a failure to staff qualified technologists among last year's biggest gaffes, most don't plan to hire new IT managers in '07.

Overall, though, according to the survey, managers are optimistic about prospects for the coming year and bullish on IT spending plans. Nearly half (46%) say their companies' IT spending will rise this year; another 39% don't expect their IT budgets to change, while just 9% plan a decrease. Companies we polled expect to spend, on average, 8.7% of revenue this year on IT, up a bit from 8.2% last year and the highest level reported in our annual Outlook survey since 2002, when companies said they'd spend more than 9% of revenue on information technology.

That uptick goes along with a confident outlook on sales growth. Fifty-five percent of respondents say they expect their companies' revenue to grow faster in '07 than last year. Still, 20% don't expect revenue growth to change, and another fifth see a slowdown in growth. And that's a long way from the boom years: Looking back on our 2001 Outlook survey, 72% of companies foresaw an increase in IT spending, and 78% expected revenue growth to accelerate.

LESS IS MORE

The pressure to cut costs remains strong. More than half of respondents in the *InformationWeek* survey list paring IT expenses among their top concerns this year, and more than a third cite getting better returns on their



capital IT investments: servers, PCs, and other depreciable assets. But the pressure to do more with less isn't as acute now as it has been in previous years. Between 2002 and 2004, more than three-quarters of managers cited improving their return on capital goods as a top priority.

Despite the cost-cutting pressure, just 9% of companies expect IT layoffs this year. But they remain cautious about hiring. Two-thirds have no plans to hire IT managers, while more than half plan to hire general IT staff this year. The reluctance to hire managers is notable in light of the boom in IT manager jobs in recent years, with their ranks surging by 44% since 2001, while

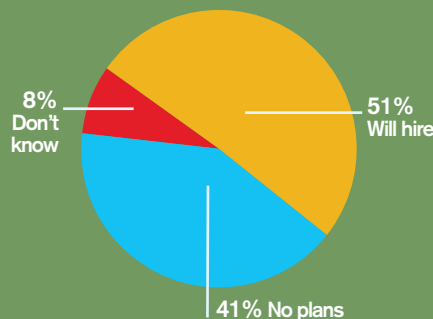
programming and support jobs have fallen by 19%. That reluctance could be a reflection that companies have filled their management ranks. Or it could reflect the trend of IT staffers taking on more traditional management functions, like steering projects, collaborating with other departments, or coordinating with outsourcers.

Now, as workers return from year-end vacations, they'll need to execute on the '07 IT budgets their managers have drawn up. Four big changes are shap-

HELP WANTED: STAFFERS

HERE'S THE GOOD NEWS: More than half of companies plan to add IT staff this year. And, in a separate question, less than 10% say they plan to cut staff size this year. But staffers would do well to read the technical tea leaves—among companies that anticipate downsizing, 29% say the cuts will result from consolidating computer systems, and 28% blame greater IT automation. Another 28% say they're outsourcing more work.

What are your company's plans for hiring nonmanagement IT personnel in 2007?



Note: Nonmanagement IT personnel includes system administrators, PC support, and other technical positions.

ing those budgets: Use of virtualization software to consolidate applications onto fewer computers is soaring, as EMC, Hewlett-Packard, IBM, Intel, Microsoft, Sun Microsystems, and others promote virtual-machine technologies; companies are investing in data analysis tools as broader swaths of workers interpret business data; IT departments are being tapped to build systems that can help companies comply with federal regulations such as the Sarbanes-Oxley Act; and companies are set to tackle big PC upgrade projects as computer makers get ready to start installing Windows Vista on all new PCs beginning Jan. 29.

SPACE SAVERS

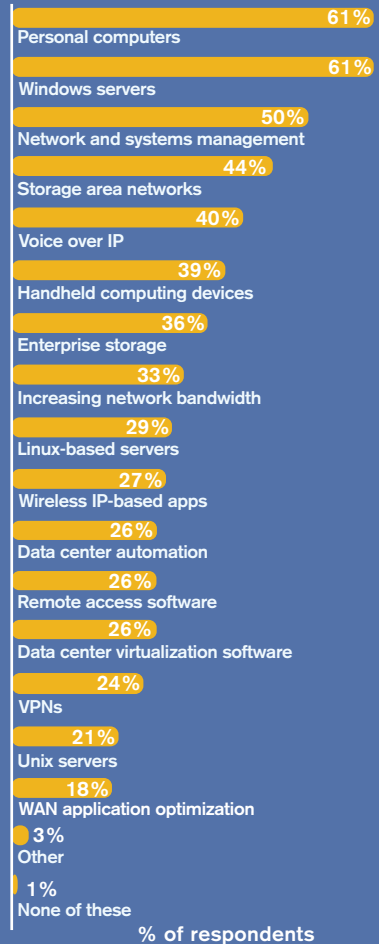
Among the technologies growing fastest in importance, data center virtualization has zoomed to near the top of the list. The trend toward running several software programs on virtual servers inside a single machine goes in lockstep with the desire to cut costs. By making each server do the work of several, companies can save floor space, electricity, and the cost of buying and maintaining hardware (see "Virtual Payoff In The Real World," Dec. 18/25, p. 38; informationweek.com/1119/virtualize.htm). More than a third of respondents say moving to virtual-server environments is among their top business initiatives for the year, and a quarter include data center virtualization as one of their top hardware budget items for the year, up from 17% last year.

There's other evidence that fits the virtualization trend. More than a third of IT managers say they want a better return on their IT investments, and nearly a

THIS YEAR'S TO-DO LIST

DESPITE 10 YEARS OF attempts to write its obituary, the PC keeps chugging along, topping the project lists of the most number of companies again this year. IT managers will pay more attention to the slabs of plastic and circuit boards atop workers' desks—or more likely in their carry-on bags—as companies start installing a trio of big releases from Microsoft: Windows Vista, Office 2007, and Exchange Server 2007, which will push new features to desktop in-boxes. And Apple will release a new version of its Mac OS X. Storage area networks are still a high priority, though less so than last year. But the installation party appears to be winding down for Unix servers (21%, down from 30% last year), and VPNs (24%, down from 39%), perhaps reflecting their ubiquity.

Which technologies, products, and services are on your IT organization's planned projects list for 2007?



Note: Multiple responses allowed.

third say they want to reduce dependence on costly legacy systems. Forty-four percent list centralizing IT management as a business priority this year. And a quarter of IT managers say they're looking for data center expertise in their new hires.

While they're working to centralize operations and reduce server sprawl, IT departments are getting pulled into helping their companies comply with Sarbanes-Oxley and other rules federal regulators put in place following the accounting fraud scandals of the last several years. Nearly half of respondents (48%) say their IT departments will make complying with regulations a business priority this year, up from 42% last year. That's second only to cost-cutting among governance initiatives, which also include managing risk (named by 45% of respondents), and reporting finan-

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cial data more accurately (36%), closely tied to the compliance drive.

SOX sets strict rules for storing data and analyzing the processes that lead to financial controls, and a lot of companies, especially small ones, complain about its expense. The rules also mean companies have to vouch for the processes that created those controls, leading to lengthy projects, new systems, and more consultants. Not surprisingly, the No. 1 business concern, cited by 65% of survey respondents, is the need to streamline their business processes. That's high, but three years ago 91% cited it among their top concerns. In addition, more than a third of companies cited business process management as a technology priority this year, up from 20% last year.

Relief could be in sight. In November, a committee on regulation of capital markets issued a report that recommended softening the application of Sarbanes-Oxley's Section 404, which governs companies' financial controls. Treasury Secretary Henry Paulson has called for reviewing SOX regulations, and Sen. Charles Schumer, D-N.Y., and New York Mayor Michael Bloomberg have hired McKinsey & Co. to study the effect of the law on New York's economy. Last month, the Securities and Exchange Commission proposed amending the Section 404 rules to make the law less costly and time-consuming for businesses.

ANALYZE THIS

Also rising in importance for technology managers are data analysis and business intelligence software. Forty-four percent of survey respondents list data warehousing as one of their top software projects for the year, and 43% say the same about data analysis



IT SPENDING SPREE

46% Increase

39% Stay the same

9% Decrease

6% Don't know

NEARLY HALF OF COMPANIES say their IT budgets will rise this year. The IT bulls forecast an average increase of 15%, while the average decrease among companies cutting back is 12%. Companies plan to spend 31% of their IT budgets on salaries and benefits, 22% on hardware and other capital purchases, 20% on software, and 10% on consulting and outsourcing. Five percent will go to R&D.

tools. A quarter of respondents cite business performance management as a technology priority, and 27% list expertise in data mining as a skill they're looking for in new IT hires, up from 21% last year.

Data analysis has grown in importance as companies try to make sense of the large volumes of customer-related information pouring in from retail point-of-sale systems, the sales data housed in business apps, and the mass of usage data streaming in from the Web. More than half of companies say designing business processes that use real-time data will be a strategic initiative for the year, while nearly half cite increasing customer satisfaction and 46% name improving customer service.

In terms of technology projects, PCs are promin-



HOW WE DID IT: OUTLOOK 2007 METHODOLOGY

TO COMPILE OUR OUTLOOK 2007 Web survey, we selected 300 participants from a random sample of readers of *InformationWeek* and its sister publication, *Optimize*. All the respondents

were responsible for their companies' budgets and planning. The respondents came from a cross-section of industries, and we polled 100 staffers each from large companies with more than \$1 billion in annual revenue,

midsize businesses with more than \$100 million but less than \$1 billion in yearly sales, and small ones with less than \$100 million in revenue. About half the companies surveyed have more than 1,000 employees.

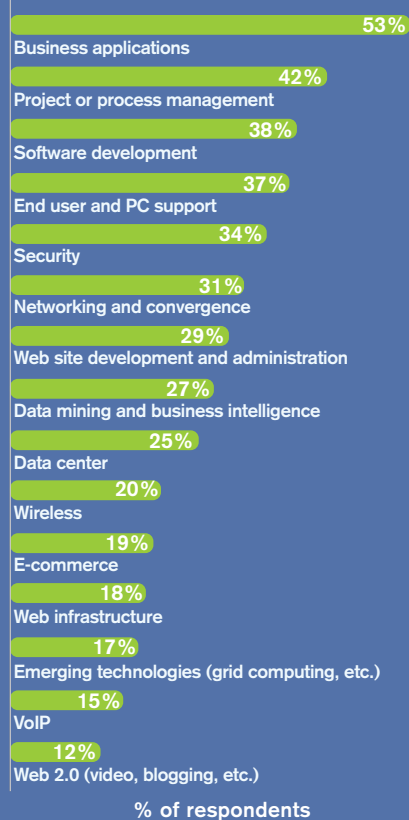
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SKILLS THAT KILL

WHAT ARE COMPANIES looking for in terms of IT experience? Among the most coveted skills, 53% of companies cited business apps, up from 45% last year. Software development held steady at 38%, as did security (34%).

Also remaining hot: technologists conversant in voice over IP and coders who know their way around Ajax, online video, podcasting, and other Web 2.0 technologies. But just 37% of companies named PC support as a desired skill this year, down from 43% a year ago—this despite the challenges poised by Microsoft's brand new operating system.

What kind of expertise is your company looking for in new IT hires?



Note: Multiple responses allowed.

more than any other vendor. Besides Vista, IT managers are keen to roll out Windows on servers. Microsoft's Windows Server 2003 has proven extremely popular, and the company is due to release an upgrade, code-named Longhorn Server, late this year.

Microsoft also has released to corporate licensees its Office 2007 suite, which contains features the vendor says can improve productivity and information sharing among teams of workers. The need for such capabilities is there: 46% of survey respondents say improving workers' productivity will be a key strategic goal for '07.

Meanwhile, Windows still has its open source competition: 29% of respondents list installing Linux-based servers as part of their hardware priorities list for '07.

SECURITY BLANKET

The battle against hackers never seems to end. More than half of IT managers (54%) say updating their security procedures and software will be a tactical priority for the year. Still, that's down from 82% two years ago.

Data encryption software looks poised to surge in importance—38% of companies put it on their lists of software projects this year, up from 30% last

ent. Sixty-one percent of IT managers say PC upgrades top their project list for the year—the most common answer and one that's a perpetual concern. Two years ago, for example, 79% of respondents put PC upgrades at the top of their hardware projects lists.

As usual, Microsoft factors heavily into those PC plans. On Nov. 30, Microsoft shipped its first new desktop operating system since 2001, Windows Vista, to businesses with corporate license agreements. On Jan. 29, Microsoft will release Vista to the rest of the world, and PC vendors will start preloading it on new systems. Nearly one-third of companies (31%) say Windows Vista is on their IT departments' planned projects lists for this year. Small companies will be slightly more aggressive—about 33% of companies with fewer than 1,000 employees plan Vista installations this year. None of that kept survey respondents from putting Vista among their five most overhyped technologies.

What's more, half of companies surveyed name Microsoft as their most strategic software vendor, far

year. Companies have been reluctant to embrace encryption software because of its complexity, so it's notable that 2007 could be the year the technology finally breaks through. In a similar vein, 13% of companies say they plan to introduce biometrics software this year.

Hand in hand with security concerns are fears of compromising employees' and customers' privacy. Last month, thieves swiped from a Boeing employee's desk a laptop that contained personal information—including Social Security numbers and home addresses—on 382,000 employees and retirees. In May, burglars stole from the home of an employee of the Department of Veterans Affairs a laptop and hard drive that contained the birth dates and Social Security numbers of 26.5 million veterans and active-duty military personnel.

Those incidents and others like them have forced managers to become more aware of the issue. More than half of survey respondents say ensuring the privacy of their companies' data is a business priority this year.

POPULARITY CONTEST

Last year was an eventful one at the technology companies that supply IT departments. Microsoft's Bill Gates handed his chief software architect title to Ray Ozzie and said he'd end daily work at the company in two years. Sun Microsystems' co-founder Scott McNealy relinquished his CEO role, though he remains company chairman. And Oracle dove deeper into the detail work of blending its new portfolio of business software after scooping up PeopleSoft, Siebel Systems, and a handful of other companies in the past few years. Intel and Advanced Micro Devices kept customers flush with advances in chip technology, racing to outdo one another as a new wave of more powerful chips hit the market. Case in point: Intel plans to introduce a quad-core processor for consumer PCs at this week's Consumer Electronics Show in Las Vegas, according to industry sources.

After Microsoft, IT managers say their most strategic software vendors are Oracle (14%), IBM (11%), and SAP (8%, up from 3% last year). Dell, Hewlett-Packard, IBM, and Cisco top managers' lists of most strategic hardware vendors. HP was named by 28% of respondents, versus 21% last year, the steepest increase in popularity. Dell's popularity (31%) remains mostly unchanged, despite its struggles last

NOT SO MANY SUITS

THE JOBS OUTLOOK FOR '07 IS mixed: Two-thirds of companies say they don't plan to hire any IT managers this year, and just a quarter have definite plans to. And 41% don't plan to hire any general IT staff. Yet more than half say retaining skilled staffers is a business priority this year, and one of the biggest mistakes managers say they made last year was understaffing. Workers may be staying with their companies longer, too—among companies that foresee downsized IT departments, just 17% of IT job loss is expected to come from attrition, versus 33% last year.

25%
Will hire

66%
No plans

9%
Don't know

year when HP passed it as the top supplier of PCs.

Last year was not without its disappointments for managers, too. The five most overhyped technologies were services-oriented architecture, cited by 19% of respondents; voice over IP; Web 2.0; Windows Vista; and wireless. The three biggest mistakes IT managers made last year involved staffing issues, vendor selection, and outsourcing problems. The staffing issues revolved around inadequately trained—or simply not enough—personnel, while the vendor-related issues, including those with outsourcers, involved hidden costs, missed deadlines, and tendencies toward overpromising and underdelivering.

It's interesting to note, though, that 4% of IT professionals report they made no mistakes in 2006.

So 2007 looks to be marked by efforts to resolve the tug-of-war for IT departments' resources. How managers resolve those conflicts could be key to judging their performance—and the prospects for their companies—in the new year.

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TANGLED UP IN RULES

Which key business priorities will your IT organization implement or support in 2007?



% of respondents

Note: Multiple responses allowed.

BETWEEN COMPLYING WITH Sarbanes-Oxley and other regulations and fighting the specter of data theft, managers have their hands full—or perhaps tied. More than half of companies report pressure to keep cutting costs while retaining their best staffers. That alone makes for headaches. Factor in the need to respond to widely reported data-loss cases by tightening policies, building systems for regulatory compliance, and improving the accuracy of accounting systems, and IT departments this year could find themselves tangled in a thicket of rules.