

## Tech spending is up, but **who's doing the buying?**

A McKinsey survey of CIOs reveals that many favor giving business leaders a greater role in the IT-purchasing process.

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**CIOs say their companies** will continue to invest more in technology in 2004, but what they invest in and who makes the purchasing decisions are changing—all of which pleases many CIOs. Companies are beefing up aging infrastructures and improving integration, according to a recent McKinsey study of trends in technology spending.<sup>1</sup> CIOs are also eschewing big-bang software solutions in favor of narrower, more targeted improvements. At the same time, business leaders are increasingly calling the shots regarding technology investments.

Most of the CIOs we interviewed work for US-based companies with average revenues of more than \$13 billion in a broad range

of industries (Exhibit 1). These discussions, along with industry research from various sources, suggest that technology budgets in 2004 will increase by about 1.7 percent on an accrual basis over last year, with cash spending up by 5 to 9 percent. Similar trends are evident in the smaller group of European companies we studied.

This growth in IT spending is partly an echo effect of the Internet boom. The bubble and its aftermath were matched by a surge in capital outlays during the late 1990s and 2000 followed by cutbacks in the early years of this decade. Since most companies use accrual accounting to measure their IT spending, their budgets include the depreciation expense of capital outlays from previous years. IT-related capital spending is typically amortized over three to five years, so the heavy investments of the 1990s are expiring (Exhibit 2, on the next page). IT budgets now have room for new investments—welcome news for CIOs.

### Replacing aging infrastructures

Infrastructure investments are a priority. Consider that in 2001 and early 2002, capital outlays for hardware declined for five consecutive quarters—the first time that has happened since 1945. Not until 2003 did spending on hardware pick up again, jumping as much as 14 percent, by some estimates, from the year before. This momentum, driven in part by the need to replace aging infrastructures, has continued into 2004. The pace at which technology is “refreshed”—a key measure of hardware-replacement trends—has lengthened every year since 1999. By 2003 equipment was a full 7.8 weeks older, on average, than it had been the previous year, the lowest level of hardware turnover in at least a decade.<sup>2</sup>

Aging infrastructures are also failing to meet new needs for robustness and resiliency.

<sup>1</sup>The study included interviews with 66 CIOs and senior technology executives.

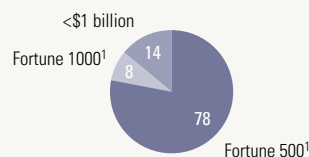
<sup>2</sup>According to a recent Morgan Stanley poll of CIOs, the average PC will need to be replaced within the next year.

#### EXHIBIT 1

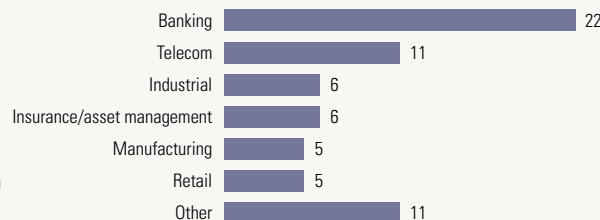
##### About the research

##### Share of respondents by company size, %

100% = 66 respondents



##### Distribution of CIOs by industry, number of respondents



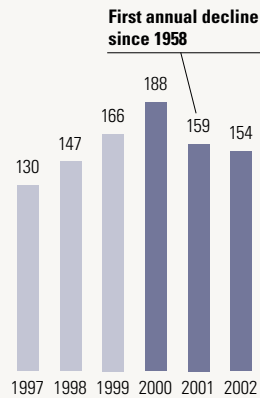
<sup>1</sup>Includes international companies of equivalent size.

Source: 2003–04 McKinsey interviews with 66 CIOs and senior technology executives

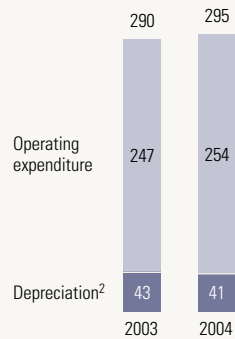
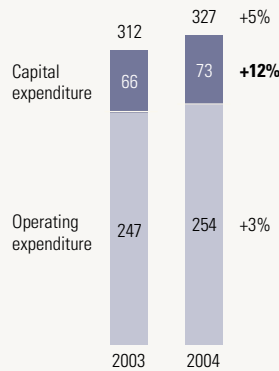
## EXHIBIT 2

**The return of IT spending****Large investments made in 2000 are rolling off the books . . .**

Aggregate IT capital expenditures of US companies, \$ billion

**. . . and although accrual budgets are increasing only modestly, depreciation is dropping . . .**

Average IT accrual budgets of interviewees, \$ million

**. . . leading to much higher capital expenditures**Average IT cash budgets of interviewees,<sup>1</sup> \$ million<sup>1</sup>Figures are rounded.<sup>2</sup>Includes depreciation resulting from capital expenditures made during 2003–04.

Source: Bureau of Economic Analysis; 2003–04 McKinsey interviews with 66 CIOs and senior technology executives

advanced skills and a high degree of commitment from the IT organization.

Other companies are choosing a different path. Faced with point-to-point integration, data and application silos, inconsistent data, and legacy systems, they are investing in integration brokers—highly scalable tool suites for combining data and applications. Roughly half of the CIOs have invested in or are thinking of investing in broker software, often in combination with Web services (Exhibit 4, part 2). Adoption is strongest among telecom and financial-services companies, whose technical complexity makes the software especially attractive. Corporations that have tested the waters report that the benefits accrue slowly, often only after many systems have been integrated into hubs—a time-consuming process. Full integration can take two to six years, so perseverance is the key. One CIO noted, “We’ve been staying the course for six years on our integration broker. It took three years to see any benefit. Now we’re achieving more than \$200 million in annual savings.”

**Investing in niche software—  
not large packages**

Software spending will increase in 2004, but vendors of large packages won’t be getting the bulk of this outlay. Instead investments will focus on narrower software solutions, suggesting that companies are seeking specific levers to reduce implementation risk rather than making large, one-size-fits-all purchases. The CIOs predict that 65 percent of their software spending this year will go toward custom development of new applications—a significant shift away from packages—and 16 percent to industry-specific solutions. Only 19 percent will be for major packages such as enterprise-resource-planning (ERP) and customer-relationship-management (CRM) software.

To correct this deficiency, 39 percent of CIOs are making disaster recovery a top priority, while 62 percent cite security as their major concern. Security initiatives, however, are highly fragmented—ranging from the protection of customer data and unauthorized use of devices to terrorism, spammers, and viruses (Exhibit 3).

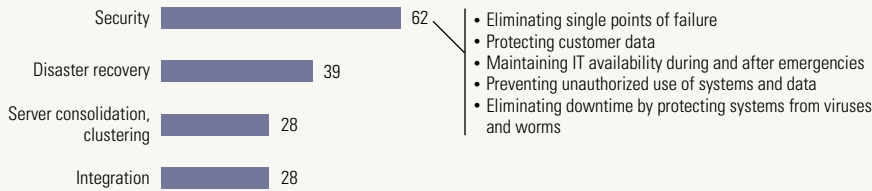
**The integration challenge**

Complex IT architectures continue to bedevil the IT organization and are driving CIOs toward enterprise-application-integration (EAI) technologies. Web services are gaining traction faster than anticipated, especially at small telecommunications companies and others at the forefront of IT innovation. Of the CIOs we interviewed, 8 percent said their companies are using Web services as their primary EAI strategy (Exhibit 4, part 1). Despite these inroads, most companies are still at the experimental stage with Web services, which demand

## EXHIBIT 3

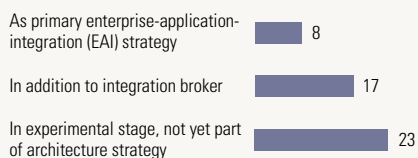
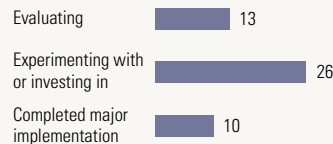
**What CIOs want**

Distribution of top infrastructure priorities, % of respondents



Source: Credit Suisse First Boston; 2003–04 McKinsey interviews with 66 CIOs and senior technology executives

## EXHIBIT 4

**Integrating the enterprise****1. Web services**Use of Web services, % of respondents<sup>1</sup>**2. Integration broker software**Use of integration broker software, % of respondents<sup>2</sup><sup>1</sup>Excludes companies using only XML.<sup>2</sup>51% of respondents do not use integration broker software and have no current plans to do so.

Source: Doculabs; 2003–04 McKinsey interviews with 66 CIOs and senior technology executives

In 2003 many companies were hiring IT talent after the economic slowdown had reduced salaries in that sector of the labor market.<sup>3</sup> According to our current findings, some of these new hires are now being used to develop and support the more customized applications that today's IT budgets favor. Perhaps this move toward building internal applications will boomerang on companies in the future; the absence of vendor support could reduce economies of scale and push up support costs. Offshoring may effectively offset those costs, however.

Part of the reason for the move away from big packaged applications may be that most large companies have already implemented them. Another factor is a narrowing definition of needs. One CIO

said, "Customers want to buy components, not big suites, so they can make incremental changes . . . but no one is going to market this way." Many CIOs are also reacting to the inability of packaged solutions to provide the functionality their companies need. Explained the CIO of a wholesale bank, "There are no advanced-analytics packages for fixed-income credit risk that meet our needs." The CIO of an asset-management company noted, "We see creating customized solutions as a necessary evil. Packaged solutions are insufficient for our functional needs, and the worst of all worlds is to buy a packaged solution and then customize it."

CIOs are particularly cautious with regard to large-scale CRM systems. Most CIOs feel that the implementation risk for these systems is unacceptably high and instead favor small projects that focus on narrower functionality. Although 24 percent of the interviewees are planning CRM-like investments, only 11 percent of those projects will involve major packaged implementations (Exhibit 5, on the next page). The outlays most CIOs are planning fall into three categories: nonpackaged, or "operational" software; data-flow upgrades; and internally developed (that is, nonpackaged) CRM "analytic" investments. In the words of a telecom company CIO, "After evaluating off-the-shelf options . . . I felt that we didn't need the full breadth of functionality offered by the packaged [CRM] applications." A large petroleum company is implementing CRM as a series of small projects rather than putting in many modules at once—a trend mentioned by many of our interview subjects.

**Growing discipline in portfolios and procurement**

The way companies choose their IT investments is also changing dramatically. A growing number are adopting more

<sup>3</sup>Martin D. Bates, Kendall B. Davis, and Douglas D. Haynes, "Reinventing IT services," *The McKinsey Quarterly*, 2003 Number 2, pp. 142–53 ([www.mckinseyquarterly.com/links/12959](http://www.mckinseyquarterly.com/links/12959)).

sophisticated management processes for evaluating technology proposals. Of the CIOs we interviewed, 18 percent reported that technology projects have to compete with other projects for funding. An additional 14 percent noted that budgets or bonuses reflect business case outcomes.

These numbers are higher than they were in the 1990s, but clearly most companies still aren't as disciplined as they could be in

this area. For 64 percent of the CIOs, IT budgets are set at the beginning of the year and don't have to be defended thereafter. As one CIO noted, "We don't compete with anyone else for spending once our budget is set." Moreover, after IT dollars are spent and projects completed, the follow-up and review process is usually minimal. A full 68 percent of the CIOs reported no auditing of the success or failure of IT projects.

Companies are also asking purchasing experts to bring more discipline to buying IT goods and services. The procurement function plays a major role in IT outlays at 18 percent of the companies in the survey and is somewhat involved at another 18 percent. At most businesses, however, IT spending is still outside the normal procurement process. According to 47 percent of the CIOs, no clear linkage exists between IT and the purchasing department, which is used only for highly commoditized purchases. Clearly,

CIOs could be doing more to leverage their companies' procurement expertise.

CIOs themselves aren't immune to these changes; many reported having a diminished voice in decisions related to IT spending. At 77 percent of the companies, a technology strategy committee now oversees some portion of new outlays for IT projects. Furthermore, 42 percent of the CIOs said business representatives hold most of the positions in this decision-making body. The number of CIOs reporting to CFOs doubled in 2003—a trend likely to continue as companies seek ways to get greater value out of IT investments (see "Next-generation CIOs," in this issue).

Many CIOs support this shift in responsibility for IT. Business units *ought* to be actively involved in these decisions, and the finance and purchasing groups can use their skills to make the CIO's budget go much further. **MoIT**

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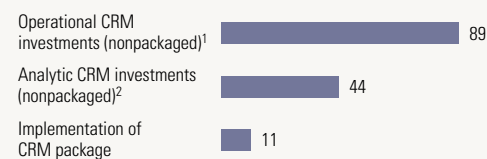
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#### EXHIBIT 5

##### CIOs prefer focused CRM investments

% of respondents making customer-relationship-marketing (CRM) investments (n = 15)



<sup>1</sup>For example, integration with call center, integrated customer portal, sales force automation.

<sup>2</sup>For example, data warehouse, segmentation, propensity models.

Source: 2003–04 McKinsey interviews with 66 CIOs and senior technology executives; McKinsey analysis