

May 5, 2004

The State Of Technology Adoption

by Nicholas Wilkoff

DATA OVERVIEW



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The State Of Technology Adoption

Business Technographics North America

EXECUTIVE SUMMARY

Enterprise-class companies plan to spend 2.4% more on IT than they did in 2003, up from a 1.7% growth projected at the end of 2003. Some of the newfound dollars will go toward upgrading their PCs; on average, firms will replace one in four computers. Within the data center, these large companies show moderate interest in deploying Organic IT technologies, such as server patch management and provisioning. As for software, adoption of content management, sales force automation, and marketing automation have stagnated, but firms have progressed in their rollouts of emerging technologies like Web services and RFID.

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TECHNOLOGY PLANS OF NORTH AMERICAN ENTERPRISES

Forrester recently surveyed 878 IT decision-makers at North American enterprises. Forty-eight percent represent enterprises with 1,000 to 4,999 employees, and 52% represent companies with 5,000 or more employees. On average, these enterprises increased their IT budgets by 2.4% over 2003, up from the average of 1.7% growth projected for 2004 at the end of this past year.¹ A closer look at their state of technology adoption shows that:

- **The adoption of Organic IT technologies remains on track.** Enterprises want to redesign their data centers to improve use and efficiency of their IT infrastructure — a trend that Forrester defines as Organic IT.² Today, most firms are aware of and at least somewhat interested in enabling technologies for this next-generation data center. Automated server patch management tops wish lists — 35% of enterprises claim they are very interested. Meanwhile, only 22% of firms show strong interest in server virtualization, although utilities and financial services companies show higher demand.
- **Regulatory concerns prop up spending on enterprise apps.** Sarbanes-Oxley is one factor forcing companies to retool their enterprise apps deployments — 30% of companies said that they would increase their spending on ERP to support compliance. But adoption of enterprise apps like procurement, supply-chain management, and CRM software has leveled off. For instance, compared with this past year, the percentage of companies with completed installs of marketing automation software grew by only one point to 15%, and fewer companies are actively rolling out or piloting this technology.
- **IT shops dabble in numerous development and integration environments.** On average, enterprises have 20 Web services in production or under development. At the same time, they continue to increase their spending on EAI. In 2003, 41% had EAI implementations completed or underway.³ This year, 51% plan to extend their deployments of integration server software. For custom development and integration, buyers are split between Java and .NET. Fifty-six percent consider .NET as their primary development environment compared with 44% for J2EE, although preferences vary significantly by sector.
- **The foundation for mobility is taking shape.** While 53% of enterprises have no plans for deploying mobile applications in the next 12 months, they are deploying the infrastructure to support a mobile work force. Eighty-two percent of enterprises have VPN deployments in production, while 54% have completed deployments of personal firewalls. Wireless is also on the rise — 60% of companies will increase their WLAN implementations during the next 12 months, led by public services firms.
- **Enterprises will upgrade, on average, 25% of their PCs in the next year.** Going into 2004, enterprises listed PC replacements and upgrades as a top IT initiative for the year.⁴ The result: 38% will replace more than one-fourth of their PCs during the next 12 months. On average, 24% of new PC purchases will be laptops. Dell tops the list by a wide margin for enterprise PC buyers, followed by IBM and HP/Compaq. Regarding their desktop environments, most companies have already upgraded to Windows XP somewhere in the organization, and 31% are underway with Office 2003.

- **Spending on customer information continues to climb.** Most IT decision-makers feel that business users are at least somewhat satisfied with the accessibility and quality of customer information. And satisfaction increases in companies with a centralized data warehouse already in production — 82% of these respondents are satisfied or very satisfied. As for unstructured information, nearly twice as many enterprises as SMBs have completed deployments for content management and portal server software. For business intelligence software, 48% of firms will increase their deployments during the next 12 months, compared with 56% for content management and 61% for portals.

THE DATA CENTER: MODEST INTEREST IN ORGANIC IT

Most firms show at least some interest in technologies that support the next-generation data center, which Forrester defines as Organic IT. The top priority in this area is automated server patch management, in which 66% show at least some interest in the technology. Server virtualization interest remains muted — 31% are aware but uninterested in technologies in this category, and 18% are not aware at all.

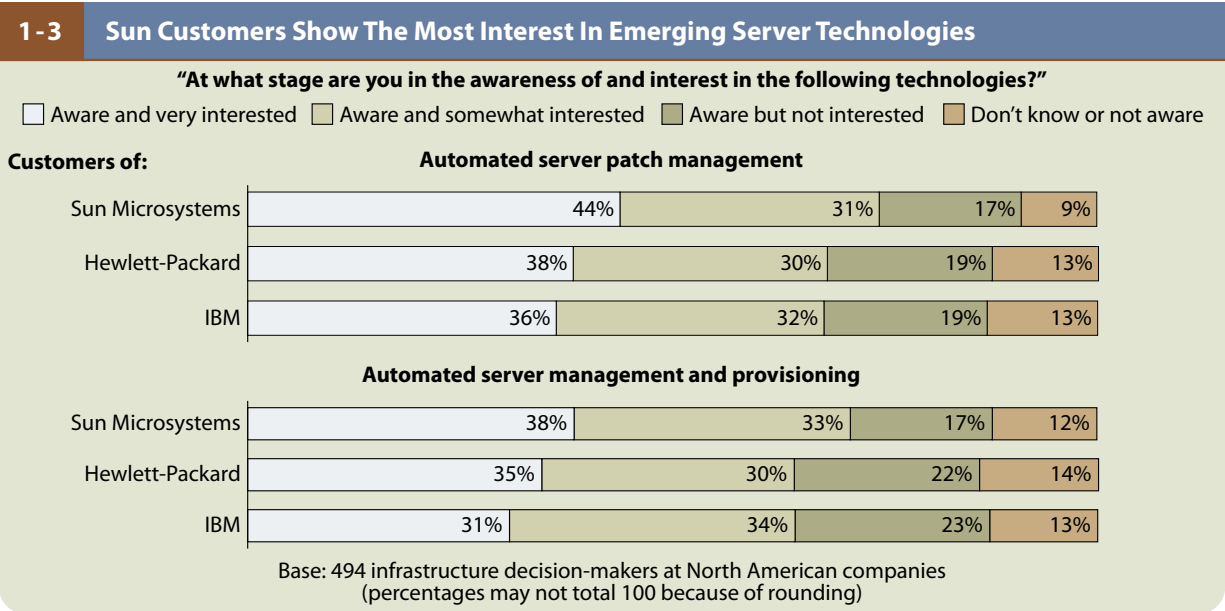
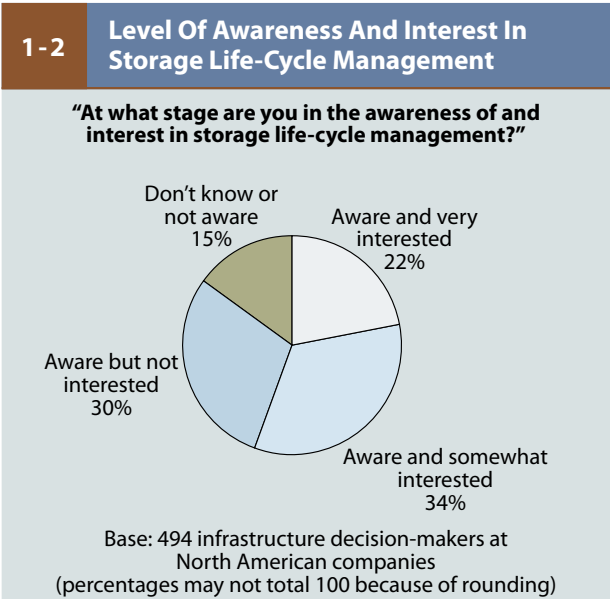
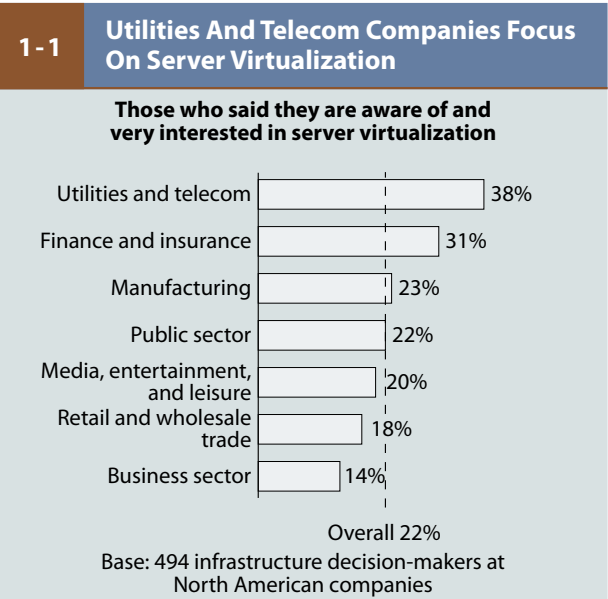
Meanwhile, 56% of infrastructure decision-makers show at

least some interest in storage life-cycle management, led by utilities, telecom, and financial firms. Regulatory and compliance issues appear to be a big driver — 52% of firms affected by Sarbanes-Oxley said that they would increase their spending on storage to support compliance.



Trends

- In June 2003, 49% of companies said that they would undertake storage or server virtualization in the next 12 months.



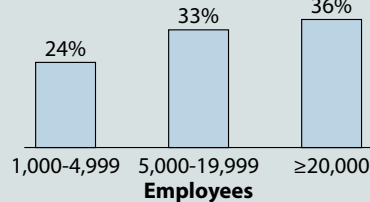
APPS: BUSINESS SERVICES FIRMS DRIVE DEMAND

Enterprise apps buyers have conservative growth plans for apps spending in 2004. Entering the year, 30% of North American firms planned to increase their spending on enterprise apps, roughly the same percentage that said they will increase their deployments of their finance or HR application deployments during the next 12 months.

Buyers are split on how they prefer to assemble their apps portfolios. Utilities, telecom, and financial service firms are more likely to purchase best-of-breed enterprise apps, while manufacturers prefer bundled solutions or suites from single vendors.

2-1 Large Firms Prepare For Sarbanes-Oxley With Increased Spending On ERP

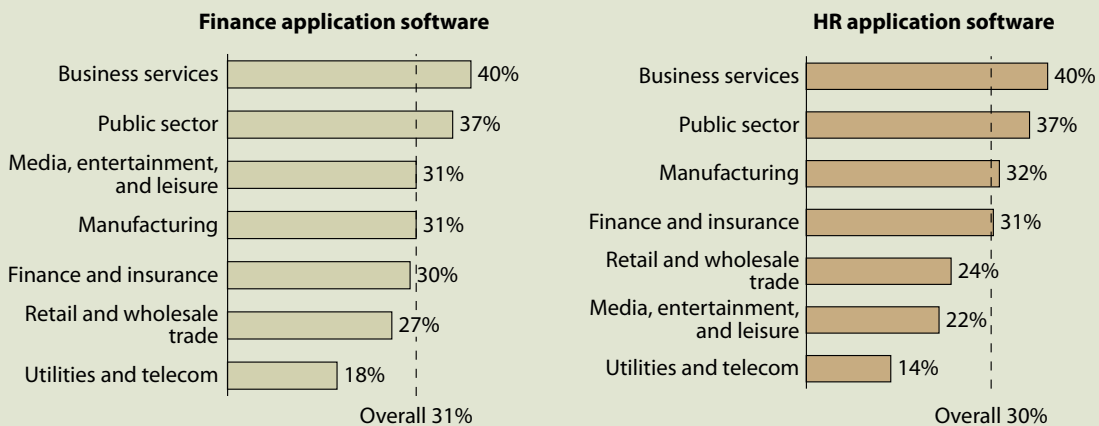
Firms planning to increase spending on ERP to support compliance with Sarbanes-Oxley during the next 12 months



Base: 454 publicly traded companies affected by Sarbanes-Oxley

2-2 Business Services Firms Focus On Finance And HR App Deployments

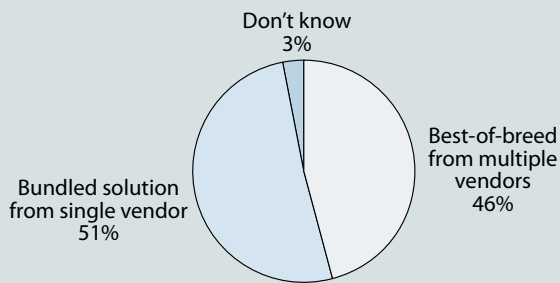
"During the next 12 months, will you increase your deployments of the following technologies?"



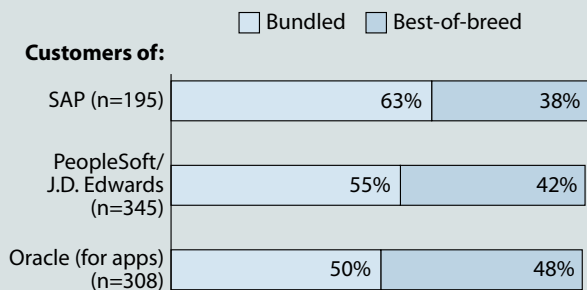
Base: 433 software decision-makers at North American companies

2-3 Bundled Versus Best-Of-Breed

"How do you prefer to purchase your enterprise application software?"



Base: 425 software decision-makers at North American companies



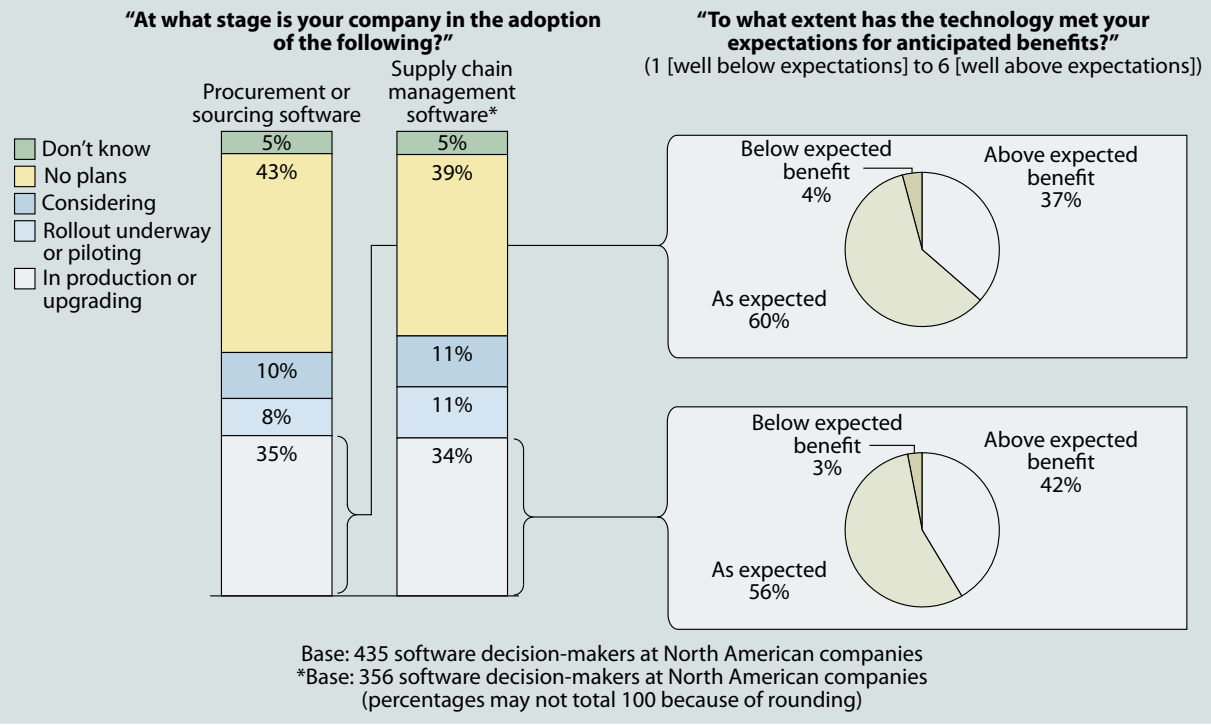
Base: software decision-makers at North American companies ("don't know" responses have been excluded)

Procurement and supply chain

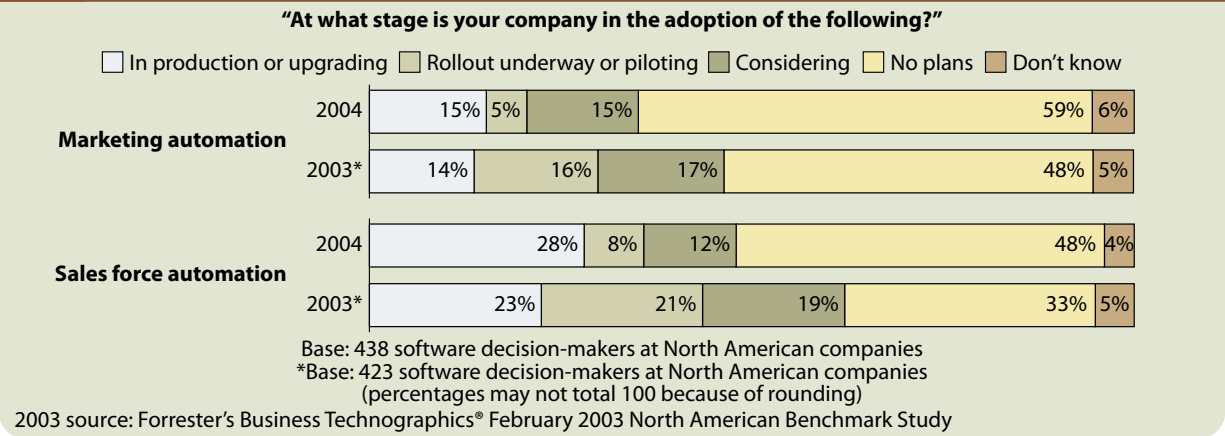
management software track each other's adoption. Going into 2004, 18% of decision-makers stated plans to purchase each of these apps during the year.⁶ But adoption varies by industry. Utilities and telecom firms are furthest along in the use of procurement software, while the retail and wholesale sector leads in rollouts of supply chain management software.

Survey respondents reported stagnated demand for marketing automation and sales force automation (SFA) software. In fact, the data implies that many of this past year's pilots and early-stage rollouts of these technologies did not come to fruition. But those companies that are already active aren't backing off — 53% will increase their marketing automation deployments, and 49% will extend their SFA implementations.

2-4 Users See More Benefits From Supply Chain Software



2-5 Interest In New Marketing Automation And SFA Apps Is On The Decline

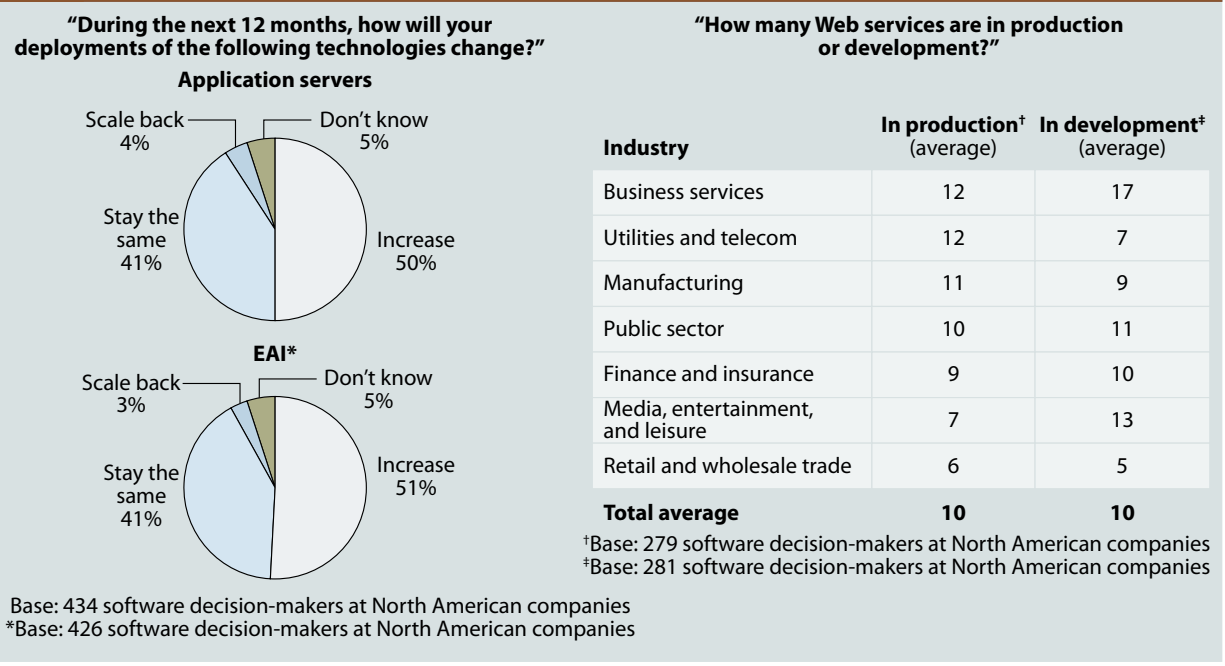


INTEGRATION SOFTWARE: MULTIPLE APPROACHES

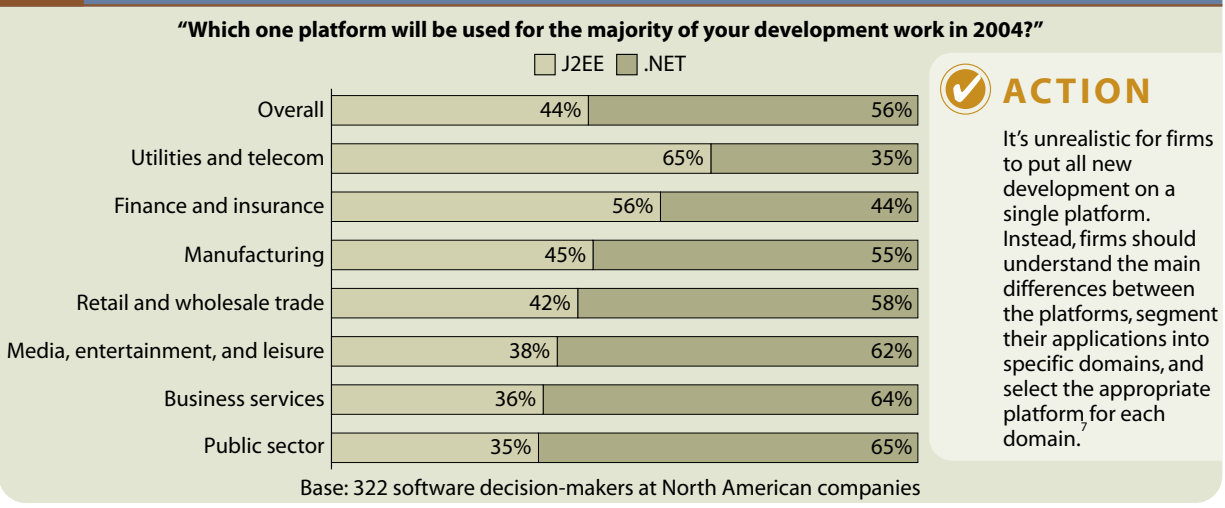
Firms have similar deployment plans for application servers and EAI, but a closer look at the data shows that the plans vary by industry. For example, media and entertainment companies are most likely to increase their application server deployments, while finance and insurance companies lead other companies in plans for EAI.

Firms are split on their choice of a primary development platform for 2004 — 56% choose Microsoft's .NET, and 44% choose J2EE. Microsoft has its biggest stronghold in public services groups like education and healthcare. Surprisingly, only 55% of Sun's customers said that they will use J2EE for the majority of their development work during the next 12 months.

3-1 Firms Tackle Integration In More Than One Way



3-2 .NET Or J2EE?



CONNECTIVITY: FIRMS LAY THE FOUNDATION FOR MOBILITY

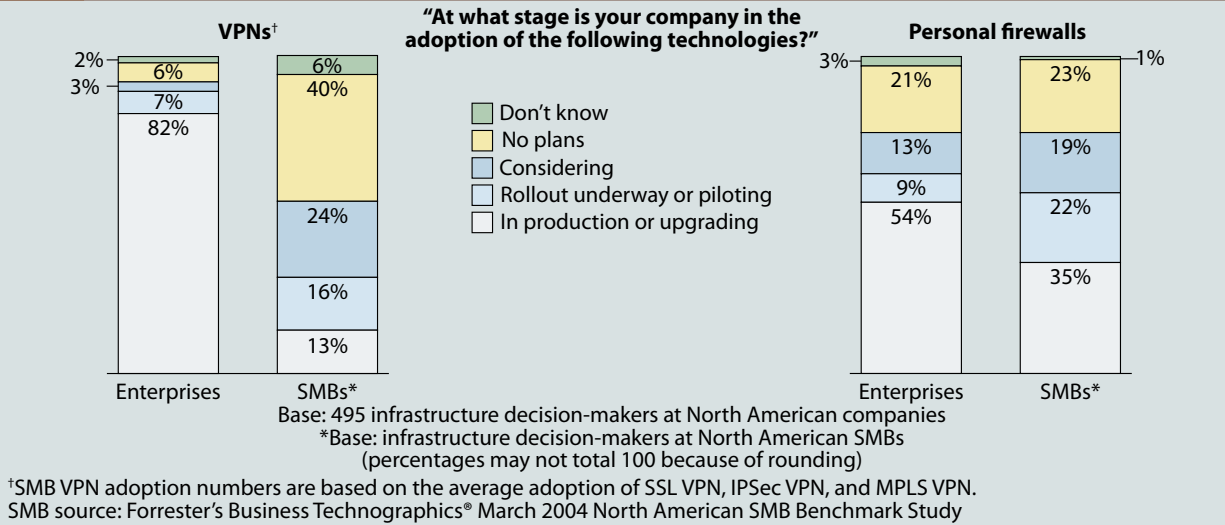
Finance and insurance companies lead the pack when it comes to adopting security technologies for the mobile work force — 90% have VPN in production, and 63% have implemented personal firewalls. Overall, VPN adoption is way up compared with 2003. Heading into 2004, 82% of companies have completed VPN deployments, compared with 55% in early 2003.

As for mobility, most companies have no plans for

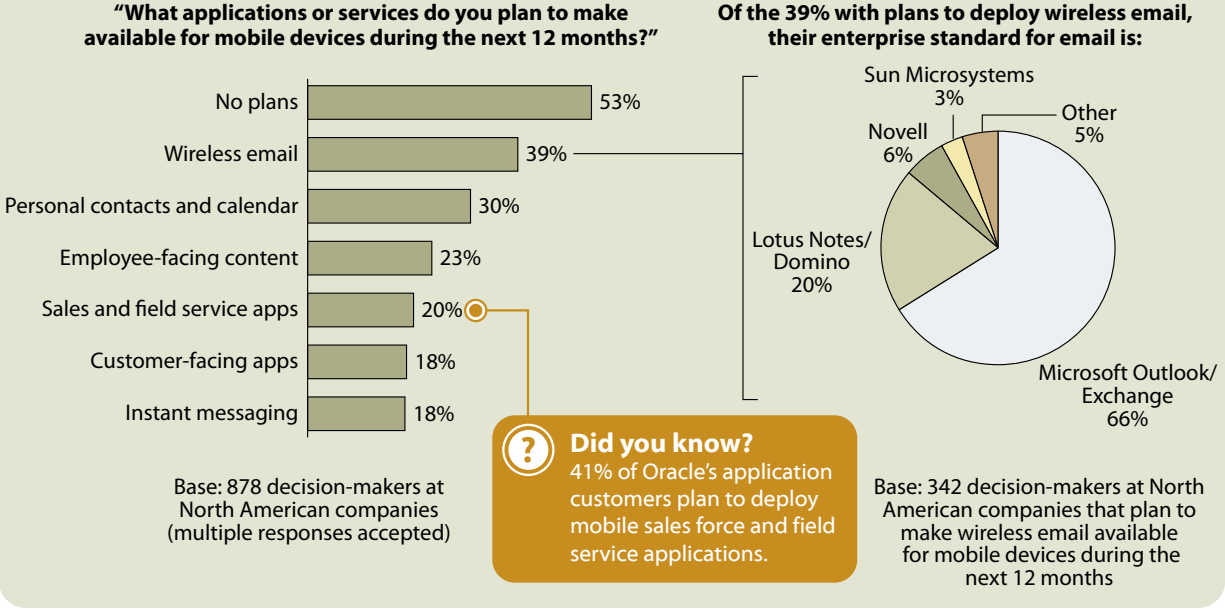
deploying applications for mobile devices like PDAs. Public sector organizations are the one exception — 62% of them will deploy mobile applications within the next year.

For email, Microsoft is the leading choice for enterprisewide deployments. Overall, two-thirds of companies have deployed Outlook as their email standard, compared with approximately one of five companies that have standardized on Lotus Notes.

4-1 Enterprises Lead SMBs In Adopting Networking Security



4-2 Wireless Email Is Top Priority For Deployments Of Mobile Devices

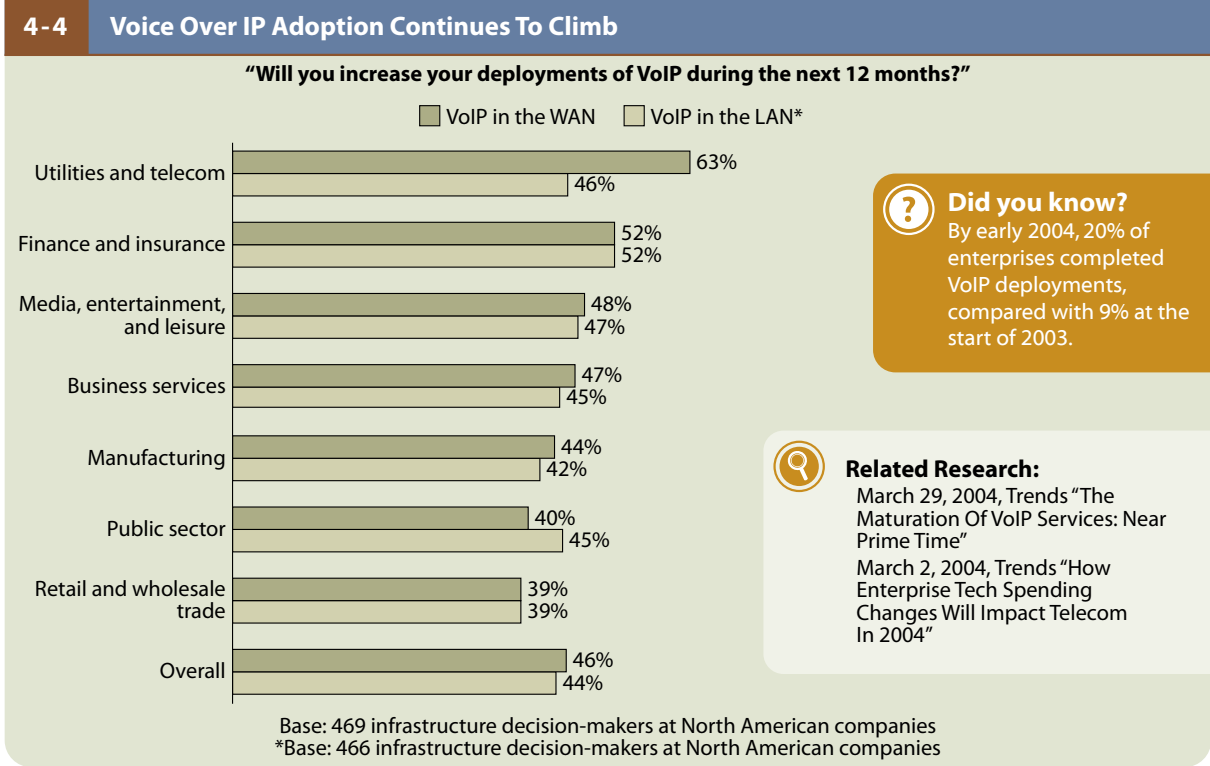
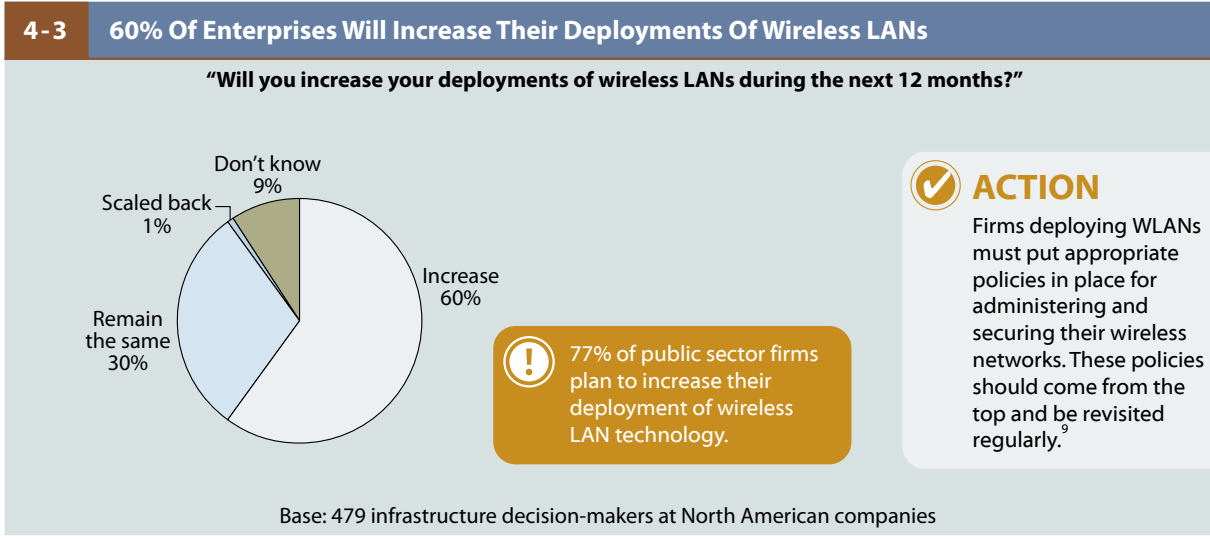


Wireless LAN adoption continues to grow. The percentage of enterprises implementing wireless networking tripled in 2003, and 60% of firms plan to increase their deployments this year.⁸

This growth is being driven by the larger enterprises — 67% of companies with 20,000 or more employees will

increase their WLAN deployments, compared with 56% of companies with 1,000 to 4,999 employees.

Adoption of voice over IP is also on the rise — almost half of firms will increase their deployments over the next 12 months, with equal focus on VoIP in the WAN and LAN.



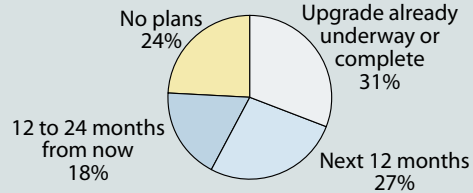
PCs: ENTERPRISES WILL REPLACE 25% OF PCs

Enterprises and SMBs have similar plans for upgrading their PCs during the next 12 months, replacing, on average, 25% and 24% of their computers, respectively, and selecting Dell as their primary provider. Among enterprise-class companies, finance and insurance firms have the biggest plans for PC replacements, upgrading 31% during the next 12 months, while utilities and telecom companies will only upgrade 20% of their computers.

Meanwhile, Linux continues to creep out of the data center and onto the desktop, led by the cost-conscious public sector organizations and utilities and telecom firms. Both industries decreased their IT budgets in 2004.

5-1 In 12 Months, 58% Of Enterprises Hope To Be Running Office 2003

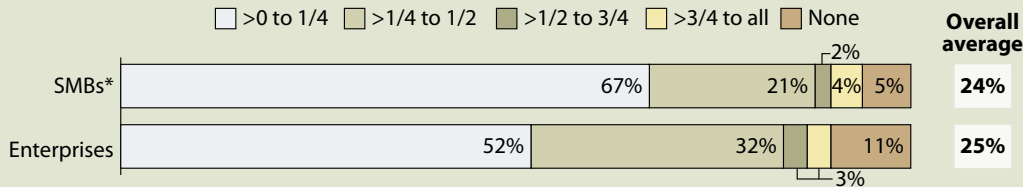
“When does your company plan to upgrade to Office 2003?”



Base: 878 decision-makers at North American companies

5-2 PC Upgrades For Enterprises And SMBs

“What portion of your company’s overall PCs do you expect to have replaced or upgraded during the next 12 months?”



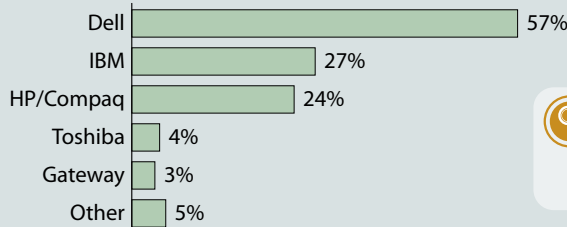
Base: 878 technology decision-makers at North American companies

*Base: 1,002 technology decision-makers at North American SMBs (percentages may not total 100 because of rounding)

SMB source: Forrester’s Business Technographics® March 2004 North American SMB Benchmark Study

5-3 Dell Dominates Mindshare Of PC Buyers

“Which vendors will you consider most for your PCs?”



Related Research:

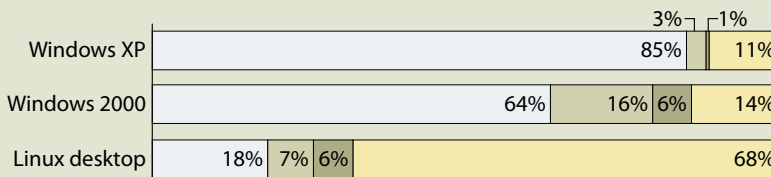
March 22, 2004, Market Overview
“The PC Market War Heats Up”

Base: 878 technology decision-makers at North American companies (multiple responses accepted)

5-4 Windows XP Is The Dominant Desktop OS

“When does your company plan to upgrade to the following technology?”

Legend: Upgrade already underway or complete, Next 12 months, 12 to 24 months from now, No plans



Base: 878 technology decision-makers at North American companies (percentages may not total 100 because of rounding)



Did you know?

For most customers, Microsoft stopped shipping Windows 2000 for new PCs as of March 2004.

CUSTOMER INFORMATION: INCREASED SPENDING PLANS

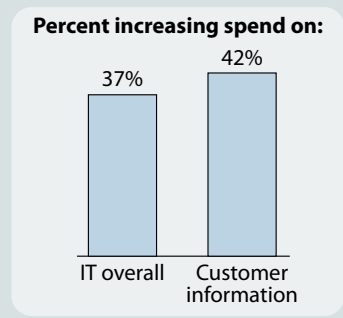
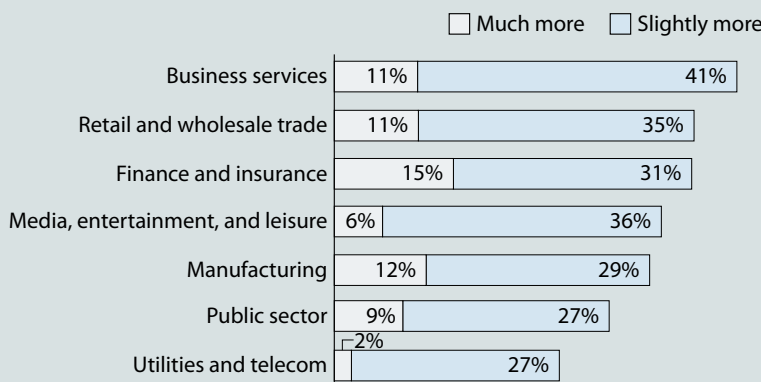
Customer information is a high priority for firms in 2004 — on average, 42% will spend more on customer information than they did in 2003. This doesn't necessarily mean that they are disappointed with their current customer information. Overall, 56% feel that their business users are satisfied with the quality and accessibility of their customer information, and 20% are

very satisfied.

Many firms have also already deployed a centralized data warehouse for customer information. Utilities, telecom, and retail and wholesale companies are the furthest along. Thanks to a lack of consumers in their markets, 36% of business services firms have no plans to deploy a centralized data warehouse.

6-1 Spending On Customer Information Will Outpace That Of IT Overall

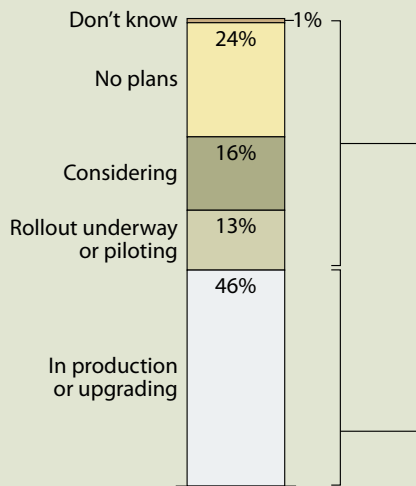
"How will your 2004 planned spend compare with its actual spend in 2003 for the improvement of customer information?"



Base: 878 technology decision-makers at North American companies

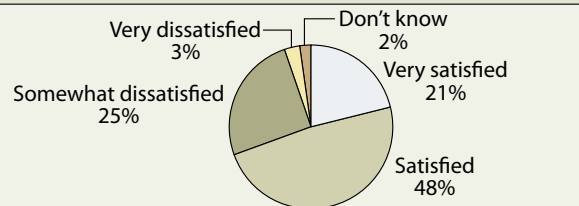
6-2 Investments In Data Warehousing Begin To Bear Fruit

"At what stage are you in the adoption of a centralized data warehouse for customer information?"

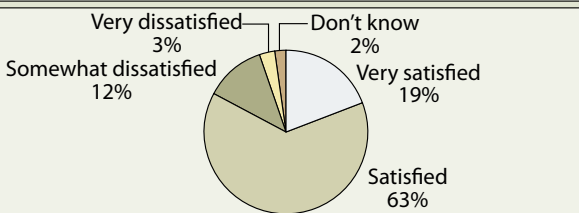


Base: 439 software decision-makers at North American companies

"How satisfied are your company's business users with the accessibility and quality of customer information?"



Base: 236 software decision-makers at North American companies (percentages may not total 100 because of rounding)

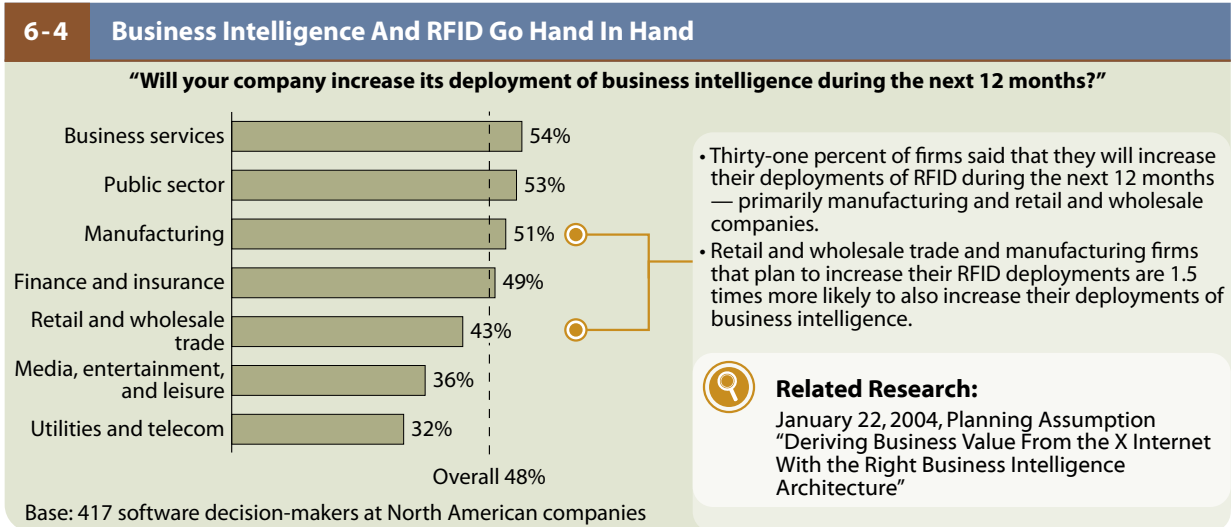
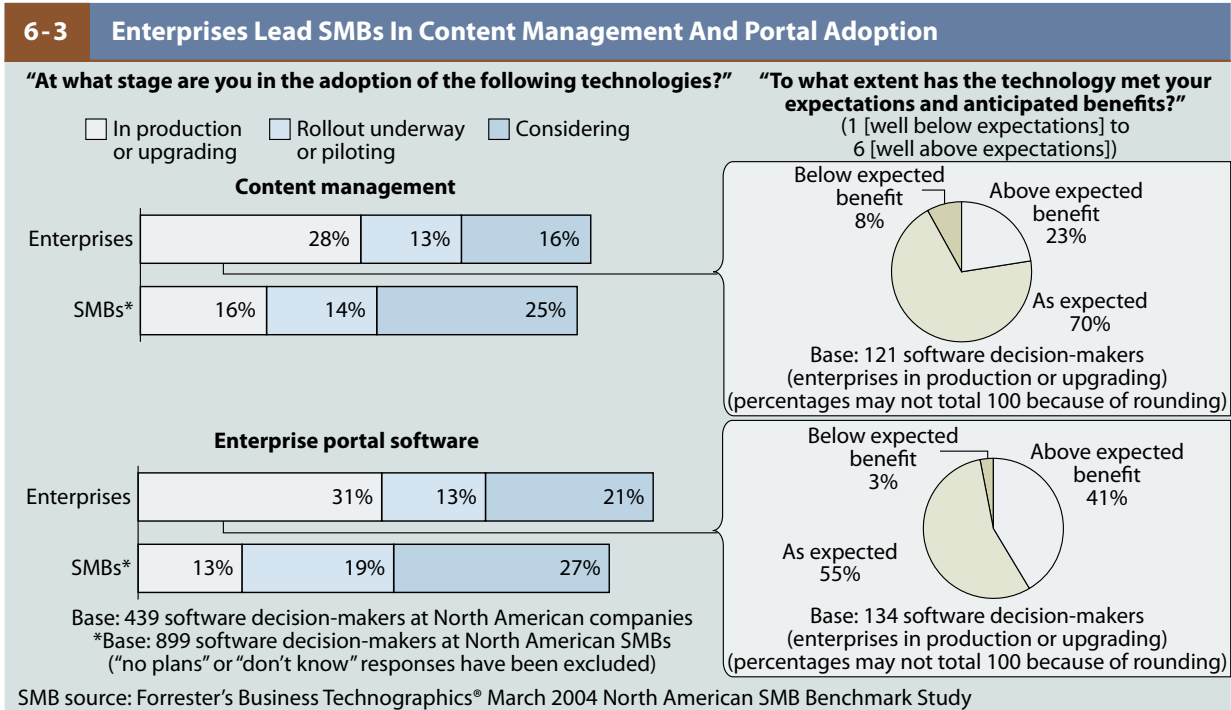


Base: 203 software decision-makers at North American companies (percentages may not total 100 because of rounding)

The percent of firms with content management in production hasn't changed from the 28% in 2003. But thanks to moves toward enterprise content management, 56% of these firms will increase their deployments during the next year, lead by the public sector and media companies. Thirty-one percent of enterprises have enterprise portal deployments in production. And most of these companies are satisfied with their implementations — 68% said that their portal products

have met their expectations.

Entering 2004, business intelligence was a top priority for IT decision-makers.¹⁰ On average, 48% of those active with BI will increase their deployments during the next 12 months. This demand is partly in response to compliance concerns — 36% of publicly traded companies said that they will increase their spending on BI software to comply with Sarbanes-Oxley.



USING THE DATA

In addition to the Data Overview format, Business Technographics provides Forrester clients with a rich data asset to be tapped for action-oriented market intelligence. By looking under the hood of the data in this document, technology solution providers can receive answers to questions like:

- What are the industry-by-industry purchase plans for my offerings?
- Which segments have the highest propensity to buy from me rather than from my competitors?
- How do firmographic variables, such as job role and company size, affect buying behavior?

All data is industry-coded and profiled by variables like company size and geography. To understand how your firm can access this data asset through our Technographics Data & Services offering, email businesstechnographics@forrester.com.

SUPPLEMENTAL MATERIAL

Methodology

Forrester surveyed 878 technology decision-makers at North American companies. The sample includes 422 (48%) respondents from companies with 1,000 to 4,999 employees and 458 (52%) respondents from companies with 5,000 or more employees. Evalueserve fielded the telephone-based survey in February and March 2004, and it motivated respondents by offering them a summary of the survey results.

Evalueserve screened all respondents for significant involvement in the technology purchasing process (qualified respondents are involved in at least one of the following IT tasks: setting budgets, setting strategy, choosing vendors, or authorizing purchases). Evalueserve also screened respondents for seniority (director level or above).

We examined the survey data for validity and internal consistency. This included a check on the top and bottom 5% of responses on every question involving raw numbers or raw percentages. Responses to these types of questions may be invalid occasionally, presumably due to input errors (e.g., incorrect recording of response by the interviewer) or other errors (e.g., misunderstanding the question). In the few cases where this occurs, we set the responses to be “missing” so that they did not count for that question.

We divided the cleaned sample into 17 industry groups to be representative of the proportions found in our sample frame of North American enterprise-class companies. To achieve a sufficient sample size for certain analyses, we also reclassified the 17 industry groups into seven broader industry groupings.

This document also contains comparisons to earlier Business Technographics North American Benchmark Studies. For comparison purposes, we recoded prior-year data into the same set of industry groups used for the current study.

In addition to sampling error, one should bear in mind that question wording, question sequence, and nonresponse can also introduce error or bias into the findings of surveys.

These statements conform to the principles of disclosure of the National Council on Public Polls.

You can find more information on the Survey & Data page online. From this page, you will be able to download the Survey Instrument.

ENDNOTES

- ¹ Business services and finance and insurance companies made the biggest adjustment to their 2004 numbers, increasing original projections by 4.4% and 3.9%, respectively. See the April 28, 2004, Trends “IT Execs Raise Their 2004 Budget Outlook.”
- ² Organic IT will evolve in three main phases, spanning a decade. The three phases are: 1) simplify; 2) virtualize; and 3) synthesize. See the October 23, 2002, Report “The Organic IT Voyage.”
- ³ Our EAI implementation data is from a survey of 877 IT decision-makers at North American enterprises with at least \$500 million in revenue. See the February 13, 2003, Data Overview “Benchmark North America: Business Technographics Data Overview.”
- ⁴ Forty-one percent of IT decision-makers listed upgrading or replacing their PCs as a likely or critical priority for 2004. This ranked fourth behind upgrading IT security, upgrading disaster-recovery capabilities, and deploying or upgrading major apps. See the November 7, 2003, Brief “CIOs Still Have A Cautious Outlook For 2004 IT Budgets.”
- ⁵ Forrester surveyed 377 infrastructure buyers at North American companies to gauge their interest in server and storage virtualization. See the June 27, 2003, Brief “Firms Embark On Virtualization In 2003.”
- ⁶ For Forrester’s Business Technographics November 2003 North American Benchmark Study, we spoke with technology decision-makers at 818 North American firms with at least \$500 million in revenues. See the December 1, 2003, Brief “Outlook For 2004 App Budgets: Conservative Growth.”
- ⁷ Large firms must master both Java and Windows, but which platform is best for new app development? Conventional wisdom is no guide. Instead, firms must make a platform choice in each application domain. See the July 24, 2003, Report “Java Or Windows?”
- ⁸ Last fall, Forrester spoke with 528 IT decision-makers about their adoption of some key infrastructure and integration technologies. Thirty-four percent had wireless networks in production, compared with 11% at the beginning of 2003. See the November 21, 2003, Brief “2004 Technology Adoption Plans.”
- ⁹ Whether a company has a wireless LAN or not, it needs a set of policies to control wireless devices in its corporate environment. See the March 26, 2004, Best Practices “Wireless LAN Policies.”
- ¹⁰ Going into 2004, 26% of IT decision-makers stated plans to purchase business intelligence software within the year. See the December 1, 2003, Brief “Outlook For 2004 App Budgets: Conservative Growth.”

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