



## CIO Issues

### Top CIOs Face Changing Landscape

By Pam Baker

October 27, 2005 8:25AM

**CIOs are not technologists any more. They are business executives who struggle with company politics, outsourcing nightmares, budget constraints, human resource problems, competitive pressures, disappearing vendors, and equipment problems.**

» CIOs today face an ever-changing business climate. They weigh boundless technology opportunities but are hamstrung by limited budgets. They stand on point against an endless flood of viruses and spam, are wary of increased regulation, and express frustration with uniting a workforce scattered by outsourcing.

In this report, CIO Today draws upon the knowledge of 50 of the nation's leading CIOs to see how they are meeting these challenges. Some CIOs said the challenges and obstacles they face today are no different than what they have always been; others said many aspects of their jobs have changed dramatically from what they were just a few years ago.

CIO Today gathered perspectives on both the nuts and bolts of I.T. operational decisions and the political and budgetary considerations the officers face. The responses of the 50 CIOs surveyed showed intense concern over rising costs, complex integration, better ROI, shrinking budgets, and the ongoing need for stronger [security](#) 🛡️.

From their collective perspective, the changes in the information landscape have led to fewer opportunities for applying conventional wisdom.

#### **Primary Concern: Money**

Of the 50 CIOs surveyed, 69 percent were heavily concerned with costs. The pressure to do more with the same budget -- or even reduced budgets -- is increasing. "Everything always takes too long and costs too much," said Home Depot CIO Bob DeRodes.

The second leading concern, named by 64 percent, was how to align technology with business. In short: No CIO buys technology for the sake of owning cool gadgets anymore. From Scott Hicar's view as CIO of worldwide I.T. at Maxtor, a supplier of information-storage technologies, five years ago CIOs were running ragged to put a lot of investments in place. But aligning I.T. with business lines and strategy -- the current CIO motto -- is easier said than done. Alignment is more than just simply satisfying requests, said Cingular CIO Thaddeus Arroyo: It is enabling the broader business strategy.

Security rated as a leading concern for 52 percent of the CIOs. Issues run the gamut from dealing with virus and spam onslaughts to complying with privacy issues and holding off hackers, not to mention finding the money to pay for these precautions. Many agree federal assistance is inevitable, but would like to see it happen now.

"Right now, [security breaches] can take down a huge corporation, but the penalty is only a few hundred dollars and a slap on the wrist," said

Home Depot's DeRodes, who said he thinks the government should focus on solving the security issue. Wal-Mart's CIO, Linda Dillman, agrees that the security problem is draining both I.T. talent and funds. "It's a real shame you have to spend so much time and effort battling spam and virus problems rather than on more productive issues," she said.

### **The Human Factor**

Workforce issues, centering primarily on skills and morale, almost tied with security, at 51 percent, among top concerns of CIOs. Oddly, most of the problems cited were minimal until the advent of heavy outsourcing, which AFLAC's CIO Jim Lester described as anything but a panacea. He said many large companies are rethinking their outsourcing strategies.

Jim Poole, CIO of W.C. Bradley Co., known for its Char-Broil Grills, echoed that anxiety. "It's worrisome when so many of your staff are a continent or more away."

In dealing with human resources, most CIOs said they focus on team development, skill development and highly selective recruitment these days. "People are the differentiators in the equation," said Dave Barnes, the CIO at UPS.

The remainder of the CIO set is consumed with solving issues associated with staffing and equipment integration. CIOs are swamped with concerns about strategy, agility and human issues such as adoption and usage rates. Then come decisions about retiring legacy systems or re-engineering them. In addition, CIOs also have to worry about improving customer experience, vendor relationships, and integration and connectivity issues.

Given this daunting list, several CIOs said their priorities change quickly, such that any of these situations can become a top concern on a given day.

Which is ultimately the most pressing? The answer depends on when you ask, said Wal-Mart's Dillman.

### **Legislative Demands**

All the CIOs said regulatory and compliance matters remain a near-constant worry.

A full 75 percent of the CIOs polled rated the current regulatory environment as painful in terms of costs and human effort. Twenty percent said government-imposed regulations did not affect them very much. The remaining 5 percent actually thought the federal policies were a "blessing in disguise," largely because the rules assisted with arguments for across-the-board consistency in operations.

Some 8 percent thought regulations such as the Sarbanes-Oxley Act, which imposes stringent rules on the disclosure of financial and accounting information, were helpful to their organization. Within that percentage, most CIOs said the measures were good from the perspective of internal control and organization. However, the same percentage agreed that the means of achieving compliance were inefficient.


Home Depot's DeRodes does not think that the Sarbanes-Oxley regulations are working as intended. Instead, he said, they drive up costs, alienate customer bases and serve little purpose. The majority of CIOs polled were anything but complimentary about government-imposed requirements. "The things we are required to look at are generally beneficial, but there are far better ways of doing it," said Turner Broadcasting CIO Scott Teissler.

On the surface, the regulations appear to create an unfair burden on publicly held companies. "Privately held companies have the luxury of putting more dollars toward technology investments since we have fewer [commitments] to compliance issues," said Anthony Bosco Jr., CIO of Day & Zimmerman, a private construction and engineering company. "We can afford to dream and create since we are not forced to constantly react to the regulations."

He is not alone in his thinking. The overwhelming fear is that more regulations are coming, and that they mainly will center on privacy and identity-theft issues. CIOs see a new storm of rules resulting from recent security breaches at companies like Choice Point and Lexus/Nexus that exposed customers' private information. "It will be interesting to see how extensive the legislative demands become as we go forward," said Lester. "I'm not sure we've seen the end of those demands."

## Enterprise Budgets

Technology is eating up large portions of allotted corporate operating funds -- so much so that CIOs say they worry about having enough money left over to deal with pressing customer-care demands. Deploying electronic solutions is far from inexpensive or efficient.

Components snaring the lion's share of enterprise budgets, according to the 50 CIOs polled, were customer-relationship management ([CRM](#) ) , Web services, enterprise-resource planning (ERP), ERP support, wireless communications, storage, business intelligence, servers, and security.

"Just because we are an all-SAP shop doesn't mean slices of the various modules integrate," said Day & Zimmerman's Bosco. "So we will be working to customize the software more to suit our needs through a different integration setup." Some CIOs say that unless integration is seamless, it is not seemly. "You read a lot about CRM and ERP, but I would argue those are just preliminary activities. You have to marry customer and operational data together to get any real value," said Hewlett-Packard Financial Services' CIO Matt Minetola.

CRM, although popular, is falling short of the efficiency mark, and CIOs are looking more toward pushing vendors to work past inherent limitations. "The industry is moving away from the modular approach and toward a sweeping, seamless approach that is more natural for human use, but completely unnatural for the CRM software industry's initial designs," said Bosco.

Home Depot will be spending the bulk of its budget on a series of large ERP systems in huge, multiyear initiatives and in electronically linking to vendors. "We're still doing a lot of paper with vendors. We're playing catch-up on that," DeRodes said. According to Dillman, Wal-Mart also is scrambling. The world's largest retailer keeps three copies of every piece of data. "We have a huge need for storage so we are actively shopping," she said.

The panel of CIOs agreed that there is a substantial amount of catch-up and everyday housekeeping that gobbles up budgets these days. "We will continue to work toward getting more productivity out of our mundane I.T. investments so we can shift more money toward more cutting-edge investments," said Teissler.

## **Paying for Technology**

But innovation is still a line item in several budgets. "We tend to avoid the herd instinct, preferring to develop our own technological recipe," said Teissler. "We cook up our own innovations."

Indeed, avoiding any semblance of following a trend has become the trend. Take Radio Frequency Identification (RFID), for example, and the major push behind it from major players like Wal-Mart and even the U.S. government.

Not all CIOs see RFID advances as technological nirvana. "We will be getting new platforms in services, merchandising and the supply chain. But not RFID," said Home Depot's DeRodes. "We don't see RFID as the radical change everyone's touting." Even regarding sales-force automation, which is regaining favor, there are numerous companies that prefer to build their own systems.

"We are very interested in faster product rollout to our sales force and are moving sales force automation to the 90 percent [budget] level, but that will mostly be applied toward our proprietary SmartApp Next Generation," said AFLAC's Lester.

High on the wish list are wireless connectivity and convergence solutions. "I could get really excited if everything worked with everything else," said Lester. "Bring me that and I'll buy it!"

## **Process Management**

Like a bad hangover, memories of the bursting bubble from the dot-com era have induced many Fortune 500 companies to stick to the committee approach to ensure sober budget planning. Nearly two-thirds, 65 percent, of the CIOs polled plan their purchases by committee.

UPS, for example, has several committees to set standards, map future projects and pay for the whole kit-and-caboodle. At UPS alone, there is the Management Committee, the Program & Project Oversight Committee and the Information Technology Governance Committee, to name but a few. Barnes sits on all of them and serves as chair on several.

Wal-Mart spends a couple days each fall off-site to study priorities and concerns. The company has a business plan by January and commits the money and begins implementation by Feb. 1 of every year. The I.T. department is organized into one group. Dillman said the focus is more on speed than perfection. "Frankly, we don't believe anyone is a good enough designer to get any project absolutely perfect from the very first. So we run and tweak it as needed," she said. "If you start with something better than you had today, the payback will be huge. But if you wait for perfection, you'll never finish the job."

Other companies follow similar budget-filtering schemes. Home Depot has its strategic operating and resource (SOAR) plan, a review process and a post-implementation review. AFLAC has six "gates" a salesperson must hurdle to get the deal. Each gate is guarded by a different committee comprising players from various business and I.T. departments.

As a contrast to the two-thirds majority that plans and purchases by committee, Turner Broadcasting emphasizes flexibility and agility. There is no canned process. There is an appreciation for processes, but the company is not hindered at all by procedures, according to Teissler.

Committees are less common in private companies, however. Bosco said Day & Zimmerman's I.T. decisions are more first-aid than first blood, and none are attended by committees. "If there is a business pain, then that's a pretty good indication that something is needed," he said. A CFO team scrutinizes cost calculations, but otherwise decisions are made quickly at the organization.

### **Disappointments in Software and Hardware**

Favorite brands mentioned by the 50 CIOs, in no particular order, are EMC, Cisco, IBM, Sun, Unigraphics, Juniper, Oracle, SAP, Nortel, [Dell](#) 📺, HP, Cognos, Research In Motion, Siebel, Trios, and Citrix.

But by and large, the CIOs voiced disappointment in most product lines even as they listed favorites. Two-thirds of the group complained of problems with vendors and customer service.

"I am concerned about vendor relationships," said DeRodes. "There is a great deal of [consolidation](#) 📺 -- particularly in the software space,

and you can get caught flat-footed as partners merge, are bought, disappear entirely, or change focus," said DeRodes.

Several companies are turning to proprietary systems and processes. For instance, UPS' Diad 4 device, which most people know from signing for their packages, is the pride and joy of UPS. The custom piece mostly contains UPS' proprietary engineering, but it also incorporates some technology from partners, the largest of which is Symbol.

Diad 4 features include survivability, GPRS, Bluetooth, a modem, infrared, GPS, digital-signature capability, laser scanning and a battery that lasts the entire work day.


A few legacy systems still exist, but most companies are dumping them rather than continuing to re-engineer and patch them. Some apparatuses, though, are classics. AFLAC's SmartApp, for example, has won several awards and is currently in a next-generation rollout.

Other companies are dealing with vendor problems by whipping them in line. Wal-Mart, for example, pushes vendors to comply with the retailer's requirements rather than the other way around. The current revolution in an old technology, RFID, is a prime example of what Wal-Mart can achieve as an industry driver.

### **Emerging Technologies**

Almost to a man and woman, the CIOs said not much is emerging now in new technologies. Instead, they said, most technology is in the process of upgrades, improvements, convergence, better connectivity, and integration. "There really isn't much emerging," said Dillman. "But what already exists is moving to a new place. That's exciting when you really look at the possibilities."

One place welcoming new technology is the home. Home Depot is betting the bank that home automation will become a disruptive technology that will redefine the industry's sales and market shares. "Everyone is already seeing the home media center and the home PC beginning to merge," said DeRodes. "Coming soon is everything from intelligent lighting, security, irrigation, heating and air, and cooking systems. It is just a matter of time before everything merges and your life becomes more complicated."

Convergence issues were top-of-the-mind interests for all 50 CIOs. AFLAC's Lester said he and his far-flung sales force could get very excited about some major convergence between wireless PDAs, cell phones, and [Microsoft](#) . Meanwhile, many see a toss-up as to whether RFID or GPS-based vehicle-tracking systems will win out in the supply-chain wars.

Indeed, many think tracking the goods is more important than tracking the vehicle. "If we know where the cargo is, we know where the truck is," Dillman said. UPS in particular employs sophisticated tracking hardware, putting finger-scanners and belt-mounted computers on the driver -- but nothing goes on the truck or van.

Banks, car rental companies, Ryder, and U-Haul all prefer tracking the vehicle mainly for repossession purposes if the vehicle is stolen or a payment missed. The majority of this group, 90 percent, favor GPS over RFID technologies.

Then there are companies like AFLAC, which as an insurer has no goods to trigger the RFID readers. "Automotive telematics can get our agents to remote locations and serve as a Wi-Fi center where the laptop can communicate with the car and the car with the company," said Lester. AFLAC wants to be able to find its future mobile office regardless of what the agent is doing. "The agent may not have an RFID reader handy, but the office could easily track any vehicle in the fleet anywhere, anytime with GPS," he said.

### **In-House Research**

Ninety percent of the CIOs said they use their own research and development departments, many of which are elaborate set-ups that include everything from mock retail stores to elaborate laboratories, as their primary research source. A general push for true innovation appears to be the driver behind a recent increase in R&D department budgets.

But beyond the proprietary stuff and the trial and testing grounds, CIOs do regularly troll outside company walls for ideas. "We know we need to be players or hobnob with players of innovation constantly. So, we are constantly canvassing and creating innovations," Turner Broadcasting's Teissler said.

Nearly two-thirds, 63 percent, have steering committees, I.T. subcommittees, developing technology committees, research committees, and other troops that go out in search of ideas and products. All of the CIOs said they regularly read leading technology publications, both online and in print, as a source for information.

Thirty-seven percent belong to CIO peer groups. The most popular among the big players is the Research Board in New York -- an invitation only, privately-held research company that excludes vendors from membership.

A very slim minority, 2 percent, said they rely on vendors for research information. In those cases, vendors used for research are usually identified specifically by the business plan or objective the company is trying to address.

A large majority, 80 percent, said they attend conferences and tech shows regularly. Thirty percent use consultants, with the most popular firms being Gartner, AMR, Forrester, and IDC. A little more than half, 52 percent, said they have fostered academic relationships to help with research and development.

### **People Trump Technology**

Although technology is improving by leaps and bounds and opportunities seem endless, there is much more to the story.

CIOs are not technologists any more. They are business executives who struggle with company politics, outsourcing nightmares, budget constraints, human resource problems, competitive pressures, disappearing vendors, and equipment problems. They are rarely appreciated for their efforts and are frequently cursed for their missteps.

"All CIOs deal with the same issues; the only difference is in the leadership abilities on every level," said DeRodes. Dillman agrees. "We try to recruit the best, and constantly grow our people into being even better."

At the end of the day, according to Day & Zimmerman's Bosco, the technology universe revolves around one thing: people.

"All the technology is the equivalent of a dial tone on a phone," he said. "You have to have it, but it's what you do with it that counts."

