



## The CTO: IT's Chameleon

Is the CTO an R&D boss, a senior technologist, an IT visionary or a business insider? It depends.

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Robert Wiseman and Sophie Vandebroek are both chief technology officers at Fortune 1,000 companies. But despite the common title, their jobs are quite different.

Wiseman, CTO at Sabre Holdings Corp., the Southlake, Texas, parent of several travel-related companies, handles the “bits and bytes of the technology” and reports to the CIO. Vandebroek, CTO at Xerox Corp. in Stamford, Conn., oversees a team of 600 researchers, engineers and scientists responsible for developing products to sell to Xerox’s customers. Although she doesn’t report to the CIO, Vandebroek works with many CIOs from other companies to dream up innovations for the commercial market.

There’s little ambiguity about the role of the CEO or the CFO at major companies, but ask what a CTO does, and you’re likely to get a variety of responses. In some companies, the CTO heads research and development. In other companies, the CTO is just like a CIO. In still others, the CIO reports to the CTO. And there are also CTOs who work in IT departments and report to the CIO.

“The use of the label depends on the company, the industry and a lot on the individual. There’s probably not any hard and fast rule on the title, but there are shades of color around it,” says Brian LeClaire, CTO at Humana Inc., a health benefits company in Louisville, Ky.

### IT and More

Despite the diversity of approaches to the CTO role, this IT department executive is increasingly becoming the organization’s senior technologist, responsible not only for overseeing current technology assets but, more important, for developing a technology vision for the business. And while the job remains firmly rooted in those bits and bytes, now more than ever CTOs are expected to have the business knowledge that ties that technology vision to company’s mission,



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“It’s not a simple job to understand all the technology out there,” says Fred Dillman, global CTO at Unisys Corp., an IT consulting company in Blue Bell, Pa. “Today the pace of change is so much faster, and businesses are becoming more and more dependent on technology. So the CTO is being asked to be the real expert in technology and understand what technologies will affect the business in the future and help determine when and where to invest.”

To be sure, CTOs have always been immersed in technology. But the use of the CTO title has shifted from one used almost exclusively for R&D-type executives, such as Vandebroek, to a designation for an organization’s leading technologist, wherever he resides, says Roger Smith, CTO for the U.S. Army Program Executive Office for Simulation, Training and Instrumentation in Orlando.

### Dual Personality

Smith points to the dot-com boom, a time when many IT leaders started favoring the CTO moniker, as a key point in the position’s evolution. In fact, back then many entrepreneurs who started high-tech firms called themselves CTOs — a trend that continues even today. “That’s how it got the dual-use personality,” says Smith, who has researched and written about the evolution of the CTO position.

**CTO Stats**

|                 |           |
|-----------------|-----------|
| Average Salary: | \$134,871 |
| Average Bonus:  | \$26,422  |
| Total:          | \$161,293 |

**Base:** 14,740 IT workers

**Source:** Computerworld’s 20th annual salary survey, may-july 2006

The idea of the CTO as the leading techie only strengthened as time went on and the CIO job evolved, Smith says. “The CIO was initially a gearhead technical guy who was in charge of putting all this IT in place,” he explains. “But over time, IT became such an important part of the business that he got moved from the computer room to the executive suite. And once he moved there, he suddenly couldn’t be the techie guy. He needed an assistant who could stay in the computer room, someone who could be in the middle of it and understand it.”

And there’s more to the evolution. Five or 10 years ago, those bits-and-bytes CTOs could often succeed solely by being the smartest techies in the room. Now, however, they need to know how to successfully play in both the technology space and the executive suite.

“One of the changes over the past couple of years is that the CTO is becoming much more responsible for the execution of the strategy as well as the definition of the strategy,” Dillman says.

In addition to helping internal users with technologies to fulfill their existing and near-term needs, Dillman says, CTOs focus on bleeding-edge advances that could become part of the company’s technology road map.

“The pace of technology is so fast today that the cost of failing is hyper-expensive, not only in dollars but in time, too,” says Paul Groce, partner and head of the CIO practice at executive recruiting firm Christian & Timbers in New York. “So smart organizations are putting more emphasis on ensuring that they have smart people to ensure that the five-year road map is a good one.”

### **CIO Gap Filler**

Given the duties of CTOs today, Groce, Dillman and others acknowledge that the lines that divide their job from that of the CIO are blurry. All the more reason the two executives must have a close relationship to successfully run an IT shop, they say.

But the CTO’s seeming encroachment on what was once the CIO’s turf also has a lot to do with the evolution of the chief information officer’s job, says Phil Schneidermeyer, a partner in the CIO practice of Heidrick & Struggles International Inc., a senior-level executive search and leadership consulting firm in Chicago.

“Today, many companies have management-oriented CIOs with technical experience in their backgrounds, but they’ve moved so close to the business that they haven’t stayed current with technology on a day-to-day basis,” says Schneidermeyer. “So to complement their business focus, CIOs need to have a technically focused chief technology officer who has a view for where technology is going.”

Other differences remain between the CTO and the CIO roles, he says. CTOs generally manage smaller staffs. They’re not expected to have the same line-management experience or budget responsibilities as the CIO, either.

That’s not to say that CTOs can come to the job without any business skills. “You’ve got to make your company more efficient and profitable by the standards you put in place, the decisions you make,” Wiseman says. “So it’s increasingly important, but not necessarily common, to know the business. Otherwise, you’re just prone to making bad decisions.”

So just as companies have demanded increasingly business-savvy CIOs, they’re beginning to look for CTOs who have not only a superior knowledge of technology, but also the ability to build strong teams and communicate effectively with all levels of the organization, Wiseman says.

This combination of technical and business skills is helping to elevate the stature of the CTO both within the IT shop and in the organization as a whole. That’s one reason Roy Cashman chose the CTO title over that of CIO when he was hired nearly three years ago at Transplace Inc., a Plano, Texas-based company that provides technology and third-party logistics services.

Cashman, who recently moved into the chief operations officer job, oversaw internal IT operations and also developed technologies to market to external customers, but he felt the CTO title conveyed more technical authority to the external customers who pick Transplace for the IT expertise it can offer.

But even at companies where the IT department has both a CIO and a CTO, the best CTOs are seeing their stars rise. “In our company, there’s a clear understanding of the value that technology adds to the company,” LeClaire says. “That’s what drives the seat at the table, not the title CIO or CTO.”

Companies that value technology and understand its contribution to bottom-line results are the ones that emphasize the importance of the CTO as a leader within the IT department, says Mark Raskino, an analyst at Gartner Inc. And he sees that trend continuing.

“The IT-doesn’t-matter perspective doesn’t really fly anymore in the second wave of the Internet revolution,” he says. “There is so much business innovation to be done at the moment that we can only see this role strengthen.”

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