

Forbes insights

THE ASCENT OF THE CIO

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INTRODUCTION

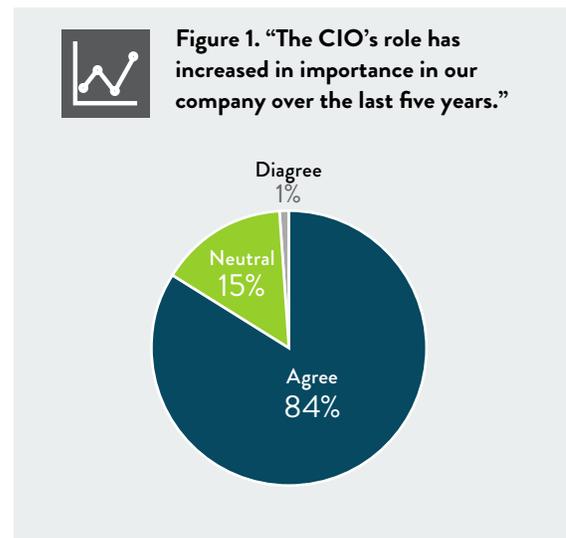
This is the first of two research analyses conducted by Forbes Insights in collaboration with Intel and VMware. To view the companion article, "The Challenges for Tomorrow's CIO," please click [here](#).

Digital technology is increasingly transforming industries, seeping into every part of the business and escalating as a corporate priority. It's therefore no surprise that the role of the chief information officer (CIO) is also transforming. In fact, more than four out of five CIOs recently surveyed by Forbes Insights, Intel and VMware believe the CIO role has increased in importance over the last five years (Figure 1).

"CIOs today show all the evidence of moving up within the hierarchy. They now report directly to the CEO, sit on the board, lead teams of diverse backgrounds and skills, and have a seat at the strategy table," says Craig Stephenson, managing director of the CIO & CTO practice at Korn Ferry, a consulting firm. "But more importantly, the job is earning a new stature and recognition amongst peers in senior management."

Jon Manis, the SVP and chief information officer of Sutter Health, agrees. "The CIO is the most dynamic and fast-rising position in the organization, and this rise in stature has only just begun."

To further explore how the role of the CIO is changing, and what this means for businesses today, we teamed up with Intel and VMware and surveyed more than 400 CIOs around the globe to get their perspective. This report highlights the key findings from this research, and also provides recommendations to CIOs on how they can navigate this new environment and succeed in digital transformation.



KEY FINDINGS

- Over four out of five CIOs believe their role has increased in importance over the last five years.
- Five years ago, CIOs believed their most important skill was technology know-how. Today, they believe it is contributing to corporate strategy.
- CIOs believe the most important personal qualities required of a CIO today are leadership (39%), communicating and influencing (37%), and partnering with others (36%).
- CIOs believe the following factors could cause them to be unsuccessful: lacking technology expertise, being tactical instead of strategic, and not setting a vision and leading towards it.
- Seventy percent of CIOs believe technology trends are increasing the chances of the CIO becoming the CEO.

WHAT'S DRIVING THIS CHANGE?

Digital transformation is changing every corner of business, from how companies source parts to how they deal with customers. Each change, both large and small, creates a demand for technology expertise and leadership.

"Today, every company is becoming a technology company," says Sanjay Poonen, chief operating officer of VMware. "Southwest Airlines is a technology company, McDonald's is a technology company and so on. In this transition, every department and every function of these companies has demands that go straight to the CIO."

It's no surprise that technology is driving change within the CIO role. In fact, 77% of CIOs rank technology in customer relationships as one of the biggest influences on the changes occurring within their position (Figure 2—see following page).

What is surprising is that CIOs don't cite just one or two factors driving these changes; they point to several. Beyond technology in customer relationships, CIOs also say the use of big data and analytics, as well as more technology in the supply chain, are major influences.

For Chad Lindbloom, the CIO of the logistics and transportation firm C.H. Robinson, the role and influence of analytics makes sense. "Analytics and sensors are being introduced into every part

of the operation,” he says. “The CIO is required to learn and even lead in parts of the business that the old IT function rarely touched. Not only does the CIO now need to work with many parts of the firm, but he or she must also set the standards and integrate them into the whole [of the organization].”

With these new responsibilities, expectations are only rising. “The CIO is now expected to be an integral member of any team asked to improve the customer experience or speed up the supply chain. It just can’t be any other way,” says Sutter Health’s Manis. “They are expected to be both an expert advisor and a leader of change.”

Given these changes in the CIO role and in technology, it’s only expected that CIOs must change as well, adapting their personal and professional skills to meet today’s demands and the new business environment. Those who don’t won’t be able to enact change—they risk becoming irrelevant.

“The successful CIOs are not afraid of change; they are self-aware and they thrive in ambiguous environments,” says Korn Ferry’s Stephenson. “The convergence of digital and technology is successfully pushing CIOs to drive progressive strategies and quickly modernize traditional approaches.”

What skill sets and personal qualities do tomorrow’s CIOs need to succeed? The research examines this question below.



Figure 2. Rate the following as influences on the changing role of the CIO.

% of CIOs ranking the influence as strong or very strong

Technology in customer relationships

77%

Use of big data and analytics

75%

Use of technology in supply chain

74%

Technology as competitive edge

74%

Rise of e-commerce

72%

Increased cyber risk to the firm

69%

Shareholder expectations

69%

Internal management solutions

69%

HR and employee management

68%

Technology in products/services

65%

THE TRANSFORMATION OF THE CIO—SKILLS AND EXPERTISE

CIOs recognize that today's environment will demand a new set of skills to do their jobs right. While in the past, technology know-how and the ability to implement technology were the most important professional skills for CIOs, over the next few years, contributing to corporate strategy and change management will be key (Figures 3 and 4).

"The [CIO] position has evolved," says Manis of Sutter Health. "The old data processing expert became the computer expert, who became the information systems expert. Now [CIOs] are all about digital engagement and setting a strategic vision, which is a new job that will require new skills."

The significant rise of change management (from ninth to fourth on the list of most important skills) is worth noting and expanding on. CIOs no longer head a service desk—they are expected to define company strategy, implement technology and lead their team in times of change. They need to set the vision and lead many parts of the business to that goal.

This importance of "change managers" doesn't come as a surprise to Stephenson of Korn Ferry, who has seen this skill set rise to the top among CIO searches. "Our clients [in seeking a CIO] are now looking for strategic thinkers and change managers," says Stephenson. "While the candidates need to be grounded in technology, they now, more than ever, need to be leaders."

Although technology know-how ranks lower on the list of important skills over the coming years (possibly indicating that this is now table stakes for the role), Pat Gelsinger, the CEO of VMware, cautions against overlooking technical expertise. "The CIO



Figure 3. Top professional skills that were most important to your success over the past five years.

Choose top 3 most important. (Ranked)

1	Technology know-how
2	Implementing/deploying technology
(tie)	Contributing to corporate strategy
4	Developing full potential of business applications
5	Partnering with stakeholders
6	Building analytics into the business
7	Selection and management of vendors
8	Knowledge of cybersecurity
9	Change management
10	Decisive decision making
11	Managing the IT team
12	Industry experience and insight
13	Working with the board of directors



Figure 4. Top professional skills that will be most important to your success over the next five years.

Choose top 3 most important. (Ranked)

1	Contributing to corporate strategy
2	Implementing/deploying technology
3	Developing full potential of business applications
4	Change management
5	Selection and management of vendors
6	Building analytics into the business
7	Technology know-how
8	Partnering with stakeholders
9	Knowledge of cybersecurity
10	Industry experience and insight
11	Managing the IT team
12	Decisive decision making
13	Working with the board of directors

still needs to keep the technology lights on," says Gelsinger. "Even while the CIO's job is becoming mission-critical, if email isn't working, the CIO is going to have a bad day. The CIOs need to expand their mission, but they still need to keep the network running."

When considering needed skills, Paula Tolliver, the CIO of Intel, emphasizes the importance of collaboration and focusing on customers. "The place where I've really had to dig into is spending more time with our external customers," she says. "Now, I'm much more of a collaborator in many cases—with sales, with marketing, with our product people—particularly when we're driving collaborative, new business models and products with those customers in their industries."

This sheer expansion of required skills is a challenge for many CIOs. "The breadth of skills CIOs now need is a challenging dilemma," continues Gelsinger. "Many are resolving it by establishing a head of operations—a chief technology officer—to make sure the trains run on time. This ultimately frees up the CIO to take on the new, strategic role."

The message is clear: Traditional skills, such as technology know-how, are simply table stakes. Today's CIOs need to increase strategic expertise, focus on customers and become change managers to succeed. But adapting professional skills is not enough. CIOs must also reassess their personal skills and adapt accordingly.

THE TRANSFORMATION OF THE CIO—PERSONAL QUALITIES

The changes in technology, and the associated changes in the CIO's role, responsibilities and expertise, are so significant that they seem to be forcing a change in the very persona of the CIO.

"The new ways of working require a new mindset in the CIO function," says Naufal Khan, a senior partner at McKinsey & Company who focuses on technology strategy and organization. "CIOs need to move beyond the reactive practices of a service organization. They are the ones who will provide organizational leadership, people leadership and transformational leadership."

The CIOs we surveyed recognize this need to transform themselves. When asked which three personal skills they need to improve the most to be successful, CIOs singled out leadership, communicating and influencing, and partnering with others (Figure 5).



Figure 5. Which personal skills do you need to improve the most?



This demands a new way of working for CIOs. They have to step up their game from being domain experts to becoming enterprise leaders, which places a premium on their ability to communicate and collaborate with others.

“The CIO used to be a high-level technical advisor who backed up the business,” says Chad Lindbloom of C.H. Robinson. “But technology is now so pervasive and so important that they have to use that expertise to lead the firm. This positions the CIO as an expert in every part of the organization.”

Yet knowing which qualities are important to success is only half the battle. There are also behaviors CIOs should shy away from, since they’re ineffective or may increase the chances of failure. These include: lacking technology expertise, failing to be strategic and not setting a long-term vision (Figure 6). All of these indicate a bias against action, leadership and self-transformation.

An interesting finding is that “failing to keep the enterprise secure” is relatively low on the list of behaviors that can jeopardize a CIO’s job. Initially, this was surprising. You’d think enterprise security would be top-of-mind for CIOs today, especially as data breaches appear to be increasing in frequency and severity. Yet its low rank on the list may indicate that, since cybersecurity has been a critical priority for so long, many CIOs now feel their teams can manage issues that arise.

CIOs who adapt their skills and embrace ongoing change and transformation will not only find more professional success. They’ll also benefit from what we’re calling “the ascent of the CIO.”



Figure 6. Which attribute or behavior is most likely to cause a CIO to be unsuccessful over the next five years?



THE ASCENT OF THE CIO

The Forbes Insights data clearly indicates a lateral broadening of the CIO's job, and, as we've mentioned, a need for CIOs to transform both their professional and personal skill sets to ensure future success. But within this broadening of roles and responsibilities, is there also an upward escalation of the role within organizations today?

The answer is yes, as indicated by reporting structures. Five years ago, CIOs reported primarily to the CEO (61%), the COO (15%) or the CFO (9%) (Figure 7). Today, CIOs are reporting to the CEO in greater numbers. This shift in reporting lines, and the CEO's wish to have direct contact with the CIO, demonstrates how important this role is becoming to the whole of the organization and its success.

"Boards and shareholders are understanding that the company's future is going to be shaped most by technology," says Korn Ferry's Stephenson. "And companies are looking for expertise and leadership that is grounded in that discipline, which places the CIO front and center."

Yet one of the most interesting questions is: Is the CIO becoming a serious candidate to be CEO? Apparently so. A striking 70% of the CIOs we surveyed believe that technology trends are increasing their chances of getting that corner office (Figure 8). Even allowing for the positive bias of self-confident and ambitious CIOs,

this signals a change in the leadership of companies today, and the job trajectory of the future CIO.

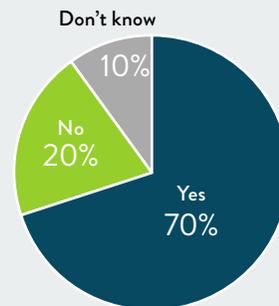
"We are seeing more and more CIOs who are capable of stepping into the CEO role," says Korn Ferry's Stephenson. "Arguably, they have the most complex job in the firm, overseeing anything and everything that is the backbone of the company and the interface with the customer, especially as we watch digital and technology functions merge."



Figure 7. Who did/does the CIO report to?



Figure 8. Do you believe that digital technology is increasing the chances of the CIO becoming the CEO?



There is also a view that the CEO's and CIO's responsibilities are overlapping and converging. "Within five or 10 years, I believe that business operations and technical operations will have completely converged," says Sutter Health's Manis. "Doesn't this mean that the roles of the CEO and CIO are going to converge as well?"

While this may come to light, Naufal Khan at McKinsey reminds us that this trend is only just beginning. As he explains, "This is a journey that has only just started. CIOs are becoming business-people. Businesses are becoming digital. CIOs are becoming better candidates to be CEO, but this is still an emerging trend."

THE PATH FORWARD FOR CIOS

While the CIO might not become the CEO tomorrow, the role of CIO is undeniably rising within the organization, and there is no going back. The very digital technologies that CIOs manage are changing their job descriptions, their skill sets and even their personal approach to their profession.

Yet not every CIO is going to make the cut. Just as there is legacy technology, there will be legacy CIOs who become obsolete and less relevant to their businesses. If you, today's CIO, are going to succeed tomorrow, you'll need to take a few steps in the right direction:

1. CONDUCT AN HONEST SELF-ASSESSMENT OF YOUR CURRENT SKILLS AS A CIO.

Ask yourself: What do I lack as a leader? As a change manager? As a strategic thinker? Then create an action plan to build out these skills.

“

If I could give one piece of advice to CIOs, it would be 'carpe diem'—seize the day. Every business is becoming a digital business, with competitors you never saw before and opportunities that were not present before. If CIOs shirk from their new responsibilities and these new challenges, they'll stay the VPs of Infrastructure. But if they understand it, and go after it, they'll become the most important, strategic influencer in the firm.”

PAT GELSINGER
CEO,
VMWARE

2. DELEGATE AND AUTOMATE THE TACTICAL SO YOU CAN FOCUS ON THE

STRATEGIC. You can't do it all. Now is the time to rise above the day-to-day and assume the visionary role your organization expects, and needs, of you. Delegate the more tactical work and initiatives to the great team you've hired or inherited.

3. BECOME THE PARTNER OF CHOICE FOR EVERY DEPARTMENT IN YOUR COMPANY.

You are no longer the head of IT—you are now the innovator, coach and leader for an enterprise in an uncertain, risky and confusing transition. Embrace this new leadership role and position yourself as a partner for everyone within the organization.

4. GET CLOSER TO THE CUSTOMER. Implicit in all of the new requirements of the CIO—becoming more strategic, partnering with the business units—is the need to use technology to better understand and serve the customer. Tomorrow's CIO should plan to become a strong technology partner with customer-facing functions such as sales, marketing and customer relationship management.

5. THINK, ACT AND BEHAVE LIKE A CEO. Your responsibilities are becoming more like the CEO's every day, and CEOs understand your importance to the organization. To be successful, though, and to continue your momentum upward, you must demonstrate the prized CEO qualities of strategic vision, change management and leadership.

Nowadays, "it's not enough to just be a technologist," says Intel's Tolliver. "You really need to spend your time understanding and driving the business agenda and the enterprise strategy. That's where you're really going to make a difference in the role, and where the value will be created for the CIO of the future."

"If I could give one piece of advice to CIOs, it would be 'carpe diem'—seize the day," says VMware's Gelsinger. "Every business is becoming a digital business, with competitors you never saw before and opportunities that were not present before. If CIOs shirk from their new responsibilities and these new challenges, they'll stay the VPs of Infrastructure. But if they understand it, and go after it, they'll become the most important, strategic influencer in the firm."

This article is part one in a series of Forbes Insights articles on the changing role of the CIO. The second article, "The Challenges for Tomorrow's CIO," documents the unique challenges created by the elevation of the CIO, and outlines steps that can be taken to meet them.

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- **Jon Manis**, Chief Information Officer and Senior Vice President, Sutter Health
- **Sanjay Poonen**, Chief Operating Officer, VMware
- **Craig Stephenson**, Managing Director, CIO and CTO Practice, Korn Ferry
- **Paula Tolliver**, Chief Information Officer, Intel

METHODOLOGY

The data in this report is derived from a survey of 410 CIOs conducted by Forbes Insights in the summer of 2017. Forty-nine percent of respondents were located in Europe, 29% were located in North America, and the remaining 22% were located in Asia-Pacific. These CIOs represent a range of industries, including technology (18%), financial services (17%), telecommunications (15%), healthcare (13%) and retail (13%). All CIOs were from companies with at least \$1 billion in annual revenue; 32% were from companies with revenue between \$1 billion and \$2 billion; 41% were from companies with revenue between \$2 billion and \$5 billion; and 27% had revenue of \$5 billion or more.

APPENDIX—SURVEY DEMOGRAPHICS



Figure 9. Title

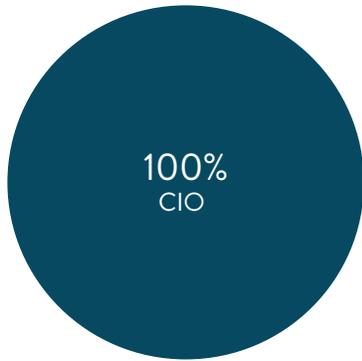


Figure 10. Geographic Location

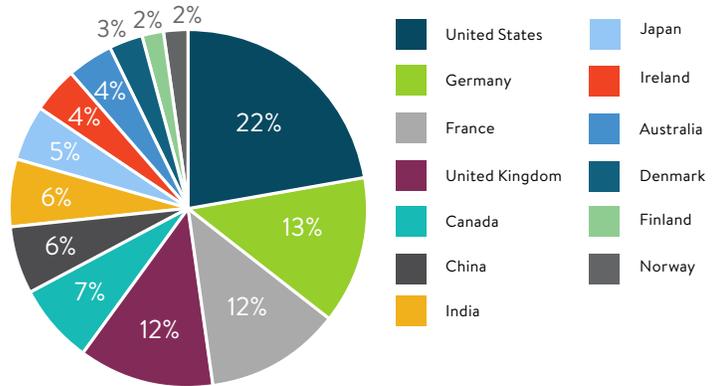


Figure 11. Industry

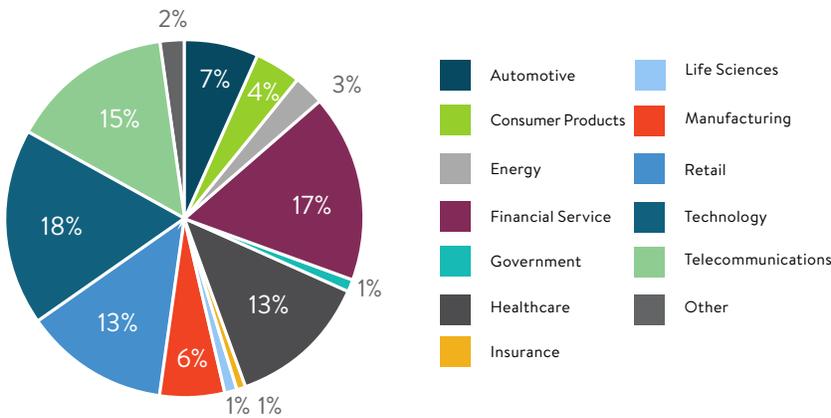
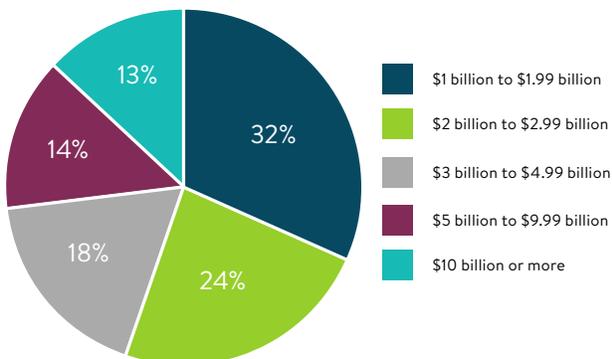


Figure 12. Company Size



Note: Some charts may not add to 100% due to rounding.

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