



Introduction

In a fast-moving business environment, how can today's Chief Information Officer (CIO) make the biggest impact on behalf of the entire organization? To answer that question, we listened to over 2,500 CIOs worldwide, including 103 in the Energy and Utilities (E&U) industry. These one-hour, face-to-face conversations, along with our statistical and financial analyses, made clearer the changing demands on CIOs. Not content to be known only as consummate IT experts or perpetual seekers of savings, CIOs are redefining their role.

The voice of the CIO is being heard in new ways – as CIOs are increasingly recognized as full-fledged members of the senior executive team. Successful CIOs are much more actively engaged in setting strategy, enabling flexibility and change, and solving business problems, not just IT problems.

Today's CIOs spend an impressive 55 percent of their time on activities that spur innovation. These activities include generating buy-in for innovative plans, implementing new technologies and managing non-technology business issues. The remaining 45 percent is spent on essential, more traditional CIO tasks related to managing the ongoing technology environment. This includes reducing IT costs, mitigating enterprise risks and leveraging automation to reduce costs elsewhere in the business.

CIOs universally acknowledge that some of their most important objectives too often seem to clash: *How can I support the introduction of new services while avoiding the disruption of existing services? How can I reduce costs while improving services? How can I balance the need to influence business strategy with the need to provide top-notch IT support?*

Complementary, yet sometimes conflicting roles

An Electronics CIO summed it up well: “In IT, we are not magicians, but we are certainly jugglers.” On any given day, CIOs are poised for the unexpected, leading an organization that solves a myriad of problems for customers, both internal and external. Without question, IT functions represent the lifeblood of most businesses. But CIOs told us that they can only turn more attention to new technology ideas after addressing current IT needs.

After thousands of interviews, we found that successful CIOs actually blend three pairs of roles. These dual roles seem contradictory, but they are actually complementary. To characterize each role, we have coined a term that describes its dominant quality. At any given time, a CIO is:

- An Insightful Visionary *and* an Able Pragmatist
- A Savvy Value Creator *and* a Relentless Cost Cutter
- A Collaborative Business Leader *and* an Inspiring IT Manager.

By integrating these three pairs of roles, the CIO:



Makes innovation real

It's not enough to just plan for innovation – it needs a robust foundation. When acting as an Insightful Visionary, a CIO is perceptive, promoting a broad technology agenda to help the business profit from leading-edge initiatives. The flip side of the Visionary is the Able Pragmatist role. As a Pragmatist, a CIO deals with the realities of the business. The Pragmatist also facilitates the productivity of current IT solutions to allow more time and budget for innovation.



Raises the ROI of IT

Using IT to produce greater business value is vital, accompanied by an ongoing focus on lower costs and higher efficiency. A Savvy Value Creator finds new ways to help customers and the organization profit from how data is used. The Relentless Cost Cutter, its counterpart, is focused on managing budgets and processes to eliminate or reduce costs.



Expands business impact

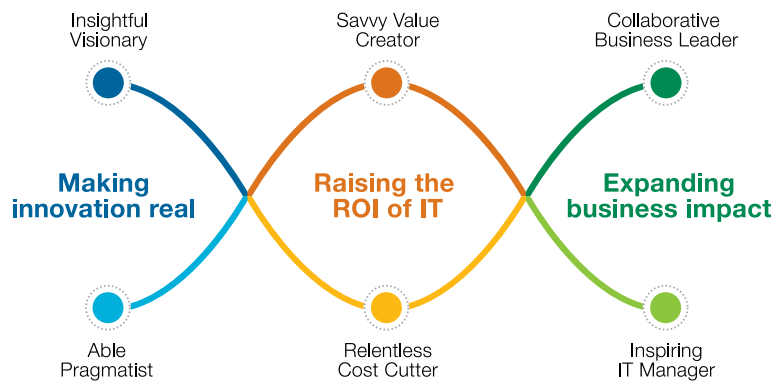
To contribute the most to the organization, proven expertise in both business and technical matters is vital. Part of the time, CIOs will engage with the enterprise as Collaborative Business Leaders, to drive new business initiatives and cultural shifts jointly with fellow CxOs. At other times, the Inspiring IT Manager role occupies center stage to motivate the IT organization and deliver superior IT performance.

Adjusting the mix, one pair at a time

It's no surprise that CIOs must reconcile seemingly opposing mindsets. But our findings revealed ways they can be more effective in this everyday balancing act. Even some experienced CIOs acknowledged that they are sufficiently strong in just one or two of the six CIO roles. Yet every role requires at least some attention.

The realities facing each individual influence how that CIO can and should manage change at any given time. Many factors impact the decisions about how much emphasis to place on any single role. Among the other factors are macroeconomic and regional conditions, industry-specific forces and various organizational characteristics, as well as the CIO's own skills and aspirations.

But despite the multiple forces in play, our findings show that successful CIOs discover ways to focus on high-value projects in support of their organizations. **We share with you the voices of many CIOs and what they are doing to achieve three primary goals: to make innovation real, raise the ROI of IT and expand business impact.**



Making innovation real

Insightful Visionary and Able Pragmatist



The Insightful Visionary is active in setting strategy and helps the business explore how technology can drive innovation. The Able Pragmatist sets the stage for enacting innovation. Key Visionary actions are to: push business/technology integration, champion innovation and expand CIO influence. Key Pragmatist actions are to: enable the corporate vision, make working together easy and concentrate on core competencies.

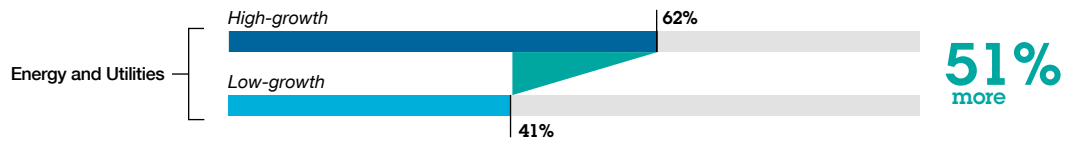
Technology-driven innovation in E&U businesses (for example, the smart grid in the electric sector) is expected to produce more change in the next five years than the industry has experienced in the previous twenty, and this puts the CIO at the heart of the strategy setting. High-growth E&U CIOs understand this challenge well; these Insightful Visionaries are over 50 percent more likely than Low-growth E&U CIOs to reach out to the business to co-create and champion innovation, as well as to actively integrate business and technology to innovate. Able Pragmatists free up time for these activities by using third-party business or IT services; High-growth E&U companies are 33 percent more likely to do this than their low-growth counterparts in the industry.

“Over time, the CIO role is less about technology and more about strategy.”

Dave Watt, Director of Business Services,
Altagas, Ltd.

Figure 1 More CIOs of High-growth E&U organizations actively integrate business and technology to innovate

As Insightful Visionaries, E&U CIOs are active members of the strategic team.



Are you well-versed in how emerging technologies and innovative processes can address uncovered business needs in your industry?

In what ways will you partner with third parties to increase the time you devote to driving innovation within the business?

How can you expand the use of collaborative and communication tools to both reach your customers and to widen the knowledge networks of employees and partners?

Do you measure implementation results so that business colleagues not only understand the results, but are convinced and inspired as well?

Raising the ROI of IT

Savvy Value Creator *and* Relentless Cost Cutter

The Savvy Value Creator devises better solutions by understanding customers' needs, while the Relentless Cost Cutter is vigilant about trimming expenses wherever possible. Key Value Creator actions are to: make the data contextual and insightful, reach customers in new ways, and enhance integration and transparency. Key Cost Cutter actions are to: standardize to economize, centralize the infrastructure and keep cost reduction a top priority.

With the emergence of the digital, information-rich networks promising to exponentially increase the volume and complexity of data the business handles, Savvy Value Creators will be poised to elevate their companies' performance to an unprecedented degree. Yet even today, the Savvy Value Creator has impact; CIOs at high-growth E&U companies are 70 percent more likely than their peers at low-growth companies to proactively craft data into actionable information, and almost 20 percent more likely to envision end customers exploring new channels within five years.

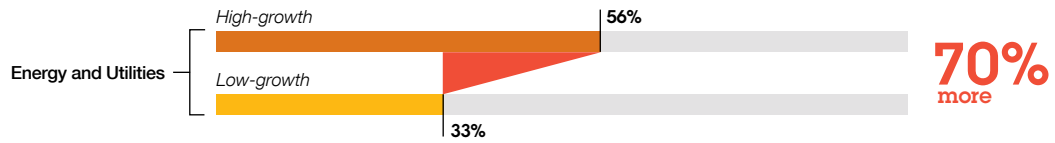


"We are not very standardized today, but future initiatives will force that."

Utility CIO, North America

Figure 2 High-growth E&U CIOs proactively craft data into actionable information

As Savvy Value Creators, E&U CIOs are skilled customer advocates that create value by truly understanding what customers want.



In what ways are you addressing the need for real-time, integrated information about your customers and operations?

Do you actively reach out to the business to jointly capture relevant information and do you suggest new ways it can provide value?

How can you leverage competitors' experiences to further optimize business and IT processes?

If you were your own successor, what are the top three things you would do to generate a 20 percent increase in performance from your IT investments?

Expanding business impact

Collaborative Business Leader *and* Inspiring IT Manager

The Business Leader thoroughly understands the organization's core business and builds strong partnerships, internally and externally. The Inspiring IT Manager demonstrates personal IT expertise and advocates for stronger skills across the IT organization. Key Business Leader actions are to: know the business, get involved with business peers in non-IT projects, and present and measure IT in business terms. Key IT Manager actions are to: cultivate truly extraordinary IT talent, lead the IT forces and enhance the data.

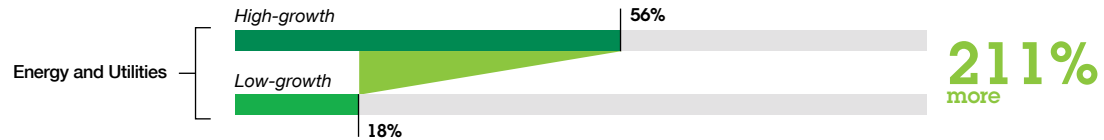
The agenda of the 103 E&U CIOs in the interview sample differs in some ways from their counterparts in other industries; they are twice as likely to be influenced by regulatory concerns, but only one-third as likely to see globalization as a strong influence on their mission. Collaborative Business Leaders in E&U companies use their knowledge of these industry-specific traits to add value to the business both internally and externally; over 50 percent share information with others in the industry to better understand the business, and nearly half meet one-on-one with the CEO at least monthly to help craft corporate strategy. The creation of IT Centers of Excellence is an important differentiator that the Inspiring IT Manager is bringing to the organization; 56 percent of CIOs at high-growth E&U companies have made this a priority, while less than one in five at low-growth companies have done this.



“IT helps the business develop the organization’s strategy and position the company ahead of our competitors. Leadership in the IT space couples with strategic positioning to drive group synergies further.”

Utility CIO, Asia

Figure 3 High-growth E&U CIOs create IT Centers of Excellence to help realize business and technology innovation
 As Inspiring IT Managers, E&U CIOs are consummate IT experts who foster IT expertise.



Do you leverage business relationships throughout the enterprise to expand your scope of responsibilities beyond the IT organization?

How can you start the ongoing dialogue between the business and IT that also drives shared objectives and measurements?

Are you a role model with state-of-the-art expertise in at least one IT domain?

Do you have a flexible, comprehensive plan to enhance business and technology skills throughout the IT organization?

Is your IT organization passionate about protecting and improving the quality and security of enterprise data?

Managing dual roles in the future

But despite the multiple forces in play, our findings show that CIOs have discovered ways to focus on what matters most to them and their organizations. The collective voice of more than 2,500 CIOs worldwide points to key actions to help CIOs attain the primary goals of making innovation real, raising the ROI of IT and expanding business impact.

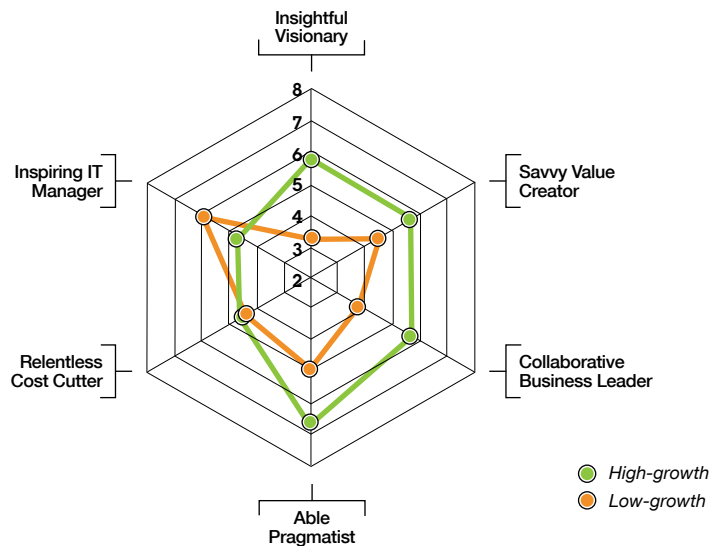
There is a strong distinction between the way CIOs at high-growth E&U companies and low-growth companies perform CIO roles. Low-growth E&U CIOs primarily emphasize the role of IT manager, with lower focus on value creation and business leadership. High-growth companies, on the other hand, have CIOs who are stronger visionaries, value creators and business leaders – all while retaining the pragmatism and cost-cutting focus necessary to thrive in the industry.

“For us, innovation means generating diverse ideas to address a particular need. Then we distill them into an actionable plan that results in business improvement.”

Utility CIO, North America

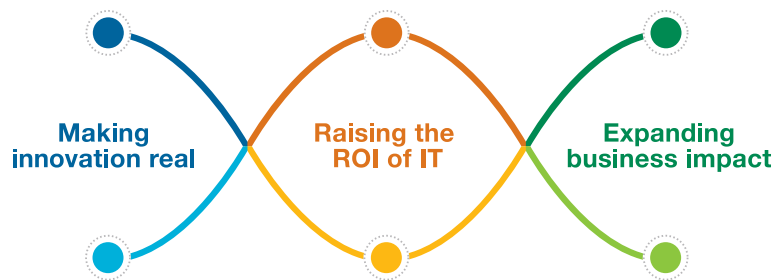
Figure 4 There is a strong distinction between the way CIOs at high-growth E&U companies and low-growth companies perform CIO roles

High-growth companies have CIOs who are stronger visionaries, value creators and business leaders.



NOTE: Each CIO role was scored based on responses to a discrete set of questions. The average overall score for each role was plotted within the three performance categories (High-, Medium- and Low-growth). With a possible range of 0 to 10, actual scores fell between 3 and 7.

Over time, we expect CIOs to regularly assess how much emphasis is appropriate on each of the three pairs of roles. Our profiles offer CIOs a more structured approach to identify where they want to increase their focus and how to do it. Whichever role you choose to emphasize, we look forward to working with you.



For further information, please send an e-mail to the IBM Institute for Business Value at iibv@us.ibm.com, or to download the complete IBM Global Chief Information Officer Study, visit our Web site:

ibm.com/voiceofthecio

How our research was conducted

This report features Energy and Utilities insights from the inaugural edition of our IBM Chief Information Officer (CIO) study – the latest in the ongoing C-Suite Study Series developed by the IBM Institute for Business Value. To better understand the challenges and goals of today's CIOs, we met face-to-face with 2,598 of them, in what is the largest known sample of these executives. Between January and April 2009, we interviewed these CIOs, who represent different sizes of organizations in 78 countries and 19 industries.¹

Our analysis used 2004-2007 profit before tax (PBT) growth, relative to peers in their industries, to associate organizations with one of three growth levels: High, Medium or Low. For organizations where this information was not available, we used statistical correlation to assign levels, based on closest overall similarity of answers.

To simplify the terminology in this report, we will primarily refer to CIOs who work in organizations with high PBT growth as “High-growth CIOs” and to those working in organizations with low PBT growth as “Low-growth CIOs.” Presenting our findings in terms of these categories offers CIOs a more structured approach to identify where they want to increase their focus and how to do it.

About the IBM Institute for Business Value

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Notes and sources

1 CIOs we interviewed in the following countries were counted in the Growth Markets category: Argentina, Australia, Bahrain, Brazil, Cameroon, Chile, China, Colombia, Croatia, Czech Republic, Ecuador, Egypt, Gabon, Georgia, Ghana, Guinea, Hong Kong, Hungary, India, Indonesia, Malaysia, Mexico, Morocco, New Zealand, Nigeria, Pakistan, Peru, Philippines, Poland, Qatar, Romania, Russia, Saudi Arabia, Singapore, Slovenia, Slovakia, South Africa, Taiwan, Thailand, Tunisia, Turkey, Uruguay, Venezuela and Vietnam. The Western Europe category includes CIOs from: Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Israel, Italy, Luxembourg, Monaco, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and United Kingdom. The North America category consists of CIOs from: Bahamas, Canada, Cayman Islands, Jamaica, Trinidad/Tobago and the United States.

Our CIO respondents represented 19 industries. The Communications sector includes: media and entertainment; telecommunications; and energy and utilities. The Distribution sector includes: agriculture; airlines; consumer products and wholesale; food, beverages and tobacco; life sciences; mail, package and freight delivery; professional services; railroads; real estate; retail; transportation and logistics; and travel and tourism. The Industrial sector includes: aerospace and defense; automotive; chemicals and petroleum; computers and office equipment; electronics; energy (production and refining); engineering and machinery; forest and paper products; industrial products; and network and other communications equipment. The Financial Services sector includes: banking; financial markets; and insurance. The Public sector includes: education; government and public service; and healthcare payers and providers.