



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 80 CIOs from telecommunications (Telecom) companies, living in 37 countries. As part of our research, we also sought to understand the differences between responses of CIOs from organizations with high profit before tax (PBT) growth (referred to in this report as "High-growth CIOs") and CIOs from organizations with low PBT growth ("Low-growth CIOs"). For details about our research, please see "How our research was conducted."

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 Telecom CIOs spend an impressive 54 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 46 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

One 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

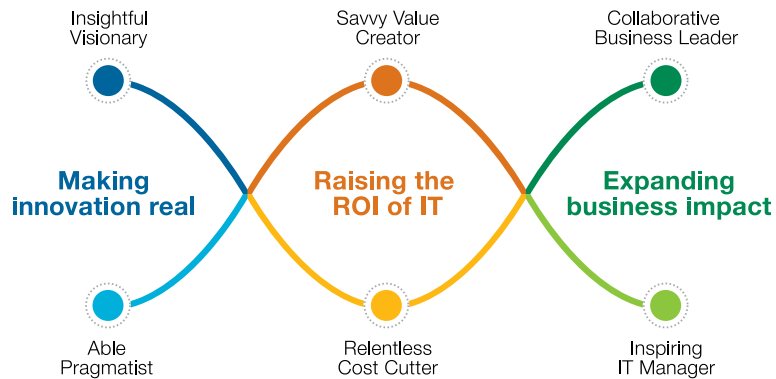
To contribute the most to the organization, proven expertise in both business and technical matters is vital. Part of the time, CIOs will engage with the enterprise as Collaborative Business Leaders, to drive new business initiatives and cultural shifts jointly with fellow CxOs. At other times, the Inspiring 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, including 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 helping 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.

New entrants and over-the-top (OTT) competitors offering Internet Protocol-based services are rapidly commoditizing the traditional voice telephony business, forcing the incumbent telecom providers to search for new sources of revenue. This trend is driving the development of new business models and innovative products. Telecom CIOs are in a unique position to facilitate the transformation, both by helping to define the changes that are required and by aligning IT with their companies' business objectives.

High-growth Telecom CIOs understand the challenge very well. As Insightful Visionaries, they recognize that successful innovation requires deep involvement with the business. They are also more often members of the most senior management team than their peers in low-growth telecom

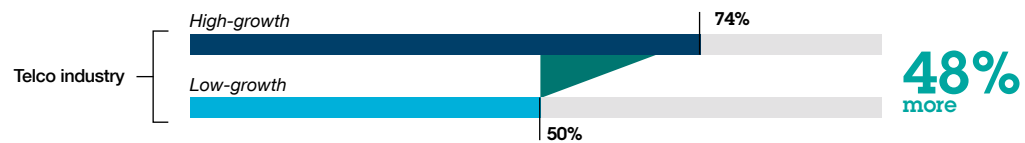
“The IT function has been involved since the beginning in strategy implementation. We are in daily contact with the rest of the business.”

Telecom CIO, Italy

organizations (see Figure 1). They are equally skilled in their role as Able Pragmatists. They engage third-party businesses or IT service providers to handle the least risky, day-to-day tasks 14 percent more frequently than Low-growth CIOs, for example, thereby freeing up time to focus on their key priorities.

Figure 1 Insightful visionaries play a more strategic role

High-growth Telecom CIOs are more often members of the most senior management team than Low-growth Telecom CIOs.



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

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

What new collaboration tools and processes are you using – and how are you using them – to reach your customers, expand the knowledge networks of employees and partners, and thus stimulate innovation?

Do you measure – and explain – the results of all IT initiatives in such a way that your colleagues not only understand the results, but are also convinced and inspired?

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.

In order to become more competitive and reverse the inroads made by new entrants, telecom carriers must leverage their customer insights more effectively. They must also enable greater customer involvement to deliver the best products, services and customer experiences. High-growth Telecom CIOs excel in this respect. They create value by proactively crafting data into actionable information more frequently than Low-growth Telecom CIOs. But they are also Relentless Cost Cutters who realize that margins are being eroded and that they must lower their operating costs to improve their companies' competitiveness and profitability. Sixty percent of High-growth Telecom CIOs expect to implement completely standardized, low-cost business processes over the next five years, compared with just 42 percent of Low-growth Telecom CIOs (see Figure 2).

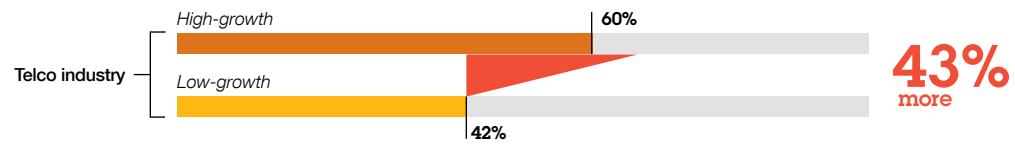


“We are focusing on identifying customers’ evolving needs, as driven by external forces, and really putting customers at the heart of our business.”

Telecom CIO, New Zealand

Figure 2 Cost-Cutters standardize

High-growth Telecom CIOs aim to simplify and automate their companies' business processes to reduce costs.



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 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.

As Collaborative Business Leaders, Telecom CIOs are genuine partners with other executives, jointly defining future business models. However, High-growth Telecom CIOs are particularly closely involved in determining business strategy; 74 percent decide on business strategy as members of the most senior management team, compared with just 50 percent of Low-growth Telecom CIOs.

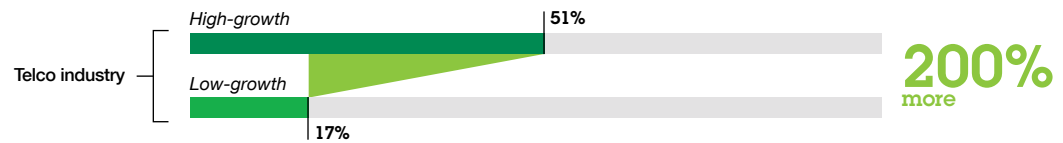
Conversely, Low-growth Telecom CIOs outperform High-growth Telecom CIOs as Inspiring IT managers, but High-growth Telecom CIOs lead the way in all other respects. More than half of all High-growth Telecom CIOs are creating IT Centers of Excellence, for example, whereas the number of Low-growth Telecom CIOs who are doing so is still quite small (see Figure 3). Similarly, High-growth Telecom CIOs are doing more to ensure that the data their companies hold is reliable, secure and readily available for use.

"We CIOs are far ahead of the real world with technologies. We can realize more than we can sell. Everything depends on how we can make technologies understandable for our subscribers and how we can create value for them."

Telecom CIO, Hungary

Figure 3 Inspiring IT managers create IT centers of excellence

High-growth Telecom CIOs concentrate IT expertise in specialist centers to stimulate business and technology innovation.



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

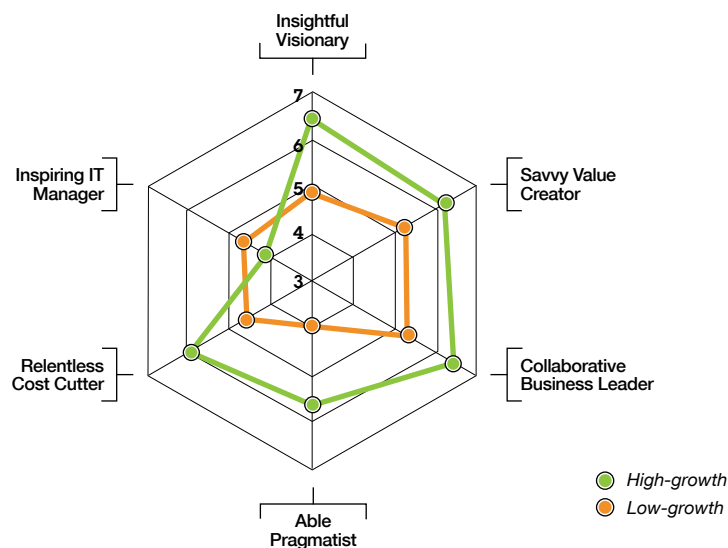
Despite the multiple forces in play, our findings show that CIOs have discovered ways to focus on what matters most to them and their organizations. The collective voice of more than 2,500 CIOs worldwide – including 80 Telecom CIOs – points to key actions to help CIOs attain the primary goals of making innovation real, raising the ROI of IT and expanding business impact.

We have used these insights to complete profile analyses – visually represented by the “spider diagram” in Figure 4 – which provide a more structured way of enabling you to identify the areas where you want to concentrate. The diagram shows that there are some major differences between the ways in which High- and Low-growth Telecom CIOs perceive their roles. Those in high-growth companies see themselves primarily as Insightful Visionaries, Savvy Value Creators and Collaborative Business Leaders – all while retaining the pragmatism and cost-cutting focus necessary to thrive in the industry. Those in low-growth companies underperform their high-growth peers in every dimension except that of Inspiring IT Manager.

“To be a value innovator, we have to find ways to drive cost out of one area in order to innovate in another. We are investing in innovation that drives increases in customer value.”

Telecom CIO, United States

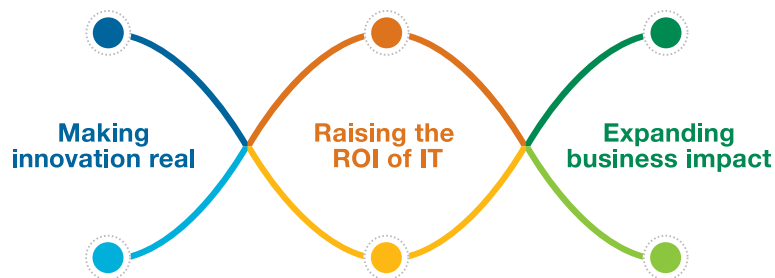
Figure 4 Significant differences exist between the two groups
High-growth Telecom CIOs aim to be visionaries, value creators and leaders, while Low-growth Telecom CIOs stress the importance of being Inspiring IT managers.



Over time, we expect CIOs to regularly assess how much weight they should place on each of the three pairs of roles. We recommend that Telecom CIOs should:

- *Champion innovation energetically* to compete with new industry entrants, which are often more innovative and agile.
- *Focus more heavily on core competencies* and access business services, specialty technologies or IT services through third parties, as necessary.
- *Address the growing demands of end-customers* by providing much greater levels of integration, transparency and IT/business collaboration.
- *Further reduce costs* by simplifying and automating essential processes and reusing data where possible.
- *Capitalize on opportunities to directly influence the business agenda* and accept invitations to lead or participate actively in non-technological projects.
- *Actively promote business and technology innovation* by creating IT Centers of Excellence.

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 Telecommunications 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.

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September 2009
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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.