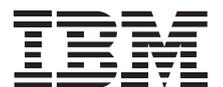




# The New Voice of the CIO

*Insights from the  
Global Chief Information  
Officer Study*

*Implications for IT managers*





# Introduction

The CIOs job is evolving. This becomes immediately clear upon reading the IBM Global CIO Study, published in late 2009. Not content with being consummate IT experts, today's most successful CIOs have grown into full-fledged business leaders. They have accomplished this transformation by both providing sound IT services and by assuming leadership roles to tackle non-technological issues within the company. Recognising that successful IT innovation requires deep involvement with the business overall, CIOs increasingly: help set business strategy; use IT to enable business flexibility; innovatively deploy technology to enhance the competitiveness of their organisations; and help corporations meet enterprise-wide goals and solve enterprise-wide problems.

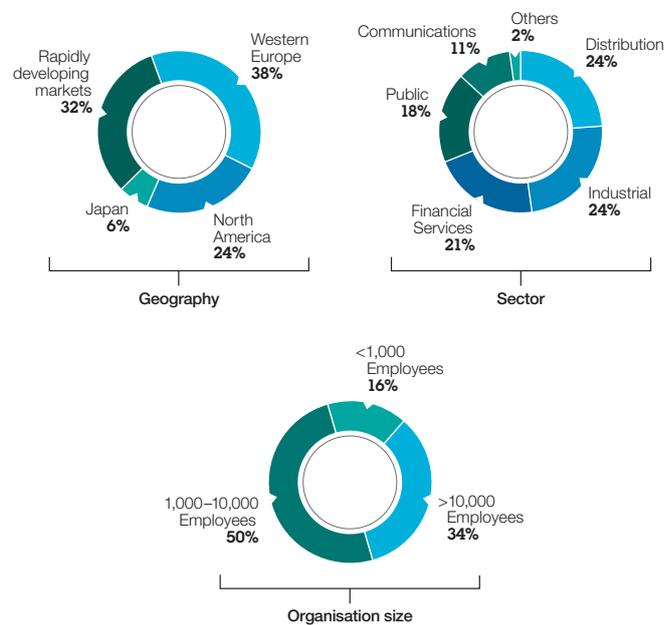
What does all this mean to IT managers? To operations managers, development managers, strategy and architecture leaders? As CIOs focus more on boardroom issues, IT managers are assuming greater responsibility for delivering IT innovation, for managing IT operations and for increasing the return on IT investments.

IBM produced this white paper to acquaint IT managers with the findings of the IBM Global CIO Study. Its goal is to provide readers with a clear view of the challenges IT is facing and of how today's most successful CIOs and IT organisations are meeting those challenges. The white paper also details the attributes of visionary CIOs, giving IT managers a path to follow to advance their own careers. Finally, this paper will list significant opportunities for IT managers to aid CIOs in effectively wielding the power of information technology to benefit their entire organisation.

### What is the CIO Study? What are its findings?

Before discussing the implications that the IBM Global CIO Study 2009 has for IT managers, it is important to examine the findings of the study itself. Between January and April of 2009, IBM met face to face with more than 2,500 CIOs (the largest known such sampling to date)<sup>1</sup> representing organisations of varying sizes in 78 countries and 19 industries. (See Figure 1.)

**Figure 1:** The more than 2,500 chief information officers interviewed by IBM for the Global CIO Study represent organisations of various sizes in 78 countries and 19 industries.



The objective of the study was to better understand the challenges facing these professionals, their goals and how they deploy IT to make the most significant impact on their enterprises. The results were published in September 2009 in the inaugural edition of the IBM Global CIO Study – the latest in the ongoing series of C-suite studies developed by the IBM Institute for Business Value. The IBM analysis of respondent input used companies' 2004 - 2007 profit before tax (PBT) growth, relative to peers in their industries, to associate organisations with one of three growth levels: high, medium or low.

The study demonstrated that, especially among high-growth companies, the role of the CIO is changing. Today's CIOs report spending 55 percent of their time on activities that spur innovation.<sup>2</sup> These can include: contributing to the development of business strategy; generating corporate enthusiasm for innovative IT-enabled business service plans; implementing new technologies; mitigating enterprise risks; leveraging automation to improve competitiveness and reduce the costs of business operations; and managing non-technological issues. CIOs also position themselves to expect the unexpected. An overwhelming 90 percent of respondents to the CIO Study expect moderate to substantial changes for IT in the next three years,<sup>3</sup> brought on through pressures exerted by business model changes, budget constraints, macroeconomic factors and evolving industry and regional conditions.

Respondent input shows that the CIOs of high-growth PBT companies strive to meet three overarching objectives. These are making innovation real, increasing the return on investment (ROI) of IT and expanding the business impact of IT. To accomplish these goals, chief information officers often fulfill three sets of roles. These roles are:

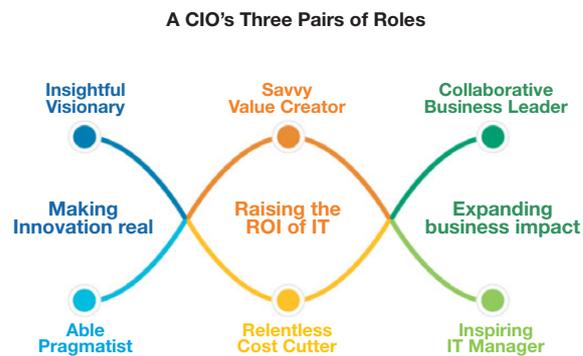
- Insightful Visionary and Able Pragmatist
- Savvy Value Creator and Relentless Cost Cutter
- Collaborative Business Leader and Inspiring IT Manager.

The amount of time CIOs spend in any given role varies according to business need and the ways in which the CIO's business chooses to employ information technology. However, the Global CIO Study made clear that CIOs of high-growth PBT organisations are far more likely to fulfill these job roles in a common balance than the CIOs of medium- or low-growth PBT companies.<sup>4</sup> (For more information on the specific challenges CIOs face in performing all six job roles, download the [IBM Global CIO Study 2009](#).)

### Implications for IT managers

The findings of the IBM Global CIO Study have direct implications for IT managers who strive to better support their companies and CIOs. This information can also help IT managers develop their own careers as they prepare to become CIOs.

*Figure 2:* Data extrapolated from the Global CIO Study shows that successful IT managers often concentrate on the job roles listed at the bottom of this graphic, those of Able Pragmatist, Relentless Cost Cutter and Inspiring IT Manager.



Source = IBM CIO Study 2009

In today's fast-evolving IT environment, CIOs from high-growth PBT companies, while labouring to fulfill all six job roles listed in Figure 2, often pay particular attention to those listed at the top – those of Insightful Visionary, Savvy Value Creator and Collaborative Business Leader. The most successful IT managers (who, like CIOs, also typically spend time in all six roles), often concentrate on being Able Pragmatists, Relentless Cost Cutters and Inspiring IT Managers. (On the following pages, we examine some of the best practices employed by IT managers in fulfilling those roles.) IBM hypothesizes that IT managers' successful concentration on these areas allows CIOs to focus their attention outward to the rest of the business.



# *As Able Pragmatists,*

## IT managers can help make innovation real

As noted earlier in this paper, today's CIOs spend more than half their time on activities that drive innovation. They are now working to lay the type of robust IT foundations needed to enable future business innovation – including business model innovation, product innovation and process innovation. (CIOs have similar goals. For more information, download the 2008 [IBM Global CEO Study](#).) CIOs also labour to promote broad technology agendas that will help businesses profit from leading-edge technological initiatives.

The CIO's outward focus often leaves IT managers to fulfill the Able Pragmatist's role. The most successful IT managers consistently deliver on existing commitments and vigilantly work to meet everyday IT demands. This does not suggest that IT managers should not be innovative. It just means that unless IT managers consistently deliver the results promised by the CIO – staying on budget, completing projects on time and attaining promised service levels – the CIO will often need to spend more time being an Able Pragmatist. This will limit the CIO's time for innovation. Just as CIOs understand that their consistent delivery on commitments earns them places among the ranks of senior business executives, accomplished IT managers know that consistently delivering on their commitments earns them a seat at the table where IT strategy is developed.

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*'Many of our IT innovation plans are budgeted through the business units, which has been a great way to ensure joint commitment to a project and its benefits.'*

– Rebecca Rhoads Vice President and Chief Information Officer (CIO), Raytheon Company

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Fulfilling the Able Pragmatist's role requires from IT managers a deep understanding of the business, its strategies and its strategic intent for IT. IT managers can:

- Provide better partnering, connectivity and collaboration technologies, such as Web conferencing, collaborative planning, social networking and virtual worlds, so internal and external customers stay connected – thereby improving the productivity of these relationships
- Work with their CIOs to improve business agility by accessing business services, specialty technologies or non-differentiating IT services through third parties
- Collaborate with business leaders and internal clients to understand their pain points and to learn how IT can help
- Increase the flexibility and efficiency of infrastructures and applications to support ongoing business changes
- Measure the success of IT strategies implemented so that business colleagues understand the results of successful IT initiatives
- Build a business case for future investment in IT-enabled business services.

# *As Relentless Cost Cutters*

## **IT managers can help raise the ROI of IT**

In difficult economic times, senior business leaders frequently turn to IT to improve the efficiencies of business processes. Increasingly, CIOs and IT managers recognise this same strategy of process automation applies to IT divisions as well. Successful IT managers often focus on applying automation to their respective functions to reduce the amount of human intervention required to operate the infrastructure. They seek to do so in an integrated fashion, rather than through a disaggregated set of tools. A focus on integration can help IT managers fulfill the role of Relentless Cost Cutter: trimming expenses from the current technological environment wherever possible and reducing costs through infrastructure centralisation, process standardisation and – through work with their companies' business units – the implementation of standardised, low-cost business processes. Savvy IT managers understand that budget reduction achieved through increased efficiency can provide much of the funding necessary to allow CIOs and IT managers to focus on IT innovation, thereby raising the ROI of IT.



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*'Over time, the CIO role is less about technology and more about strategy.'*

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

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The Global CIO Study indicates that CIOs often want members of the IT management team to achieve economies of scale by centralising infrastructure control and by physically simplifying and consolidating to the degree possible. The reason for this is clear: Most infrastructures are overly complex, with far too many disparate architectures and too many application portfolios bloated by duplicate functionalities. Inefficient architectures and application portfolios inhibit flexibility. To help simplify infrastructures, IT managers can carefully examine their areas of responsibility, looking for activities which are critical, but non-differentiating. IT managers may consider strategic partnerships to offload non-differentiating activities in order to focus their efforts on those IT offerings which help give their businesses a competitive edge.

The most effective heads of operations, heads of development and strategy and architecture leaders also often work to establish goals for rebalancing their budgets from typical allotments of 70 percent operations and maintenance, 30 percent new development projects to allotments of 60 percent operations and maintenance, 40 percent new development projects – or better. Such targets can help drive the innovative thinking

necessary to automate IT operations for necessary improvements. The increased budget available for new development is necessary to fuel the innovative activities required by the rest of the business. In addition, to raise the ROI of information technology, IT managers can:

- Find ways to help business leaders mine data for business intelligence and insights. Finding nuggets of information insight from mountains of data can help demonstrate to CIOs and other business leaders the ROI from IT investments
- Consider virtualisation as a way to cut IT costs. CIOs see virtualisation as the second most important visionary plan for enhancing their enterprises' competitiveness.<sup>5</sup> Savings from these areas can be channelled into innovation initiatives. IT managers can look beyond the server and network for virtualisation opportunities: they can consider end user devices and storage, as examples
- Centralise the infrastructure, working hard to speed and smooth implementation
- Simplify, then standardise, those business processes that are deemed necessary – and also work to standardise and reuse IT components
- Consolidate and use third-party services whenever it makes financial and business sense.



# *Inspiring IT managers*

## can help expand the business impact of IT

Successful operations managers, development managers and strategy and architecture leaders often take concrete steps to become Inspiring IT Managers, thereby expanding the business impact of IT.

First, they research trends across industries, looking at ways businesses are innovatively applying IT capabilities. Second, as indicated in the Global CIO Study, IT managers can leverage approaches such as the establishment of Centres of Excellence to reward and energise their staffs. (The term Centre of Excellence is loosely defined as a team promoting collaboration and using best practices around a single focus area to drive business results.) Centres of Excellence can help inspire every member of the IT organisation – from the most senior architects to the newest operators – to understand IT strategy, the business's overall goals for IT and each staff member's personal role in meeting those goals. While IT organisations can and should, look to third parties for executing non-differentiating activities, they cannot abdicate accountability for results (see the case study *IT managers help company focus on core competencies* on page 15). The IT organisation remains accountable for meeting service-level commitments, regardless of who actually performs the work.



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*‘Like many other companies, we are always exploring the possibility of utilising external entities to help manage the day-to-day IT operations so that, internally, we can focus on more strategic initiatives.’*

– Kurt Rao, Corporate Vice President,  
Information Technology, Time Warner Inc.

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A focus on information quality is a third way successful IT managers are expanding the business impact of IT. IT managers can concentrate on improving the quality of the information they have available to manage their functions, linking that information to their contributions to the business. For example, service levels can be expressed in terms of business objectives, not IT capabilities. IT objectives such as 99.9 percent availability sometimes mean little to other business leaders. Better to express availability in terms of frequency and duration of IT-enabled business services outages.

Finally, sound risk management activities can further improve IT's business impact. Profit-generating enterprises succeed by successfully *managing* risk. Historically, IT organisations have attempted to manage risk by eliminating or avoiding it. This is often a mistake.

Time to value (the positive impact to the business if a new capability or product is introduced sooner rather than later) is one risk element that IT organisations can often better manage. As an example, the goal of many test organisations is to eliminate all failures, even if that means extending their test schedules and delaying introduction of new business functions. If the revenue-generating potential of that new capability exceeds the cost of an outage, it may be an appropriate business risk to introduce the new function sooner rather than later.

IT managers can also:

- Help CIOs prioritise the key challenges facing their organisations and lead efforts to identify how IT can help address them
- Discuss with their CIOs the possibility of volunteering for non-IT projects to help increase IT managers' understanding of business needs in their companies. This can also help IT managers identify new ways to measure IT in business terms
- Lead by example – position themselves as strong leaders who make attainment of existing IT service commitments a top priority
- Cultivate truly extraordinary IT talent: identify savvy technologists and mentor them into thought leaders who can expand the impact of IT. The focus is less on how IT does what it does and more on what IT can do
- Demonstrate their own technical literacy, earning the respect of technical thought leaders within the organisation without trying to compete with them
- Devote as much attention to data accuracy, availability and integration as to data security.

#### **IT managers help company focus on core competencies**

Aesica Pharmaceuticals, based in northeast England, is a business specialising in the manufacture and supply of ingredients and formulas to pharmaceutical companies across the globe. It employs more than 700 people and operates three manufacturing sites.

In the quest for industry sector leadership, Aesica is pursuing a vigorous acquisitions policy. To reap value from each new acquisition, acquired companies' processes, standards and systems are brought into the 'Aesica way' as rapidly as possible - with the goal of improving efficiency, profitability and quality. As Aesica Technical Director Chris Gowland said, 'We needed to ensure that common policies and processes were applied to make it possible to compare, optimise and improve the processes of each business that we acquire.' Concurred IT Manager Bhavesh Kotecha, '... we wanted to be able to deliver accurate management information to help rationalise and enhance our business, create value for investors, and boost quality and service for customers.'

**IT managers help company focus on core competencies**

To accomplish these goals, Aesica had to rapidly and cost-effectively integrate new acquisitions onto a single platform with shared standards that provided end-to-end operational control. At the IT level, this meant a need for applications that could be deployed, extended and tailored quickly and easily based on a robust infrastructure that would scale up cost-effectively.

As Aesica acquired new companies it quickly became clear that disparate business models, processes and data systems would make it difficult to align these companies' IT operations with Aesica's overall business goals. 'A key driver was to move away from legacy Enterprise Resource Planning (ERP) systems to a solution modelled on Aesica's future business requirements,' said Kotecha. 'The objective was to transfer all the sites onto an up-to-date ERP system.'

Had Aesica attempted the transfer in-house, existing service access point solutions running on older hardware would have had to have been replaced, increasing the project's total cost. In addition, because the sizes of future acquisitions are unknown, it would have been difficult for Aesica to judge total capacity requirements.

The solution? Kotecha and Gowland worked with an outside partner to implement acquired companies' SAP applications into Aesica's overall IT program. The process, according to Gowland, helped Aesica 'avoid the capital cost and complexity of building our own data centers and systems and offers the kind of scalability and flexibility [Aesica] needs to meet the challenges of an acquisitions based growth strategy.'

The server infrastructure is owned by Aesica's partner, and operated at one of that partner's secure sites. The partner has taken responsibility for making sure that processing and data storage capacity is available to meet agreed-upon performance targets. Application and data availability, backup and archive, and disaster protection and recovery services are all provided according to defined service levels. When new acquisitions are completed, the partner delivers the capacity required to handle the increase in workload as part of its services, with no capital outlay from Aesica.

According to Kotecha, the third-party solution solves infrastructure challenges, freeing up Aesica to 'focus on key issues, such as business agility and process optimisation.'

## **Conclusion**

The IT manager's job has never been an easy one. As new pressures – both internal and external – force the evolution of the CIO's position, the IT manager's role must also evolve. To learn more about how you can effectively support your CIO in wielding technology to improve your business – and to advance your own career – access the following:

- [The IBM Global CIO Study 2009](#)
- [The CIO Self-Assessment](#). Think you're ready to advance your career? Take the CIO Self-Assessment to see how your skills compare to those of more than 2,500 CIOs across the globe. Encourage your peers and your CIO to take the self-assessment as well. Discussing the results will help your team understand how the role of IT is viewed and how the team members can work together to meet organisational expectations.

## For more information

For IBM insights and perspectives on the issues that matter most to CIOs and IT managers, visit the following Web site: [ibm.com/cio](http://ibm.com/cio)

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<sup>1</sup> 'The New Voice of the CIO: Insights from the Global Chief Information Officer Study.' IBM Corporation, 2009.

<sup>2</sup> Ibid.

<sup>3</sup> Ibid.

<sup>4</sup> Ibid.

<sup>5</sup> Ibid.

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