

# The evolving role of the CIO

## Introduction

CIO? Career Is Over. It's an old joke, which might have raised a smile thirty years ago, but which is now as outdated as flared trousers and brick-sized mobile phones. And even in the old days, it had a bitter edge to it.

It was told largely by those people who didn't understand the new technology which, in those days, meant pretty much everybody – by people, perhaps, who thought that these new-fangled computers would never catch on, or who believed that e-mail was for teenagers. IT, whatever that was, was the Chief Information Officer's (CIO's) domain.

But as business evolves, the role of the CIO is evolving with it – and the changes in the business world mean that today's CIO is in an ideal position to take increasing business responsibility and control. This paper sets out some of the challenges and opportunities for those currently filling one of the most dynamic and creative roles in a modern company; it looks at where the next generation of CIOs will come from, and what qualities they will need; and it charts the path for today's CIO on the way to becoming tomorrow's Chief Executive Officer (CEO).

'CIO? Career Is Over?' That's hopelessly out of date. Maybe a more modern version might be 'CIO? Career...Into Opportunities'.

### Leaving the station

The CIO's role was redefined back in the 70s. That was the station where the journey really started – and most of us can barely remember what it was like.

Before that, as far back as the 50s, in the era of the mainframe computer, the senior executive with IT responsibility was expected to answer the question "How do we do it?" rather than "What do we do?". His main task – and it almost always was a he – was simply to deliver reliable IT operations, on time and on budget.

*“Over the last five years, the whole business has become much more IT-aware and IT-literate, and sees the need to get more involved in IT so that business benefits are delivered. As a result, IT has become more influential and more proactive, and has driven an increasingly enterprisewide culture.”*

Andrew Mullock, CIO, BNP Paribas.

By the 70s, the job still involved overseeing the integration and maintenance of relatively unsophisticated but complex and expensive hardware, software and telecommunications equipment, employing people who were technologically switched on, in a business which generally wasn't.

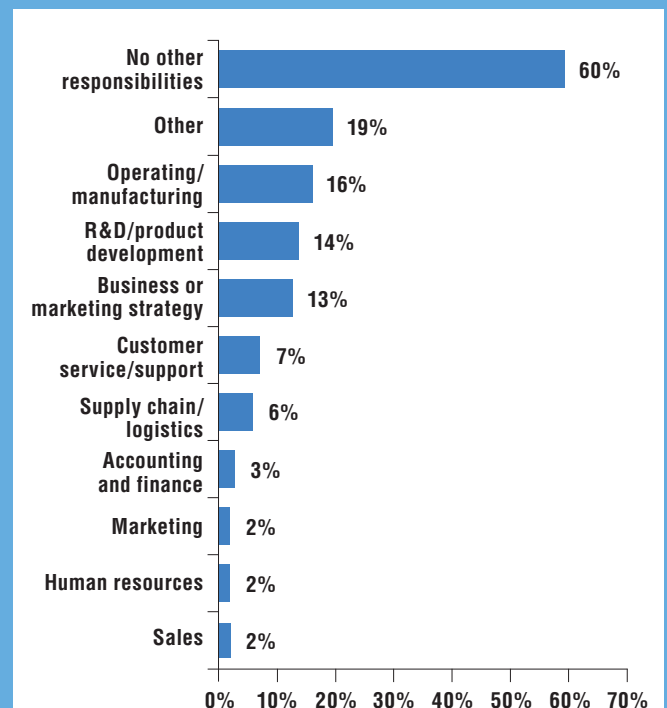
By and large, in those days the operation could recover if an IT service failed or was compromised in its delivery.

But the CIO had to find and pay very skilled people to use complex, inflexible and imperfect software development languages and tools, often with fairly ad-hoc methods and standards, in order to build, test, and run the application software for a whole range of business transactions.

So it wasn't surprising that the job description usually put technologist first, technical people manager second, and business manager, if at all, a distant third.

The journey has moved on a long way since then. Some companies are further down the track towards tomorrow than others – there is already evidence that the CIO is entrusted with a growing remit, often being best placed in the enterprise to take on additional responsibility – but for everyone, the job has changed almost beyond recognition.

### CIO's current remit



Source: IBM CIO Leadership Forum Survey 2006.

Today, in most organisations, IT is embedded in the business – if the IT service fails or even falls short of high performance service levels, the operation suffers – at the extreme, it stops. And the job is still changing.

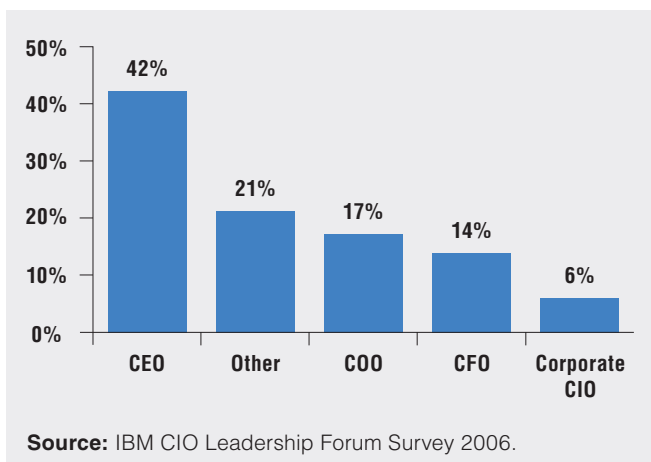
Career Is Over? Career Is Only... just beginning.

### The journey begins

Very soon after the train had left the station, the suspicion about information technology began to disappear – but it took slightly longer for the business world to gain a full understanding of its importance in maintaining a competitive business edge and delivering excellence in customer service. Over the last few years, the growth of the Internet, along with intranets, exciting new platforms, and innovative go-anywhere interfaces, has made CEOs wake up to the way that technology can enable competitive advantage.

That is clear in the change in reporting lines. In the old days, the substantial majority of CIOs reported to the Chief Financial Officer (CFO) – IT, after all, was seen as a cost centre rather than a source of added value and a key competitive asset. Today, as the chart shows, the line of command often goes straight back to the CEO's office. Whilst it would be wrong to suggest that in every organisation the CIO should report to the CEO, there is a clear trend here as IT becomes increasingly pervasive through the majority of organisations. This is especially so in organisations where IT is recognised as delivering value beyond its line-item costs incurred in supporting business operation.

### Reporting lines



The change is crucial both for the organisation and for the individual. For the organisation, it marks the recognition that IT is more than an expense – it is a crucial driver of change, development, and competitive edge, and it needs to be included in every aspect of future planning and strategy. For CIOs, this represents a fresh opportunity: with a clear chain of command to the highest level, they can maximise the chances of success in a complex and demanding role, both for their organisations and for themselves.

The role retains its roots in an understanding and appreciation of the benefits and potential of technology (especially in catalysing business innovation opportunities), but this understanding and appreciation has now spread throughout the organisation. Different CIOs in different institutions have widely differing responsibilities today – but among them, in whatever proportion, are three distinct strands. As the CIO demonstrates capability with one strand, so the role will expand to encompass the next. These strands are:

- **‘Keeping the lights on’** – *The CIO has to provide applications and infrastructure service delivery*
- **‘Delivering IT-centred change’** – *As requirements change, so do the ways and means of constructing and commissioning of the IT assets which deliver it*
- **‘Aligning IT and organisational strategies’** – *IT strategies and architectures need to be fully aligned with institutional needs.*

What is becoming very clear is that today's CIOs need both business and leadership skills as well as technological ability. It has been evident for some time that self-confidence, entrepreneurial drive, and the ability to inspire, nurture, and encourage talent are important in the CIO's office in addition to at least as good a grasp of the organisation's strategy and operation as other senior executives.

*“Key skills of today’s CIO include the ability to translate Board requirements into solutions. He needs to talk the language of the Board and the investors. All innovation in our industry will be technology-led or technology facilitated.”*

Hugh McGill, CIO, Bertram Books.

But the recent vogue that has suggested that CIOs can leave the IT content to their Chief Technology Officers or equivalent has been found wanting. Continuing technological development in such diverse areas as service oriented architecture, business intelligence, security, Web services, 'greening' of IT, and multichannel customer service demand an understanding of the associated technology issues, impacts and opportunities. Add this to the constantly swinging technology pendulum (for example, centralisation <-> decentralisation of processing power and storage) and it is clear that CIOs will continue to need strong IT roots connected with knowledge of contemporary IT developments and opportunities.

Their problem-solving skills need to be acute. The CIO has to be able to ask the right questions of the team, and often has to be on call virtually 24 hours a day, seven days a week to trouble-shoot problems and keep business-critical systems in operation.

In the old days, it was simply a matter of keeping IT projects on time and on budget – but today, the CIO has to be active across every aspect of complex investment programmes which can cost millions of pounds. Stakeholder management skills are crucial in the office, as the CIO tries to persuade and influence colleagues to support policies within the new, wider portfolio of responsibilities; and strong programme management skills are needed to ensure that investment programmes are not just on time and on budget, but also on target – that they deliver the value expected by the organisation.

All this adds up to a commitment to long-term, strategic business planning – so it is hardly surprising that the average time for a CIO to remain in post is currently around six years<sup>1</sup>. That, incidentally, may be nearly twice as long as the average CEO.

So modern CIOs find themselves in a long-term, responsible, strategic and business-oriented role. How do they position themselves to take on the job? What does it take to buy a ticket on the CIOs' train?

### What does it take?

Today's CIOs still have technological skills, most being educated in scientific or engineering disciplines, with a career background which has brought them from programming and data processing origins through various IT management roles. Another common route to the CIO's

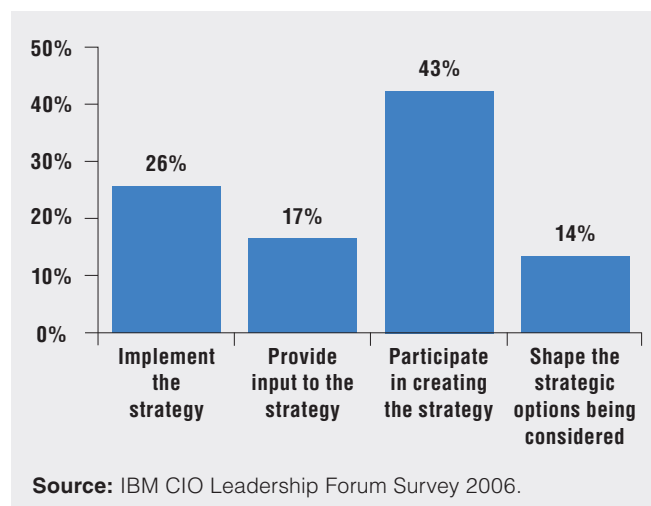
office is through IT cost management and cost control, as CEOs and CFOs look for someone who will be ruthless and meticulous in chasing down cost overruns.

So technological and IT awareness remains crucially important. Maybe surprisingly, in terms of qualifications, less than a third have completed any advanced business studies such as an MBA – but they do have a clear business track record. Less than half of today's CIOs have a background which is solely or mostly in the technological area<sup>2</sup>.

Many CIOs have changed their philosophy in order to fit in with these new demands. In the old days, when the job was overwhelmingly technical, they had to be risk-averse, black-and-white – maybe even slightly unimaginative.

That was fine then – but today, when it is about dealing with people and developing an overall management approach, they need the ability to make decisions based on whatever information is available at the time. As the chart shows, the CIO is increasingly involved not just in providing information, but in creating the business strategy. That calls for extensive insight and experience, for business skills and a business attitude as well as the ability to interpret information.

### Primary role in company strategic decision making



As a result of all these developments, the relationship between the CIO and the CEO has changed dramatically. From the CEO's side, there is still a need to consult and confide in someone who has an impressive knowledge base in the technological side of IT – but today, he or she is also looking for someone who also understands the key business imperatives of the organisation.

<sup>1</sup> CIO Insight, Allan Alter, April 2006.

<sup>2</sup> Setting the Innovation Agenda: the IBM Leadership Forum Summary Dec 2006.

The CIO, can expect in turn to be dealing with an individual who fully understands the potential of IT. The CEO may not appreciate all the detailed possibilities, but will be aware of the wide range of business benefits IT can bring. The CIO no longer has to sell the IT philosophy – and at the same time, he knows that his or her business acumen, commercial skills, and strategic awareness are valued at the highest level.

### **The destination**

Many CIOs and many organisations, as we have already seen, are already well on their way on the journey.

The organisations have undergone radical change – becoming more organic, less hierarchical, and defined more by process than by functional activity – and the CIO has changed with them. In a modern organisation, no-one stands still. Business as usual is not an option: it has to be activity on demand.

But how will the role continue to evolve? There are some changes that are already under way.

- **Keeping the business running**

Tomorrow, the CIO's role will be much wider than it is today. In the past, it might have been little more than 'keeping the lights on', but the business element of the job description which might be written for today's CIO can only get bigger, as IT reaches into every corner of every work location across the organisation.

Moves towards shared service provision, either internally or with third parties, which have increased dramatically in the last few years, will mean that the CIO will be responsible for the additional provision of business process services, sourcing of business process, IT application, and infrastructure services.

*“The world is now so fast-paced that we must exploit changing business models and technologies hand-in-hand. Many of the strong disciplines that IT communities have are second to none, but their focus can be too IT-centred. Without the necessary business knowledge and appropriate communications skills, it is impossible to engage effectively with the business on wider business-centred projects.”*

Peter Knight, CIO, ING Direct.

As more business processes are outsourced, it is becoming clear that the CIO's skills in sourcing IT services are the same ones needed for sourcing business processes. Could the role of Chief Information Officer eventually include that of Chief Procurement Officer?

In the same way, IT service delivery will begin to include business service delivery, and the management of the IT cost centre will expand into management of revenue protection, growth, and enterprise cost control.

*All this suggests that the CIO could become the Chief Operations Officer. What is today just 'keeping the lights on' will turn tomorrow into 'keeping the business running'.*

- **Driving business transformation**

Today, the CIO manages IT change – but already, IT is increasingly involved in driving business changes which keep a company ahead of the competition. The CIO can identify what business changes are required to improve performance, and take on accountability for driving end-to-end business process transformation.

Service oriented architecture and process orchestration tools mean that companies can change their processes quickly and efficiently. Business agility, more efficient services, and improved speed-to-market are all within the CIO's ambit. The day-to-day running of the company, its performance and profitability, and its long-term strategic prospects will depend more and more on the data, information and business insight that the CIO and the IT department can provide.

*Instead of simply delivering IT-centred change, the CIO in tomorrow's organisations will be driving business transformation. So perhaps today's CIO will take on the role of Chief Change Officer?*

- **Enabling business innovation**

With new tools and techniques like component business modelling and service oriented architecture, today's CIO can already develop much more dynamic strategies and architectures that bring business and IT thinking together. IT should always be fully aligned with the organisations business strategy – but innovative thinking within IT is increasingly expanding the possibilities for business innovation.

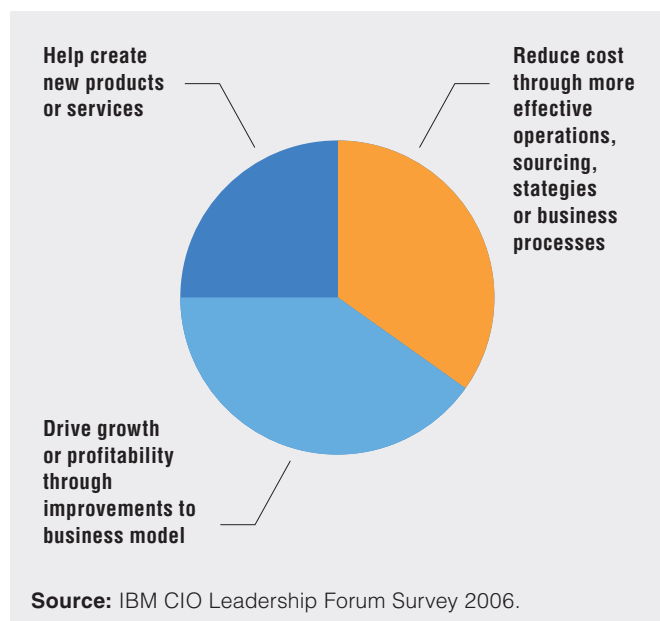
Instead of just reacting to change, the CIO of the future will be proactively encouraging business innovation.



The experience which IT has gained from technological innovation can be leveraged into the business operating model. The new role will include facilitating collaboration, both internally and across enterprises; managing the rapidly changing area of business and technological security; and tackling the challenges of information and knowledge within the organisation.

CIOs already act as vital catalysts for innovation. As business innovation continues to increase in importance, this part of their role can only continue to grow.

#### Prioritisation of effort



*So the alignment of business and IT strategies will evolve into the enabling of innovative thinking and practices across the whole organisation. The CIO of the future will add the role of Chief Innovation Officer to his portfolio.*

In the past, the destination of the CIO's journey was often retirement – hence the old 'Career Is Over' joke. But the journey for today's CIO is increasingly towards a modern organisation, where hierarchies are less important than the network of interdependent projects and programmes, where the business is slimmed down to its basics and

*“There is no-one better placed than the CIO to operate a service-based business”*

Darin Brumby, Previously CIO, First Group<sup>3</sup>.

<sup>3</sup>Darin Brumby, recently appointed, Director of Business Transformation, Nationwide – an example of a CIO moving to take on a wider business based role.

outsources whatever peripheral functions it possibly can, and where the aim is to squeeze out variable costs in favour of fixed and predictable budgeting.

Within that organisation, the CIO's destination is leadership.

#### Big shoes to fill

The role we anticipate for the CIO in the future is an even more wide-ranging, challenging, and indispensable one than exists today. Dealing with the increase in power and influence within the organisation, and the way it affects other C-level colleagues, will demand political skills of the highest order.

Managing and executing IT will remain important, but the other skills which have already become part of the CIO's stock-in-trade will put him or her in pole position in the race for senior appointments.

Most CIOs already have experience of the complexities and challenges of handling outsourcing and partnership relationships beyond their own organisations. Such **relationship management and partner management skills** will be crucial in the business of the future.

CIOs have always had to be **communicators**, whether explaining technology in the old days to people who didn't really understand or value it, or alerting colleagues to the business possibilities today. In the world that's coming, with the CIO helping to shape business strategies and drive innovation across the organisation, such skills will be still more important.

They will certainly still need a well-rooted **technology** skill-set, but in addition the expanding and evolving role will demand **business skills** of the highest order. CIOs will need a complete understanding of the business processes as the role expands to include the procurement and management of processes and the facilitation of innovation. They will need highly developed **negotiating skills** to support contracting with service providers.

*“For yesterday's CIOs, and many of today's as well, it was enough to have two out of three key capabilities – personal leadership, technology leadership and business acumen. Tomorrow's CIO will need all three.”*

Darin Brumby, Previously CIO, First Group.

The CIO is stepping into the spotlight – moving up from supporting act to taking a leading role. To handle the new relationships across the whole enterprise and cope with the breadth of the evolving role, tomorrow’s CIO will need to show the subtlety and sophistication of an instinctive **entrepreneur**.

### So what do I do now?

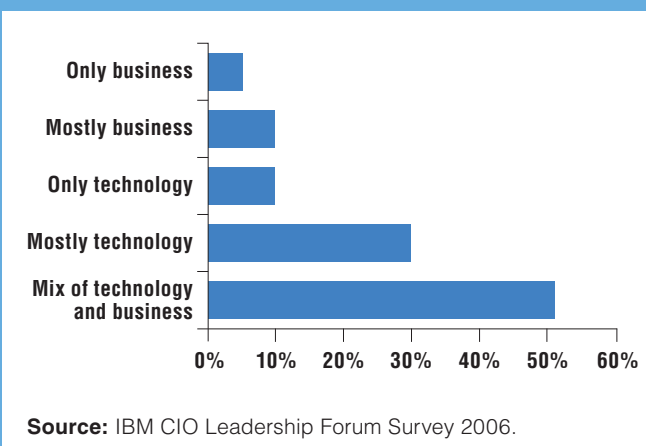
If what we have described is tomorrow’s world – and we have no doubt that it is – then what should the executive who sees himself or herself in that future role be thinking about today? Where will the successful CIOs of the future come from?

- *Firstly, they will be people who are now developing the skills sets described earlier while they build their business careers.*
- *They will be people who are looking for business experience outside their IT comfort-zone – studies show that today, nearly 40% of CIOs come from solely or mainly IT roles, which means that already nearly two-thirds of them have a background in other fields as well. That trend can only continue: there is no doubt that CIOs in the future will increasingly need business skills and experience of the highest order alongside their technological and IT background.*

- *They will be prepared to take risks. Learning the new skills and moving into unfamiliar areas may be uncomfortable, but it can be done. Tomorrow’s CIOs will be preparing themselves today to take risks and apply their new skills in the workplace, with the support of their teams and colleagues.*

Tomorrow’s CIOs, in fact, will be risk-takers, visionaries, people with the ambition to envisage change and the determination to drive it forward. They will be people who have a business brain and business experience – men and women who take challenges, and turn them into opportunities. More than anything, they will understand the possibilities of the future, and what advantages such a future holds. The ultimate destination they will be aiming for will be the CEO’s post. And when they get there, and someone says, “CIO – Career Is Over”, they will know exactly how to value a tired, boring, outdated old joke from the days of Starsky and Hutch, velvet flares, and platform shoes.

### Career background



*“Tomorrow’s CIO must have the proficiency to be heir apparent to any senior executive position. Any CIO today who simply wants to stay in his or her current role is probably not doing the job to the full.”*

Craig Lennox, CIO, Acergy.

*“It’s a great role!”*

Darin Brumby, Previously CIO, First Group.



### **About the author**

David Henderson is a partner in IBM Global Business Services consulting practice. David works with clients to develop IT strategies for multinational organisations, focusing on integration of business and IT agendas, ensuring the recognition of information technology and systems at boardroom level. He also designs and implements IT transformations, embracing the governance, organisation and processes needed to maximise the IT contribution to business value. His experience spans over 30 years working in a wide range of industries including consumer products, pharmaceuticals, retailing, distribution, railway transportation, financial services, manufacturing and engineering. His professional memberships include the Chartered Institute of Management Consultants (Fellow), the Chartered Management Institute and the British Computer Society. David can be reached at **david.k.henderson@uk.ibm.com**

### **Acknowledgements**

Special thanks to Janet White, Julian Ashley, Chris Neilon, Andrew Crisp, Julian La Hive and Graeme Curwen from the Technology Strategy practice within IBM Global Business Services, for their support in the research for this paper and their contribution to its development and finalisation.

### **More information**

For more information please send an e-mail to [cioforum@uk.ibm.com](mailto:cioforum@uk.ibm.com) or visit **ibm.com/services/uk/cio**

### **IBM United Kingdom Limited**

76 Upper Ground  
South Bank  
London  
SE1 9PZ

The IBM home page can be found on the Internet at **ibm.com**

IBM, the IBM logo and [ibm.com](http://ibm.com) are trademarks of International Business Machines Corporation in the United States, other countries, or both.

Other company, product and service names may be trademarks or service marks of others.

References in this publication to IBM products or services do not imply that IBM intends to make them available in all countries in which IBM operates. Copying or downloading the images contained in this document is expressly prohibited without the written consent of IBM. All products and/or services are subject to availability.

This publication is for general guidance only.

© Copyright IBM Corporation 2008.  
All Rights Reserved.