WHITE PAPER

Becoming the Boss I October 2011

the future role of the CIO'becoming the boss'

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Introduction

"The future role of the CIO"—a global study

CA Technologies commissioned independent specialist technology market research company Vanson Bourne to undertake the global research upon which the "Becoming the Boss" report is based. 685 telephone interviews were conducted during summer 2011 amongst CIOs in organizations of 500 or more employees in the telecoms, retail, financial and manufacturing sectors. Country breakdown: 30 CIOS were interviewed in each of the following countries: UK, France, Germany, Italy, Spain, Benelux, Austria/Switzerland, Israel, the Nordics, Australia, China, Hong Kong, India, Malaysia, Singapore, Korea, Taiwan, Thailand, Canada, the USA, and 15 within Portugal.

In addition, the careers of 685 current CEOs within businesses of the same size, country locations and vertical markets were tracked through online research. The CEOs were selected from companies in the Forbes' 2000 list of the World's Biggest Public Companies (calculated April 2011). Revenue and number of employees were identified using resources such as Business Week and Reuters, along with the previous role, overseas experience and professional qualifications of each CEO.

Academic and industry contributors to this report are referenced in the biographies section at the end of this report.





Foreword: Becoming the boss

The impact of technology on how we do business today is universal. Companies that have built strategy around the opportunity and advantages technology provides are already seeing greater performance, productivity and flexibility to propel them ahead. What technology can do for your business is not in doubt. Who should lead its advance in today's boardrooms however is far less certain.

The attitudes of business executives are less progressive it seems than the capability of IT for transformation. Our global study into the future role of the CIO in business reveals just 4 per cent of Chief Executives in the world's top companies previously served in a technology leadership role. Congratulations if you are in the minority. For the rest, we believe the time is right for a new mindset.

As the sources of competitive advantage become ever more connected to technology, the business leaders of tomorrow need a window into this digital world. Business strategy is no longer discrete from IT. Setting a course then asking IT to deliver on the vision misses the huge opportunity for building strategies that optimise technology advances as they happen. Cloud computing is a great example of a catalyst for business agility, driven by disruptive technology, that has seen early adopters already realise significant value.

Chief Executives would do well to think differently. Our report indicates modern CIOs are not just technologists. They have the necessary business acumen, commercial ability and people management expertise to add considerable strategic value to the business and its shareholders. What they lack is the opportunity to externalise these with customers and partners, and all too often they lack a forum to share their unique insight with their own leadership team in the boardroom.

With the rapidly increasing intersection of business and IT driven by cloud computing, CIOs too see a new landscape of opportunity to drive business strategy with technology at its core. 54 per cent of CIOs in our report have aspirations to use their role as a gateway to general business management positions and many consider themselves as a contender for future Chief Executive.

Now is the time to reconsider the outdated belief that CIOs are not equipped for high-level management and explore a new way of thinking about who is best placed to become a business leader of tomorrow. Affording your CIO the opportunity to advance towards Becoming the Boss could be the best strategic decision your business can make.

Jacob Lamm, Executive Vice President Strategy and Corporate Development, CA Technologies



"In the future, with mobile applications, working from home could become the norm. Considering the resources this could save, it's up to the CIO to prove that this kind of change can add value to a business."

Sarah Greensmith

Managing Director IT, Hudson

"There is no reason why the CIO should be overlooked for the top job if they display that business leadership quality."

Joe Peppard

Professor of Information Systems Cranfield School of Management

Part 1: Choosing the boss, insight for CEOs

Why your CIO would make a great CEO



When considering the next candidate to head up an organisation, the CIO often isn't even in the frame. Despite their expertise in the advanced technologies modern business relies on, CIOs are often seen as lacking the breadth of skills needed to handle the big picture.

If you've never been in a position where you've considered your CIO as a possible successor, you're not alone. Just four per cent of current CEOs have come to the position by promotion from CIO, a figure that's in stark contrast to progression to the top job from CFO (29 per cent) or COO (23 per cent).

Some 16 per cent of CIOs feel that there is prejudice against them being considered for the most senior position, and 58 per cent say their progression into general management is hampered by being typecast as a technical specialist. CIOs feel marginalised, and they may have a point. For many C-level executives, the idea still lingers that the CIO is an enabler rather than a driver, someone who gets things done for others rather than shaping the ethos of the company and steering it forward.



It's an attitude that's actively holding business back. As competitive advantage is increasingly driven by technology, it presents the need for a new way of thinking. Who are the best-placed business leaders of tomorrow? CEOs with both commercial and technical know-how can certainly be transformative for next generation business success.

It's a change that's happening in all sectors, but some more than others. Sarah Greensmith, Managing Director of IT at Hudson says: "Businesses are changing with technology. For example, retailers are focusing more on how to get people online to buy, rather than in store, or at the very least, gathering the information required to understand what will get people in store. This means we're seeing the CIO become far more influential with the CEO, which can lead them to further opportunities to take that post."

The power of the cloud

The catalyst for change is cloud computing, and its importance for businesses cannot be underestimated. Entering a new overseas market can be done in hours; scaling up resources to launch a new product can be done in minutes and complex test and development time can be slashed by days. The increasing reliance on technology, the speed with which it changes, and the need to remain ahead of the curve with new developments creates a unique opportunity for forward-thinking organisations to build business strategy around technology, not just deliver on strategy through IT.

For many organisations, how they embrace the potential of cloud technologies in coming years will have significant impact on their ongoing success in the future. A business leader who is fully in tune with emerging technologies and with the ability to navigate possible pitfalls will prove an invaluable asset for many firms.

What's more, good CIOs are already used to handling complex budgets, staff and assets, giving them a solid grounding in the commercial know-how they'll need to take control. With nurturing and targeted learning, there are a lot of talented people in the CIO position who are well positioned to take the top job directly, or make the journey via COO to become CEO.

Crucially, this new breed of CEO will have an in-depth understanding of the potential for technology to drive business forward. For companies that believe in putting technology at the heart of future growth, it's time to think differently about developing the best business leaders for tomorrow, and begin preparing your CIO for the top job.



"If a CIO's attending senior executive management meetings and contributing strategically, engaging with business colleagues, building up trust and is capable of managing the political landscape, that would be recognised."

Joe Peppard

Professor of Information Systems Cranfield School of Management

"In the past, it was not uncommon for the CIO to go into the boardroom and talk about data migration and database administration, all while the board was saving 'what on earth are you talking about?' Nowadays, the CIO role profile has become a far more business-led. communicative and engaging role."

Sarah Greensmith

Managing Director IT, Hudson

Your CIO is ready for the challenge



If your CIO is talented and capable, it will come as no surprise that they're also ambitious and keen to move up the corporate ladder. Our research found that 55 per cent of CIOs see their current role as a gateway to general management positions. The days when becoming CIO was the pinnacle of achievement for computer literate professionals are in the past. Today, technology savvy executives are eager to flex their commercial and management muscles in roles with broader business responsibility.

Becoming CEO of their organisation is achievable according to 44 per cent of CIOs. With cloud computing's influence on shifting the CIO role away from technology and onto business services and strategy, CIOs believe their time is coming—and soon. Within two years, 14 per cent of CIOs report they expect to be considered for CEO, and a further 16 per cent expect to be a contender in over two years' time.

While industry advances are giving CIOs bigger aspirations, organisational challenges remain the major barrier. The natural advancement of talented CIOs appears to be blocked, with as many as 22 per cent reporting a relatively poor relationship with their CEO and only 36 per cent who report right to the top, limiting the CIO's ability to influence business strategy. Among some senior executives the stereotype of CIOs as technology geeks with a limited field of vision persists.



Forward-thinking CEOs are learning to consider all C-level professionals when looking for a suitable successor, not just those they find easier to understand. Modern CIOs are much more likely to be experienced professionals with an eye for the big picture—31 per cent have previously held a non-technical senior role—they also happen to have an aptitude for applying technology.

There's still a way to go to bridge this divide however. While 55 per cent of CIOs aren't currently being consulted on business strategy, a massive 60 per cent believe they are qualified to contribute, both on an informal and formal level.

A significant proportion of CIOs are ready for the challenge, and it would be a mistake to dismiss them out of hand, or risk losing untapped talent to a rival business. As Laurent Chen, CEO Continental Europe of Hudson recruitment and a former CIO himself says: "The CIO should be helping the board understand what the future looks like or could look like."

Consider your CIO

The rapid and game-changing growth in cloud computing is already bringing a change in focus for many CIOs. Business leaders are yet to catch up.

As the CIO's focus and responsibilities expand to include strategic management of core business functions, so the CEO's focus when selecting a successor should widen to consider the possibility of transitioning your CIO into a central management role. This may be progression to COO, where they can gain additional experience in business management while offering technological insight at board level, or even straight into the CEO's chair.

As the possibilities of cloud computing transport technology from the periphery towards the centre of business strategy, it's their crucial insight into this world that gives many ambitious CIOs the advantage over senior colleagues. As technology continues to change the way we all do business, the benefits of a technology-focused COO or CEO are becoming increasingly clear. With the right investment now, that future business leader may already be working for your firm, as CIO.



"Technology expertise is not going to define whether or not CIOs are successful in the boardroom. What will is leadership capability, the ability to contribute to strategic conversation, the ability to communicate and influence, build trust and contribute to conversations about other areas of the business."

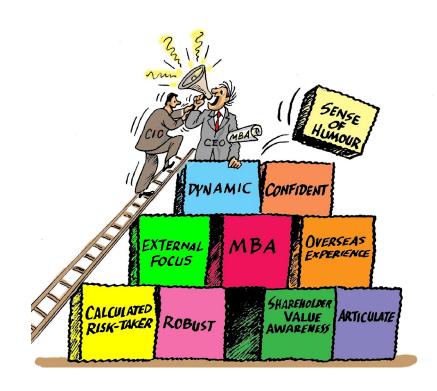
Joe Peppard

Professor of Information Systems Cranfield School of Management

"CIOs are expected to be strong from an analytical point of view. They need to understand the technical landscape, but it's just as critical that they also have strong business acumen; people are talking more and more about the need for a 'hybrid' background in this respect."

Sarah Greensmith Managing Director IT, Hudson

What it takes to be the boss



Many of today's CIOs have 'the right stuff' to make the move from technology guru to the chief executive role. Their business role is considerably broader than in the past, but while many CIOs have the potential to take on the top job, and aspire to do so, most will need investment in skills development, training and experience before they're ready for the hot seat.

Education is seen by many CIOs as the key that could help them unlock the door to higher level board positions. 40 per cent believe further professional qualifications or an MBA will position them as a contender for the top job.

Academic qualifications certainly count within the CEO community; 25 per cent of CEOs around the world hold an MBA qualification and 47 per cent are qualified to Masters degree or Post-graduate diploma status. The pressure for academic achievement varies however by industry and qualifications are more essential in some sectors than others. 39 per cent of CEOs in the telecoms industry have an MBA, for example, compared to just 21 per cent of CEOs in the retail sector with the same level of education.



Overseas experience is also common in today's chief executives. Over half (51 per cent) have previously held a senior business position in at least one other country. The desirability of international experience is highly polarised by region however; 61 per cent of CEOs at European organisations have overseas know-how, compared to 48 per cent of CEOs in Asia-Pacific & Japan and just 26 per cent of North America's leaders.

Your CIO may have already reached the standard your organisation requires. Even so, they'll probably need help to become the natural successor to the top job.

Good grooming

With an eye on the future, CEOs must invest in the right training, education and support to groom a talented CIO (and potentially other C-level roles) to become a future candidate for CEO.

Laurent Chen made that transition with global recruitment firm Hudson. "I think my boss, who put me in the position of CEO from CIO, was a risk taker. We had had a conversation about the next step for my career and I made it clear I didn't want to be just a technologist; I had aspirations to be more involved in running the business. I began to get involved in change programs that were not purely technological in nature and I got more in touch with the reality of business," he says. "The whole process took two to three years and there was a point where I was starting to become a possible candidate for the role."

Likewise, many CIOs believe they can offer the advantage of unique skills and insight, but know also they need to develop their existing skills for a broader business context to make the grade.

72 per cent of CIOs believe they need to develop new skills to remain effective in the future. 51 per cent believe a broader understanding of commercial procurement is vital, while 51 per cent see risk management as critical and 47 per cent identify sales and negotiation skills as important for their future development. However, according to Cathy Holley at Boyden, CIOs have the necessary skills already, they just need to demonstrate these capabilities in an external capacity: "Whilst many CIOs have become more commercially astute, and are advancing at light speed compared to CFOs for example, the internal focus remains, and they lack the external focus needed to become CEO. In other words, CIOs think they've arrived, but there's still a long way to go."

Overall, CIOs need to be able to translate their normal management practices into a leadership language that executives and employees in different parts of their organisation can understand and relate to. Personal communication skills will continue to count. As Laurent Chen says, "The main challenge for the CIO is often not to have been client facing. Internal customers are not enough. It's not the same as going to visit a customer that is putting faith in you, who is going to sign the invoice. It doesn't give you credibility."

Most (59 per cent) CIOs would expect to develop their skills within the organisation in which they're already working, and it makes sound business sense to make that experience available to them. The skills are already likely to be in-house, since they can learn about finance, operations, marketing and other key disciplines from their executive colleagues or even the CEO, either informally, or in a more structured environment via a mentorship programme. 66 per cent also recognise the need for additional training outside of the normal working environment.



"Unfortunately, there are low levels of digital literacy in many boardrooms, so for CIOs the understanding is not there. This can result in a level of ambiguity around the CIO role and it becomes a significant barrier. This situation can be reflected in how the board evaluates and assesses the performance of the CIO."

Joe Peppard

Professor of Information Systems Cranfield School of Management

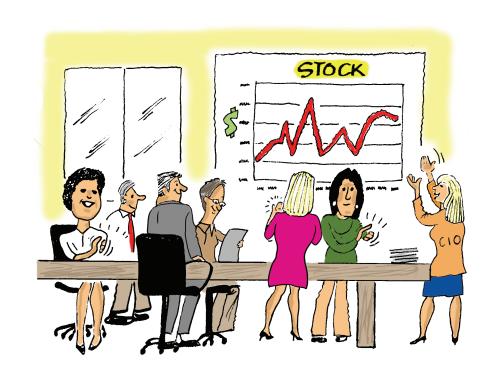
"Deciding on the next CEO can depend on the direction the board wants the company to go in. If they want it to become more technology-enabled it makes more sense to put the technologist at the helm or to give him or her bigger role."

Laurent Chen

CEO Continental Europe Hudson recruitment (and former CIO) Laurent Chen adds: "When I was CIO I had strong support my boss and the CEO of the company. They helped me understand where my weaknesses were and what I needed to change to take this direction. Once I stepped up as a CEO, I was provided with a coach for around six months who really helped me understand what was expected from me, including preparing presentations for the independent board and organising a European-wide meeting for our top 100 leaders. This was a fast forward curriculum to becoming the CEO, in that period I learned more about myself in those six months than the last five years."

With insightful investment in training, education and experience now, your CIO could make the leap to CEO in a short time. The greatest requirement however for success is that the CIO has the CEO's support. Embarking on the path to business leader demands access to senior executives, the opportunity to directly contribute to senior level discussion and the support to overcome bias and stereotyping. Rather than rhetoric, creating a new breed of business leader needs a fresh mindset and action at the highest level.

Your CIO can boost shareholder value





The bottom line for any CEO, no matter where they've come from or what route they've taken to get there, is to deliver value for shareholders. Failure to perform often means a foreshortened tenure at the top.

In grooming your CIO to succeed as CEO, your shareholders will need to be similarly reassured that your protégée can indeed maximise business performance and value. In the era of cloud computing, it isn't enough to simply work hard and work better. To stay competitive you need to step out from the crowd, to do things differently and to take advantage of new possibilities. A good CIO can bring this to bear and simultaneously open the door to new ways to cut costs and boost profits.

Robina Chatham, a Visiting Fellow of Cranfield School of Management who specialises in building sustainable relationships in IT management, says: "Business leaders are generally not going to be interested in how technology works; they just want it to work. It's the CIOs job to understand this and to be able to communicate effectively, to convey complex concepts simply and without patronising, to be able to express themselves powerfully and to be engaging."

Positioning the CIO to shareholders will likely meet familiar perception issues and challenges over the notion of a technologist filling the role of business leader. Consider though that the CIO's role is already critical in delivering positive business performance—without technology, no business would operate and through technology, your CIO has greatest impact on productivity and profitability.

Of all the functional C-level roles within an organisation, the CIO holds the most cards; they are intrinsically linked to the levers for business strategy of cost reduction through efficiency, agility through flexibility and business leadership through innovation & differentiation.

Demand for innovation to gain competitive advantage is closely aligned to cloud computing where strategies are being formulated, pushing both technology and the CIO to the forefront of current business development thinking. 53 per cent of CIOs report they are spending more time on strategy and innovation due to the advent of cloud computing, and 46 per cent recognise the need for business innovation as the most significant driver for change within their organisation.

Don't miss this opportunity

With the possibilities of the cloud transforming the landscape for business around the world, shareholders want to ensure there are no gaps in business strategy or vision that will fail to keep pace with fast-moving markets and competitors. Cloud computing is a disruptive concept that requires an expert hand, in-depth knowledge and intelligent application to positively influence growth and enable the business to thrive in a nascent global environment.

The organisation itself however has work to do. Shareholders would not be pleased to learn that 55 per cent of CIOs are never involved in agreeing business strategy and 21 per cent of these believe that their management team does not recognise the contribution the CIO can bring to setting business strategy.

With their grounding in technology and in particular the dynamic benefits of the cloud, shareholders will agree that CIOs are well placed to maximise service delivery innovations, spearhead improved productivity, spot new ways to increase efficiency and raise profit margins.

By appointing a former CIO as CEO, their technological expertise augmented by core business skills, opens the door to a new focus for the organisation, creating the opportunity to lead from the front, and deliver the future returns your shareholders demand.



"Most C-level executives are not buying into the hype of cloud, but if appropriate, expect a mixed technology environment for IT supply, including services and applications provisioned inhouse and others potentially coming from a cloud environment."

Joe Peppard

Professor of Information Systems Cranfield School of Management

"The CIO needs to be seen as a visionary who can inspire others and invoke long term change. They need to be seen to have a contribution to every item on the board agenda."

Robina Chatham

Visiting Fellow Cranfield School of Management

Convincing the board

As technology becomes increasingly pivotal to business growth, creating room at the top for your CIO makes sound commercial sense. While this may be clear to you, convincing other C-level colleagues to accept a technology professional as their business leader needs to be actively addressed.

Each executive will have their own feelings and prejudices about IT, its importance to the business and the market it operates in. There may be an image problem to address with executives who



still consider the heads of IT to be from a different species that speaks a language they cannot comprehend. And there's still the lingering perception that technology simply provides a service, rather than defining the foundation for building business strategy—30 per cent of executives still see IT as a cost, rather than a driver of the business.

Evidence from the CIO community suggests there is some way to go before boardroom contemporaries fully grasp the potential of technology's transformational power for business performance. 31 per cent of CIOs reported that their management team does not understand the potential of IT to the organization, and 39 per cent conferred that their management team does not understand the value IT already brings to the organisation.



In looking forward to a technology-centric future, it is the CEO's responsibility to set the course for change and ensure it is fully supported. Not all executives react well to change. The disruptive force of cloud computing however should convince them of its necessity. The cloud is creating a new business landscape that demands a willingness to try new strategies and a fresh attitude to embracing the future.

The CIO is ideally placed as a future business leader, argues Hudson CEO Laurent Chen, because, "The strength of the CIO is that more than anyone else in the business, they understand change management and resistance to change. It's exactly the same for a CEO. No matter what they want, they can't just go on their own; they need to make sure people are going to follow, so they need to understand what they will be up against. This is something the CIO faces probably more than other C-level support executives in the organisation."

But while CIOs may have one foot in the future, CEOs still need to think differently. 30 per cent of CIOs state that their idea of the CIO role is not at all similar to the view of C-level management. 29 per cent of CIOs also report that their CEO does not consider their role to be of strategic importance for the organisation and 37 per cent believe their management team does not yet use IT to grow the business as much as it could.

The time to play safe has passed and there's now an urgent need for a new approach that can take advantage of emerging new capabilities.

Business performance through the eyes of the CIO

Take a look at the faces around your boardroom. In this time of rapid change, who has the ability to spot opportunities as they arrive and the technological nous to see through the hype to make decisions that your business can rely on for years to come?

A talented CIO may be best placed to both handle these challenges and act as a catalyst for competitive advantage. Your CIO also has existing insight on where immediate opportunities can be realised. 80 per cent of CIOs report that they don't believe their management team understands the capabilities and impact of new and emerging technologies. Within these companies, the implications of this technological myopia, as perceived by the CIO, are broad. 49 per cent believe this limited digital literacy causes a lack of market responsiveness, 45 per cent attribute this failing for the company not appearing to be the market leader, 40 per cent believe it leads to missed business opportunities and 38 per cent see lack of senior level IT understanding as the cause of slower time to market.

As a minimum, this roster of missed opportunities should trigger new discussions in the boardroom. For the enlightened CEO, it should also present cause for serious consideration of your CIO's potential impact on business leadership. Change is happening now, and it's happening fast. The sooner you consider your CIO for a move to COO or CEO, the sooner you'll be in a stronger position to take best advantage of the cloud and its impact on your organisation.



"The most common characteristics of a CIO are a high IQ, a very analytical mindset, riskaverseness, an internal focus and reactive tendencies while having a preference for certainty and displaying a lack of boldness. CEOs are totally different. They need to be commercially and politically astute, externally focused and to know exactly what went wrong."

Cathy Holley

Partner UK Executive Search Boyden

"You need to be a multidimensional hybrid: to be equally conversant with business and technology; to be good at using both the left (logical and intellectual) and right (imaginative and emotional) sides of your brain; and to posses drive and fierce resolve coupled with empathy and sensitivity towards others."

Robina Chatham

Visiting Fellow Cranfield School of Management

Part 2: Becoming the boss, advice for CIOs

Prepare to be CEO



Organisations expect their CIOs to deliver the best IT solutions for their business. But all too often they exclude the CIO from strategic planning where they could have a profound influence on business development, rather than simply reacting to dictates from the board. Cloud computing is changing the business landscape, creating the need for a new way of thinking about the best business leaders for tomorrow. In the very near future, CIOs with technical and commercial know-how will be best placed to transform the next generation of business—and many of them know it.

Our recent research exploring "The Future Role of the CIO" found that at least 30 per cent of CIOs already have their sights set on a CEO-level post sometime in the near future. They have their work cut out, with only four per cent of CEOs previously holding a CIO post. However, the chances of moving upwards can vary greatly depending on the market.



Progression from CIO to the top job is more likely in manufacturing, for instance (11 per cent), and not very likely in finance (one per cent). Executives with technological expertise are also more likely to be considered for the most senior role in Asia Pacific and Japan, whereas European organisations tend to favour CFOs and North American corporations prefer progression from COO roles. And of course, firms specialising in IT are more likely to consider a technology expert for the top job. Ester Levanon, CEO of the Tel-Aviv Stock Exchange, and a former CIO herself, says: "A CIO should see himself as the member of the management who is in charge of IT and not just as the IT manger."

The technological changes and challenges being brought about by the cloud means there's a clear need for tech-literate people at the very top, but traditionally, the move up from CIO hasn't been an easy one. Too many senior executives have tended to see technology as an enabler rather than a driver of business, and so consider the head of IT in the same manner. A substantial number of CIOs (16 per cent) also believe top management has a prejudice against considering them for a higher position.

Time for change

But times are changing, and the possibilities offered by cloud are the instigator. As businesses come to rely on taking early advantage of new and emerging technologies to grow their markets and establish their position, there's a growing awareness of the need for a new way of thinking about the best business leaders for tomorrow. As a result, the CIO's technical knowledge and foresight is becoming more central to business strategy, helping to open the door for talented and ambitious people from tech backgrounds to reach the top table.

It's already becoming more commonplace for CIOs to be called upon to help develop business plans based on the new technological possibilities offered by the cloud. This change in the traditional CIO responsibilities means boardroom perception of the role is beginning to change. While it's still more common for a CFO or COO to move into the big chair, 50 per cent of CIOs says that executives are increasingly recognising the importance of technology to their future success. To help them, they're looking to the CIO for guidance, and with the right coaxing and education, the potential to move into the COO position or beyond becomes more feasible, and even sought after by forward-thinking executives.

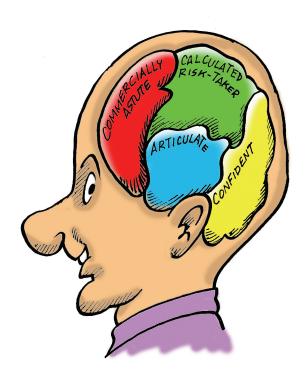
There's still some work to be done however, not least in how CIOs represent themselves to the board. Robina Chatham of Cranfield School of Management School of Management agrees: "For the CIO to be considered for the top job, they need to create the right image and reputation for themselves, as well as have excellent interpersonal skills."

Many CIOs already have the basic skill set to become CEO, but they need to start using them outside their technical remit, applying their analytical, negotiating and buying expertise to the business at large—and making sure the board knows they're doing it. With targeted training, mentoring, and additional responsibility, it will be possible for more CIOs to develop the necessary experience and acumen to successfully run their organisations.



"The critical point is that to be a CEO you have got to be a business leader. Just as a CFO should be a business leader with a special responsibility for finance, a CMO a business leader with a special responsibility for marketing, a CIO must be a business leader who has a special responsibility for IT. Unfortunately, a lot of CIOs today have not demonstrated a business leadership capability so they are not considered as potential candidates for the CEO position."

What it takes to be the boss



Joe Peppard

Professor of Information Systems Cranfield School of Management

"It's the difference between being a leader or a manager. A CIO needs to be able to manage people. But a leader takes this further by understanding people's emotional intelligence and putting together teams that work well together."

Robina Chatham

Visiting Fellow Cranfield School of Management There's a growing realisation among CIOs that their skills and background put them in a unique position in today's fast-changing technological landscape. The board too is waking up to the necessity of having a digitally literate person in a position of influence, helping to shape strategy rather than simply reacting to it. But while CIOs have long complained of the seeming inability of management to get to grips with the potential of technology, not all have had the skill or the ambition to make the move towards a more senior position.

Not all CIOs are suitable for the top job of course. Some don't aspire to the role, some won't have the drive and others will lack the basic acumen to become a successful CEO. More than half (55 per cent) of today's CIOs see their role as a gateway to other positions, and for those with the willingness and ability to gain the necessary experience and develop the right characteristics, opportunities are growing.

Cathy Holley, a Partner at corporate head hunter firm Boyden, says: "There are five distinct attributes in all CIOs who make the jump to CEO. Integrity, bold decision making—a CEO can't be paralysed by overly calculating risk—and the ability to broaden the scope of your role beyond focusing on technology. You'll also need to be a terrific networker and it really helps to have a great sense of humour too—the CEO's neck is on the block. If you're not robust, you'll crumble."



As the possibilities of the cloud open up new opportunities for business and create a greater reliance on IT knowledge and insight, there's never been a better time to start developing the high level relationships and experience that you'll need to be considered for a general management position in the next few years.

Overseas experience is worth considering—49 per cent of CEOs around the world have previously held at least one overseas position, and even more in Europe, where 61 per cent have done so. Academic qualifications at a high level are desirable too, especially if you're to compete against those other C-level executives who're planning a more traditional route to the top, usually from CFO (29 per cent) or COO (23 per cent).

Of the world's CEOs, 47 per cent of them have a Masters degree or diploma, and 25 per cent have an MBA. Qualifications can be more pertinent depending on the industry. 39 per cent of telecoms CEOs hold an MBA, but the figure drops to just 21 per cent for those in the retail sector.

Act like a business leader

As the impact of the cloud on modern business practice becomes more widespread, CIOs will be in demand for their technical nous and knowledge of technology trends and capabilities. However, where they don't currently have a seat on the board, or report directly to the CEO, establishing a line of communication, higher level relationships and visibility of IT's strategic contribution should also be high on the agenda.

In terms of broader business skills, a thorough understanding of commercial procurement is one of the main areas CIOs feel they need to develop, with 51 per cent citing this as a key area of concern. Another is a greater understanding of risk and its effects on complex business systems (also 51 per cent). Sales and negotiation skills in a general business environment are also high on the list (47 per cent).

While many CIOs already use these skills in their current role, they're aware they need to develop them from a broader business perspective. Opportunities to do so may already exist in your organisation, either informally, by working more closely with other executives, or as part of a more formalised training or mentoring structure.

In any situation, the onus is on CIOs to make proactive strides themselves. Make it known that you want to develop your skills and get internal support on the best ways to do so. Aim to encourage your CEO and C-level colleagues to recognise your worth, your ambition and the strategic impact technology can have on business performance.



As well as having a very high IQ, a typical CIO tends to be very analytical, riskaverse, internally focused and reactive with a preference for certainty and displaying a lack of boldness. CEOs are totally different. They need to be commercially and politically astute, externally focused and to know exactly what went wrong."

Cathy Holley

Partner UK Executive

Learning to think like a CEO



"A CIO might feel proud that no one else understands the work they do but at the same time this can harm their communication with colleagues. An inward thinking CIO might not actually know anything about anyone else's business."

Ester Levanon, CEO

Tel-Aviv Stock Exchange (and former CIO)

In your role as CIO you will likely have core business skills already. You'll be used to handling budgets, managing staff and developing strategy in your own field. The challenge is to be able to expand that knowledge into a wider business context, and apply it to all levels of your organisation's business.

Laurent Chen, CEO Continental Europe at Hudson, "A CEO must understand what makes people deliver—what makes them work harder. They need to be engaged, inspired and you need the emotional intelligence to connect with the people to understand what it would take them to do an outstanding job. This wouldn't work for CIOs who are pure project managers and think of their talent only as project resources. The potential for succession depends also on the type of CIO. The more the CIO has been exposed to the overall challenges of running a company, the more likely s/he could be a candidate. Interestingly, it happens more in smaller companies than in larger ones."

"A CIO needs to be able to map what they've done alongside what a CEO does in terms of leadership, commercial acuity, stakeholder influencing and innovation," advises Boyden's Cathy Holley. "If you can't do this, no one else can do it for you."



Most CIOs (59 per cent) believe that the best way to develop the necessary acumen is within their current organisation. But while there may be career development opportunities in your organisation already, chances are that there won't be anything that specifically applies to your case—it's no coincidence that only four per cent of CEOs previously held a CIO position.

The most common succession path to CEO is from CFO (29 per cent) and COO (23 per cent). In some cases, it may be best to think of the transition to CEO as a two-step process, with a move to COO as a stepping stone on the way to the top job. A period as COO will offer the opportunity to hone and develop additional business skills without taking on full responsibility for the organisation.

Start now

You'll need to adapt your management approach to something that will work in a broader context, away from your technical team, and it's likely that you'll have to instigate your individual training and experience development strategy yourself. Broach the subject with your CEO or other executives and start to develop a plan to gain the skills you'll need.

Sarah Greensmith says: "From my experience, it's those CIOs who communicate externally with customers and stakeholders such as shareholders who are more likely to become CEO."

With the right approach, you can learn about finance, operations, marketing and other key disciplines from your executive colleagues or even the CEO. And within your current role there may also be opportunities to develop it further and increase your responsibilities. If you haven't already been asked, you should be considering ways to come up with more strategic thinking on researching, developing and managing services via the cloud, which can be applied to core business services.

Never waste an opportunity to underline the importance of technology in developing business strategy to senior management. By pushing for greater influence on strategy you can raise awareness of your role and the benefits you can bring. As many as 55 per cent of CIOs say they're never involved in agreeing business strategy and that has to change.

There may also be opportunities to develop skills outside your organisation. With 25 per cent of CEOs having an MBA, you may be able to get sponsorship to complete the qualification from your company, or it may be worth considering funding it yourself.

By applying yourself now to prepare yourself for the role, you could get yourself into a position for serious consideration for the top job in a relatively short space of time—16 per cent of CIOs consider it would be possible to make the move in less than two years.



"The best CIOs radiate excellence and a small minority are in a different league. They'll try to distance themselves from their IT heritage in their ambitions to be seen as a business leader, however when there's a window of opportunity with technology, such as with the embrace of social networking, rather than appear ashamed, the CIO should capitalise on this."

Cathy Holley

Partner UK Executive Search Boyden

"When you look at factors such as cloud, virtualisation and mobile applications, organisations that realise technology is their key differentiator will increasingly take on board what the CIO is contributing at all levels."

Sarah Greensmith

Managing Director IT, Hudson

Use the cloud to create opportunity



In the past, the IT department was all too often seen as a separate entity from the rest of the organisation. The department and its staff were there as a support function for the real business at hand and rarely consulted about the direction the business might take.

IT was seen very much as an enabler, rather than a driver of business and it's an attitude that still exists in 30 per cent of boardrooms today (though unsurprisingly not among most CIOs). But with the advent of cloud computing and all the possibilities, opportunities and potential threats it brings to business, this inertia is changing.

Now, more than ever before, the ways in which business can be done are being influenced by the capabilities of the technology available. Boardrooms are waking up to this fact and realising that it's no longer enough to make plans, and then get the IT team to implement them. It's now necessary to have people on the board who are aware of the possibilities as they emerge, who can act quickly to take advantage of new openings ahead of their competitors.

They also need people who can sniff out the false trails and see through the hype of new tech that shows great promise, but which may ultimately have no future. The window of opportunity for the CIO is open.



Change to meet demand

CIOs have noticed the change. 52 per cent report that the changes being brought about by the cloud mean they already spend more of their time negotiating with suppliers and partners. A further 53 per cent say because of the cloud they're now spending more of their time on developing strategy and innovative ways to develop their business.

A total of 54 per cent of CIOs think the advent of cloud computing is shifting the focus of their role away from support through technology to the provision of business services. This change in their role, and the skills they're required to learn in order to manage it, does much to prepare them for a future leadership position.

In other words, most CIOs are finding that because of the cloud, they're now being called upon to develop and exercise a range of core business skills they wouldn't have needed a decade ago—they're already effectively receiving CEO training on the job.

For some, the cloud is a disruptive influence, changing the way business is done in often unpredictable ways, with no firm conclusion in sight. But most CIOs agree this disruption will have long-term benefits, both for their organisations, and also for their careers—53 per cent believe that it's likely to help them make a move into general management, either as COO, CEO, or both.

What's more, a significant number of CIOs are already planning to make the move, with 14 per cent believing they can become CEO within two years, and a further 16 per cent admitting it may take a bit longer.

The cloud is creating opportunities for CIOs in more ways than one, and the smartest and most ambitious are using it to their best advantage.



"While many CIOs have become more commercially astute, and are advancing at light speed compared to CFOs for example, they're often too internally focused, and lack the external focus needed to become CEO. CIOs might think they've arrived, but there's still a long way to go."

Cathy Holley

Partner, UK Executive Search Boyden

"It comes down to how you define yourself as the head of IT. My definition was to help the company achieve its goal using technology as a tool, not the goal. The CIO needs to think about the business, so cloud technology should only be introduced if it will benefit the company from a business perspective."

Ester Levanon, CEO

Tel-Aviv Stock Exchange (and former CIO)

Convincing the board you can be the boss



Boardroom attitudes to technology are changing as executives recognise the increasingly central role that it plays in modern business. The fact is that all too often when it comes to selecting executives at the most senior level, the CIO isn't even considered for the position. Even in this era of the cloud, there are still prejudices to overcome and CIOs need a strategy.

"The role of CIO isn't just about maintaining the technical platform," says Hudson's Sarah Greensmith, "it's about enabling the board to become digitally literate and helping them to understand how technology is paramount in gaining competitive advantage."

That's already happening, with half of CIOs saying that other C-level executives now recognise that their role is becoming more important within their organisation. A sea of change is underway as the message gets through that technology will dictate the nature of business over the next few years, and that it's therefore essential to have someone in charge who understands its possibilities and implications.

But while this is encouraging, it still means the other 50 per cent of CIOs have so far noticed no such change. Sadly, there are still executives who consider CIOs to be geeks with little understanding of the broader business picture. Some of these would be much more inclined to take the traditional route of a finance executive stepping into the CEO role, perhaps bolstered with a crash course in the cloud.



But as technology evolves at an exponential rate, this clearly isn't enough. The most successful operations of the future will need people at the top with a clear understanding of the cloud, its potential for innovation, its costs and its efficiencies. They'll need to be able to spot opportunities and apply them within the overall structure of the business, making technology central to their organisation's development and performance.

Demonstrating your worth

CEOs with an in-depth knowledge of technology backed by sound commercial acumen have the ability to transform the next generation of business. But having the ability isn't the same as getting the chance, and in order to influence the board, it's critical to be visible. CIOs need a strategy where they can adopt a position that the business and C-level colleagues need to listen to.

Boyden's Cathy Holley says: "Finance directors and sales and marketing directors are known to be confident and articulate, and generally have more opportunity to network with the CEO. When it comes to the CEO identifying his or her successor, his mind will be drawn to this and the 'unsophisticated' CIO will likely be disregarded."

Whatever visibility you have within your organisation, CIOs need to focus on increasing this by promoting their skills and demonstrating both the current contribution you and IT brings to the business, as well as enabling executives are aware of what technology can offer in the future.

You may already find yourself engaging in more strategic planning for your department, and if so, make sure other executives know about it. You should also try to cultivate relationships with other board members, both to enlist their help in acquiring the skills you'll need to move upward and to learn about your potential competition.

Try to get yourself into a position where you can report directly to the CEO if possible (64 per cent of CIOs don't currently do this), or at least the COO—if the board isn't aware of the work you're doing and the direct effects it's having on your organisation's productivity and efficiency, they can't be expected to consider you for a higher role.

Use every opportunity to learn about other aspects of the business away from your IT comfort zone—and if there's something you'd like to know, find someone important to ask.

That said some organisations still aren't ready to make that leap of faith. As Cranfield's Robina Chatham says, "An essential element in rising to the top is having the right boss. If a CIO is not getting the support of their boss they may need to consider moving on."

Fortunately though, the penny is dropping in boardrooms around the world; cloud computing is driving change and CIOs are well placed to capitalise on market conditions and offer their expertise to the organisation at a leadership level. Challenges still exist and the path is not likely to be easy, but CIOs must maximise their muscle as the technology visionary within their business and help the boardroom to emerge stronger in the future.

Statistics source: Vanson Bourne 2011



Contributors

Robina Chatham, BSc PhD MIMechE CEng

Director, Robina Chatham Ltd Research Associate, Leading Edge Forum Visiting Fellow, Information Systems, Cranfield School of Management

Dr Robina Chatham qualified as both Mechanical Engineer and Neuroscientist. Her career commenced within the shipbuilding industry, where she pioneered the introduction of computing onto the shop floor. Robina subsequently followed a career in IT, which culminated in the position of European IT Director for a leading merchant bank.

In 1996 Robina joined Cranfield School of Management as a Lecturer in Management Information Systems where she focused on the people issues associated with IT and change and placing IT on the strategic agenda. Robina is now both Managing Director of her own training company and Visiting Fellow at Cranfield School of Management. Her prime focus is on helping senior managers to improve their personal impact and influence. Other areas of specialism include the building of high performance teams and relationship management.

Laurent Chen

Chief Executive Officer, Continental Europe, Hudson

Laurent Chen is Chief Executive Officer of Hudson, Continental Europe. He is a member of the company's global senior leadership team and chairs the European Executive Committee. He leads Hudson's operations in Belgium, The Netherlands, France, Spain, the Nordics and Central Eastern Europe.

Laurent has nearly 20 years of operational leadership experience in the global recruitment industry. Prior to joining Hudson in 2003, he held senior operational and technology roles at Spring Group plc, a UK-based IT recruitment and workforce management solutions provider; Magenta.com, a developer of web-enabled human resource solutions; and Manpower.

Sarah Greensmith

Managing Director – IT, Hudson

Sarah Greensmith is an experienced, well networked recruitment business leader with over 23 years' experience predominately within Hudson's successful IT recruitment business. She was recently promoted to Managing Director for the English Regions. This role covers six regional offices and the management of multi-disciplined recruitment teams.

Her expertise spans over many years within the recruitment industry, providing both permanent and interim recruitment solutions focused on the senior level recruitment market. She has had the opportunity to work across most sectors, and she is still motivated by recruitment and remains client facing and continues to deliver one off assignments, as well as large projects covering multiple roles and locations.



Cathy Holley

Partner, UK Executive Search, Boyden

Cathy is Co-Head of Boyden UK's CIO practice where she works with organisations across all sectors, advising on shaping and building world-class IT functions which deliver real business advantage. As well as recruiting some of Europe's top CIOs she has expert knowledge of CIO top team roles whether infrastructure, applications or programme-related. She is a frequent speaker at industry events and works closely with CIO advisory groups such as Gartner, Leading Edge Forum and CIO Development. Her opinion on the future of the CIO role is often sought by the industry press.

Cathy's early career was in front-line roles in leading global hi-tech firms such as IBM and Oracle. She transitioned into search in 1995 when she joined Norman Broadbents's Technology Practice which she ultimately co-headed with Phil Peters (now also at Boyden). She joined Heidrick and Struggles in 2002, eventually leaving to become a founding partner at Boyden where she has established herself as one of the leading CIO recruiters in Europe.

Ester Levanon

Chief Executive Officer, Tel-Aviv Stock Exchange

Ester Levanon is CEO of the Tel-Aviv Stock Exchange, the only public exchange in Israel. Levanon was largely responsible for orchestrating the exchange's transition to fully computerized trading, and she has overseen the exchange during a period of growth and incoming foreign investment.

Levanon joined the Tel-Aviv Stock Exchange in 1986 as chief information officer, after 12 years managing the computer division of the Israeli security service Shin Bet.

Levanon holds an MSc in Mathematics from the Hebrew University of Jerusalem and completed the Advanced Management Program at Harvard Business School. Additionally, she did Ph.D. work at Technion, the Israel Institute of Technology.

Joe Peppard, BBS MSc PhD FICS

Professor of Information Systems, Cranfield School of Management

Professor Joe Peppard holds the Chair in Information Systems and is Director of the School's IT Leadership Programme. He is also Adjunct Professor at the University of South Australia. Over the years he has held academic appointments at Loughborough University, Trinity College Dublin, Groningen University, and the University of Sydney.

The focus of Professor Peppard's research and teaching is in the area of information systems and technology. Through his research he seeks to challenge dominant orthodoxies as he believes that these are contributing significantly to the problems that organisations have in leveraging information technologies, both operationally and strategically, and ultimately in optimising the value delivered to the business.

Professor Peppard has published widely in academic and general business and management journals (some papers are available for download below). In 2009 he was awarded the Stafford Beer Medal by the OR Society for his research.



About the authors

Champion Communications

Champion Communications is a specialist B2B PR consultancy focused on championing digital, media and technology brands. The London-based company was co-founded by in 2008 by Faye Hawkins and Richard Cook. Champion works with fast growth innovators and global enterprise businesses, specializing in enabling challenger brands to outperform competitors through a blend of traditional and digital PR. www.championcomms.com

Vanson Bourne

Vanson Bourne creates and delivers compelling, relevant content for technology brands to own and use in high value media relations, demand generation and thought leadership marketing campaigns.

The company couples its specialist technology research expertise with years of experience in helping tech brands communicate with their markets. The result is well-crafted, independent and robust content for B2B and B2C marketing programmes.

Vanson Bourne adapts the delivery of its content to fit all marketing communications and direct sales efforts. This makes it easier to leverage high-value content across both traditional and new social media channels, creating news coverage, market buzz and customer action.

Terry Christien

Illustrated by Terry Christien of Cartoonology

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