

Technology innovation drives business growth: The new role of the CIO

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The role of the CIO is currently experiencing vast change and increased attention from the executive team as a leader who can guide a strategic path for how technology can improve business growth.

The CIO's responsibilities once focused almost entirely on selecting and managing technology solutions, but over the past several years the role of IT has shifted to broadly supporting enterprise strategy through technology, including the creation of new digital businesses. CIOs must now be immersed in both business and technology, and ensure that the organisation overall has the right platforms in place to thrive and grow. That's particularly important to their CEOs, who ranked growth as a top priority in KPMG's Global CEO Outlook survey.

## The integration of technology and business goals

While IT is still expected to manage its day-to-day operations and teams, the CIO is increasingly being asked to chart a digital strategy that changes how companies reach and interact with customers. This includes helping transform their organisations to take advantage of digital business opportunities.

Building and executing on a digital strategy presents huge challenges because it requires CIOs to tie their technology management efforts with the organisation's business objectives. Especially as it relates to growth, the CIO is sitting in a highly visible seat at the executive table. Because technology can be the driver of new and more-effective ways of doing business, the executive team looks to the CIO to use data, software, devices, and new technology delivery channels to bring the company into a new era of business operations and opportunities.

### The CIO agenda

The shift in focus from internal operations to strategic business objectives is largely driven by a new emphasis on mobile technology, usability, the cloud, and increased connectivity with existing and new customers. Software can tell us more about what customers want and how they behave, and digital tools can put our brand in front of users in almost any environment where they work and live.

The CIO must define how to bring the business to the consumer and in a world increasingly reliant upon consumer application interfaces, mobile connectivity, and cloud delivery models, that means retooling elements of the business to make it usable wherever and whenever people choose to engage.

CIOs will consider the following as key priorities as they look to support their organisations.

#### **Embrace disruptive technologies**

A 2016 report from IBM, "Redefining Boundaries: The Global C-suite Study," found that 58 per cent of market-leading CEOs pursue disruptive innovation, not purely incremental improvements. The pace of change is simply too great, and the risk of standing still can be greater than the risk associated with change. In this environment, the CIO has become a champion of disruption – not solely for the sake of shaking things up, but to define a better path.

Increasingly, evolution happens simultaneously across multiple parts of the business, requiring organisational agility, a willingness to change, and the embracing of innovation as a core competency and long-term strategy rather than a short-term way to "fix" parts of the business.

The IBM study explains C-suite thinking around technology decisions and strategy: "One of the most notable trends of the past decade has been the increase in the significance CEOs attribute to technology. Ten years ago, they put it sixth on the list of most important external factors they expected to exert an influence on their enterprises. Now, it consistently tops the features that light up their radar screens."

While the increasing emphasis on technology is certainly good for IT departments, CEOs are often focused more on the end-user experience, and may not have the perspective to think through the full repercussions of new solutions. CIOs, therefore, must assess the impact of innovation and how it will apply to business goals. They need to understand the demographics and behaviours of both their own workforce and their customer base. The solutions they implement should reflect how these audiences engage with the technology, and therefore must design with that end in mind.

Identifying the best mix of innovative technologies – such as mobile solutions, user-centric environments, and social functionality – falls to the CIO, but their decision-making must be done in a way that will deliver what is needed by the entire organisation and set the stage for growth. The cloud, for example, is increasingly sought as an innovative way to manage the business without having the burden of IT infrastructure management costs and hassles. "Cloud is a big, important strategy for us here at Cardinal. It helps us stay nimble," said Patricia Morrison, CIO, Cardinal Health Inc.

#### Know, predict, and understand the business

The volume, variety, and velocity of data available to businesses continue to grow. Harnessing that data for business benefit continues to be a challenge for many organisations. The 2016 Global CEO Survey from PwC

notes that 68 per cent of CEOs view data and analytics as technologies that they need to adopt more broadly.

This deluge of data puts the CIO in a position to create opportunities to capture and understand the business with much greater accuracy and context than had been done previously. Applications produce volumes of data about behaviour, users, and interactions. The technology behind this business intelligence should be used by the CIO to make this data meaningful and usable. The insight that the CIO can derive from it ultimately helps drive better business decisions about product development, marketing, and sales.

The rise of analytics capabilities also gives the CIO a great opportunity to partner more closely with line-of-business executives, and to democratise access to data. CIOs may still need to fill the role of classifying, sorting, and making information available for analysis, but CIOs cannot afford to hold data in IT and must look for ways to distribute it to business users to drive decisions.

The IBM study suggests that the C-suite is taking greater interest in these types of technologies: "CEOs also employ more sophisticated techniques to decipher the data their organisations collect. 66 per cent use predictive analytics, compared with just 50 per cent of their... peers. But it's cognitive technologies that will really revolutionise the way people work. Traditional algorithm-based systems are limited by what they've been preprogrammed to do, whereas cognitive systems learn through experience and apply what they've learned to new inquiries or tasks."

#### **Grow the business**

Achieving growth is a goal shared by all C-level executives. While every part of the company contributes to growth, it's the responsibility of the CIO to build a technology and systems foundation on which it can all happen. The technology foundation must support a growth mindset so it is prepared and optimised to take advantage of opportunities when they present themselves.

One factor that is increasingly important to executives is how macroeconomic issues impact their own organisational success. As highlighted in PwC's 2016 Global CEO Survey, there are concerns among many CEOs about "... a globalising world... with many dimensions of power, growth, and threats – a transition that we call multi-polar." The report goes on to explain that 59 per cent of CEOs anticipate "multiple economic models", and 75 per cent expect an increase in regionalisation in global trade.

This speaks to concerns not just about the rate of growth, but also about where growth will come from and what shape it will take. Almost half of CEOs expect at least one acquisition in the next three years, according to KPMG, and two-thirds of CEOs expect more revenue in three years from international operations than they have today. The systems needed to support this kind of growth must be architected for scalability, flexibility, and configurability. Building for standard vertical growth just won't be enough.

# Optimise the IT architecture for growth, flexibility, and scale

CIOs need to have in place systems and networks that pave the way to the future, and to do that effectively, they must use a balanced approach that meets current needs and can evolve over time as internal, customer, and partner requirements change.

Given the accelerating pace of technology innovation, it is increasingly difficult to both grow and manage existing assets, many of which were designed for a slower, simpler time. More CIOs are turning to innovative solutions such as cloud-based applications and mobile devices that were built for the modern era and equipped to scale, and alleviate much of the traditional IT management burden.

Using cloud-based applications is, for most forward-thinking CIOs, an important step. When looking at how to create a sustainable architecture for the American Automobile Association of Northern California, Nevada & Utah, CIO Osh O'Crowley sought to reap the benefits of the cloud. He said, "As CIO, when I look at how we spend our money on technology, I'm not caught in that amortisation and depreciation loop that most CIOs have when investing in something." With innovative cloud and digital solutions, O'Crowley said, "I don't have the data centres that run all those technologies. I don't have DBAs. I buy what I need. We tie it together and we focus on our members."

According to the Forbes CIO Summit 2016 - CIO Transformation Survey, 28 per cent of CIOs have indicated that their IT organisations spend more than one-quarter of their time working directly with third parties - primarily customers and partners. What's even more telling is that 76 per cent of CIOs fully expect substantial engagement with third parties to increase over the next two years. The only way these kinds of efforts can scale is if they are handled with effective technology implementations that are optimised for growth.

#### Secure the organisation's assets

A <u>PwC survey</u> found that 61 per cent of CEOs consider cyber security to be a major threat to both national and commercial interests. We have seen high-profile hacks and intrusions lead to major damage to brands, loss of confidence among customers, and even legal action for some companies. All eyes point to the CIO to mitigate risk and ensure that company intellectual property and user data does not fall into the wrong hands.

CIOs are using a business lens to differentiate between data that should be broadly accessible and intellectual property that needs to be protected. APIs and integration capabilities create fairly simple solutions to extend data to more users, on more platforms, and through different devices. There are major advantages, from a business growth standpoint, to enabling that accessibility, but it is a fragile balance that the CIO needs to navigate. Every access point becomes another potential vulnerability. CIOs see the entire application landscape and must secure the access to, communication of, and transactions with any data that people in their ecosystem come across.

The reputation of their organisation's brand and business practices is based on trust among the company's various stakeholders. Providing access to information so business users can make better decisions creates benefits.

However, the CIO needs to combine that ability with a secure technology environment that ensures data is only available for an intended purpose and by known users. As more data and functionality become available and usable, CIOs must find ways to make data accessible where it can be most effective, without opening up the organisation to potential risks.

#### The CIO of the future

The issues that CIOs care most about are ones that will both lead to competitive advantages and ensure that their companies and data are secure and efficient. The technology they choose to employ must provide an advantage but it must also meet the needs of users.

Doing business in today's market requires an almost omniscient understanding of all aspects of the organisation. Most executives have an understanding of the various parts of their enterprise, but the CIO is in a unique position to view the entire business and apply effective technology solutions. CIOs have the opportunity to formulate an effective growth strategy for their organisation by combining business knowledge with deep technology expertise.

