# The Future CIO

**LogicMonitor**

---

### About LogicMonitor

At LogicMonitor®, we expand what's possible for enterprises and MSPs through infrastructure monitoring and observability software.

LogicMonitor seamlessly monitors everything from networks to applications to the cloud, empowering companies to focus less on problem-solving and more on evolution.

Our cloud-based platform helps ITOps, developers and business leaders see more, know more, and do more.

For more information, visit www.logicmonitor.com

# Contents

# CIO in the spotlight

Digital transformation and the shift to remote working have put CIOs front-and-centre in the business

**Duncan Jefferies**

**W**hat does your chief information officer (CIO) do? If you asked a company that question twenty years ago, they'd probably have replied "they maintain our IT infrastructure". But times have changed — and so has the CIO.

"In my time as a CIO, the job has evolved massively," says Mark Hill, CIO at Tenth Revolution Group, a cloud technology recruitment specialist. "That shift has been driven largely because IT, and specifically data, has become the most valuable and transformational aspect of any business."

Indeed, almost every company is now driven by technology rather than served by it. User expectations, both internally and externally, have also increased dramatically now that technology is woven into almost every aspect of our daily lives. So it's no surprise that the CIO role has grown in stature within most organisations.

Formerly characterised as back-office execs whose job is to keep the IT lights on, "CIOs are now seen as a key part of the company's leadership team, driving strategic business performance and activities that create business value with other executives at the top of the business," says Jason Vazquez, CIO at Sterling National Bank.

As well as helping to digitally upskill their organisations, CIOs also need to implement the tools and technologies that will deliver market-leading customer experiences and drive business growth. Sourcing talent and developing strategic partnerships with SaaS and cloud providers is another important element of their job. And as their role

becomes more outward focused, they'll increasingly need to work with other business leaders to deliver technologies that will meet changing consumer demands.

Sterling National Bank, for example, has invested in automation technologies such as the Amelia conversational artificial intelligence (AI) platform, allowing it to deploy its own AI-powered digital customer service colleague called Skye. "Investment in leading-edge technologies, like Amelia, has helped promote the business value aspects of my role as CIO," says Mr Vazquez. "Members of my team have been given seats at the business table because we drive digital change and help to solve customer needs and expectations in an innovative way."

Over three quarters (76 per cent) of survey respondents to Gartner's 2021 CIO Agenda Survey said that demand for new digital products and services increased in 2020, with even more respondents (83 per cent) reporting that it will increase in 2021. "To retain value, the CIO role requires forward-looking visionaries, who are technologically curious in order to keep up with the pace of digital innovation," says Chris Underwood, managing director at Adastrum Consulting.

These visionaries will be able to advise the rest of the C-suite on the pros and cons of applying new technologies to current processes. "CIOs can also weigh in on the value of using new technologies to create completely new processes that equip the business to accomplish goals that previously weren't possible," says Akash Gupta, co-founder and chief technology officer (CTO) at GreyOrange, which creates advanced robotics systems for automation in warehouses.

They'll still need to balance innovation against security and governance
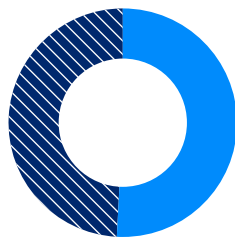
**51**%

of enterprise IT leaders have experienced an increase in IT downtime since March 2020
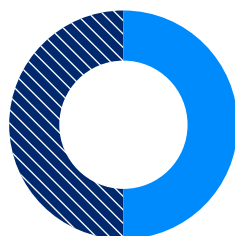
**50**%

of EMEA IT leaders have experienced an increase in IT brownouts in the same time frame

**LogicMonitor2021**

requirements, of course. And the chief executive offer (CEO) and main board's view on the strategic importance of technology will influence how their insights are received. "If the CIO reports directly to the CEO and sits on the Executive Committee then that's a sure sign that the role is seen as strategic," says Brian Jones, Bloor Research chairman and former CIO of four FTSE100 companies. "If they report to the CFO or even a COO where one exists, that usually means that the function is seen as less valuable."

Nevertheless, almost every CIO has experienced a jump in status during the COVID-19 pandemic. The need for a rapid mass shift to remote working emphasised the importance of strong digital capabilities and accelerated digital transformation plans by years almost overnight. But there's still a lot of work to do in terms of shoring up business continuity strategies and building a resilient, agile infrastructure.

"As the world leans more heavily on its digital services to maintain as much normalcy as possible, businesses simply cannot risk the damage to their ability to operate, and their reputation, that security breaches bring with them," says Mr Hill. "And that will mean a more proactive, centralised role for the CIO in business decisions that might not previously have been considered the remit of the IT department."

Yvonne Wassenaar, CEO of Puppet, a provider of IT automation solutions, describes the modern CIO as an orchestrator and educator, someone who ensures that the applications used by different business units are properly integrated and supportive of strategic goals. "Many tools may not have the right kind of security and scalability out of the gate," she says. "You need somebody who can sort through all that and orchestrate the different pieces that are spread throughout the company."

As digital technologies and services continue to expand both internally and externally, the CIO may well take on an even more strategic role within the business, working closely with the CEO or even, like Ms Wassenaar, who was formerly CIO of New Relic, progressing to that role themselves. So if you ask the question "what does your CIO do?" ten years from now, don't be surprised if the answer is radically different to the one you would receive today.●

"

**To retain value, the CIO role requires forward-looking visionaries, who are technologically curious in order to keep up with the pace of digital innovation**

# Why a holistic view of your business is key to CIO progress

Daniela Streng, vice president & general manager for EMEA at LogicMonitor, explains why, now that the CIO has found their new role in the spotlight, it's more important than ever to have constant visibility over the business's networks

## IT brownouts and outages lead to lost productivity, revenue and reputational damage

Business repercussions of IT brownouts and outages that IT leaders have experienced

● IT brownouts   ● IT shortages

**Lost productivity**

66%

61%

**Lost revenue**

43%

42%

**Brand / reputation damange**

31%

32%

LogicMonitor 2021

---

**Q** **Where do chief information officers (CIOs) typically lack visibility into the business's IT infrastructure? And what kind of problems can these 'blind spots' cause?**

**A** Deploying a set of disparate tools to monitor an organisation's IT stack naturally leaves gaps, and this is where the trouble starts. This is especially true for hybrid IT environments where one tool is used to monitor on-premises solutions and another is used for private and public cloud solutions. We also see this with homegrown solutions that are unable to scale to meet the increasing demands of the business.

Today's IT environments are complex, and they grow more so each day as enterprises race to scale, digitally transform, and future-proof their IT systems. Not all monitoring solutions can keep up, which results in blind spots. Blind spots translate into overlooked IT issues that turn into inefficiencies, overworked IT teams, customer frustrations, and in worst-case scenarios, service level agreement (SLA) failures, outages and downtime.

**Q** **How can CIOs ensure that they are addressing the notifications and issues that need to be dealt with urgently? What tools can help them cut through vast amounts of data to focus on what matters most?**

**A** For CIOs responsible for overseeing IT alerts and resolving issues quickly, having comprehensive, full-stack visibility into business networks, cloud, servers and more within a unified platform is essential. Finding a monitoring and observability platform that features automated configuration and is capable of monitoring every facet of their evolving infrastructure means CIOs can rest assured that they are seeing all urgent issues in real-time. Also, by identifying platforms that come with an extensive variety of integrations out-of-the-box, CIOs and their teams will be able to focus less on repetitive manual tasks and set up, and more on business enablement.

**Q Does deploying multiple monitoring tools ultimately make it harder for CIOs to gain full visibility across modern, complex IT infrastructures?**

**A** Deploying multiple monitoring tools certainly makes things more challenging for CIOs and their IT teams when it comes to getting a holistic handle on the company's IT infrastructure. Today's IT teams are often constrained by tight budgets and limited resources, making it challenging to effectively monitor, maintain and optimise their IT stack. When you spread that challenge across multiple tools, it becomes even more difficult.

CIOs and their teams can gain valuable insight – and save time and money – by replacing disparate monitoring tools with a single unified platform that features automation, insights, application intelligence, log intelligence, cloud billing information and traditional infrastructure metrics. Adopting such a platform allows teams to quickly visualise what's happening in their IT environments in real-time across a single pane of glass – whether their infrastructure resides on-premises, at a remote data centre, in the cloud or all of the above.

**Q How does a unified, cloud-based monitoring platform like LogicMonitor differ? Is it easier to scale and upgrade? And can it help businesses to refine their IT strategy, innovate and meet goals more effectively?**

**A** Today's enterprise IT environments are complex and require a modern approach when it comes to monitoring multi-vendor infrastructures, data centres and cloud computing platforms. LogicMonitor provides a comprehensive infrastructure monitoring and observability platform that is flexible enough to integrate with existing environments, scale efficiently, and effortlessly layer artificial intelligence (AI), machine learning and automation on top of a variety of business-critical applications and systems.

LogicMonitor's cloud-based platform is lightweight and agentless, so customers can take advantage of its automated discovery capabilities to start gaining insights in minutes. Customers also benefit from dramatically less overhead and administration time in managing the platform compared to traditional on-premises solutions, leaving them more time to focus on business innovation.

Another key benefit is that the LogicMonitor platform is highly extensible: it can

# 97%

of enterprises have experienced an IT brownout in the past three years

# 94%

of enterprises have experienced at least one IT outage in the past three years

LogicMonitor 2021

accommodate a wide variety of current and future technology integrations through a rich application platform interface (API) that easily ingests data from any type of resource.

Ultimately, the LogicMonitor platform simplifies the complexity of monitoring hybrid IT environments. It collects more data than other solutions, provides more intelligent analysis and helps both ITOps and DevOps teams predict and proactively resolve issues before they become larger problems.

**Q Can AIOps tools also help CIOs to gain a more holistic view of IT issues? What other benefits do they offer in terms of visibility?**

**A** CIOs today are tasked with managing and making sense of massive volumes of data and their resulting alerts. The quantity generated is far beyond what any human team can process. CIOs should rely on intelligent tools, such as AIOps-enabled platforms, that can help them identify signal from noise – and translate these signals into actionable insights. Rather than sorting through every alert or issue, AIOps capabilities such as dynamic thresholds, root cause analysis and forecasting help CIOs and their teams identify and resolve the most pressing issues within their complex IT environment before they negatively impact the end customer experience.●

# THE 2021 CIO OUTLOOK

Following a year of unprecedented change, and faced with uncertainty in the coming months, how do CIOs feel about the future, what are the key challenges keeping them up at night, and where are the opportunities?

**IT leaders are not completely confident that their current infrastructure is crisis-proof**

IT leaders' expectation of their IT infrastructure's ability to withstand a crisis
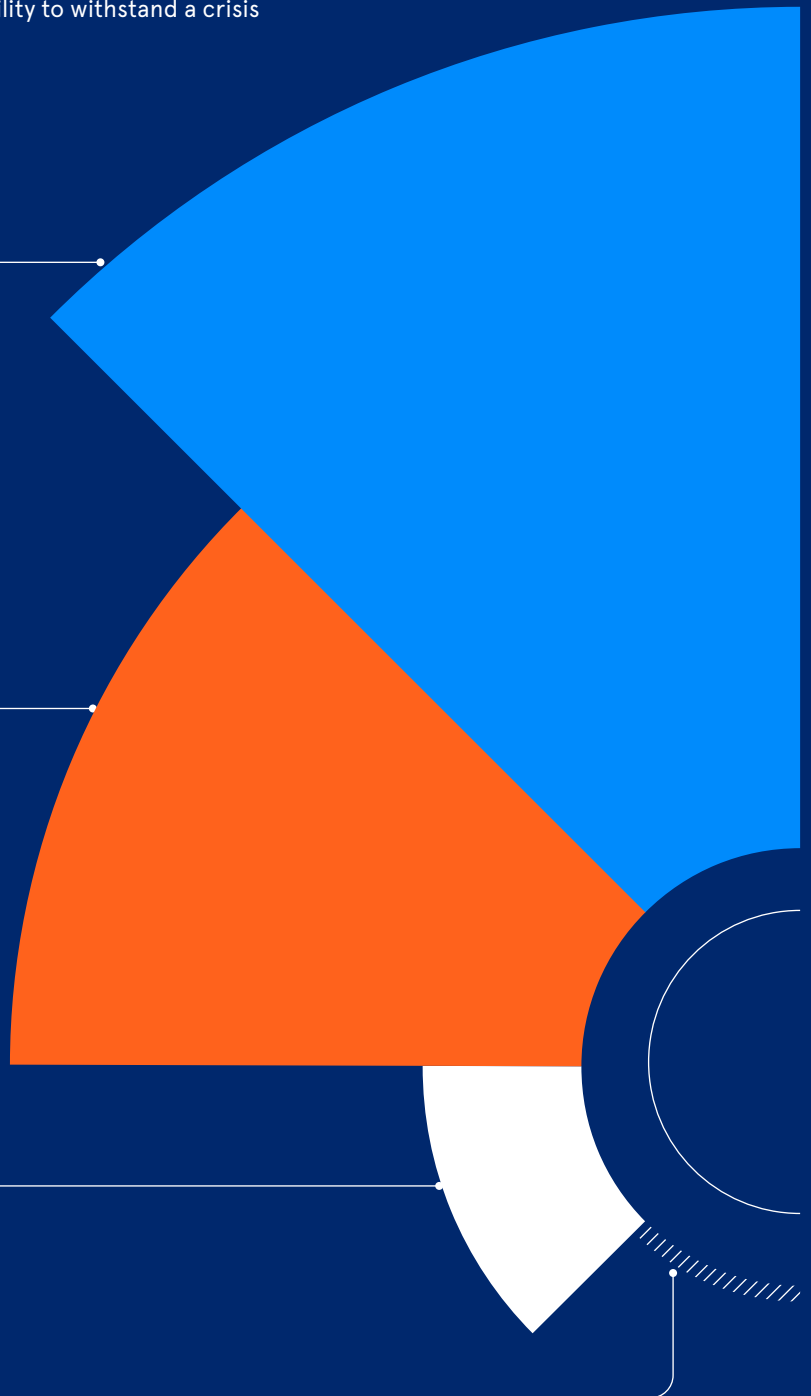
**53**%
Somewhat prepared
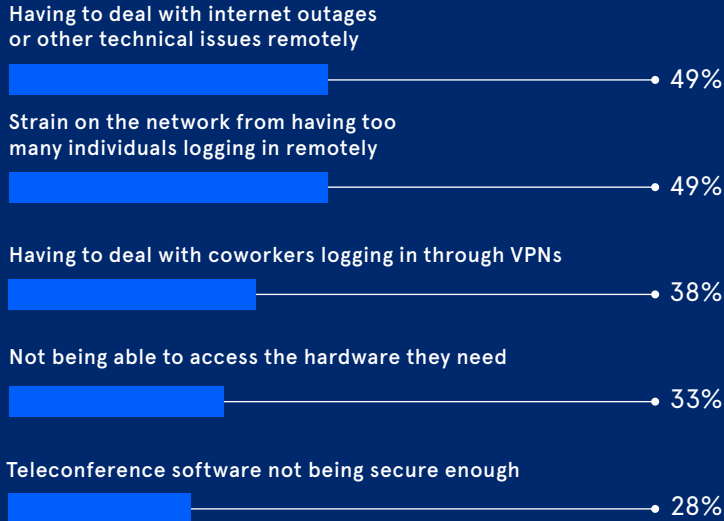
**36**%
Very prepared

**10**%
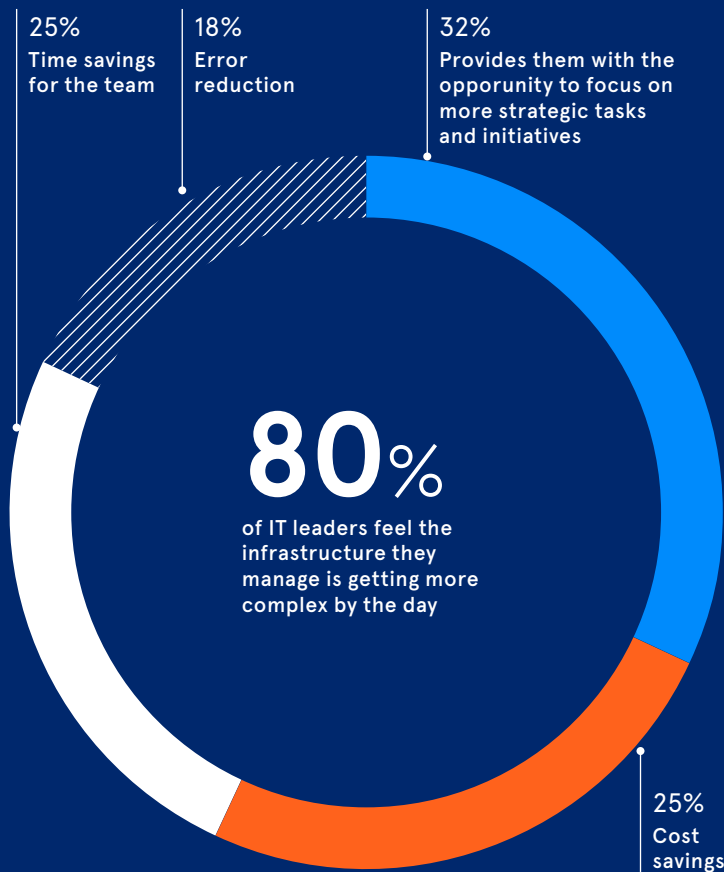Not very prepared

**1**%
Not prepared at all

LogicMonitor 2021

## In the event of a crisis, IT leaders have a number of concerns

Top concerns of IT leaders during a crisis

Having to deal with internet outages
or other technical issues remotely
**49%**

Strain on the network from having too
many individuals logging in remotely
**49%**

Having to deal with coworkers logging in through VPNs
**38%**

Not being able to access the hardware they need
**33%**

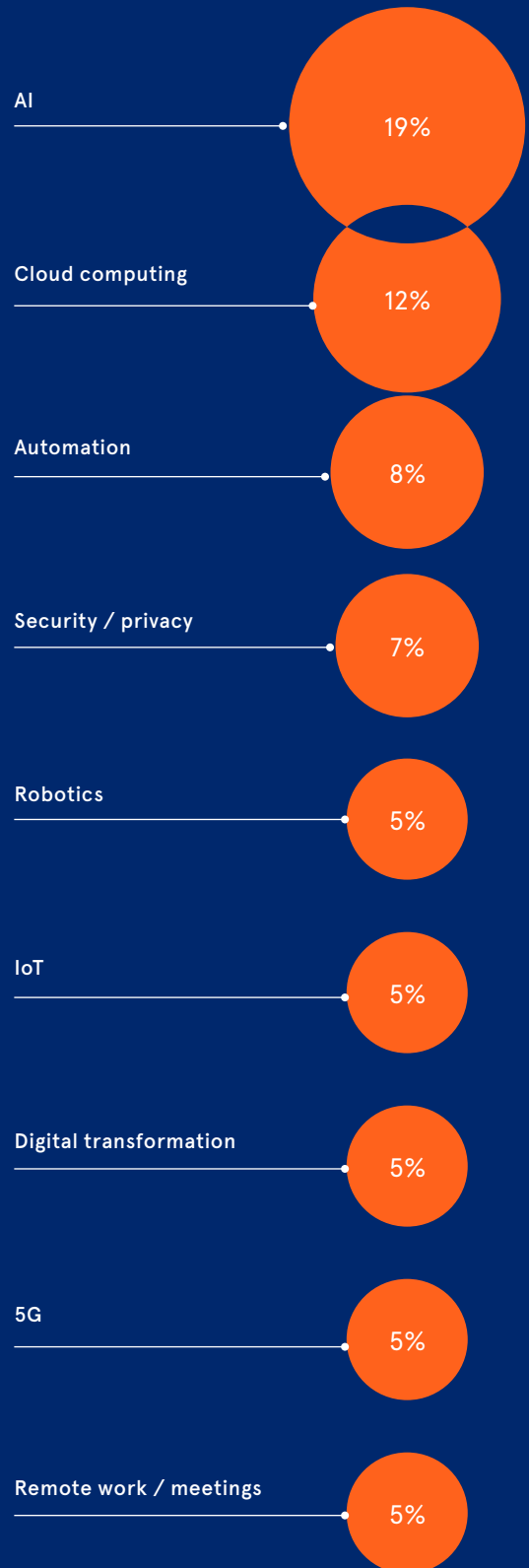Teleconference software not being secure enough
**28%**

## With IT infrastructures becoming increasingly tricky to manage, automation could be the answer

Advantages of IT automation as ranked by IT leaders

**25%**
Time savings
for the team

**18%**
Error
reduction

**32%**
Provides them with the
opporunity to focus on
more strategic tasks
and initiatives

**80%**
of IT leaders feel the
infrastructure they
manage is getting more
complex by the day

**25%**
Cost
savings

## AI, cloud computing and automation are expected to offer the biggest future opportunities for IT leaders

Trend that IT leaders think will be
the 'next big thing' by 2025

AI — **19%**

Cloud computing — **12%**

Automation — **8%**

Security / privacy — **7%**

Robotics — **5%**

IoT — **5%**

Digital transformation — **5%**

5G — **5%**

Remote work / meetings — **5%**

**LogicMonxqitor 2021**

# Changing the script: how to demonstrate IT's value to the board

CIOs are brought into more and more board conversations, but how can they ensure they truly communicate the value of IT?

**Duncan Jefferies**

### Int. home office – day

*The chief information officer (CIO) of a mid-sized financial firm is midway through a video call with the board. It is not going well.*

**CIO** Look. If we don't invest in a new infrastructure monitoring platform now, we're only going to see more problems down the line. We're already struggling to keep on top of all the devices that have sprung up since the shift to home-working, and you all know about the network issues we've had recently–

**BOARD MEMBER 1** That's all well and good, but how much is this platform going to cost?

**CIO** With all due respect, I think the cost of not implementing this platform is the one we should be worried about. If you look at what happened over at Rival Bank–

**BOARD MEMBER 2** And what about privacy issues? Do we really need to be gathering and storing all this data?

*The CIO senses the conversation is slipping away from him. What can he do to resolve the board's objections?*

This scenario might be fictional, but as they say in the movie business, it's inspired by true events. Thankfully, however, there are some real-life techniques that CIOs can deploy to convince board members that a new tool or service is worth the investment.

"Value needs to be presented in business terms – growth or operational improvement – or in terms of strategic capabilities that can or will lead to new opportunities to create value," says Brian Jones, Bloor Research chairman and a four-time FTSE100 CIO. "By utilising a particular platform it may be possible to add new channels to market, for example."

Craig Donald, CIO of the Football Association, was recently recognised as one of the top 20 digital transformation innovators in Europe by Tech London Advocates and Contino. As a tech leader in a non-tech industry, he tries to approach conversations with a certain amount of humility. "Help people to understand what you're trying to do, why you're trying to do it and how it will help them," he says. "Education is key. Don't just go in there being the mystical gurus of technology, but try to help them understand and get the dialogue going."

Chris White, head of QuoStar's on-demand CIO service and former global CIO of Clyde & Co, advises CIOs to make a pitch rather than a demand when attempting to secure investment in new technology. They should also be careful about the language they use during conversations with the board. "I've seen many IT directors, CIOs and chief security officers (CSOs) complain that they can't get any traction from the board — that they're not interested in what they want to do. And often that's because they're speaking a language that the board doesn't understand."
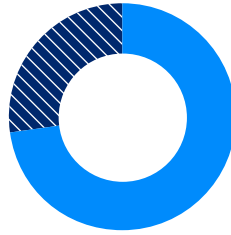
**73**%

of IT leaders have substantially increased their investments in data security since 2020
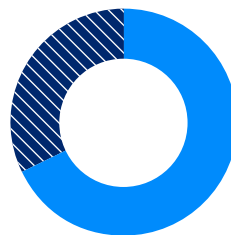
**68**%

increased their spend on IT automation in the same time frame

LogicMonitor2021

Instead of highlighting the merits of the technology and expecting that to do the trick, CIOs need to speak the language of business — i.e. the need to invest now to improve resilience and mitigate risk or gain an edge on a competitor. "If you can paint that picture of what it is you're trying to do, rather than just bombarding them with technology speak, they're far more likely to buy into it," says Mr White.

Yvonne Wassenaar, chief executive officer (CEO) of Puppet and former CIO of New Republic, says the best way to secure that buy-in is through stories about the successes and failures of other firms, which helps to create the emotional connection with technology that some people struggle with. "The second thing that I think is critically important is to approach the conversation with the board as a journey. You need to explain where it is you're starting from, where you want to get to, and lay out the milestones of how you're going to do that."

The pros and cons of alternative approaches to a business issue shouldn't be neglected during these discussions. Ms Wassenaar also advises CIOs not to neglect the trade-offs that might need to be made during a long-term project. "Technological advancement is not just about the spend on technology – it's also about the evolution of talent within the company, the rethinking of processes and procedures," she says. "You need to help them [the board] understand that you can't do that all at once."

When it comes to investment in a new monitoring platform, for example, it's vitally important that the CIO presents it as a long-term strategic investment rather than a short-term expense that solves immediate needs. "Against this strategic backdrop, CIOs can communicate why investments that might at first glance appear costly in the short term will over a longer time horizon, future-proof the business so it can stay ahead of market demands that require digital enhancements to serve," says Akash Gupta, co-founder and chief technology officer (CTO) of GreyOrange, which creates advanced robotics systems for automation in warehouses.

In short, by speaking the language of business, thinking long-term, and being honest about the challenges ahead, CIOs can change the script for board conversations and communicate the true value of IT investments. And that's a wrap.●

**If you can paint that picture of what it is you're trying to do, rather than just bombarding them with technology speak, they're far more likely to buy into it**

# 5 challenges for the future CIO

As well as keeping IT systems running smoothly, future CIOs must master these five key challenges

**Duncan Jefferies**

**O**ver the past decade, the chief information officer (CIO) has evolved from a supportive backend role to a central figure in the senior leadership team, driving growth and steering the company's digital strategy. As with any form of evolution, the role will continue to change and develop in the years ahead.

To succeed, CIOs will need strong leadership and communication skills, as well as a deeper understanding of business strategy and customer expectations. On top of that, they'll also have to build on some of the key skills they've developed during the digital transformation era — especially when it comes to the following five challenges:

## Managing a team

The mission-critical nature of modern technology deployments means that it's no longer enough to simply manage a team — you need to lead it. "Historically, good project and operational disciplines were prized above creativity and innovation," says Brian Jones, Bloor Research chairman and four-time FTSE100 CIO. "That is shifting and the need for inspirational leadership to unleash that creativity is greater than ever. Further, the need for genuine diversity and inclusion is paramount if teams are to be genuinely high performing."

Yvonne Wassenaar, chief executive officer (CEO) of Puppet and former CIO of New Relic, makes the point that teams are now much more distributed in the wake of COVID-19, which inevitably changes how they should be managed. As people outside of the IT department increasingly deploy technology and tools specific to their function, the need to indirectly manage them and maintain accountability will also increase. But this will need to be balanced with the management of IT team members with deeply technical abilities.

**1**

## IT spend and budget

The shift from capital expenditure (CapEx) to operating expenditure (OpEx) goes hand-in-hand with cloud technologies has changed how CIOs approach spending and budgeting. "We now buy licenses and access to software rather than owning the tools," says Chris Fielding, CIO of Sungard Availability Services, a provider of IT production and recovery services. "The whole ethos and way we spend money is very different now compared to when I started, and I don't see this trend changing anytime soon."

Mr Jones says that high levels of financial literacy are now a given. "Not only does a CIO need to be on top of their numbers but they have to understand how to re-shape the profile of spend," he explains. "A perfect outcome is actually where the technology of a business becomes a profit centre and effectively covers its own costs of technology delivery, but as a minimum it's vital to understand the need to replace fixed costs with more adaptable models."

**2**

## Internal dynamics of the IT department

Mr Jones says you can't see the join between a successful IT department and the rest of the business. "Just as the gentleman sweeping the floors at NASA understood he was helping put a person on the moon, it's vital that IT departments understand the context for everything they're doing, and can articulate its value."

To truly add value to the business, the CIO needs to work in a joined-up, efficient way with finance, HR and other business leaders, says Christiane Wuillamie OBE, CEO and CIO of Pyxis Culture Technologies, which maps business culture to improve results. "The internal dynamics and culture of IT needs to shift from technology expert to business partner," she explains.

One key thing to avoid is "technology wars" where IT practitioners champion different technologies or platforms in competition with each other. "Technology comes and goes and it's incumbent on a CIO not to get too attached," says Mr Jones.

**3**

> "
> To be successful, a CIO has to not only understand technology, they also need to understand the commercial side of running a business

## Board involvement in IT initiatives

Digital technologies are now the beating heart of many businesses, so it's perhaps no surprise that boards are taking a greater interest in IT initiatives. Their primary concern how to ensure growth and the long-term viability of the business while avoiding mass disruption, says Ms Wassenaar. "But equally importantly, there's a heightened sensitivity around risk management from a cybersecurity standpoint," she adds.

Mr Jones believes CIOs should welcome board involvement in IT and aim to see the good intentions behind it. "Most board members want what's best for the business and will recognise that same motivation in a strong CIO," he says, adding that it's important for CIOs to "take the chair" and be proactive rather than reactive. "Boards may reach the wrong conclusion if they are left without the benefit of a strong point of view from the CIO," he explains, "and failure to step up with conviction is actually letting them down, so don't be shy!"

**4**

## CIO involvement in business strategy

In a world where technology is fully embedded in almost every aspect of business, CIOs must be able to contribute strategic insights — both now and in future. "The only reason for a CIO not to be involved in business strategy is if they're not sufficiently capable to engage at executive level, in which case, they're in the wrong job anyway," says Mr Jones.

Mr Fielding says that CIOs can act as a bridge between IT and the senior leadership team by learning to speak the language of both worlds. "To be successful, a CIO has to not only understand technology, they also need to understand the commercial side of running a business," he explains. "You need to be able to understand what the business strategy is, the dynamics of it, and put yourself in a position to advise on what technology will enable and support growth."

**5**