# RACONTEUR

# THE FUTURE CIO

**AUTOMATION** The role human workers play in companies turning to automation

TRANSFORMATION How CIOs can ensure they avoid the common pitfalls and deliver clear business benefits

COLLABORATION As workforces become more remote, CIOs and CHROs are working more closely than ever

STRATEGY Trends accelerated by the pandemic present challenges and opportunities

The good news for any CIO is many

C-suites will now realise their culture has to

change to embrace digital because, as they

have found out, it is the best way to prepare

for an uncertain future. The positive devel-

opments come with a warning, though, for

any executives not committed to going "all

"You can't slap a coat of paint on some-

thing and call it transformation," he says.

"The CIO has to be the integrator for cus-

tomer experience; you need to use data

across the whole experience to make it

seamless and interactive. You also have

to build an architecture that can adapt

because, as we've seen this past year, huge

change can happen at any time and you

For companies that want to streamline

their customer experience, the advice

from BCA's Teagle is that a successful

CIO needs to build the right team around

them. For him, this does not mean look-

ing to recruit solely from people already in the sector, but to bring in new ideas from

"We want to get away from a standard

'vanilla' experience to offer something with

the convenience and fun of buying some-

thing on Amazon or booking a holiday online," he says. "We have retail and travel

IT experts onboard because they're going to

help us think differently. When you think about it, picking up a car is just like click

and collect at a shop, so we're building a

It is clear that keeping up the momen-

tum for the CIO is not just about technol-

ogy. It will start with aligning the role with

a company's growth plans, while offering

seamless journeys to the customers it aims

to attract. It also involves getting the right

people in place who can bring new ideas to

help support the CIO role and maintain its

current high-profile status.

team with expertise in these areas."

in" on fundamental change.

need to be able to adapt."

other industries.

**Building teams around the CIO** 

Distributed in Osfie? THE SUNDAY TIMES

Published in association with



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# How CIOs can build on the momentum from the pandemic

The past 12 months have shown how crucial the chief information officer is; now the focus is on building seamless customer journeys and delivering growth

## **Sean Hargrave**

he chief information officer (CIO) has previously been seen by too many companies as the person in charge of making sure the computers keep working. The pandemic has changed that.

After a year in which working from home has become the norm, the CIO and a company's IT team have been the cavalry charging over the hill to ensure businesses can operate. The task for CIOs now is to keep up that momentum and not go back to being the person who makes sure laptops can "talk"

Robert Teagle, CIO at car auction firm BCA, which also operates WeBuyAnyCar and Cinch, believes this is best achieved by harnessing the positive new light the role is seen in and aligning the department with future growth plans.

"It's been like a snowball; the shift to digital was always moving along slowly and then the pandemic meant it suddenly raced down the hill," he says. "We can't keep it going at that pace for much longer, but we do need to keep it going. We do need to help companies digitally transform, so the CIO role, and the team they lead, has to show it is absolutely crucial to growth."

Teagle talks about pace from a qualified vantage point. A year ago the split between digital and face-to-face auction sales was 70-30, in favour of auctions. Within a year, this had to shift to 100 per cent digital. When lockdown is finished, Teagle sees a clear role in keeping the digital process moving at pace by removing remaining barriers. At the moment, he has ensured the BCA part of the process is digital, the next | journey for customers.

CIO/tech leade

Board

CMO

COO

CDO

CFO

Other C-suite

CEOS SEE CIOS AS KEY DRIVERS OF BUSINESS STRATEGY

% of CEOs on who will be or needs to be the key driver of business strategy over the next three to five years

The trick for CIOs is to get in front of the chief executive and see what they want to achieve to grow the business. They have to be entrepreneurial and see how they can fit in and deliver that growth

project is to make sure the paperwork on the selling and the buying side follows suit so the entire process can run more smoothly.

## Offering a seamless customer experience

Removing these barriers in the customer journey is where CIOs should be looking very closely to make a difference, according to Louise Bunting, CIO at datacentre operator Yondr Group. In her experience, even when systems are digitalised, too many companies have invested in applications that are suited to a particular task, but are not integrated within the wider business. While they might work, they do so in isolation, rather than as a seamless

To show the true worth of the role, she believes CIOs need to stop thinking about an application for every process they need to

facilitate. Instead, they need to consider how they can remove a series of internal operational steps and offer a smooth customer journey.

"We have to break down the silos created by rows of applications that each perform a specific task," she says. "CIOs need to join up the processes at their business so customers get a seamless journey. Interacting with companies has to be intuitive. True digital transformation means a great expe-

rience with as few touchpoints as possible.' To get to this position, Bunting believes CIOs need to change how they are perceived in their organisation and to do that they need to change their own attitudes first.

"We have to stop being seen as the department that says 'no' too often or 'that's too difficult'," she suggests. "We have to build trust by saying something's challenging, but we'll get it cracked if we work with the owner of the issue and the operation teams. It's a two-way process. We have to be proactive and build that trust if we're to raise the

# Aligning with growth plans

profile of the CIO."

For CIOs looking to retain their hero status, the pandemic has done more than show the value of digital transformation in keeping companies operational. It has also offered up some warning signs for companies as they build for a future when lockdown rules are removed.

Those pushing for change now have examples of what happens to businesses that are not ready to trade digitally and Lyn Grobler, CIO at insurance company Howden Group, believes they should not be afraid to

"If you need an example of how important digital transformation is, you just need to think how Topshop didn't want to put the necessary investment into digital to 'do an ASOS' and then think about who ended up being in a position to buy them," she says.

Her advice is for CIOs to tap into this concern of what happens to businesses that do not commit to transformation and then work through the chief executive, wherever possible, to align their vision of growth with what digital can offer. This gets round the age-old problem of the role being defined more by whom it reports to than what it can achieve.

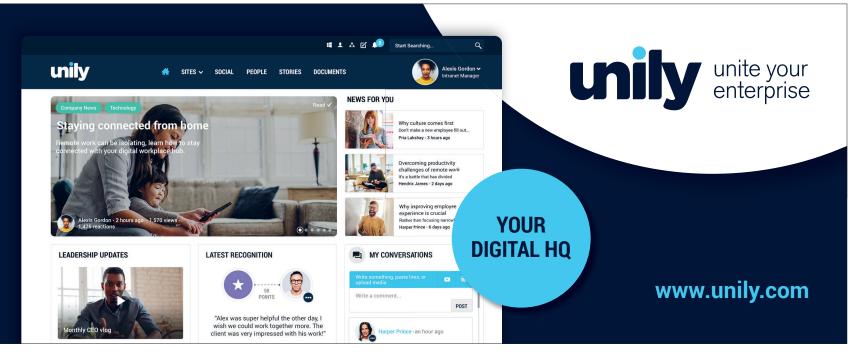
"If you're a CIO reporting to the chief operating officer, you'll only have conversations about operations and if you're reporting to the chief financial officer, you're only ever going to be asked to reduce costs," she says. "The trick is to get in front of the chief executive and see what they want to achieve to grow the business. You have to be entrepreneurial and see how you can proactively fit in and deliver that growth."

# Going beyond a digital coat of paint

This tactic of being proactive rather than reactive, looking for ways to make a company more agile and customer journeys smoother is how Arthur Hu, CIO of tech company Lenovo, believes the role will rise in prominence.

He predicts many organisations are going to be more receptive to digital transformation proposals as markets emerge from lockdown. This is rooted, he believes, in too many businesses realising the "we still have more time, we still have more runway" attitude did not work out well when the pandemic struck.

Unily is the employee experience platform that connects, informs, and engages your enterprise.



# Rebuilding the foundations for an anywhere workforce

Organisations adapted rapidly to distributed working, but inevitably there were holes in their approach. Building for the future will require them to revisit security and increase visibility

in October 2020, revealed a 128 per cent | creativity can flourish. increase in the proportion of UK employees Véronique Karcenty, digital workspace who see remote working as a prerequisite director at Orange Group, France, adds.

cannot return to its old ways.

eo-conference meetings and 60 per cent | energise the team and build a sense of had seen their stress levels decrease. shared purpose. Distributed working can also help deliver | The challenges don't stop at people

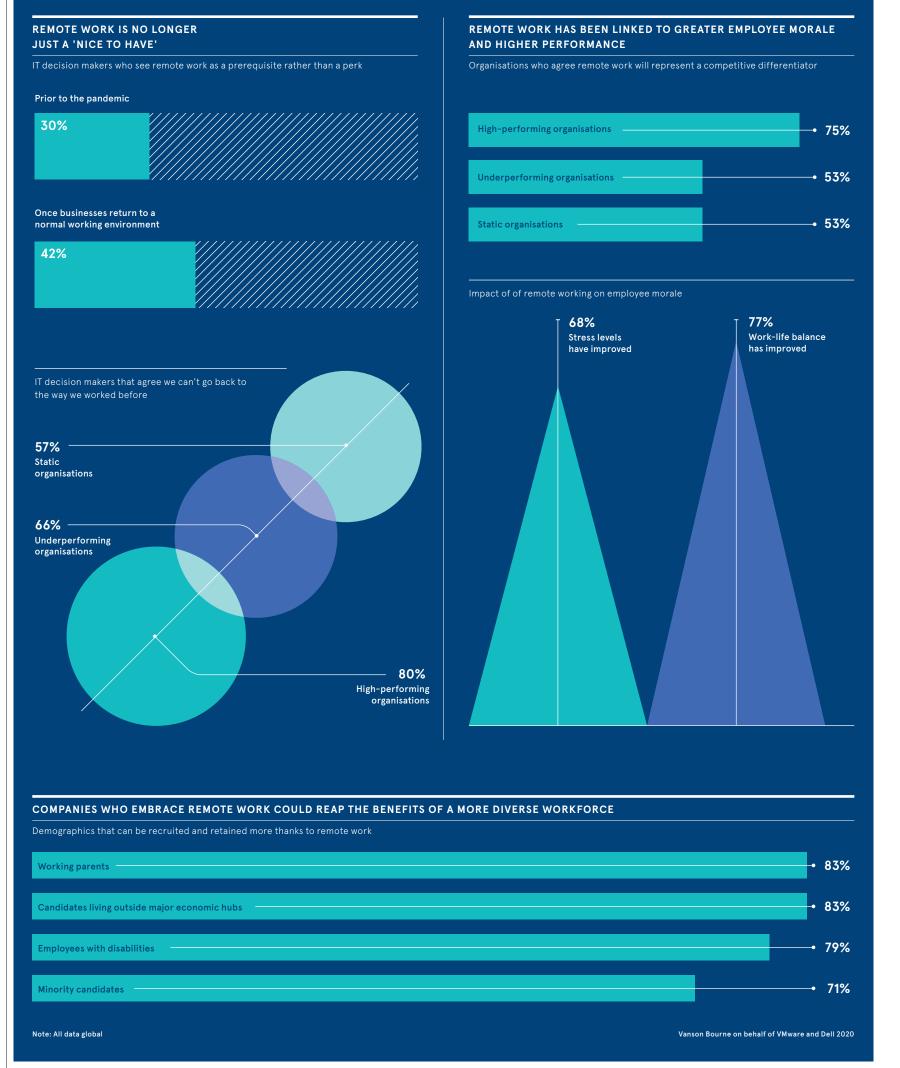
looked the strong culture and leadership | your own device (BYOD) arrangements, required to really execute the workforce | which are creating new information silos.

ar on from when organisations | model successfully over the long term. were catapulted, practically over- "For organisations to truly embrace the night, into a world of distributed | 'work from anywhere' model, managers

working, many are realising there can be no | will have to move away from monitorreturn to pre-pandemic workforce models. | ing inputs to focusing on output, all from Workplace practices deemed normal just 12 | within an environment of mutual trust, months ago now appear archaic and non- says Dr Carl Benedikt Frey, director of sensical. The future of work is already here. | the Future of Work Programme at Oxford Research from enterprise software firm | University. "Striking the right balance will VMware, The New Remote Work Era: Trends | be key to ensure employees are motivated in the Distributed Workforce, published | and while being in an environment where

rather than a perk. For Generation X work- The unprecedented shift we've seen in ers in Europe, the Middle East and Africa, the last year undoubtedly offers many this is the view of 53 per cent. Having | advantages to employers and employees realised the benefits of distributed work, alike. However, we should not underesseven in ten employees said their company | timate the required change in people management strategies to keep employ-Since working remotely, 73 per cent of ees engaged and productive. While execworkers said personal connection with utive leadership is important for setting colleagues has improved, 62 per cent | the tone, it's middle management that felt more empowered to speak up in vid- | needs to constantly demonstrate trust.

environmental, social and governance and culture, either. More than a third of goals, with 63 per cent of companies find- | those surveyed by VMware also said IT is ing it easier to recruit talent from minor- not equipped to manage a remote workity communities and 79 per cent disabled | force. The scale of today's distributed candidates. Three quarters of respond- workforce has proliferated the number of The reality is security ents agreed innovation now comes from | digital technologies and platforms in use more places within the organisation than but the whole experience is fraught with was not being designed challenges ranging from remote employee The research also exposed concern, onboarding and visibility through to comhowever, that management teams aren't | pliance, security and employee safety. adapting sufficiently to offer workers | Driven by their desire to remain operagreater choice and flexibility. Though the | tional and productive, organisations are pandemic forced them to adapt quickly moving additional applications to the and accept remote working, many over- | cloud and adopting more flexible bring



**ductivity has risen, or at least stayed** and new in a hybrid way.

into the distributed working model

tors have broken down the enterprise secu- the office." rity perimeter, amplifying the need for zero-

trust security models.

Every new device connected to an enter- | security controls to adapt to remote work- | challenge will be scaling that up and down, prise network represents a possible attack | ing and when revisiting them they're finding | with minimum cost and maximum agility. vector for would-be hackers. All these fac- many are just not designed to work outside "When we think about what happens next,

While most organisations have largely cal debt and regaining visibility, though not been in a light-on scenario for the last 12 | necessarily control," says Kyle Davies, prac-"It was great companies were, by and large, months, vaccination programmes are pre- tice lead of integrated technology architecable to get their people up and running quite senting a way out of the pandemic and ture at IT service and solutions provider CDW. quickly and easily when we first went into so it's crucial companies are now think- "IT has always had a fixation with control, but lockdown, but the reality is security was not | ing about their optimum workforce model | that's not the way tech needs to be delivered being designed into the distributed working | in the new normal. Whatever balance of | today. We need visibility for compliance and model," says Spencer Pitts, digital workspace | physical and virtual working they land on, | maybe a bit of control, but it shouldn't be a chief technologist at VMware. "An enter- | a modernised application approach will | control-first methodology. Security is a big prise network was always linked to a physical | be essential to continuing to deliver dis- | play in reducing technical debt and gaining workplace. A lot of companies gave up some | tributed working well in the future. The | visibility is the foundation."

it's about flexibility, choice, reducing techni-

**Spencer Pitts**, VMware's

digital workspace chief

**Kyle Davies**, practice

technology architecture

vision of IT in the world

of distributed working,

where people, culture

the digital experience

and collaboration define

technologist, and

lead of integrated

at CDW, share their

# Put people first in the new world of work







There have been significant productivity benefits from distributed working, though there have been drawbacks too. In VMware's study, 59 per cent of employees said they feel more pressure of employees said they feel more pressure that they feel more pressure of employees said they feel more pressure that they feel more pressure they feel more pressure they feel more pressure of employees said they feel more pressure the feel more pressure they feel more pressure they feel more press There have been significant pro-

to be online than ever before. We might | deep back in history. That's one of the big | tion officer (CIO) has to play a huge role and | ings on real estate and other areas, and | future of work please visit think presenteeism has been eliminated in changes from the pandemic: people now that means evolving IT as we know it. The then reinvest capital into their people, www.uk.cdw.com/about/partners/ the traditional sense, but people still feel | realise we need to move more to an out- | traditional IT department's job was to pro- | processes and technology. Central to the | vmware-and-cdw/ the need to overcompensate by attending | come-based way of working, measuring | vide devices with some collaboration and | model will be security, digital experience more virtual meetings, being online more | output and not just time. The problem | office productivity tools on them and then | management and abstraction of the difand sending emails late at night. Equally, as was they didn't fully understand how to make sure users could access them on any ferent layers of the workplace out into difsoon as they're allowed to get back to their | measure productivity from different per- | device, within reason. But they can't just | ferent services. You have to understand usual activities, hobbies, sports and so on, spectives. You need to be able to quan-sit in that mode of providing basic services what your users are consuming and why, they will return to the lifestyle habits they tify digital employee experience, which anymore, they need to be working with the availability and how it is all delivering had before the pandemic, which means | basically means, can I measure if you are | other stakeholders. Onboarding is now on | remotely. Having all that as an abstraction | the extra hours of work they've been OK at home, or your workplace, and do their list, for example, and understanding layer is the end-goal. Change must happen putting in, potentially, will not continue. | you have what you need to get your job | if employees are happy. Originally these | without impacting the underlying experi-Distributed working is here to stay, but the | done effectively? If you can't quantify | tasks would have sat solely with human | ences to users.

to running the entire business.

Have you engaged with your users? Do you | secure applications and you'd make sure know what processes they need to follow? | everybody had what they need to get their or is it going to make their life harder? The | a rigid nine-to-five, time-based concept, to start with the top and then filter down world. Companies are faced with a unique from there. Without proper collaboration | opportunity to redesign their workplaces a distributed workforce, how can you see | time. Think people, process and then finally | take organisations through all the practhe same, during the pandemic. Will distributed working be a permanent shift?

In the early days of lockdown, I did unfortunately get calls from people Agility has to be at the heart of everything.

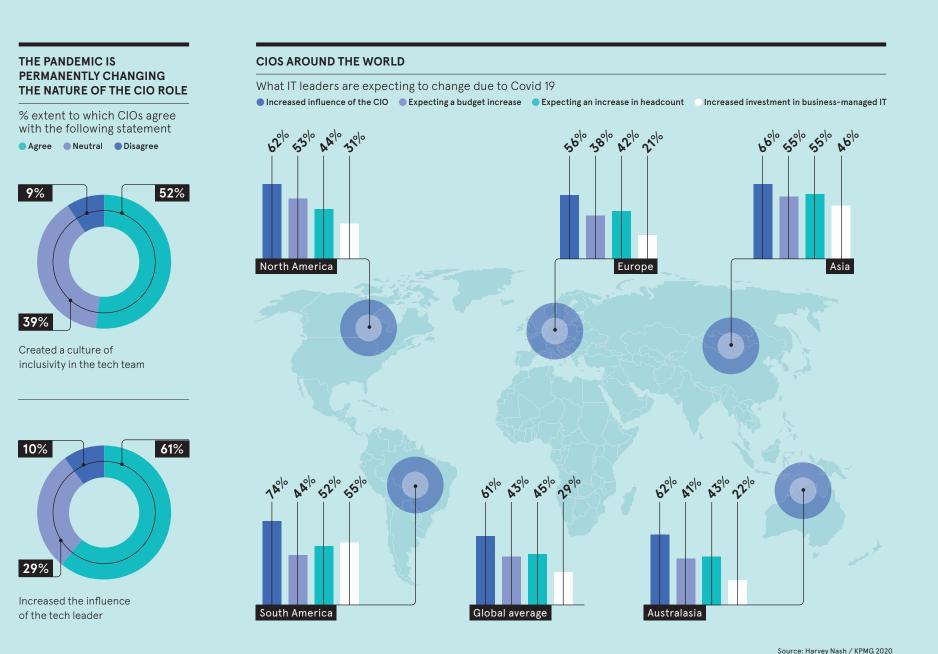
resources, but in a distributed workforce they rely on technology. Lines of business of business leverything about how we used to also now rely on digital applications more work from your memory, how would you than ever to perform their duties, and the design workplaces today? You certainly CIO's presence at board-level has been wouldn't have your people commuting into elevated because technology is so integral | a massive office every day. I think most people would envision the office as a col-It has to start at the top. If your leaders are not going to lead by example, from get the best engagement out of their prea key stakeholder point of view, then your IT | cious time. You would design for a distribconsumers aren't going to adopt it either. | uted working methodology with modern, Will technology save them time doing this | job done effectively. By not viewing work as new digital workforce experience has to be | but rather based on outcomes, you can a very collaborative engagement and it has also extend your talent pool around the Many companies have found productivity has risen or at least stated and power and po tice steps from where they are now to that ultimate nirvana.

**m**ware

CDW PEOPLE

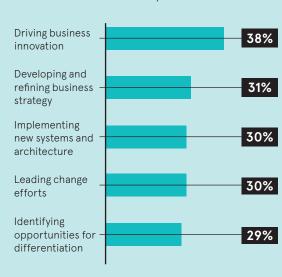
GET IT

# THE FUTURE CIO

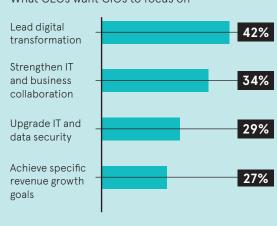


As CIOs take on a broader role across business driving strategy and transformation, the skills they and their team need are changing too. Alongside a growing requirement for knowledge of newer areas of technology such as Al and cybersecurity, CIOs also need softer skills associated with business leadership, from understanding how to influence others and foster collaboration, to creating a culture of inclusivity.

## **BUSINESSES WANT CIOS TO TAKE A MORE** STRATEGIC OUTLOOK The activities CIOs hope to focus on in the next three years



# What CEOs want CIOs to focus on



Source: IDG 2021

Source: IDG 2021

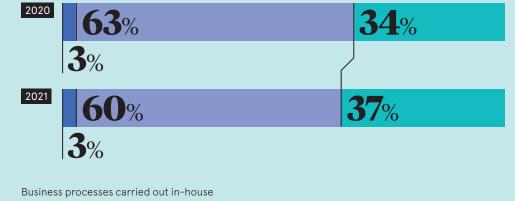
# CIOS ARE STRUGGLING TO STRIKE THE RIGHT BALANCE BETWEEN BUSINESS INNOVATION AND OPERATIONAL EXCELLENCE

Transformation is taking precedence but there is a pressure on functional tasks The activities CIOs are currently focusing on



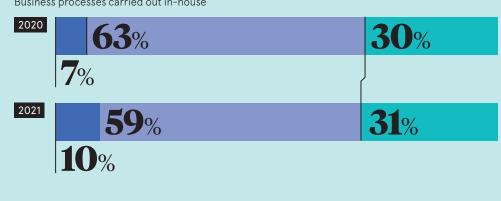
# Source: Harvey Nash / KPMG 2020 TECH TEAMS NEED MORE SKILLS AS FUNCTIONS ARE BROUGHT IN-HOUSE THERE IS A GROWING SKILLS GAP IN THE IT TEAM Shifts in supply due to Covid-19, % of respondents Top five skills shortages highlighted by Covid-19 Decrease No change Increase Duplication of important suppliers

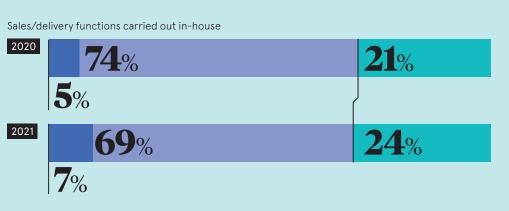
Source: Gartner 2021



Increased collaboration between

the business and tech teams

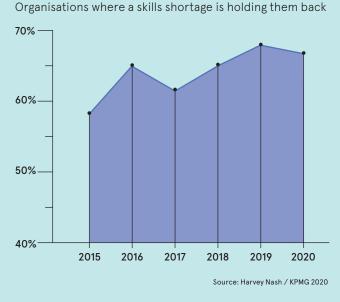




# **26**% Organisational change management Enterprise architecture **22**% Advanced analytics Organisations where a skills shortage is holding them back

**35**%

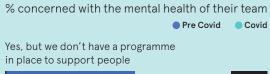
Cyber security

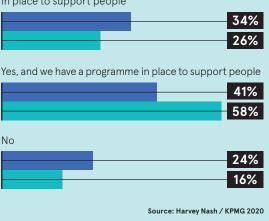


# CIOS ALSO NEED TO CONSIDER SOFTER SKILLS

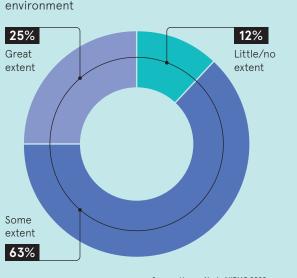
% concerned with the mental health of their team

AND TAKE CARE OF THEIR TEAM

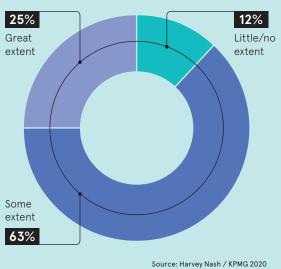




# CIOS ARE RETHINKING WHAT IS IMPORTANT The extent to which current ways of working



# promote a healthy and sustainable work





# The open path to digital transformation

Success in the digital age requires open culture, processes and technology. Experts at a virtual roundtable discuss how these interact to accelerate change. To watch the full roundtable on demand, please visit raconteur.net/topic/sponsored/redhat-transformation

# **Gren Manuel**

ture. For organisations undergoing transformation, what does an open culture the time and purpose to contribute their there is the principle of meritocracy of overarching set of values and I think that the time and purpose to contribute their there is the principle of meritocracy of overarching set of values and I think that the time and purpose to contribute their there is the principle of meritocracy of overarching set of values and I think that the time and purpose to contribute their there is the principle of meritocracy of overarching set of values and I think that the time and purpose to contribute their there is the principle of meritocracy of overarching set of values and I think that the time and purpose to contribute their there is the principle of meritocracy of overarching set of values and I think that the time and purpose to contribute their there is the principle of meritocracy of overarching set of values and I think that the time and purpose to contribute their there is the principle of meritocracy of overarching set of values and I think that the time and purpose to contribute their there is the principle of meritocracy of overarching set of values and I think that the time and purpose to contribute their there is the principle of meritocracy of overarching set of values and I think that the time and purpose to contribute their there is the principle of meritocracy of overarching set of values and I think that the time and purpose to contribute their there is the principle of meritocracy of overarching set of values and I think that the time and purpose to contribute their there is the principle of meritocracy of overarching set of values and I think that the time and purpose to contribute the principle of meritocracy of overarching set of values and I think that the time and purpose to contribute the principle of meritocracy of overarching set of values and I think that the principle of the p

For me, an open culture is all about authenticity and being able to bring your true self to work. It is also very impor- | have everybody bringing their best self to | organisational model tant to have authentic leaders who let people | work is to have an organisation with a be accountable. You need a high degree of trust and to embrace failure as part of the Provided you have that overarching theme Which is more important, culture, protection and to embrace failure as part of the Provided you have that overarching theme learning and development process.

I'd add that it's predominantly about building on each other's ideas, ensurreally great product. You need joint purpose, values and priorities that can guide create an open culture? people to really collaborate.

both are important

AS At Colt we do a lot of work building knock on the big office door. There's something in

est and people within structures. But I

An open culture is all

about authenticity and being able to bring your true self to work

ideas and participate.

here. Sometimes the best way to community and one we apply to our entire culture as well. in place, it allows everyone to be them-

what they have. Yes, it is about getting | at ease, even if you're talking to the CEO. | ters and not hierarchy is a key challenge. | methodologies as well. something, but it is also about giving, and You feel you can challenge more than when you were in an office and had to

> There's something interesting in there's something interesting in the business units, and various lines of business units, and b was a kid, leaders had to be perfect, to ness. We can align values and behaviours, know all the answers. Now I think leader- | and I think that then drives a set of cultural ship is more about asking questions and | principles, which gives direction. But you getting good answers from people much | have also to accept there will be different | more junior to yourself. I think this is some- | cultures within the business and then you | thing we're just starting to lift the lid on. | have to play to the strengths of that as well. |

What is the culture of winners in the digital space? And what is the culture of those who are lacing?

What is the culture of winners in the digital space? And what is the culture of those who are lacing?

I think the key thing is you have core values, a wide statement about what you are as a company. Obviously, this would in the future is not

get interpreted a little bit differently in The key thing is every culture has its reason; they are optimised for certain things. A top-down structure is opti- | tions. But I think it's important to have cermised for efficiency, but not optimised for | tain clear values and a purpose everybody dealing with an uncertain kind of future. | can get behind.

your strategy and tools.

You have to be careful about impos- | - for us that is really big ships, fast planes | ing culture to a certain degree. For | and some big armoured vehicles - as well | example, if you're acquiring a startup, you as the software to go with them. You need need to be careful not to absorb or over- both, but when you are using edgy, startup Open source not only whelm them with a large-company cul- type processes, there is a challenge i ture. Also you have to look at the project: | scaling them up. is it a major infrastructure programme where the priority is safety and security? Or a digital transformation that needs unteers who are wanting to do something forward in a way you can speed? We have to allow for different cul- | different and are motivated. It leads t tures within a joint purpose.

Does dealing with multiple cultures create a management challenge? What's the best way to connect open processes to the rest of the business? At Colt we operate from 21 different countries, but I think you have to BF We are trying to set up teams led by "product owners", multi-skilled indithink not at the team level but know people | viduals who naturally know agile methodas individuals, what motivates them, and ology and run multidisciplinary teams. understand the kind of values and behav- | They understand the business but also iours that are dear to them. You can't have | deeply understand technology, bridging a cookie-cutter process saying this is your the gap. One way of finding these people is and the impact on attracting talent. It culture and this is the box you fit in.

Let's start by talking about open culagree inclusion and diversity are important by talking about open culagraphics. Undergoing the top organisations undergoing the top organisation or the top organisations undergoing the top organisation or the top organisation or the top organisation or the top organisations undergoing the top organisation or the top organisation or the top organisation or the top organisations undergoing the top organisation or the

with agile/DevOps/DevSecOps or is this a simplification? the same time in charge of the business and the same was true for their direct open technology without an open

ple to really collaborate.

Building on that, we encourage people not only to develop code, but people in the backgrounds, kids flying in, cats on people and to really collaborate.

By I think it's easier because everyone's point of view, it's hardest to change. point of view, it's hardest to change. Work with.

I agree, but also from a management point of view, it's hardest to change. Work with.

We are in the insurance industry, which is loos to the people in the business so land to really collaborate.

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By I think it's easier because everyone's work with the right to obstance the population of the people in the business so land to really the population of the people in the business so land to really the population of the people in the business so land to really the population of the people in the business so land to really the population of the people in the business so land to really the population of the people in the business so land to really the people in the business so land the people in the business so land the people in the business so also to publish it, going out to the com- keyboards. And it breaks down barriers; becoming more digital and building a mer- how we use artificial intelligence and they can do it themselves, things like low now. Open source not only motivates staff,

tion. You have different offices, perhaps a going out of business any time soon, espe-

behind walls or a black

providing integration at

box, but very open,

the back end

higher success rates.

For me, open culture, open source like Google and Facebook are all contributand open technology go hand in ing to open source communities. hand. And in the future, I believe all companies will decide to go this way because if you don't embrace this technology, you're limiting yourself from setting up a true platform business, where everyone builds on each other's ideas and enjoys network

Whenever we buy software, we challenge a proprietary solution against red.ht/transformation open source solutions. We need to assess risks and costs, all that we have already discussed, including the cultural aspects

motivates staff; it also helps drive technology later consume

our new graduate scheme that brings ends in a case-by-case decision.

trough lift in the commercial side of the business, so to a need-to-share mentality; open probably appear quite strong, but you they can grow up in the organisation and standards are the key. We have just

s and participate.

Ideas where the best idea wins. It's a printy idea wins ideas where the best idea wins. It's a printy idea wins idea w silo that was a separate IT company. But | If your competitive advantage in the past when I joined Talanx eight months ago, I | was your intellectual property, patents and Let's talk about open processes. Have we reached the perfect model found something very interesting, the management board in charge of IT was at all away immediately by fully opening up.

Culture, absolutely. [Management writer] Peter Drucker said culture eats strategy for breakfast; this means you

a simplification?

As From my perspective, we are still on a journey. We have half the organisa
when I did some meet and greets with the between culture and open technology, ing people are willing to share in building a really great product. You need joint purrun a very physical business, and the other | didn't matter because they were fighting | But it also attracts the people we want to

munity with something of value, sharing | we're all in the same boat and it puts you | itocracy culture. Where competence mat- | machine learning to help us in these agile | code or no code. It's a democratisation. To | though; it also helps drive technology forme, IT in the future is not behind walls or a | ward in a way you can later consume. Plus, But you can never have a single culture, especially in a global organisation.

We absolutely need to move to black box, but very open, providing integration at the back end.

what you need to understand is open gration at the back end. tion engine. When you think about cloud, Moving onto open technology, what is the connection between open culture coming out of open source communities, partly because the big web 2.0 companies

For more information please visit







enabler for growth.

# The role of humans in automation

What if there's a power cut? It seems like a silly question, but it's a reflection of deeper issues surrounding the role human workers play in companies turning to automation

'Companies that have

enabled technology skills

and ways of working across

the wider organisation will

sustain progress'

ogy visionary, a global thought leader, a retain talent, including those who are in the most personalised and relevant

chief customer officer and a talent mas- | digitally excluded and lack the skills | way. The future CIO will be central to

ter. The role is to enlighten, to delight, to required for work. After a year where organisations that continually step for-

share and enable through influence. This | work-life balance has been a focus, levers | ward across all these themes. The reach

face to the back-office function. Their job | tant. Future CIOs are humble, authentic | tion will spin out from an organisation

co-creation across departments, tradi-

proof their organisations and equip ity to securely manage organisational processes and technology, building and

them for resilience. To build that inno- | and personal data, and also find ways | reusing common components of think-

vative stretch across their organisation, | to share information to reduce friction. | ing and delivery, will be the benchmark

that have grown over the past 12 months

diverse, inclusive and always listening. | multi-disciplinary teams, rethinking gov- | Director, Government Digital Service

Diversity enables innovation in think- ernance to focus on processes that matter | Advisory Board member

CIOs need to address the natural fear | These approaches will increase pace, | of the future CIO.

Core to this is a demand for CIOs to | tional boundaries and sectors.

that accompanies change. This requires | agility and flexibility for all.

people, processes and technology, thoughtful collaboration. We must con-

themes that will enable them to future- | tinue both to uphold our responsibil-

a range of qualities: enhanced emotional The future CIO will constantly be eval-

intelligence that allows them to imple- uating new technologies, threats and

ment timely technical decisions while opportunities. These leaders will seam-

also being tactful, supportive and trans- lessly translate this to business impact

parent; and a marketing mindset they | with metrics, so the right organisational

can harness to ensure authentic commuldecisions can be made. Organisations

a backdrop of limited budgets and head- the right time, in the right place, using

count, user needs that are increasingly | the right technology. These organisa-

diverse, and the challenge of ever-evolv- tions treated CIOs as experts who are lis-

future CIO must be aware of, and able to There are no longer technology com-

connect to, opportunities that fill gaps | panies. Every company is a technology

in the market and do it at pace. Meeting company. Companies that have enabled

and exceeding these user needs requires | technology skills and ways of working

teams and networks that are represent- | across the wider organisation will sustain

ative of the market they serve; demo- progress. What is needed is agile deci-

graphically representative, culturally sion-making across organisation-wide Roxane Heaton

ing and delivery to enable solutions that | and adapting investment approaches. | Digital Leaders

In many businesses this is set against | have delivered services and products at |

ne future chief information | provide advantage tomorrow. Future | Digital confidence builds on skills.

officer (CIO) is a business strate- | CIOs must collectively address differ- | The ability to use tools to think and cre-

gist, a digital, data and technol- ent approaches to attract, grow and ate new ideas, as well as serving users

need to manually perform repetitive jobs. may not be able to survive. This results in streamlined operations and enhanced efficiency, which helps generate | Human touch more profit across the entire business.

demand. This, coupled with changing cus- | tation process. tomer expectations and a shift online, "When applied smartly, technology can need to reassess their automation offering.

some sideways glances and whis
brand and corporate marketing John

"1" corporations continue to ften talk of automation is met with | According to Kofax vice president of pers of jobs being made redun- Lipsey: "As organisations continue to dant. However, if the past few years have embrace digital workflow transformation, embrace digital workflow transformation, Technology must help to shown us anything, it is that someone automation becomes increasingly imporneeds to be there to fix the self-checkout in tant. In fact, full-scale end-to-end automation has become a matter of survival in Essentially, automation helps to relieve | the wake of the pandemic. More and more the pressure on workers during a labour customers demand frictionless experiences tedious, repetitive or shortage or at peak times, or remove the and businesses that don't provide them

# Despite mention of full-scale automation,

The importance of automation has grown | this does not mean "no humans allowed". in the face of Brexit and coronavirus, both | Automation technologies work best when of which promise continued disruption, used alongside humans and they should be driven by data labour shortages and fluctuating consumer | a key factor for CIOs during the implemen-

means chief information officers (CIOs) help provide relief for human workers by facilitating repetitive jobs. This can gen- repetitive or mundane jobs. In short, it will Is AI a cure-all? Andreas Koenig. "The main benefit of this on valuable data." is that workers can then focus on the tasks they do better than machines."

> ing automation, it is crucial to know where | they should start with their data, says Koe- | partner suppliers. it is going to be best placed. "CIOs need to nig. "Businesses, even though they need to "In atypical situations, though ing many manufacturing processes."

ket, which was seeing double-digit growth | deduct actionable insights," he says. even before the pandemic. "Increased At the core of automation technologies lies tory replenishment. will need to be handled. One customer may | of business insights that are generated. order a toothbrush, another a TV set. These two orders cannot be delivered through the same lines," says Koenig,

tify the opportunities and benefits automa- | long-term investments." Once the data has | fined objectives, this acts as a good testing tion may or may not deliver. Prioritisation | been captured, "complexity and errors can | ground before expanding the AI reach. • and knowledge of the restrictions of the technology to be deployed are also critical aspects for CIOs to consider

for thorough knowledge of the organisation and its processes, so it may make sense though it may sound trite, it is mandatory to provide guidance, proper change management and clear communication when 2016 introducing automation."

## Getting the foundations right For Koenig, the key technologies to look out for are "optical character recognition, intel-

ligent character recognition, natural language processing, robotic process automation, machine learning or deep learning". But businesses should not panic if they haven't thought about some of these technologies because the needs of each business will vary across industries. CIOs need to be mindful that there is not a tick-box list of automation technologies they need to have and, as Koenig points out, there is no silver bullet or a one-size-fits-all approach. A major benefit of automation is the level of scalability it offers, therefore starting with the basics can help solidify a good foundation for further investment, as well

as gradually introducing the workforce to new ways of operating. "At the end of the day, organisational success depends on the support of the workforce. Support requires trust and trust is built on

transparency or the democratisation of workflows to support workers," says Koenig. "It is paramount to identify the potential of the technology you are considering. Technology must help to design better

workflows and provide relief for tedious,

earning to the discovery of patterns in supply chain data - the painpoints and most crucial factors for smooth, successful management of a network – can be revolutionary. and provide relief from "As the data is interrogated under constraint-based modelling, the machine can extract the most influential criteria that mundane jobs. It will mpact inventory, demand, production need to serve human planning, risk and logistics management, and supply chain optimisation." needs, so any decision Many of the insights generated may not to automate needs to be have been previously understood or even known due to the sheer volume of data available. Access to such insights enables smarter

> els of network agility and responsiveness, helping businesses stay ahead of the curve.

erate leeway and the potential for more need to serve human needs, so any decision However, the GEP 2021 outlook report also throughput," says ProGlove chief executive to automate needs to be driven by and rely emphasises that automation is not a panacea: "It must be coupled with human insight into category demand and the impact of a First comes data, then comes automation | lingering recession, and continue to man-However, when it comes to implement- If businesses are going to start somewhere, age fluctuations in safety for employees and

planning decisions and introduces new lev-

process automation to reduce their reliance on individual spreadsheets and boost shared, real-time data and demand models."

In another white paper, Artificial intelli-

gence and its impact on procurement and

supply chain, GEP says: "Applying machine

keep in mind that automation has its lim- be compliant with privacy regulations, defi- rithms alone can fall short. Early on in the its," says Koenig. "Some processes just can- | nitely need to work more with the data they | pandemic when customers were suddenly not be automated for a number of reasons, capture. Data refinement is a key concern requesting toilet paper instead of Lego, including too many product variants dur- here. It is critical to invest in technology Amazon's algorithms were perplexed. The that goes beyond simply collecting infor- situation demonstrates that bulk ordering This is the case in the ecommerce mar- | mation by contextualising it so you can | and extreme demand surges need human

ecommerce transactions impact the fulfil- | a vast amount of data, collected by internet | "Businesses that combine human adaptabilment process as they come with drastically of things devices. How well you can process ity with machine-learning models will better different delivery times and formats that all the data gathered will govern the quality withstand the shock of unforeseen disruptions.

According to Kofax and Olik's white paper Using data for insights is still critical for busi- AI, it helps to start small and specific. GEP ness operations: "As the world evolves and suggests CIOs look to target specific prob-"Automation comes with a substantial more operations continue to be digitalised, lems. This allows teams to build confidence investment, limited applications and is business insights from data continue to be and by taking the time to understand where time consuming in the deployment process one of the fastest and most effective ways the biggest value can be extracted, and then too. It is absolutely critical to precisely iden- to derive value, from short-term actions to delivering a shorter project with well-de-

"Aside from adequate talent, all this calls  $\mid$  INVESTMENT IN AUTOMATION IS SOARING Spending worldwide in billion US\$. \* denotes a forecast

to build that talent internally. And even | • Intelligent process automation • Al business operations • Robotic process automation

- RACONTEUR.NET —(¬)——7

THE STATE OF CYBER INCIDENT RESPONSE

riage, skills and bandwidth challenge

Major technology projects all too frequently result in disappointment, so how can chief information officers ensure they avoid the common pitfalls and deliver clear business benefits?

12 months, largely driven by the coronavi- operations of the entire university, com- A powerful illustration of this in the elements of the role," she says. "What's more, and an organisation's internal and external

the critical nature of technology and how | focusing on "human-centred design". it enables every single business process," "There has to be a real need, from the people | **Understanding the painpoints** says Jots Sehmbi, director of innovation | who use a service, to want to use a service that's | The lesson here is there is a real risk of falling | tion into an ecosystem that sits around a | with customers," Ashton concludes. "And and technology, CIO and chief technology | digital," she says. "There are so many examples | into the trap of "digital transformation for the | company, with the CIO at the top, and then | the CIOs who do that will fly."

accelerated hugely over the past was faced with the challenge of moving the actually there, people didn't take up."

lasting and demonstrable business benefits. The success of this kind of rapid shift over a year ago. "Many doctors didn't want engagement and risk management can model transformation." Businesses were very More than ever, therefore, chief execu- puts into sharp relief the fundamental it and quite a lot of patients didn't want it, so help, argues Christine Ashton, who has held quick to have the CIO on speed dial during tives are looking at their chief information | requirement for every transformation pro- | it didn't take off at first," she says. officers (CIOs) to ensure technology-driven | ject to ensure from the outset it is solving a | Over the past year, catalysed by the pan- | Transport for London and oil and gas mul- | that, but we should be talking about someprojects do not fall into the trap of becom- genuine problem, says Wendy Clark, chief demic and the need for social distancing, this tinational BG Group now Shell, and is cur- thing much richer going forwards." ing costly box-ticking exercises that fail to digital information officer at NHS Blood digital service has gone mainstream. "Under rently a consultant with large organisations This means playing an active and "inva-"The pandemic really shone a light on like this right and that, she argues, means it any other way now?" she asks.

he pace of digital transformation | officer at the University of Essex. As the | of services that organisations have tried to push in almost every organisation has pandemic first struck, a year ago, Sehmbi out over the years which, until the need was ing the right team around you that can put Ashton believes that operating in this way

rus pandemic. But as the shock waves sub- prising some 13,000 students and 2,000 healthcare sector is remote consultations side, the continuing large-scale transfer of employees, online in under three weeks. with GPs, says Clark, who was executive and the day-to-day aspects is not completely. Instead, they can become the key to unlockoperations and services to digital will only "But we were able to do it and with very lit- director of product development at NHS separate, the two are inextricably linked." ing enormous value by moving the stakes

and Transplant. It is essential to get basics | most circumstances, can you imagine doing | on digital strategy. This is particularly the | sive" role in the organisation, while defin-

COVID-19 HAS SPED UP DIGITAL TRANSFORMATION NEEDS

CIOs with business problems," she says. "They % of IT leaders echnology we should be using so we stay up to • Permanently sped up

ake of digital transformation", says Sehmbi,

vho also sits on several external advisory

poards. "A lot of the time people don't come to

me with the question, 'what's the shiny new

who was group CIO at builders' merchants

ravis Perkins until January this year and has

eviously held similar roles at TUI, the Univer

"The thing that differentiates success and ailure comes down to the story," he says.

You must understand the whole business and you must be able to relate what you're ttempting to do in a way that can be best received by other people in the business."

An essential point to be aware of, he says, is technology is just a tool. "But businesses

are in the business of making money, so you

must be able to describe what you're doing

in those terms. Technology is the least part and the dullest part of what I do. For me, it's about identifying problems or opportuni-

ties where they exist. And the answer may

be technology or it may not," says Knight.

The role of the transformational CIO

A further major component of success is

the specific role played by the CIO, particu-

larly when it comes to balancing day-to-day

lemands against bigger game-changing

ojects. "CIOs have a never-ending work-

ity of Nottingham and Rentokil Initial.

allenge you're trying to resolve."

ctually trying to resolve."

late?' But really it's about understanding the digital transformation She explains this in the context of a realvorld scenario. "I may be told, 'I've seen a marketing artificial intelligence system hat will give us better intelligence about our customers'. That might sound great, but 47% I will ask, 'So is customer insight a current problem for you?' It's about shifting the conersation to understand the painpoint we're To move the dial in this direction, it is also portant for IT leaders to become great plainers to the business, says Patrick Knight,

Implemented artificial intelligence and machine learnings



¶ Undertook a large-scale software--a-service implementation



ook full of legacy challenges and other create very different relationships with proojects to deploy and roll out," says Clark. | viders," she says. "It should no longer be, 'I Trying to free up time to be focused on the buy your software and I take the risk of putting it in', but rather, 'I use your processes to The best way to tackle this challenge, she | make a contribution to my business, theresays, is to understand no transformational | fore you, as the supplier, must own the risk

connecting the transformational aspects stakeholders, beyond simple partnerships. IT leadership roles at Thomson Reuters. the pandemic," she says, "CIOs shouldn't lose

case now that IT is increasingly delivered | ing the CIO's contribution in business terms, "as a service" via the cloud, she points out. | rather than purely transactional ones. "It's "We have to convert digital transforma- about being truly bold with the business and couple As workforces become teams must collaborate ne future of the workplace has never looked more uncertain. More han one in three of us now work exclusively from home, according to the Office for National Statistics, and the idea that remote working isn't feasible, which some employers used as an excuse to keep staff in the office, has disappeared. Work is changing and with it, work policies and IT In the early days of the coronavirus par demic, employee IT policies and human resources rules went out the window as businesses moved onto a war footing. Workers were sent home and asked to make do and mend with whatever IT equipment they could find, while employees felt on call at all hours, struggling to juggle work prior ities and family life. That wasn't feasible, nor was it safe, for businesses and individ-"As distributed workforces become commonplace for many businesses, security teams must work to bring security practices

CIO and CHRO:

The new power

receive a suspicious email, when they're | There's a real pull to bring CIOs and chief people officers together to rethink what's possible with the advent of technology

**Rethinking HR** A wholesale employee re-education pro

more remote, chief

**Chris Stokel Walker** 

practices need to as well.

uals in the long run

information officers

and human resources

gramme to make people aware of the risks of working from home is vital. This requires strong relationships between the CIO and chief human resources officer (CHRO).

up to speed with the new working policies,

says Ian Pitt, chief information officer (CIO)

at LogMeIn. "The past year alone has given

hackers so many newsworthy events to take

advantage of, which has seen ransomware

and phishing attacks go through the roof."

While workers sitting in a physical office

among their peers can ask for advice if they

sat home alone it can be easier to be caught

out. The haphazard technology practices

installed in the early days of the pandemic

made that more complicated, as a single

and to keep the family entertained at night.

device could be used for work during the day

handoff between one team and the other in to build trust, and some of that takes time. This does not mean micromanaging this new future of work," says Jacky Cohen, The foundation of any relationship is employees, though; it's vital to give them vice president of people and culture at understanding each other's business and support, but not to be overbearing. Instead, Topia. "We both have shared goals: the CIO understanding your motivations." wants to have the right technology in place | That is because the office and ways of | information they need to keep themselves for security and data protection, but also working are changing significantly. Work- and the organisation safe while working they want to enhance the employee experi- places are likely to act more as social hubs online, is important ence. That makes IT's job easier."

on an even keel, this "new normal" phase | firm Slater and Gordon. requires chief people officers, or HR, and CIOs work together to shore up businesses' **Onboarding new staff** 

Remote workers during the pandemic

of employees worked remotely

part of the time pre-pandemic

any relationship internally: you need to part of the team is difficult.

usinesses with 81% or more of employees working remotely

usinesses with 61-80% of employees working remote

working practices and their cyberdefences. A major challenge that requires HR staff "It starts with awareness and then you "There's a real pull to bring CIOs and and IT staff to work together is the way start to implement controls, both from a chief people officers together to rethink in which new arrivals to businesses are technical perspective to help you with data what's possible with the advent of technol- brought on board during the pandemic. leakage, making sure you can monitor and One of the benefits of the new way of work- configure your systems from moving out of Cohen is seeing stronger connections | ing is it allows companies to be braver in | your safe boundaries, and prevent things built between IT and HR departments in who and how they hire. "It opens up a more from moving onto USB sticks." businesses. "I would hope there is already | diverse pool of talent where location is no | Successful collaboration between CIOs

INCREASED WORKING FROM HOME MEANS HR AND IT NEED TO WORK MORE CLOSELY TOGETHER

"That begins right at the start of the employee life cycle. How do you onboard colleagues and develop a culture with employees? How do you make sure they have the right facilities and right access to equipment, having potentially not met another person in their business face to face? This gives up lots of different challenges as well," says Charlie Knox, director of product and solutions at "people solutions" firm SD Worx.

One of the main aggravators of employee disengagement is poor IT; if people feel they aren't technologically supported to do their job, they quickly decide to stop engaging with the work they're set. For that reason, IT and HR need to not just co-exist, but to build upon each other's "It's not necessarily in my mind a distinct | establish your shared goal and you need | work, to improve the employee experience.

> trusting workers, while giving them the that people dip in and out of. That requires SD Worx had to increase the propor-

Managing distributed workforces is a technology and HR to more carefully dovetail tion of its IT systems available online challenge, says Yvonne Wassenaar, chief | together in pursuit of the shared goal of busi- | 24/7, says Knox. "We're increasingly seeexecutive of automation firm Puppet. "The | ness prosperity and making workplaces wel- | ing systems move into cloud technolextremes are much easier, what becomes coming, even if they're accessed remotely. ogy," he says. But with this, organisations hard is when there's a blend," she says. While "The experience of the pandemic has are seeing massive shifts in the way they the first wave of the pandemic brought chief shown us we don't need to be at a tradi- work. HR and CIOs need to collaborate to marketing officers and CIOs together in an tional workplace environment to do our ensure employees feel well supported in attempt to keep the business promoted and best work," says Jon Grainger, CIO at law tackling new processes. "As an organisation, we rolled out to all our employees an improved security awareness training," Knox explains

some sort of established foundation," she | longer the prerequisite to opportunities," | and HR is essential in the long run and, says. "If there's not, it's just like building says Grainger. But ensuring recruits feel apart from numerous other business benefits, will avoid IT chaos.

of employees are likely to work remotely

part of the time post-pandemic

# With privacy regulations getting stricter worldwide, being ready to notify in the AUTOMATION SEEN AS PART OF SOLUTION, WITH ITS OWN OBSTACLES For most, cyber incident

# response remains a challenge

With most organisations receiving more than 100 threat alerts every day and a reduction of endpoint visibility due to the shift to remote work, the ability to quickly detect and confidently respond to cyberthreats has become a difficult challenge for organisations to undertake on their own

police commissioner's comments make readiness exercises with leadership system quickly builds the bigger picture. it into the business pages of newspa- and that security is actually viewed as "The ability to quickly detect and pers, but it was clear organisations | a business impediment. of all sizes shared his concerns and, unlike with the drugs trade they were all

potential targets. Since then, the proliferation of

rity issues are likely, with two-thirds and response to enhanced detection

be right 100 per cent

merchants on the internet has accelerated even further control erated even further, amplified by a global pandemic that has seen fraudsters prying on people working from lucky once, we have to home. According to Kroll, the corporate investigations and risk consulting firm, national lockdowns have caused of the time ransomware to overtake business email compromise as the principal attack affecting companies.

"Part of this is because there is no business as usual and it is huge money "IT estates are now distributed and it's cent of the respondents overall. harder to monitor for companies that you're not sitting next to a colleague | couldn't deal with the big ones," notes | tack takes place," says Beckett. who can just do a quick sanity check for Beckett. "What is interesting is seeing "The attacker has to get lucky once,

in existing incident response processes, people in security share that concern Attackers are using enhanced learnas well as the lack of effective end- as they know the difficulties and costs ing, artificial intelligence and quanpoint and network monitoring solutions. | involved in identifying perpetuators. Companies were caught on the back foot by an unprecedented situation and | ing views on what is in place already. | the defenders' side, we have to quickly it has brought to the fore the lack of | Over half of corporate counsel were | identify those tools and techniques in basic controls, and the lack of process | fairly satisfied they had the right to | use. We are looking for the zero-day to put it right, because many organisa- audit their third-party vendors. Yet | vulnerabilities to identify and patch tions have struggled for budget to sort | fewer than 40 per cent of security | them before the attacker develops this out in a meaningful way through the | leaders thought it was in place or felt | an exploit. Use of our own enhanced

A recent study, conducted by Kroll, | and security standards being applied | us to do that." VMware Carbon Black and Red Canary | by third parties." among 500 security and legal leaders, Crucially, 55 per cent of organisahave suffered at least one incident that | time taken to contain and remediate | kroll.com/cyber led to a compromise of data over the | threats, with the same number wanting past 12 months. And when a cyberattack | to increase automation of the incident occurs. 92 per cent said they are not response process, yet half lack in-house completely confident in their ability to expertise or technology to do so. identify the root cause.

Security leaders indicate more secu- has moved from managed detection

2015, Adrian Leppard, then | believing their organisation is vulner- | and response, and now to next-gener-City of London police commis- | able to a cyberattack that could dis- | ation detection and response. Applying sioner, made a striking state- | rupt business or lead to a data breach. | enhanced learning to the tooling rime had eclipsed the Yet their ability to strengthen security | deployed improyes and accelerates the drugs trade in value to organised crime | faces numerous internal headwinds. | detection of indicators of compromise and the police did not have enough | Nearly half of respondents said they | (IOCs) and the ability to link two or more resources to tackle it. It's not often a lare not conducting regular security lareas that have been detected on the

> then isolate an attack as a way of then getting it off your system is the biggest thing companies are working on at the moment to minimise business interruption," says Beckett, "Our Kroll Responder service deploys endpoint agents to monitor networks and the endpoint. You quickly spot those IOCs The attacker has to get

or abnormal activities. We then have a team of shift-working analysts working 24/7 to detect those suspicious activities and do the initial triage, backed up by our global team of incident investigation and triage practitioners who analyse and determine what is going on." Three quarters of organisations

already use third parties as part of their The research also exposed some dis- incident response process, according that can be made relatively easily with- crepancies between infosec teams and to Kroll's study, and it's clear partners out fear of detection or being caught," | corporate counsel, with 52 per cent of | will play a key role in providing the econsays Andrew Beckett, managing direc- | the latter saying their organisation lacks | omies of scale required for effective tor and Europe. Middle East and Africa | readiness to notify in the event of a | monitoring and response. "Third-party leader for Kroll's cyber risk practice. security breach, compared with 43 per partners facilitate the speed and the augmentation of in-house services that "It was not really a surprise to us that | companies need, while dedicated mondidn't have strong monitoring in place | 54 per cent of security leaders said their | itoring technology gives the second and beforehand. A lot of organisations are organisation was spending too much third-line support expertise to respond using out-of-date, unpatched VPNs and | time investigating the little incidents and | around the clock when a major cyberat-

you. 'Does this look right to you?' 'Do | the different areas security staff and | we have to be right 100 per cent of the you think I should do this?' You don't general counsel worry about. Corporate | time. There is an arms race in terms counsel worries about attribution: who of the exploitation of new technology "The pandemic highlighted the flaws | was behind the attack? But much fewer | between the attackers and defenders. tum computing to either generate the "It is also interesting to see contrast- | next-level attack or bypass security. On

found 93 per cent of large organisations | tions said they need to improve the | For more information please visit

they had the right to check compliance | learning and artificial intelligence helps





THE DATA IS CLEAR: THE 'AGE OF THE OFFICE' IS OVER

**NEVER BEFORE HAVE COLLABORATION PLATFORMS** 

BEEN SO CENTRAL TO THE EMPLOYEE EXPERIENCE

- RACONTEUR.NET — (3)—9

of global employees do not want to return to the office five days a week

favour the flexibility of a hybrid

the amount work schedule flexibility

remote-office model

# **EMPLOYEE EXPERIENCE IS A NEW PRIORITY TO BUILD BUSINESS RESILIENCE** WHAT ARE THE KEY ACTIONS YOUR ORGANISATION IS TAKING TO WHAT ARE YOUR ORGANISATION'S GREATEST Base: 1.000 global IT leaders and decision makers

# CIOs lead on employee experience in a distributed workforce

Heavy reliance on technology to maintain productivity during the coronavirus pandemic has elevated the role of chief information officers, who must now reimagine employee experience for a hybrid world

pany leadership teams are now looking | work, enabling them to play a satisfyto the future. Chief information officers | ing, productive role as part of a resil-(CIOs) are working to reset strategy and | ient distributed workforce. Providing rebuild organisational resilience for a | all this in a secure, productive and | of IT leaders believe that enabling

For over a year, legions of employ- tant for CIOs. ees worldwide have been working from It's not just at the CIO level either,

universities suggests home working in | The fastest way to pivot to business and the future is likely to boost rather than | market changes is for IT leaders to make reduce productivity. The broadly positive | sure employee experience is at the core questions about what the future work- ogy tools to work productively." place will look like, but it's evident that With a growing number of organ

employee experience was also in the top five priorities.

More than half the IT leaders surveyed said enabling employees to work flexibly and remotely will improve the adaptiveness of the business. To become more adaptive, 63 per cent said they are evolving their data architectures to reduce | We have a seat at the data silos and democratise employee table and are uniquely access to data. And 60 per cent are actively investing in employee experience to improve the productivity and performance of a distributed workforce.

"Building a resilient organisation that | and drive the change can adapt flexibly and pivot quickly is all about people," says Kim Huffman, vice | required to embrace president of global IT at Elastic, whose | the new world of work solutions for enterprise search, observability and security are built on a single technology stack to enable users to instantly find actionable insights from any type of data in real time and at scale.

almost overnight, which changed the make data and documents findable.

ties into the employee experience and | free Basic tier.

th the rollout of vaccines and | their need to have unfettered access coronavirus-related to company systems and information, estrictions worldwide, com- regardless of where they decide to effective manner has been very impor-

home on a full-time basis, thanks in | but an entire mindset shift. "I call it the large part to the heroic efforts of IT | adaptive enterprise," says Huffman, | teams to equip them with the tools, data | "which means gearing up our organisaand support needed to stay productive. tions and the people within them to be A study by Cardiff and Southampton | as effective and productive as possible.

results of the world's largest-ever exper- | of the IT strategy and that means giving | are personally goaled on providing iment in remote working raise interesting | them the appropriate data and technol- | the right technology to improve company-wide employee experience enabling remote working will be an ongo- | tions keen to be more agile and flexible, | Elastic has been working closely with on behalf of Elastic, February 2021.

ate their response to market changes is a | journey of adapting their employee expetop business priority, according to 1,000 | riences to remote, distributed working. global IT leaders surveyed by Forrester | The company's solutions provide CIOs Consulting for a study commissioned by with a set of easy-to-use, powerful appli- "Elastic is focused on everything Elastic. Accelerating their shift to digi- cations to give their employees a consum- related to searching data," says tal business and improving customer and | er-like search experience to help manage, | Huffman. "Search is foundational to a

positioned now to

work with the business

employees to work flexibly

and remotely will improve the

wide variety of experiences, including

employee collaboration, which is what

"Organisations have an abundance of

content sources and applications, and

looking for information and content can

soon resume a more proactive posture

makes Workplace Search so valuable.

adaptiveness of the business

The need for companies to acceler- | customers to support them through the | Base: 1,000 global IT leaders and decision makers.

be like finding a needle in a haystack at times. Workplace Search is an effortless, low-cost way to boost employees' productivity and experience by unifying all the content platforms they use making access to data and information as fast as possible. We have released features in our products that enable organisations to do more at a lower cost, which our research shows many CIOs are having to manage. Having spent the better part of a year reacting to market changes, CIOs will

as they take a driving seat in reimagining employee experience for the hybrid ways "Workforces became distributed secure and monitor infrastructure and of working that will emerge post-pandemic. To do that effectively, CIOs should needs of employees and put a lot of | The Elastic Workplace Search prod- | lean into the relationships they've built pressure on CIOs to ensure employees | uct, in particular, is a one-stop shop | with other leadership team members, could continue to collaborate, con- | solution for the virtual workplace, boost- | such as heads of human resources. Truly nect and engage. Many CIOs still had | ing productivity by enabling users to | mastering employee experience in a

on-premises systems and datacentres, unify all their content platforms, includ- hybrid world will depend on having shared so it rapidly accelerated the move to | ing Google Drive, Confluence, Slack and | accountability across the executive team Salesforce, into one personalised search "CIOs' position has been elevated; we CIOs also had to change their security | experience. And, in response to the | have a seat at the table and are uniquely posture. Millions of people who worked growing cyberthreats faced by organisa-positioned now to work with the busiin offices were now remote, so CIOs | tions during the pandemic, Elastic took | ness and drive the change required had to change how they manage their | decisive action to integrate its end-point | to embrace the new world of work," fleet and protect their data. A lot of this | protection and security features into its | Huffman concludes. "We are going to start hearing less about complex digital business models where automation and data-driven strategies are employed to drive rapid time-to-value and increased

For more information please visit

agility to the business."



INTERVIEW

# From order taker to partner

In her eight years at Canon Europe, chief information officer Caroline Serfass has transformed the role of the IT function. She tells of challenges during the pandemic, what CIOs should be strategising and why a trusted relationship with other senior executives is so important

## Jonathan Weinberg

fass, senior vice president and chief informalevolve and adapt," she says. tion officer (CIO) at Canon Europe, the experience has brought professional satisfaction, Focus on the customer alongside the many challenges.

ple of weeks, we were able to have the whole | very internally focused," she says. "We still company function, all our employees, in have to do that because the whole com- Working with the CFO and CEO quite a productive way. People were very | pany relies on technology to run its opera- | Serfass's view is the CIO must "make it all we moved into changing the way we inter- on compliance, data privacy and security. cost-effective way", working with other acted with partners and with customers.

months, there has been an exciting part | picking that up as well. We've just leapfrogged several years."

in her home country of France, she worked | quickly adapt to changes and introduce | always at the best cost possible. as a software engineer in Brazil, at a medinew capabilities.

days: "I got immersed fairly quickly in quite other functions.

a big transformation into digital, some of ourselves; we don't need to do that anymore. One way this works at Canon is via an IT the more customer-facing side of things, Like the move to the cloud; we don't need to investment committee, chaired by the chief and that also started to establish our ecom- | build the infrastructure, it's all there.

Serfass praised for "clear vision" and a "brav- | you need to make sure it actually works | must present and justify the business case. ery to tackle change", something she and so | together and it's cost effective. It becomes | She says: "I don't run a profit and loss, the many of her CIO peers are in the thick of now. | more of an orchestration role. If I project | business units do. Everything I spend gets

Being a female CIO

remains very low.

Caroline Serfass became the first

woman on Canon Europe's senior

leadership team when she joined the

company, but the number of female

chief information officers (CIOs) and

other senior executives industry-wide

"It will gradually evolve with society

and with companies taking a stronger

stand for diversity," she says. "It's

a company responsibility to make

sure processes are such that those

"But it's also broader, starting with

why they choose them. You have very

dominated industry, Serfass realised

early on to "just be yourself and it's

few women who study technology or

As a woman in such a male-

possibilities are there.

engineering."

ever before has a year seen busi- | journey is never done. You have to continue nesses globally face such an to be sharp and suddenly, when you're a big ncreased reliance on their IT to company like us, standardisation is imporkeep operations going. But for Caroline Ser- | tant because it allows you to be faster to

Serfass acknowledges the CIO role is chang-"Initially the challenge was to make sure | ing industry-wide into one that is more cuswe could function. I'm proud that in a cou- tomer facing. "The history of IT has been

for IT departments in the digitalisation of | "In the back-end, you have your big ERP, | world, wants the same as the CIO or the everything, how we work with each other | this massive complexity you need to man- | chief executive, for the company to be sucinternally and how we drive all of that. | age to make sure the whole end to end works | cessful. Of course, the CFO will be putting well together, that you are compliant and a lot of pressure on cost-savings. That's nor-Serfass joined Canon Europe as CIO in secure. On the front-end, it's much more mal, because technology is quite expensive

at pharmaceutical giant Eli Lilly, eventu- the transformation of companies, espe- about the value that is given to the company cially when it comes to customers. It's by the tools and the technologies we have, Now at the heart of Canon Europe's dig- | always a partnership between the IT func- | from the capabilities we're able to provide." ital transformation, she recalls the early | tion and the business units or marketing or | Trust with the chief executive is funda-

a major ERP [enterprise resource planning] "We don't decide what the customer strat- the CEO's priorities are so the IT function is consolidation initiative, which is actually | egy is. But I am part of deciding where we | absolutely in tune with that," she says. still going on. It's a long journey, we're con- make investments, how we make them, "For the CEO, it's mainly about position solidating many different platforms and | how we drive capabilities. The role is only | ing the function in a strategic way, supportbecoming broader now.

"At the same time, there was also quite | "In the past, we had to build everything | prioritisation and governance."

A quick look at her LinkedIn profile sees | to go to Oracle, you need to go to SAP. Then | ness unit or function wants to spend money "As a CIO, you have to be in tune with | myself into the future, that is where I think | allocated in a transparent way. We explain your company and follow the priorities. The | the function is going."

OK to be different style wise". She

has never felt people treat her less

certain respect," she adds. "I think

to the fact you're just surrounded

by a less diverse set of people. I

"I think that position comes with a

you need to maybe accept and adjust

interact mostly with men. That creates

dynamics in itself, which you need to

Respect and the breaking down of

geeky stereotypes has also started to

come, finally, due to the pandemic's

impact and because so many people

have needed their IT function's help.

some people. You have to jump some

generations before some of that goes

away and everyone becomes a bit more

digitally savvy, then it becomes normal.

She says: "Time will tell, some

stereotypes will always take with

seriously as a female CIO.

adjust yourself to."

girls and which topics they choose and But Serfass is not sure this will last.

But at the same time, the whole customer | areas of the C-suite

"With all the downsides in the past 12 | agenda is more and more digital. We are | She says: "It has to be a partnership, right? The chief financial officer, in an ideal 2013 and is based at its Stockley Park HQ in | about the customer, designing an archi- | and, as an IT function and as a CIO, we have West London. Having studied engineering | tecture that is very data driven and can | a duty to deliver the services or the tools

"But a good CFO will know how far they "The role of the CIO and IT is crucial in can go to challenge because in the end it's all

mental, too. "You have to understand what

executive and with Serfass as CIO there "You need to go to Microsoft, you need | too, along with the CFO. Whichever busiwhat they pay for, the services they pay for, in a language they understand.

# Being a partner

It is this kind of collaboration that has led Serfass to change mindsets around how the CIO and IT function perform, moving her 400 Europe, Middle East and Africa T employees from what she describes as order taker to more of a partner".

"We work with them to actually try and get

id of some of the things they are paying for,

which we would say are not that useful."

It is a model other CIOs may do well to folw. She says: "The conversation should be what people need to do and what their prioriies are. Then the role of IT is to decide what's he best technology to do that, in line with, naybe, what we already have. Sometimes

CANON EUROPE AT A GLANCE



As a CIO, it's that blend of liking technology, understanding it and then really realising it's not only about that; it's really about the business agenda and how you work with people

reusing technology, or not using techno at all, might be the right answer."

becoming more crucial for all CIOs and Serfass advises: "You have to set the expectations with your suppliers, you have to establish a partnership. You don't want too many of them, you want a few, and then really make sure they are your extended ecosystem and they understand your objectives.

"You have to keep them sharp and make sure they give you the best people. IT is a people business, it's a skills business, so it's a constant effort to make it all work." And sometimes you have to take tough decisions and say "no", not least to prevent people from doing their own thing with technology or powering on with a pet project, says Serfass. "That makes you someone who's not

What you say no to defines your strategy, as well as what you say yes to," she adds. Serfass feels the future CIO must realise their job "is not done when you've delivered technology". "It needs to be fit for purpose, people need to use it, you always need to make it better. And it needs to help the bottom line and the end-customer," she says. "As a CIO, it's that blend of liking technology, understanding it and then really realising it's not only about that; it's really about the business agenda and how you work with people, how you define your strategy and help them be successful."

# The future CIO

understand.

Looking ahead, Serfass sees CIOs having to adapt fast. She says: "The world has changed with the pandemic and you have a lot more criminality online. It is a real threat for big enterprises and compliance and data privacy. "But at the same time, because so much

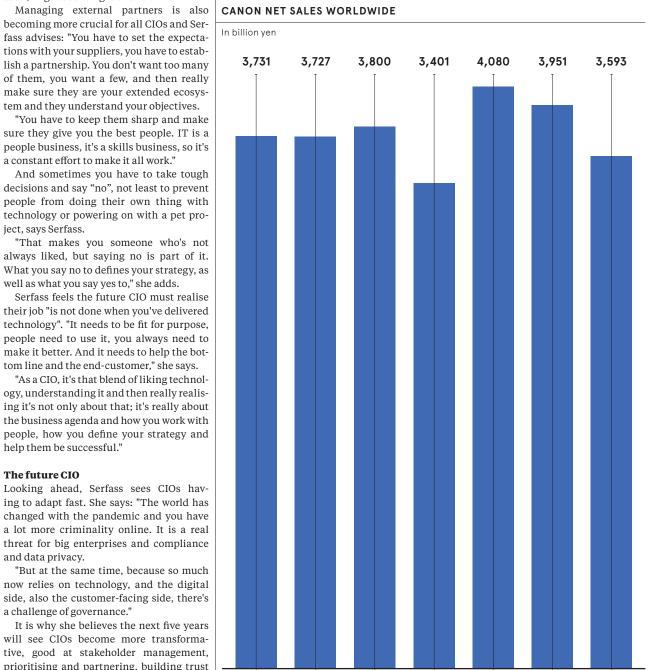
a challenge of governance." It is why she believes the next five years will see CIOs become more transformative, good at stakeholder management prioritising and partnering, building trust and being able to communicate so people

Serfass strongly believes it is not about "technology for the sake of technology". She transformation.

forming. That's what most companies now- | "It is how we work together between the | "There are some jobs you just don't need adays expect, versus a style that is more | IT function, the tools and the technologies, | any more, but you do that gradually. You back-office focused, pure technology, or and the people who understand data, and have to have these things on the radar being a pure service provider."

With analytics and artificial intelligence | ble for the company." key to powering digital transformation, Acknowledging such great technologi- and see, and you learn and you adjust and both on the business-to-consumer and cal change will bring job losses, but Serfass you scale."





2015 2016

explains: "You still want people who under- | business-to-business sides, Serfass adds: | says: "I don't think suddenly there will be stand technology, but it's a style that's more | "People now have it as part of their strategy | no work left, that is a fantasy. But it will be business focused and being part of driv- to be more data driven. We have established different types of roles, different skills that ing the business agenda, the end-to-end an analytics competence centre that really will be required. This is not a big bang." "It's really all about adapting and trans- | modern technologies like data lakes.

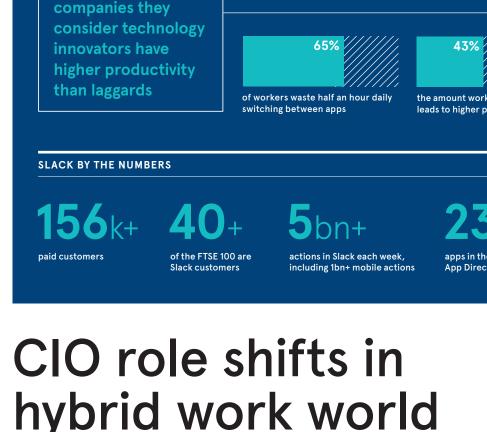
2013 2014

will help enable all of that, with some of the | Citing the evolution between stand-

2018

2017

ard infrastructure and cloud, she adds: then jointly create something that's valual and you have to educate yourself about it. And then you have to try it in one area



63% -

# hybrid work world

Throughout the coronavirus pandemic, technology has helped enable increasingly connected and productive remote work. Chief information officers now need to drive deeper cultural and technological transformation for effective hybrid work and powerful business growth

home and office time. While traditional | ing to level up the workforce from a tech | and clients. As they reimagine customer workspaces are expected to remain part | perspective and enable it to be truly effi- | journeys and related processes, and find of the business picture, "in many cases, cient and supported," says Butting. the old nine-to-five office culture and mentality is over", says Johann Butting. vice president for Europe, Middle East and Africa at Slack, the messaging app for business that organises conversations into channels for team efficiency and synchronisation.

ity they've been given in the past 12 months to manage work around childcare and other priorities in the home. changing needs of Presenteeism is slowly eroding in favour of flexible and efficient work."

port for hybrid work and fewer than 12 per team results no matter cent of knowledge workers want to return full-time to the office post-pandemic. | where they work This is according to research by the Future Forum, a consortium that includes Slack, Boston Consulting Group, Stanford University and Fortune magazine.

collaboration technology is in place, and share experiences, will also become particularly given the growing email | crucial. "CIOs will need to listen careburden for staff. "With remote work, fully to the changing needs of employ- Learn how to transform your organisaorganisations are finding the traditional ees, who want to be happy in the job and tion into a more connected, inclusive email inbox has become an informa- | able to achieve team results no matter | and flexible workplace of the future by tion vacuum, getting ever more complex | where they work," says Butting. and excluding important stakeholders," Butting notes.

A more flexible, hybrid work world is | manual processes, automate efficiencies | emerging, where employees increas- and design effective workflows. "The role | ful Slack Connect feature to communiingly choose their preferred mix of of the CIO will increasingly be about help-cate consistently with external partners

He adds: "People like the flexibil- | ClOs will need to listen carefully to the employees, who want to be happy in the job

## CIOs empowering hybrid work Employees have expressed strong sup- | and able to achieve

On the other hand, a complete focus

popular and nearly three quarters of tech, a major effort must be made around cent of the company's communications. people want the easier sense of belong- employee wellbeing. Remote staff are And the telecoms giant Vodafone has possible with the C-suite's enablement | hours. "There is no doubt employee well- | teams, moving from localised messaging of a nuanced approach to culture, tech- being must be front of mind in these and email threads, to intuitive workflow nology and operations. CIOs will need to technology-based changes. There must and knowledge sharing. staff and helping attract future talent. support their wellbeing," he says.

Simultaneously, CIOs face the press- | Technology heads at more than 750,000 ing need to shape new technolo- businesses have already introduced gy-based cultures that enable people | Slack as their "digital headquarters" to use systems well. They will focus on across offices and homes, increashow to protect efficiency: some 64 per | ing productivity and growth. Slack is |

t the start of the pandemic, with | cent of workers who feel aligned to and | enabling them to build a culture of all office staff suddenly need- motivated by core company values are hybrid, asynchronous work, leaving ing to work from home, chief still frustrated operationally, wasting behind the nine-to-five, and replacinformation officers (CIOs) had to quickly half an hour daily switching between ing complex email thread burdens and transform core technology and security. A | apps, according to research by Slack. | siloed productivity with live chat, borvear on, having witnessed strong growth | CIOs must consider how to cut the time | derless workflow creation and seamin output and innovation opportunities, | lost searching for information or trying | less automation. As a result, they are CIOs must now redefine the experience | to understand new platforms, providing | making projects more efficient, removfor employees, customers and partners, the resources and training necessary. In ing manual and complex processes, enabling effective collaboration, new rev- With the right culture and technology | improving satisfaction and productivity, enue streams and profitable growth. in place, technology leaders can drive out and strengthening documentation. Companies are also using the power-

new revenue streams for post-pandemic times, the walls between sales, marketing and customer service are dissolving Across markets, businesses are relying on specialist partners to deliver memorable and engaging experiences to secure

sales and deliver long-term growth. HM Revenue & Customs recently used Slack to help design, implement and deliver a number of digital services that allowed more than 12 million affected businesses and citizens to apply for financial support during the pandemic. Communicating in Slack channels, more than 2,000 people across 60 teams, mostly working from home, were able to collaborate at record speed. This helped HMRC deliver a project that

than five weeks. Meanwhile, Gymshark, the fitness community and apparel brand with more than 16 million social media followers, uses Slack to replace siloed on fully remote-based work is not that | As part of the focus on culture and | nal communications, hosting 95 per ing from at least some office interaction. commonly impacted by solitude, while | integrated the tool into everyday oper-Establishment of hybrid work is only being expected to be logged on for longer | ations for technology and architecture

would usually take several months in less

strike a careful balance of technology | be policies around how collaboration | The hybrid work world is here to and its influence on work styles, unlock- | platforms are used for work as well as to | stay. CIOs have a clear responsibility to ing effective hybrid work for existing | communicate with individuals to help | empower employees with the collab-In terms of systems, leaders will be Asynchronous work, in which people that enable productive, positive and tasked with ensuring more advanced | across time zones can easily collaborate | efficient work in all environments.

> registering for Slack Frontiers, taking place virtually this October



procedures to support a remote

Base: 1,000 global IT leaders and decision makers.

workforce and flexible work arrangements commissioned study conducted by Forrester Consulting on behalf of Elastic, February 2021.

A "clean room" in which two businesses can share data will help both gain new insights, but could raise serious legal and security questions

so-called clean rooms.

to cope with the loss of third-party tracking | Times, which is actively investigating how | tion towards the end of the year by helpcookies. Businesses realise they need to be it could use clean rooms to build a deeper ing to get the events industry back up on its

means of allowing two parties to interrogate | "We want to build deeper relationships | target market.

f there is one area of IT that chief | one another's data without revealing per- | with partner brands with an offering that

information officers (CIOs) will sonal information. need to master this year, it is | Use of clean rooms is likely to be led by | tables and events," he explains. These have been used for some time, most | databases of customers and their target audi- | the technology progresses and whether | by artificial intelligence, but only take away | sional secrecy.'

Facebook, Google and Amazon have offered | tion on who visits their sites. Combine the | such a way that they understand and con- | identifiable information. the past few years, but their use was rela- | would be able to confirm the type of people | tive when it comes to user privacy. For that This is going to change in the year ahead | the brand's desired audience. as companies adjust digital marketing plans | A case in point comes from the Financial

more reliant on their own first-party data, | relationship with brands that goes further | feet, according to Chris Sainsbury, founder but they also need to be able to combine data | than advertising, but would not require per- | and managing director of digital marketinsights to understand an industry better | sonal data to be shared beyond the organisa- | ing agency UX Connections. He is investiand improve their marketing performance. tion. Anthony Hitchings, digital advertising gating the technology as a means to enable Sharing personally identifiable infor- operations director at FT.com, says it is early event operators to work with publishers to mation with another business would mean days, but that the company is investigating reach their target audience. Whether it is There's the issue of breaking the General Data Protection Reg- | clean rooms as a means to discover if some- | a new conference with no database to work ulation (GDPR), unless the consumer has one who saw an advert, read a sponsored from or an established event whose data how clean the clean expressly given permission for their details | article or registered for an event fits within | needs refreshing, clean rooms will enable an to be shared. So the race is on to develop a an advertiser's target audience list.

includes partner content, webinars, round-

advertisers and publishers. Brands have "It will be interesting to understand how bases to interrogate one another, possibly underlying data, confidentiality and profes-

events business to know where it can find its

THE MAJORITY OF BUSINESSES ARE **NOT VERY EFFECTIVE AT GETTING** 

clean room will allow us to ensure we only % of 'digital leader' businesses and 'other' work with yachting publishers and perhaps | businesses that would describe themselves as other event organisers who have access to very or extremely effective at the following Digital leadersOthers

VALUE FROM DATA

It is likely the publishing, advertising and events industries will lead the way on clean ooms in 2021 because digital marketing nas traditionally relied on third-party data. When walls are erected around first-party value from the data, publishers will need to find a way to data you hold show advertisers they are opening up their nesses that could benefit from comparing lata with others are likely to join the trend owards clean rooms. Mike Reid, chief tech nology officer of Clir Renewables, explains

heir performance so they can learn from Executing on an enterprise-wid "Renewable energy companies need to know if their installations are producing as nuch energy as they should be and when intenance is likely to be due so they can "They are reluctant to share data directly, out by pooling it they can find out if, say, a

irbine isn't producing the industry average for wind conditions, perhaps because a sensor is faulty and it isn't being directed into able to see the mechanical performance of when maintenance is going to be required." If this trend is ringing security alarm ells for CIOs, it is for good reason. There are potential legal problems but, accord-

"We're working with a new luxury yacht-

ng event that has a very specific, affluent

target audience, but has no database," he

says. "We're going to be looking at whether

hat audience. Without this technology sit-

ing between companies, it's going to be ard for companies without a pre-existing ist of contacts to build up a new event."

the technology he is developing is starting o allow energy companies to benchmark

she believes the best way to avoid GDPR

and who you let in

Executing on an enterprise-wide data strategy

thinking about issues such as control of the

Maximising

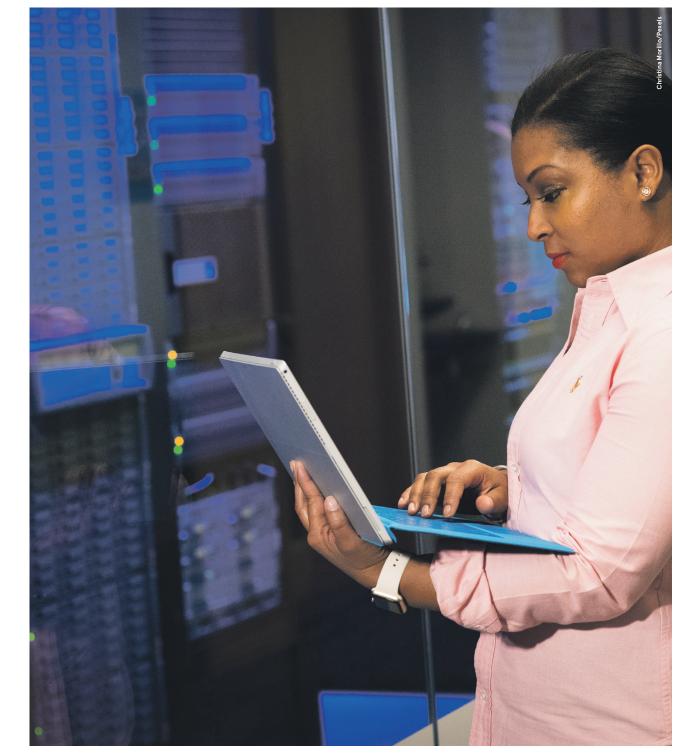
value from the

data you hold

and ensure both sets of data are legally combeyond privacy laws to ensure clean rooms | vital, according to Andrew Barratt, managreached by a campaign and compare it with reason, we are digging deeply to understand are only built with reputable partners. "Our ing director of data security business Coalclients will look much more widely than just | fire. He is actively investigating building Clean rooms are also likely to gain tractured the GDPR," she explains. "They will also be clean rooms for clients, but advises busi-

esses to proceed with caution. "Put two sets of data in the same place and you have a potential treasure trove for an intruder to plunder," he warns.

"Then there's the issue of how clean the clean room can actually be. There may not be a problem with your own database. The real issue is who you're going to let into a clean room. You just don't know where someone else has got their data from. It's a little like having a sparkling kitchen floor you let someone else walk on without knowing whether or not their boots are muddy."



# Getting more Black women into IT roles

Race and gender bias, as well as a lack of representation, are among the obstacles Black women face when pursuing a career in IT

omen, and in particular Black | for under-represented groups, things need other professions.

a report with J.P. Morgan in January that says Chinonso Izugbokwe, managing director not represent society identifies "the gross failings of businesses | tor of Get2Talent, a recruitment agency to collectively address and act upon racial | committed to promoting and driving diverdisparity in the workplace".

Afiva Chohollo, director of technical programme management at digital identity | recruitment stereotypes remain a signififirm Onfido, says: "For companies with big | cant barrier to Black women's career entry pockets and all the ideas to solve the world's into IT. However, it is also difficult to iden- City in Salford. Offering technology bootbig challenges, it's not an acceptable excuse tify and prevent. to not have Black people and women in your teams, particularly in major cities like Lon- can be designed to reduce the role of gender for women and the Black, Asian and minor-

resent society.'

Black female leaders in the IT sector, which der recruitment stereotypes," he says. then discourages Black women from pursuing a career in the industry.

affirming to see someone like you when puts off Black female candidates as they canyou walk into a room because dealing with | not see future opportunities for development. | ing to not only upskill women in tech, but micro-aggressions is more challenging There are, however, several initiatives also work to change the narrative and dispel than anything," says Chohollo.

Black women within that," she says. "If organisations are serious about turn- HOST, the Home of Skills & Technology | tion on behalf of customers and ultimately

% of each demographic in the specialist IT workforce

20192020

BLACK WOMEN ARE UNDER-REPRESENTED IN IT ROLES

**- 20**%

women, are hugely under-repre- to be done differently. Change cannot hapsented in the IT industry. Research | pen overnight, but we all need to build a from the British Computer Society (BCS) sustainable pipeline of talent, rethink how sustainable pipeline of talent, rethink how Important, life-impacting shows Black women account for just 0.7 per | and where we source talent, provide the cent of IT roles, 2.5 times below the level of career path and have visible role models. applications should not You need to see it to be it."

Black British Business Awards released The problem starts with recruitment, sity in the hiring process.

don. It's lazy and negligent and bad for the recruitment discrimination, such as making ity ethnic community in the North. the recruitment process gender neutral, pro- Additionally, the TechUPWomen train-"Important, life-impacting applications | moting female candidates in their selection | ing programme recently took 100 women should not be built by teams that do not report or anonymising CVs. The hiring managers from the Midlands and North of England and talent acquisition team alike can avoid | from under-represented communities, with One of the key issues is the absence of the negative outcomes associated with genderes or experience in any subject area,

guidance promoting career progression with a company for an internship, appren-"Role models are important. It is always | opportunities poses another problem. This | ticeship or job

currently underway to encourage more | industry myths," says Dr Rashada Harry, Dinah Cobbinah is the first Black Black women into tech. Coding Black enterprise account manager at Amazon female partner in KPMG UK's history. She | Females has joined forces with the BCS to | Web Services, and founder of Your Future, recognises there are few women in similar offer 50 women membership of the BCS. At Your Ambition, which encourages young the same time, Niyo Enterprise and Coding | people to pursue careers in science, tech-"There aren't many Black women in sen- Black Females have partnered to put on a nology, engineering and maths. ior roles, let alone within IT. But when you six-month Coding Bootcamp programme "This work is critical as organisations start to funnel down in terms of ratios of | for UK Black women aged over 18 who are | and leaders recognise the importance that women in IT roles, there are even fewer unemployed or employed with a salary of culturally diverse perspectives bring to less than £25,000.

Black women

be built by teams that do

camp academies, it says it is committed to "Recruitment processes and practices fast-tracking 450 technology career starts

and retrained them in technology. It then Izugbokwe adds that lack of recruitment gave them the opportunity to interview

businesses, especially in fostering innovaing the dial and increasing opportunities | at MediaCityUK, has just launched Skills | advancing the wider industry."

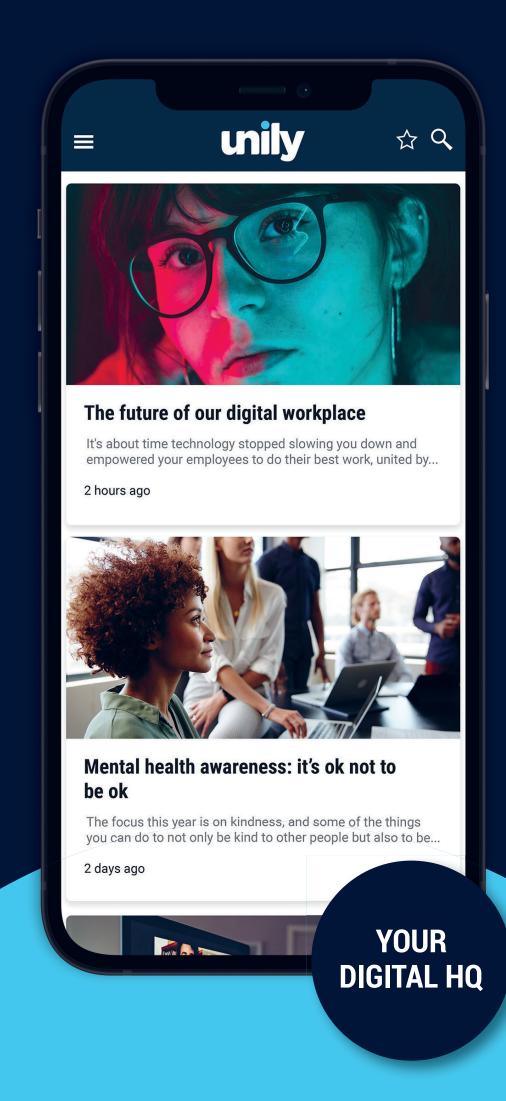
The IT skills gap continues to cause problems for organisations, especially with the pandemic forcing organisations to accelerate their cloud migrations faster and digitalise their business processes. But there is now an opportunity for organisations to fill that skills gap, while diversifying their workforce.

Organisations must start by examining how accessible their employment practices are and what barriers to entry exist to candidates of all genders and ethnicities. "Being a woman comes with its fair share

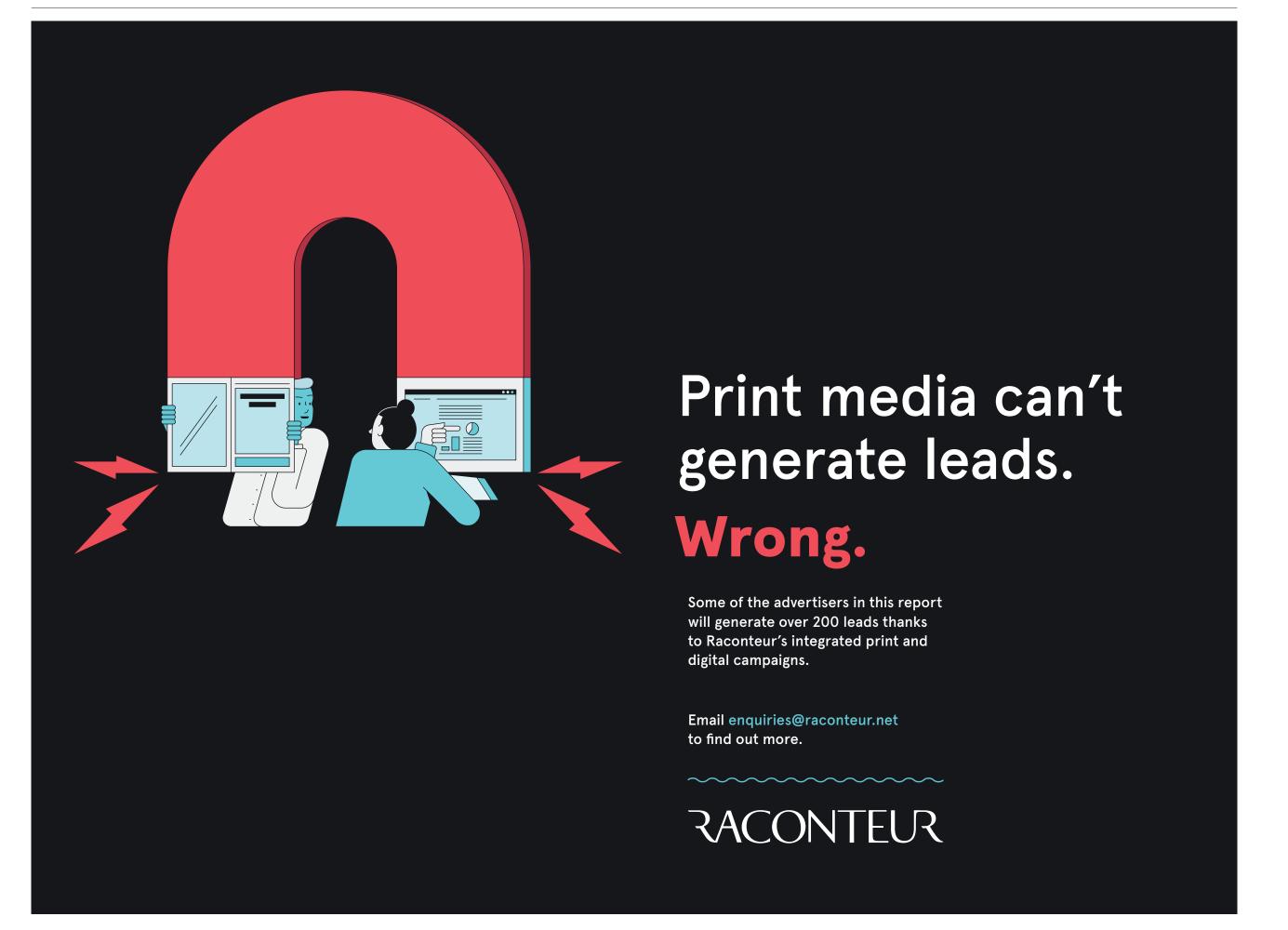
of challenges, often facing gender discrimination and bias in the workplace," says Izugbokwe at Get2Talent. "But, if you are a woman of colour, these gender-based challenges are often compounded by obstacles of racism, making it even harder for Black professionals to navigate their way to the top.

"Organisations need to evaluate their work performance strategy to see if they have barriers in place stopping Black women BCS 2020 from reaching roles that are more senior."

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# STRATEGY

# Five priorities for CIOs

Trends accelerated by the coronavirus crisis present challenges and opportunities; dealing with both has increased the workload for chief information officers

**Oliver Pickup** 



## Regulatory compliance and security

he entry might have been the past few years, but the mass jump to working away from the office catalysed by lockdown has meant be on top of data management, security and compliance.

"The shift towards remote work and digital operations has meant the information security posture of many businesses, faced with an increasing amount of threats, has had to improve," says Federico Baldo, CIO at Eurotech, a multinational company supplying internet of things solutions.

"Security starts at the top of an organisation and, while chief executives do not need to be security experts, to more secure intellectual property.

they do benefit from an accurate understanding of the relevance of security to their organisation. And for many number one in the charts for smaller businesses, in particular, it is the CIO's job to lead the internal security programmes."

Caroline Carruthers, chief execuchief information officers (CIOs) must tive of data strategists Carruthers and Jackson and former chief data officer at Network Rail, says a mindset transformation is required. "My biggest piece of advice for CIOs when it comes to regulatory compliance is they need to stop thinking about security and privacy as a tick-box exercise," she says. "It's essential they see this as a positive opportunity rather than a hurdle to overcome."

There are enormous advantages for the organisations that get compliance right, she insists, from increased customer trust

### **Modernise IT infrastructure** and systems

COVID has tested the robustness of supply chains, business models and information technology systems alike. In many cases, it exposed worrying vulnerabilities.

"After the immediate response to the pandemic, it allowed the time to look at IT systems and assess whether they remained fit for purpose," says Jean-Sébastien Pelland, deputy managing director of Eland Cables, a global supplier of cables and cable accessories.

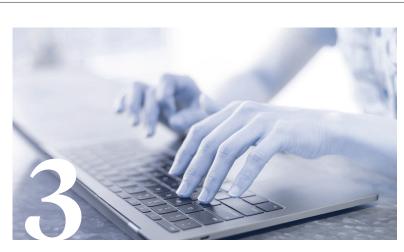
"Businesses constantly evolve, requiring IT systems to adapt rather than making wholesale changes, simply due to the pace and perhaps uncertainty of the new avenues. Now is the time to make sure the systems match the business as it stands today."

This chimes with Sharon Mandell. CIO of Juniper Networks, a multinational cybersecurity company. "As we 'cloudify' and 'SaaSify' our entire product line, Juniper also needs to update its IT architecture. We need one that's more nimble, that brings new capabilities and that's more user aware to enable the experience our customers and partners desire throughout their journey with us," she says.

Like many organisations, Juniper has pivoted its offering, in part because



of the pandemic fallout. "Modernising IT is a priority now as many of our systems were built around a business model that delivered hardware, with embedded software only, and traditional technical support and services," adds Mandell.



### Ensure real-time visibility of critical data

"The world we're living in is moving faster than ever and organisations relying on data even one week old are behind the curve," warns data strategist Carruthers. "The nature and speed of change in 2021 will make real-time visibility of critical data the single biggest factor in winning new business across almost all industries this year."

She advises that "CIOs need to make sure they have insight into what is going on in their industries in real time" to make accurate predictions.

Rich Murr, CIO at Epicor, a global provider of enterprise resource planning software for the manufacturing, distribution, retail and service industries, agrees. He calls actionable data "the holy grail" of IT. "And sometimes it's seemingly just as difficult to obtain," he says. "The challenge is less about systems and more about the business processes that produce and consume the data.

"CIOs need to educate their business peers, not to sit back and expect clean data to appear magically in their systems, but instead to take strong ownership and execute the hard business process improvement work necessary to create actionable data."



## Engage and educate the workforce

On Murr's point of driving education and training, so employees can use all IT systems capabilities and have a good handle on data management, this is another important CIO task. "IT needs to work for the worker," says Tim Christensen, chief technology officer at workforce communications platform SocialChorus.

Football Association CIO Craig Donald says: "Facilitating tech liter- a rapid rate, it's important to have the acy will be central to my role in boost- best team possible and the right talent ing enjoyment and attainment as the football community comes back to several schemes that attract and nurture life in 2021. Particularly in non-tech techtalent.

organisations, CIOs shouldn't just go in there being the mystical gurus of technology. Get a dialogue going and show how tech can directly impact relationships."

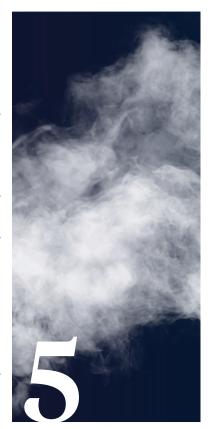
Educating staff is particularly challenging for Jo Drake, CIO of The Hut Group, the retail and property company that in September attracted the largest initial public offering on the London Stock Exchange since 2013. "As part of a global business that is expanding at to grow with us," she says, pointing to

## Make full use of cloud computing

Eurotech CIO Baldo urges businesses to "go full-on cloud". He says: "If the business gross margin is not sensitive to slightly higher costs, there are many more advanced and integrated security capabilities that smaller businesses can leverage through the use of cloud services from AWS, Azure, Google or IBM than could be achieved on-premise, within the same budget." It is the CIO's responsibility to manage the move to the cloud and beyond.

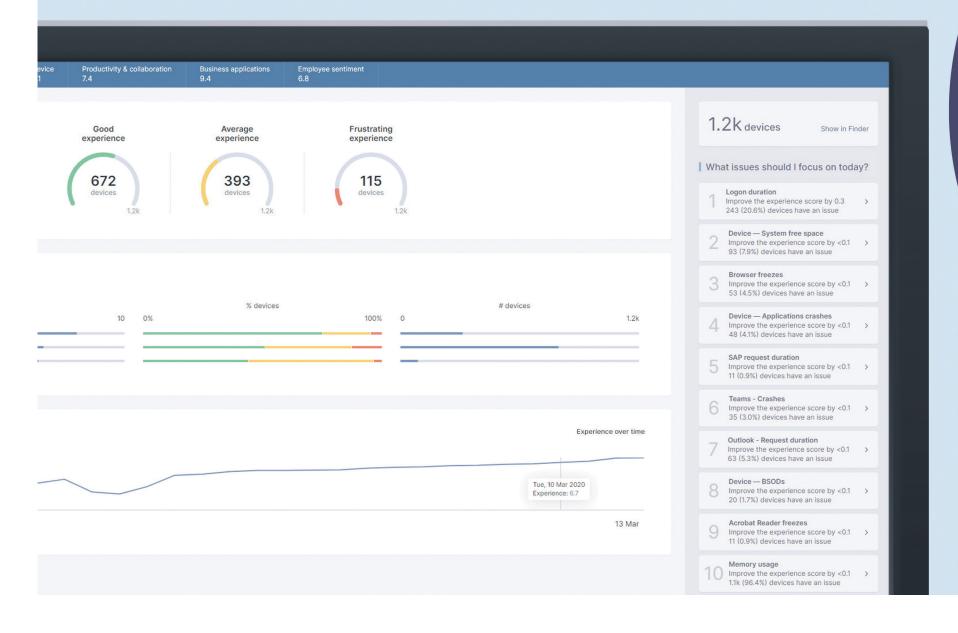
Dr Anjali Subburaj, chief architect of digital commerce at multinational manufacturer Mars, believes businesses can move up a level in this area. "Adoption of cloud computing allows IT teams to focus exclusively on driving business outcomes via their endeavours instead of grappling with IT infrastructure issues," she says.

Once the cloud is embraced, more tech opportunities become accessible. "CIOs should also be prioritising the introduction of an artificial intelligence-embedded approach," Subburaj adds. "This will improve the accuracy and relevancy of outputs, such as supply and demand, and personalised product recommenda tions to consumers."



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