

Fieldwork by Citrix

# The Future-FIT Leader

How today's CIOs are supercharging tomorrow's working world



# Foreword

Companies are going through a major reset, and the CIO is moving into pole position. With every business becoming a tech business, tech leaders have more influence than ever before. But they also find themselves at the nexus of a debate about how the future of work should look, as organizations negotiate new dynamics between talent and technology. This report – based on a global study of 3,300 business leaders – finds that CIOs have the power to move into an influential position of Chief Connector, Collaborator and Enabler, if they can effectively navigate the contradictory pressures they are currently under.

As companies strive for success against a difficult economic and geopolitical backdrop and a turbulent talent landscape, they are looking to tech leaders to act as strategic business partners. CIOs are under pressure to forge the future direction of the business and to drive up organizational productivity through frictionless tech, data insights and automation. Almost two-thirds of leaders say the CIO has control of the majority of their organization's budget, and 63% say that their CIO is now the 'de facto' COO of their organization, responsible for business operations and direction. No longer seen as 'back office' operations, the IT team is the engine room of the whole business, viewed as a key business differentiator rather than just a business expense.

The study shows that CIOs are increasingly responsible for other aspects of business too, from regulation and compliance to ESG performance. This ever-broadening remit comes with the need for new skills and attributes, with emotional intelligence now considered one of the most essential qualities.

Yet, the research also shows that despite this broadening remit, in practice many CIOs are still tied up with infrastructure as they battle legacy systems and technical debt. Digital transformation projects – which have been underway for years – are still cited as the top priority for C-level tech leaders. CIOs and other C-suite tech leaders are also navigating talent shortages and a looming vacuum at the top. As a result, almost half are delaying their retirement because they fear there is nobody to replace them. And although hybrid working is now well established in many organizations, the complexity of the tech enabling it is causing issues and hold-ups, with a whole suite of products in the process of being implemented, or currently in the pipeline.

In 2020, Citrix's [Work 2035](#) study set out four possible visions of the future of work, examining how people and technology will work together to create value. As organizations try to figure out which world they are heading towards, the CIO has a critical role to play. Elevated to a superior strategic position and with teams that are now at the center of the business and shaping cultures as well as infrastructure, now is the time for the CIO to step into a new role that has collaboration and connection at its core.



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- Chief Information Officer
- Chief Imagination Officer
- Chief Innovation Officer
- Chief Instinct Officer
- Chief Implementation Officer
- Chief Infrastructure Officer
- Chief Integration Officer
- Chief Investment Officer
- Chief Immersion Officer
- Chief In Between Officer?***



# About the study

In 2022, Citrix, in partnership with Man Bites Dog, ran an independent opinion research study with Coleman Parkes Research, interviewing 3,300 business leaders working in large and mid-market businesses (organizations with at least 250 employees; US leaders were from companies with at least 500 employees). Respondents were based in the US (600), the UK (300),

Australia (300), Brazil (300), Columbia (300), France (300), Germany (300), Japan (300), Mexico (300), and the Netherlands (300).

The study focused on the following sectors: financial services, healthcare and life sciences, technology, professional services, manufacturing, and retail (550 respondents per sector).

### Business leaders were split into three groups:

<b>Non-C-level tech leaders</b> (job titles including IT Director, VP of Information Tech)	1,101 respondents	Referred to collectively as <b>'tech leaders'</b>
<b>C-level tech leaders</b> (job titles including CTO, CIO)	1,100 respondents	
<b>Non-tech leaders</b> (job titles including CFO, CEO, COO, CMO)	1,099 respondents	

When referring to the whole sample we have used the term **'leaders'**.

# Executive summary

CIOs today find themselves in a complex, contradictory position. They are expected to be agents of change but are still caught up with legacy infrastructure and transformation projects. Additionally, they must play a key role in navigating the current talent crisis – by simultaneously providing the tools to maximize employee productivity, and leading automation projects.

## Future visionaries...

*CIOs must prioritize future thinking as they play an increasingly important role in shaping business strategy.*

- ▶ Two-thirds of all leaders (67%) say the CIO is now second only to the CEO in terms of shaping and delivering the business strategy, and 64% say the CIO has control of the majority of their organization's budget.
- ▶ Two-thirds of all leaders say that, more than any other part of the business, the IT team knows what's going on in all parts of the organization.

## yet infrastructure implementers

*But, despite this need for future-thinking, tech leaders are still working through the shift away from legacy systems.*

- ▶ 67% of C-level tech leaders say legacy systems and technical debt are a significant challenge to their role.
- ▶ Digital transformation and IT modernization are cited as the current top two priorities for C-level tech leaders.



## People-centric...

*Tech leaders are empowering remote work, putting the technologies in place to connect and augment the workforce.*

- ▶ 71% of leaders believe that tech leaders now have a much more fundamental role to play in organizations, using technology to create, connect and lead groups of people.
- ▶ Almost seven in 10 tech leaders say that their organization's leadership team is requiring them and their team to use technology to increase employee efficiency and productivity due to the current skills shortage.

## ...yet drivers of automation

*But with talent shortages, businesses are also looking to CIOs and their teams to automate more roles.*

- ▶ 72% of C-level tech leaders say that their organization's leadership is requiring them and their team to automate more roles as a solution to the current skills shortage.
- ▶ Automation is currently receiving the highest tech spend (above AI, tech hosting and cloud, data and analytics and VR) – according to C-level leaders. And organizational spend on automation is expected to double in the next two years.





Part 1:

## Future visionaries, yet infrastructure implementers

The fusing of digital strategy with wider business strategy is leading to an expansion of the CIO role and a blurring of boundaries. IT has rapidly shed its reputation as a risk-averse gatekeeping department. Instead, the CIO is expected to be a visionary, future-thinking leader, impacting all parts of the business.

But there are barriers to tech leaders taking on this strategy-shaping role. Many CIOs are still working on digital transformation and IT modernization programs that have been underway for years, battling legacy infrastructure and dealing with a looming skills vacuum, as experienced leaders reach retirement age.



## Leaders of the Next Economy

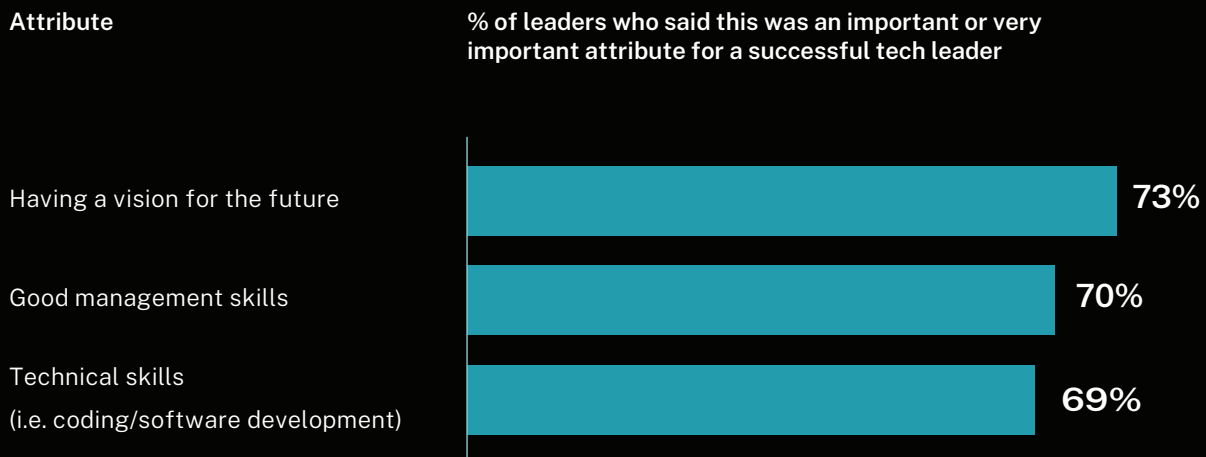
Over the last few decades, IT departments have often been considered a business expense rather than a business differentiator. In most organizations, this has now radically altered. Almost seven in 10 leaders (68%) believe that an organization's success is now largely determined by the strength of its tech leadership.

As a result, the CIO is rising up the boardroom ranks, with two-thirds of leaders (67%) saying the CIO is now second only to the CEO in terms of shaping and delivering the business strategy. There is a belief amongst leaders that the CIO is effectively

a Chief Operations Officer (COO) in all but name: 63% say that the CIO is the 'de facto' COO in their organization, responsible for business operations and direction.

Tech leaders are wielding power over implementation as well as directing strategy, with CIOs now controlling the majority of the organization's budget (according to 64% of leaders). Given this increased responsibility, almost three-quarters of all leaders (73%) believe that having a vision for the future is important for being a successful tech leader in today's working world. This makes future vision the most important attribute, above a range of other qualities including technical skills, financial acumen and stakeholder management.

### The top three most important attributes for a successful tech leader in today's working world



A successful CIO is one who is capable of presenting the business value of each and every technology investment. Return on investment (ROI) must be front-of-mind in every decision, regardless of infrastructure. And this sentiment needs to be shared by the whole IT team – every single technician should have a strong understanding of Key Performance Indicators (KPIs), ROI and revenue.

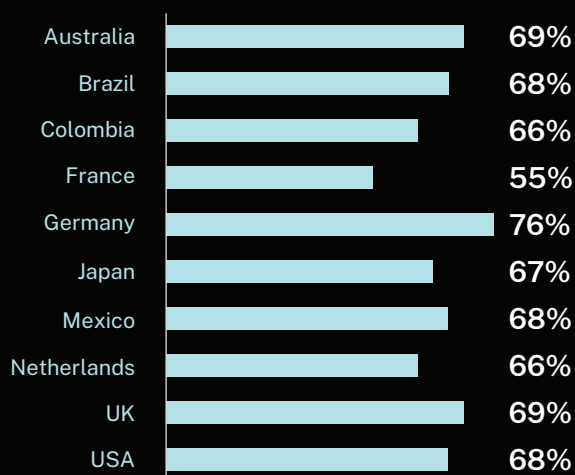
The CIO's budget is now the business's budget. If CIOs can demonstrate real transformation – not just modernization, but real business change – then we can tap into budgets that weren't there before.

# German CIOs are shaping business strategy

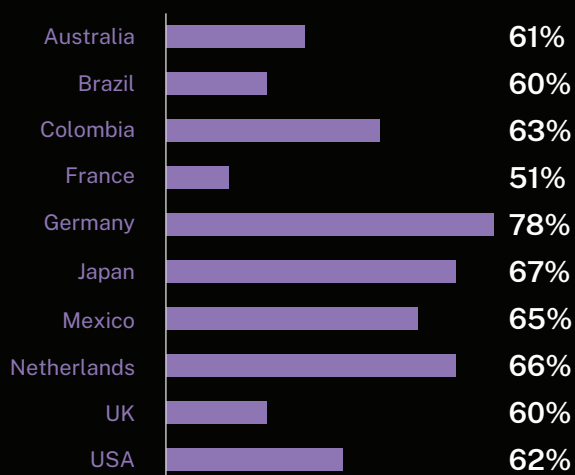
German leaders believe most strongly that tech leaders now have a much more fundamental role in organizations. Over three-quarters of German leaders (76%) believe the CIO is second only to the CEO in terms of shaping and delivering the business strategy. And nearly four in five (78%) say the CIO is the 'de facto' COO in their organization (compared to just 51% of French leaders).



*The percentage of leaders, by market, who believe the CIO is second only to the CEO in terms of shaping and delivering business strategy in their organization*



*The percentage of leaders, by market, who believe the CIO is the 'de facto' COO in their organization, responsible for business operation and direction*



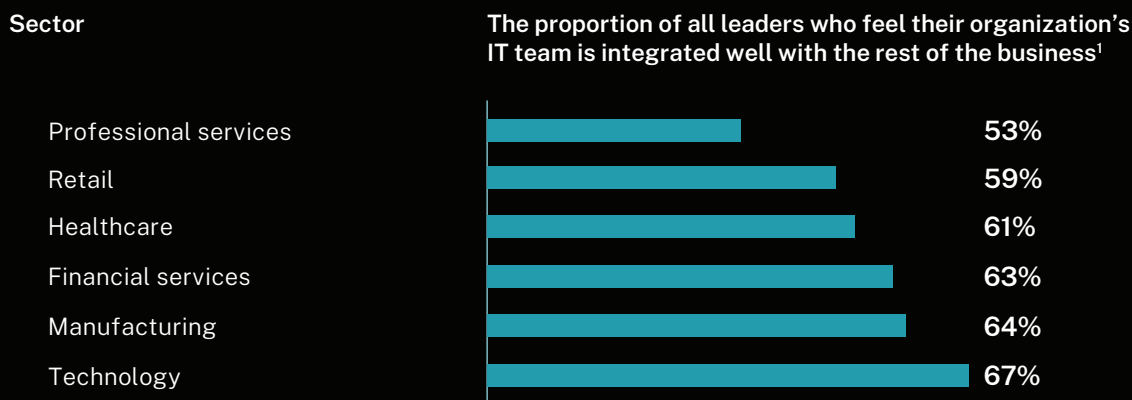
## IT as the eyes and ears of the business

IT teams have historically been seen as siloed, working separately from the rest of the business. But as technology becomes the force that connects organizations, IT teams have a central role, becoming the connectors and enablers of work and organizational cultures. Two-thirds of leaders say that, more than any other part of the business, the IT team knows what's going on in all parts of the organization.

Seven out of 10 leaders (69%) say IT teams have undergone a fundamental shift in how they operate and integrate with the organization, as tech is now ubiquitous in every aspect of life. And almost three-quarters of leaders (72%) believe that new ways of working post-pandemic mean the IT team is more integrated into the business than ever before.

Leaders in the technology sector report the highest levels of IT team integration, with 67% saying their organization's IT team is well integrated with the rest of the business, compared to 53% in the professional services sector.

### IT team integration with the rest of the business, by sector



<sup>1</sup> Scored 8, 9 or 10 on a scale of 1-10

## Scope creep

The CIO's role has expanded far beyond tech and is expected to stretch even further in the coming years. Two-thirds of leaders (65%) say the remit of the tech leader today is broader than ever before.

**Over six in 10 C-level tech leaders believe they will be either largely or entirely responsible for the following business areas in five years' time:**



Employee  
productivity



Employee  
learning and  
development



Employee  
wellbeing



Employee  
experience



Talent,  
recruitment  
and retention



Regulation and  
compliance



Customer  
experience



Sustainability and  
organizational ESG  
performance



Financial  
performance



Sales and  
marketing

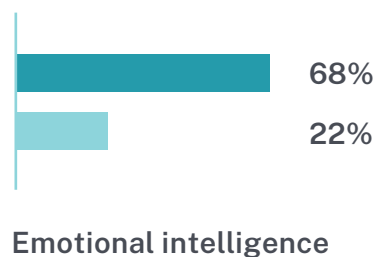
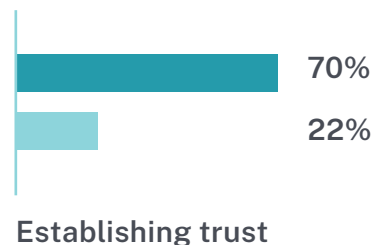
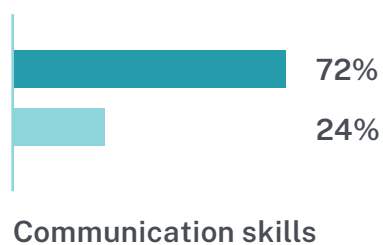
## People skills matter

With this ever-broadening remit comes the need for new skills and attributes. Interpersonal skills, such as strong communication and emotional intelligence, are now considered essential qualities, but tech leaders need to build their confidence in these areas.

### Key qualities for a successful tech leader

**■** % of non-tech leaders and non-C-level tech leaders who believe this is an important skill when it comes to being a successful tech leader in today's working world

**■** % of C-level tech leaders who say this is one of their top three qualities



## Legacies hinder future-thinking

CIOs must balance the demand for future-thinking and technological advancement with the maintenance of existing systems. Two-thirds of C-level tech leaders (67%) say legacy systems and technical debt are a significant challenge in their role, rising to 78% in the healthcare sector.

And, although CIOs have been stewarding digital transformation projects for decades, this work is still incomplete. C-level tech leaders are most likely to cite digital transformation and IT modernization in their current top three priorities, while only 23% cite cloud transformation as a top-tier priority, despite it being a solution to many of their problems.

## Current top 10 priorities for C-level tech leaders

1.	Digital Transformation
2.	IT modernization
3.	Cybersecurity and data risk
4.	Implementing and maintaining tech infrastructure
5.	Data management and analytics
6.	Technology simplification
7.	Cloud first strategy / cloud transformation
8.	Product development (for clients)
9.	Automation of business processes
10.	Self-service digital tools for employees



## Hybrid headaches

Alongside dealing with technical debt and infrastructure challenges, navigating hybrid working methods is another major factor inhibiting a more strategic, future-focused approach. Almost seven in 10 C-level tech leaders (69%) cite hybrid working and ‘hyper-flexible’ working styles as a significant challenge in their role today.

Organizations rapidly shifted to remote and hybrid working during the pandemic, but IT teams are now dealing with temporary tech fixes that have become long-term solutions.

Seven in 10 C-level tech leaders (71%) say the complexity of technology to support hybrid work is a significant challenge – rising to 84% in the financial services sector. A range of technology solutions are needed to enable effective hybrid working. There is pressure on CIOs to implement

flexible infrastructure and provide personalized experiences at scale that can shift with constantly changing needs.

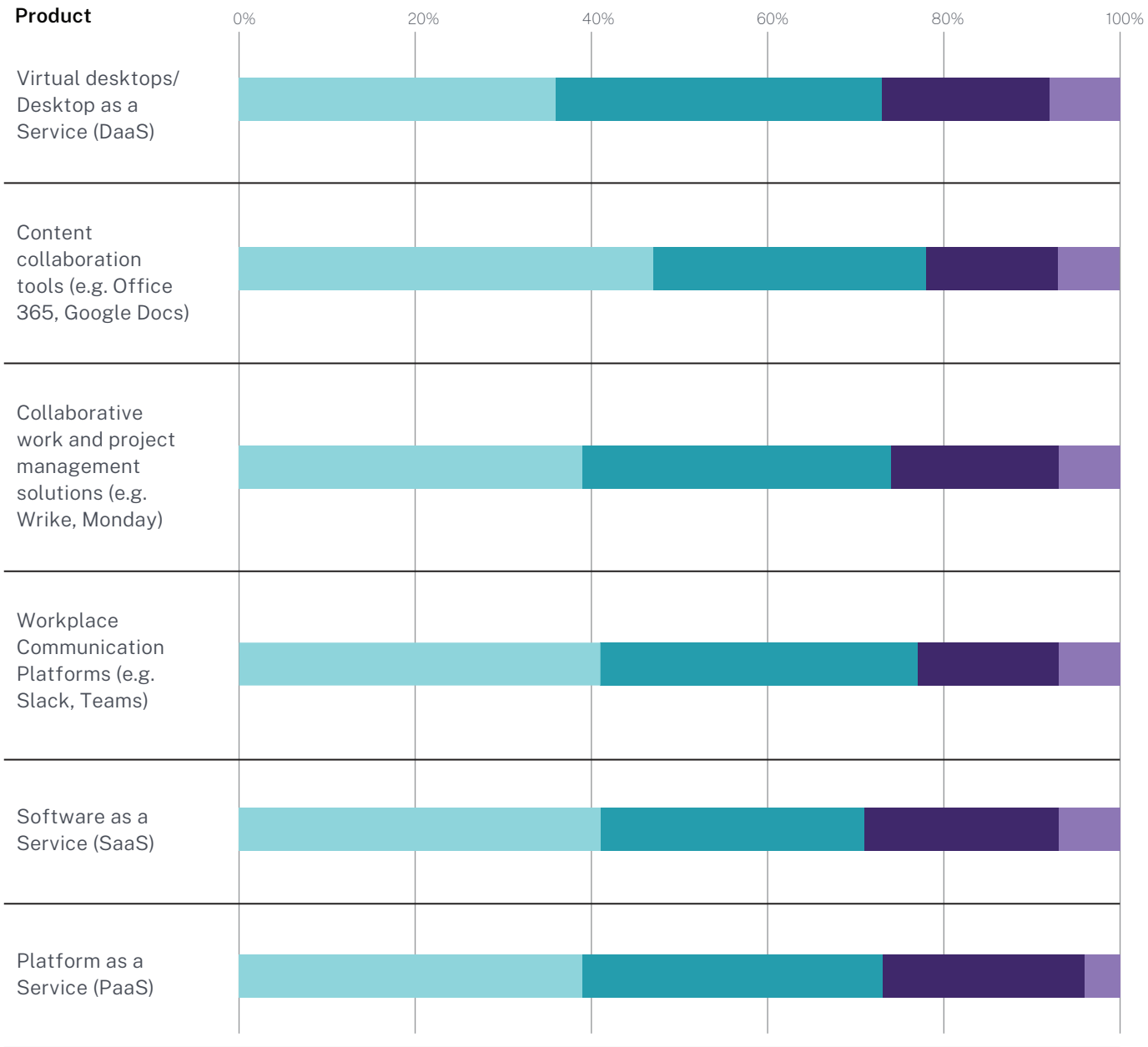
The complexity of hybrid work technology and the huge IT team workload is amplified by the suite of products that organizations are currently using or in the process of implementing. Almost half of organizations (47%) currently have content collaboration tools in place, with a further 31% in the process of implementing them. Over a third currently have desktop as a service (DaaS) solutions set up, but a further 37% are in the process of implementing them, and 19% plan to do so in future. And while only 29% of companies currently have secure access solutions in place and just 35% have digital workspaces set up, a further four in 10 organizations are currently in the process of implementing these tools.

### Hybrid and cyber-security

With workers increasingly logging on from different locations and devices, cyber-security is the third most important priority for C-level tech leaders. Almost seven in 10 C-level tech leaders (68%) cite cybersecurity threats and cybercrime as a significant challenge in their role today.

Citrix’s 2020 *Digital Shock* research examined the pressure that Covid-19 put on IT leaders. The rapid introduction of new software and applications to aid remote working during the pandemic made maintaining security updates even more important. Shadow IT became a critical security issue, with the increased use of unsanctioned software putting sensitive company data at risk. Organizations are still finding the balance between giving employees the flexibility they need to get their work done, while maintaining control over the technology being used.

The tech products organizations are currently using/implementing

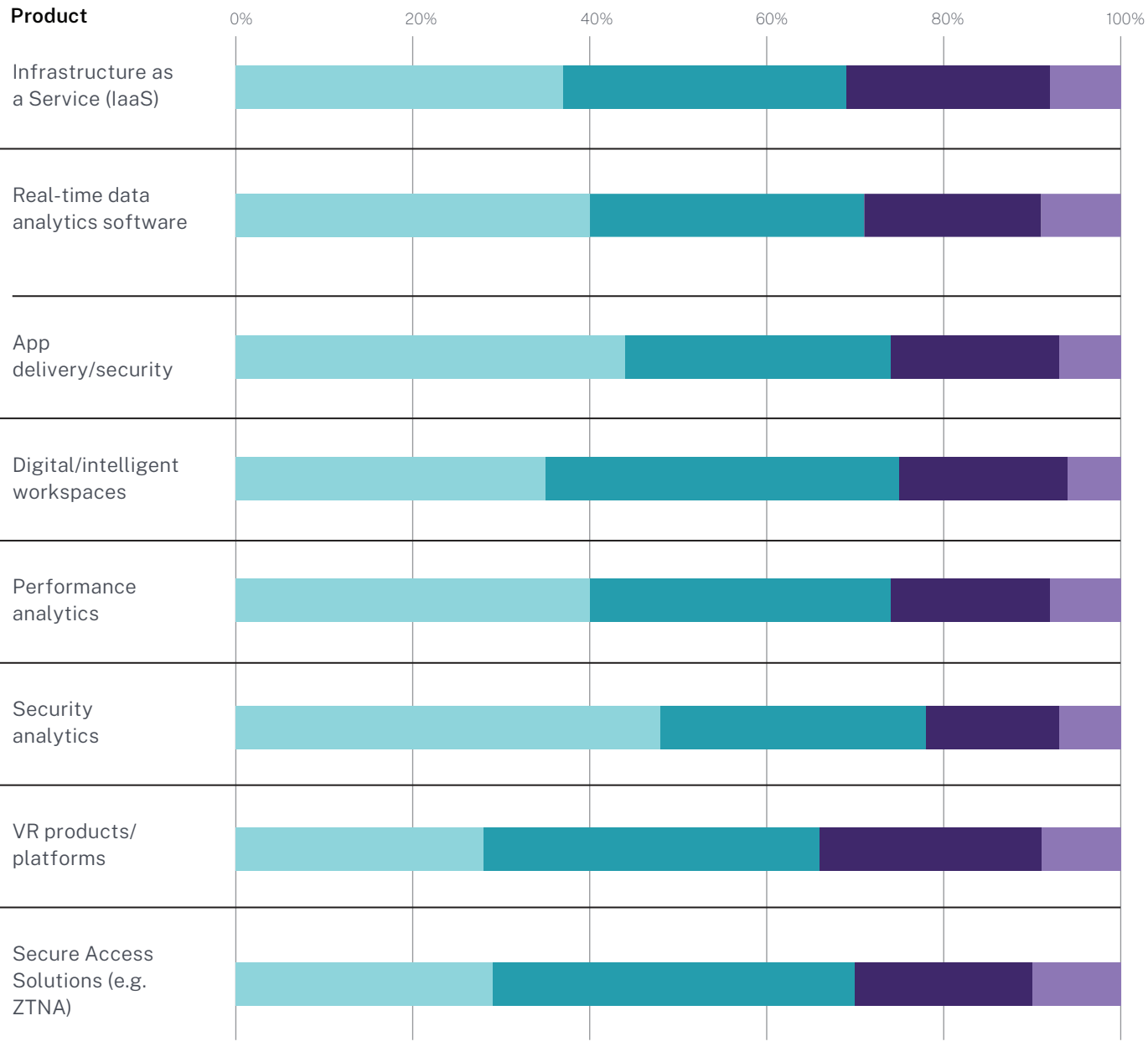


Already implemented

In the process of being implemented

Plans to implement in the future

No plans to implement



Already implemented

In the process of being implemented

Plans to implement in the future

No plans to implement

# The Tech Talent Crisis

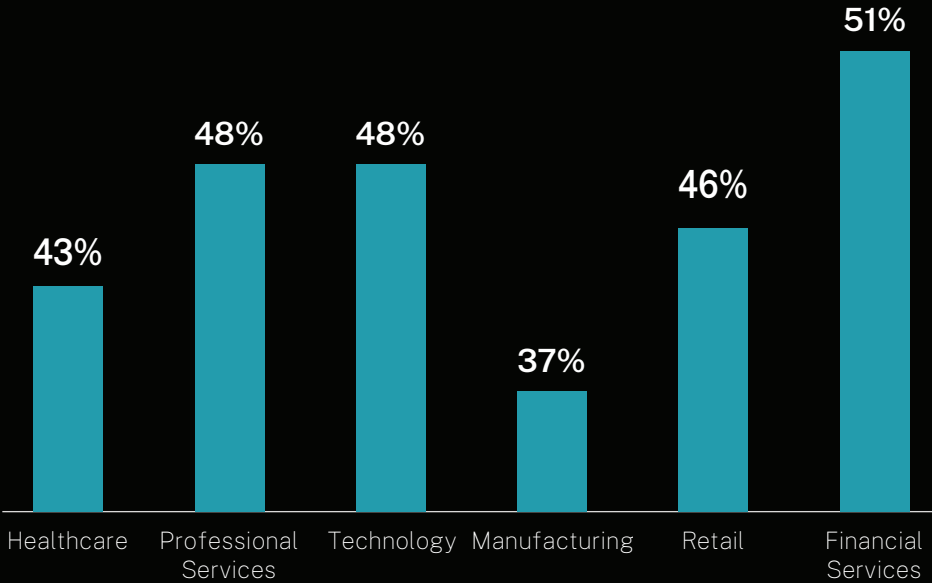
Over two-thirds of C-level tech leaders (68%) say that lack of tech talent is currently one of the greatest risks to their business, rising to 74% in the manufacturing and financial services sectors. Every business in every industry needs top tech talent, and this cross-sector competition makes the tech talent war particularly fierce.

Tech leaders are also concerned about a talent exodus at the top. Over two-thirds (67%) of C-level tech leaders say that experienced tech leaders who have stewarded digital transformation over the course of their careers are leaving the workforce, creating a skills vacuum. As a result, almost half of C-level tech leaders (46%) are delaying their retirement as

they believe there is no one available to replace them in their role. This anxiety is particularly prominent in the financial services sector, with 51% of C-level tech leaders reporting they are delaying their retirement.

Leaders are also aware that their talent pool needs to be more diverse. As technology plays an increasingly fundamental role in organizations, it becomes more important for tech leaders to recruit a broad range of team members. Over seven in 10 C-level tech leaders (71%) say they are trying to recruit more diverse tech team members to ensure their infrastructure caters to a wide breadth of employees and does not alienate minority groups.

C-level tech leaders delaying their retirement due to lack of tech talent, by sector



## How to pivot:

'Technical debt' is not just a problem for long-established businesses. The pace of change is so rapid that technology now becomes out of date in months rather than years. Part of the solution is accelerating cloud transformation, for increased flexibility and scalability, enhanced security and significant cost savings. Crucially, the move to cloud should help CIOs move away from ongoing digital transformation projects and infrastructure and invest more time in broader strategic-thinking.



Part 2:

## People-centric, yet drivers of automation

As businesses look to tech to solve a raft of people issues – from productivity to effective hybrid working to talent gaps – the CIO and the tech team are responsible for crafting a new type of working world. But what world are they building?

On the one hand, businesses expect their CIOs to create a remote-first world that empowers tech-enhanced fluid workers and working styles. On the other, CIOs are being encouraged to automate work to reduce costs and make businesses ultimately less reliant on their human workers.

This places CIOs in a complex position, caught between the “automation corporations” vision of highly automated, centralized work environments; and a “freelance frontiers” world of distributed work and employees augmented by technology. In a post-pandemic environment, many organizations remain in a state of limbo, unsure which direction to move in, and CIOs are feeling these conflicting pressures.

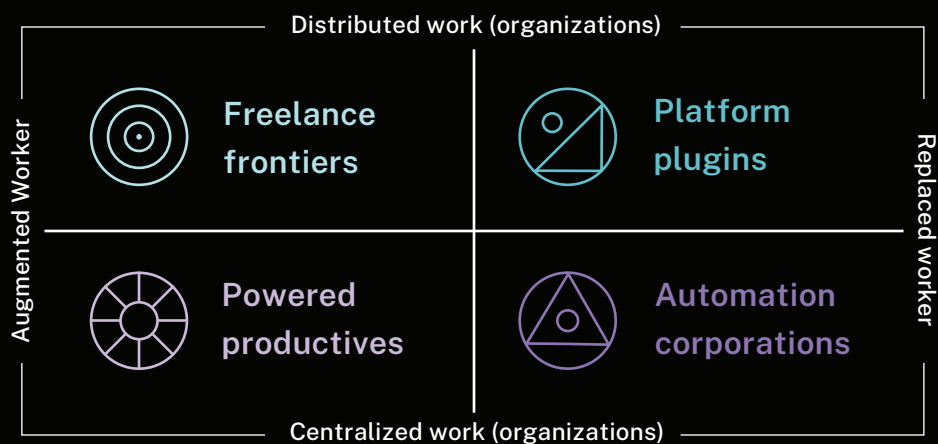


## Work 2035 and the four worlds of work

Citrix's *Work 2035* study – conducted in 2019-2020 – set out four possible visions of the future of work, examining whether organizations will be distributed or centralized, and whether workers will be augmented by technology or replaced by it as more roles are automated. Most business leaders anticipated a 'Powered Productives'

world of strong corporate structures fueled by a flourishing partnership between people and technology, while most employees foresaw a much more fragmented 'Platform Plugins' world, with big corporates no longer dominant, and many roles replaced by technology.

Work 2035 quadrant



## Building new organizational cultures

More than ever before, tech is driving company cultures, defining work and connecting colleagues. IT leaders are therefore expected to be cultural innovators as well technological innovators. No longer just 'leaders of task', CIOs are now 'leaders of community': 71% of business leaders believe tech leaders now have a much more fundamental role to play in organizations, using technology to create, connect and lead groups of people.

Tech professionals are well-placed to play this role. Tech teams have an established history of remote and distributed working and are now sharing this experience more

widely across the business. Almost two-thirds of leaders (62%) believe the pandemic and the introduction of widespread remote-working has led to an increase in 'tech team' working styles and methodologies such as Agile, DevOps and Lean, and almost three in five (59%) say that tech teams now have a responsibility to upskill other parts of the business to use these methods and ways of working. As well as building and maintaining hybrid technology infrastructure, tech leaders and their teams are also embedding hybrid working cultures and teaching methods for effective remote working.





### Methodologies for Hybrid Working: Agile, Lean and DevOps

**Agile:** Agile methodology is aimed towards flexible project management through iterative working and continuous collaboration. Projects are broken down into smaller cycles, meaning that products are delivered in increments.

**Lean:** Stemming from Agile methodology, Lean frameworks are focused on efficiency – eliminating waste resources and aiming to keep development cycles as short as possible. The goal is to develop a minimum viable product (MVP) in a short timeframe, and then make continuous improvements over time.

**DevOps:** DevOps practices involve collaboration between development and operations teams at each stage of the development process, employing Agile and Lean methodologies.

## Tools for augmentation

Against a backdrop of lagging productivity and economic pressures, IT leaders are expected to use tech – including real-time data and analytics tools – to upskill staff, boost productivity and transform their organizations.

As the CIO role becomes broader and deeper, and the line between the people and technology side of the business is increasingly blurred, CIOs are responsible for closing talent gaps. Almost seven in 10 C-level tech leaders (68%) say their organization's leadership team is requiring them and their team to use technology to increase employee efficiency and productivity due to the current skills shortage.

Technology tools and data are helping employees to 'work better', but 73% of leaders believe that the next step is to empower employees to 'work smarter', connecting them with real-time analytics and insights to make data-based decisions that could streamline workflows and boost productivity. As a result, over seven in 10 leaders (71%) say their organization is upskilling employees in real-time data analytics and insights to help drive better decision-making. It is up to tech leaders to join these dots, providing the tools, the insights and the understanding to drive tech-powered human productivity forward.

### Next-level augmentation: The metaverse

The metaverse – an immersive digital environment using augmented reality (AR) and virtual reality (VR) to create spaces for virtual interaction – is a potential sales tool, but also offers possibilities for augmented hybrid working and socializing with colleagues. Some organizations are creating virtual environments where their employees can gather, talk and collaborate, or virtual training and development platforms. Almost seven in 10 leaders (69%) believe the metaverse will completely transform the way we work, collaborate, and build organizational cultures, rising to 74% of healthcare leaders. But does ultimate responsibility for this new people-tech frontier lie with the IT department or the HR department? Although the metaverse requires robust digital infrastructure, many IT leaders feel it falls beyond their remit: 62% of C-level tech leaders believe the metaverse is more of an HR concern than an IT concern.

### Drivers of automation

Data-driven tech enhancement of human workers is only part of the picture, however. While organizations are emphasizing the importance of increased productivity and data-based decision-making, they are also considering the roles that can be automated to deal with talent shortages and tight budgets. The CIO is expected to play a leading role here too. Almost three-quarters of C-level tech leaders (72%) – rising to 77% in the financial services sector – say that their organization's leadership is expecting them to automate more roles as a solution to skills shortages.

Automation is also receiving the highest tech spend – above AI, tech hosting and cloud, data and analytics, and virtual reality – and C-level leaders expect organizational spend on automation to double in the next two years. But are tech leaders fully on-board with automation as an organizational priority? Our study shows that just 22% of C-level tech leaders name automation of business processes as one of their top three priorities.

A post-pandemic talent market that has made recruitment difficult for companies and raised the cost of hiring, has strengthened the push to automate roles. Although automation generally requires a high upfront spend, organizations hope that it will save them money in the long-term; when talent is scarce, expensive automation projects begin to look more attractive. But most businesses are struggling to move beyond the most obvious automation targets, such as robotic process automation (RPA), and as the talent market begins to shift again, it's likely that the focus on automation may lessen again.

## Roles to support augmentation and automation

As tech leaders' role in architecting the people side of the business grows, new technology jobs to support both automation and augmentation are emerging. Currently, only one in five leaders say that their organization has a Head of Automation (or equivalent), but of those that do not, 45% expect it will exist in their company in the next two years. Similarly, while only 15% of organizations currently employ a Head of Artificial Intelligence, 34% of leaders without this position in their organization think it will be present in the next two years.

### Tech role boom in Latin American markets

The study shows that Latin American companies are more likely to be creating new senior tech roles over the next 24 months than businesses from other markets.

#### VR manager/metaverse lead

► 51% of Mexican leaders, 50% of Colombian leaders, and 47% of Brazilian leaders believe this role will be created in their organization in the next two years, compared to an average of 35% across all markets.\*

#### Head of artificial intelligence/ machine learning

► 49% of Colombian leaders, 47% of Mexican leaders, and 39% of Brazilian leaders believe this role will be created in their organization in the next two years, compared to an average of 34% across all markets.\*

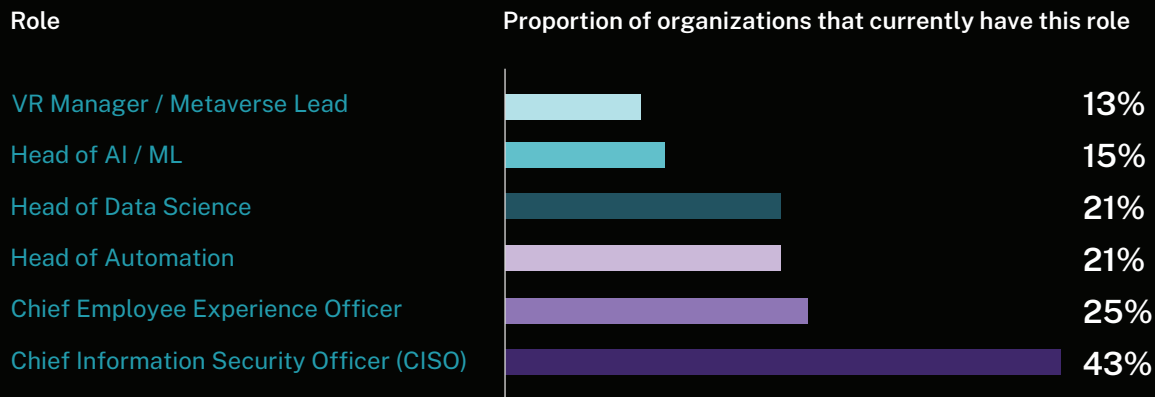
#### Head of data science

► 55% of Mexican and Colombian leaders and 53% of Brazilian leaders believe this role will be created in their organization in the next two years, compared to an average of 44% across all markets.\*

*\*This question was only asked to respondents who said this role does not currently exist in their organization.*

## Emerging tech roles

### The proportion of organizations that currently have these roles



### For organizations that don't currently have these roles, leaders' predictions for when they will exist

Role	In the next 12 months	2 years	5 years	10 years	Never
Head of AI / ML	11%	23%	23%	31%	12%
VR Manager / Metaverse Lead	16%	19%	21%	30%	13%
Head of Data Science	20%	24%	20%	23%	13%
Chief Information Security Officer (CISO)	20%	25%	18%	21%	16%
Head of Automation	18%	27%	17%	24%	14%
Chief Employee Experience Officer	20%	24%	19%	23%	14%

## How to pivot:

Faced with a fluctuating talent market, organizations may settle on a two-pronged approach which involves close collaboration between HR and tech departments. On the one hand, there must be a focus on reducing employee turnover by hiring more dedicated

employees from a wider talent pool and training them in the digital tools which will help them to work efficiently. At the same time, tech leaders can continue to drive projects to automate repetitive and low-value tasks. The result is likely to be a more streamlined, highly skilled workforce.



Fieldwork by Citrix

# Conclusion

Businesses are in a state of flux, and CIOs are right at the center. Today's tech leaders find themselves caught between a 'traditional' CIO role – gatekeeping infrastructure and managing digital transformation projects – and a 'transitional' role – defining and refining hybrid work and driving business strategy.

Although this is a challenging position to be in, it is also one that brings immense opportunity. Located at the intersection of technology and employee needs, today's CIO is ideally placed to supercharge tomorrow's world of work – able to visualize, explain, and enact effective holistic change across entire teams, departments, and organizations. Tech leadership is now intrinsically tied to organizational success, and CIOs must adapt to their role as change agents.

As organizations decide on the future they're headed for, the successful CIO will play a core synthesis role. Now that everyone in an organization is a 'tech person', the CIO must be the chief collaborator, the connector of dots, and the aggregator of services. Balance will be crucial; CIOs must focus on innovation while addressing urgent employee needs. This involves putting in place the right technology to empower workers and to free CIOs up to enact holistic organizational change.

With an increasing say on how organizational budgets are deployed, CIOs should seek to create human-first systems that ensure employees have the tools they need to work flexibly. This will call for the development of new skills to enable CIOs to communicate effectively with employees about how they want to work.





## Further reading/information

FIELDWORK: Research and stories to transform the way we work - [View here](#)

REPORT: Work Rebalanced: The Citrix hybrid work report - [View here](#)

REPORT: Work 2035: How people and technology will pioneer new ways of working - [View here](#)

REPORT: Digital Shock: Delivering a great employee experience and ensuring the right engagement in a crisis - [View here](#)

E-BOOK: The state of remote work: A guide for leaders looking to navigate new norms in the world of remote work - [Download here](#)

PODCAST SERIES: Remote Works: Learn about the extraordinary stories of teams that have made the shift to working remotely - [Listen here](#)