Deloitte.

Accelerating to the cloud

Breaking through the cloud adoption plateau

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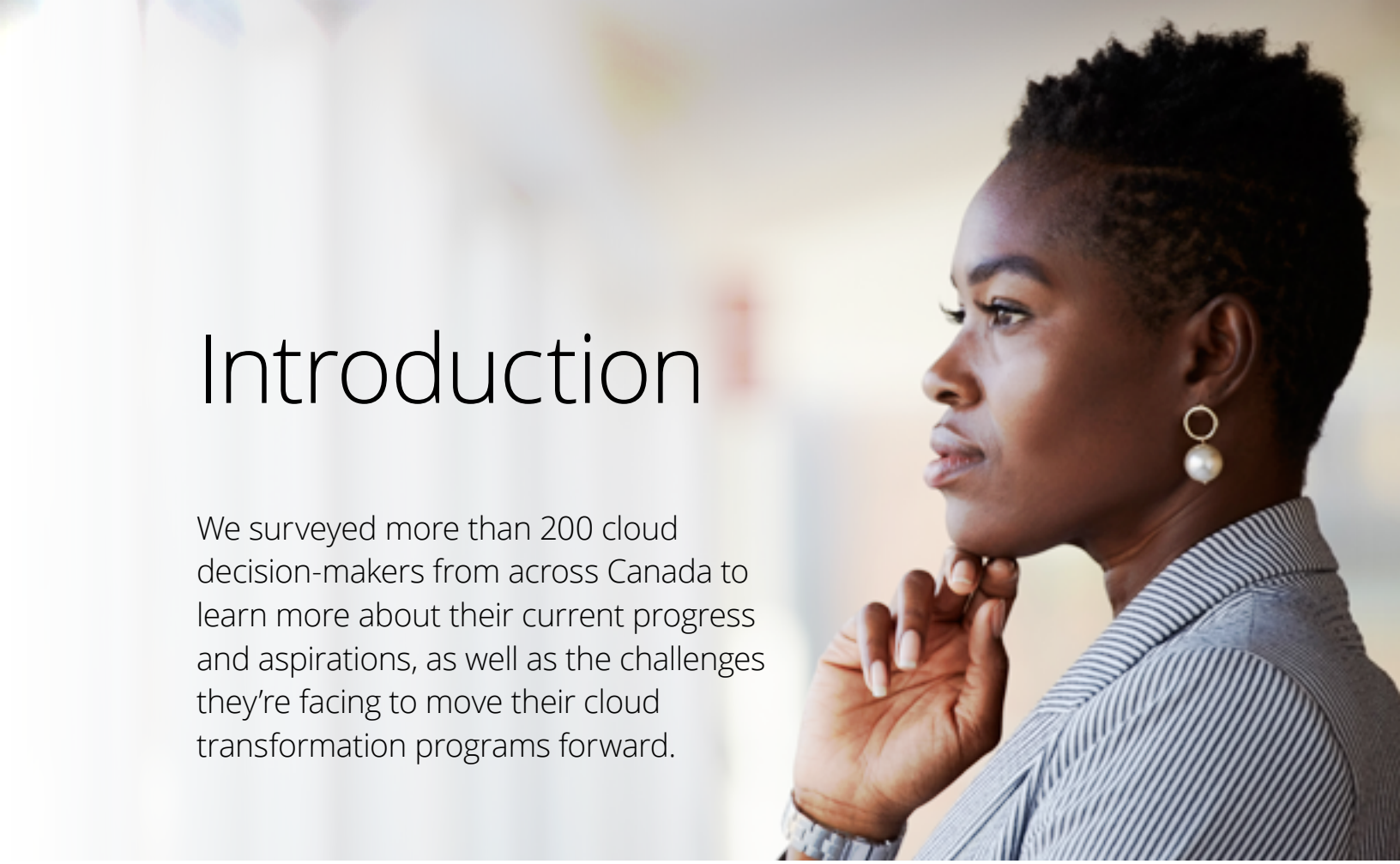


Introduction

We surveyed more than 200 cloud decision-makers from across Canada to learn more about their current progress and aspirations, as well as the challenges they're facing to move their cloud transformation programs forward.

Do you remember that day in March 2020, when the world was about to change forever?

The overnight shift to remote work and the immediate disruption to physical channels for customer-service and supply-chain networks exposed the limits of legacy technology and the vulnerabilities of traditional infrastructure. Canadian organizations across industries—from banking to grocery to those in the public sector—saw dramatic increases in digital investment and rapid transformation.[1]

Any lingering doubts as to the why of cloud services have disappeared; what matters now is how and how fast. To help illuminate changing attitudes toward the cloud and spotlight first-hand accounts of transformation, we surveyed more than 200 cloud decision-makers around the country, as well as interviewing leaders from many Canadian organizations across sectors and from the three largest cloud providers—Amazon Web Services (AWS), Google, and Microsoft.[2]

The results surprised us. The desire to accelerate cloud adoption is clear. Canadian leaders understand the technology's strategic importance, and most organizations plan to increase spend. Yet, when asked about how much of their environment they expect to move to the cloud over the next three years, most leaders forecast only modest, incremental amounts. This report aims to understand this gap: Are Canadian organizations plateauing in their cloud adoption? What are the large barriers to progress? And how can organizations overcome them?

From *why* to *how* to *how fast*

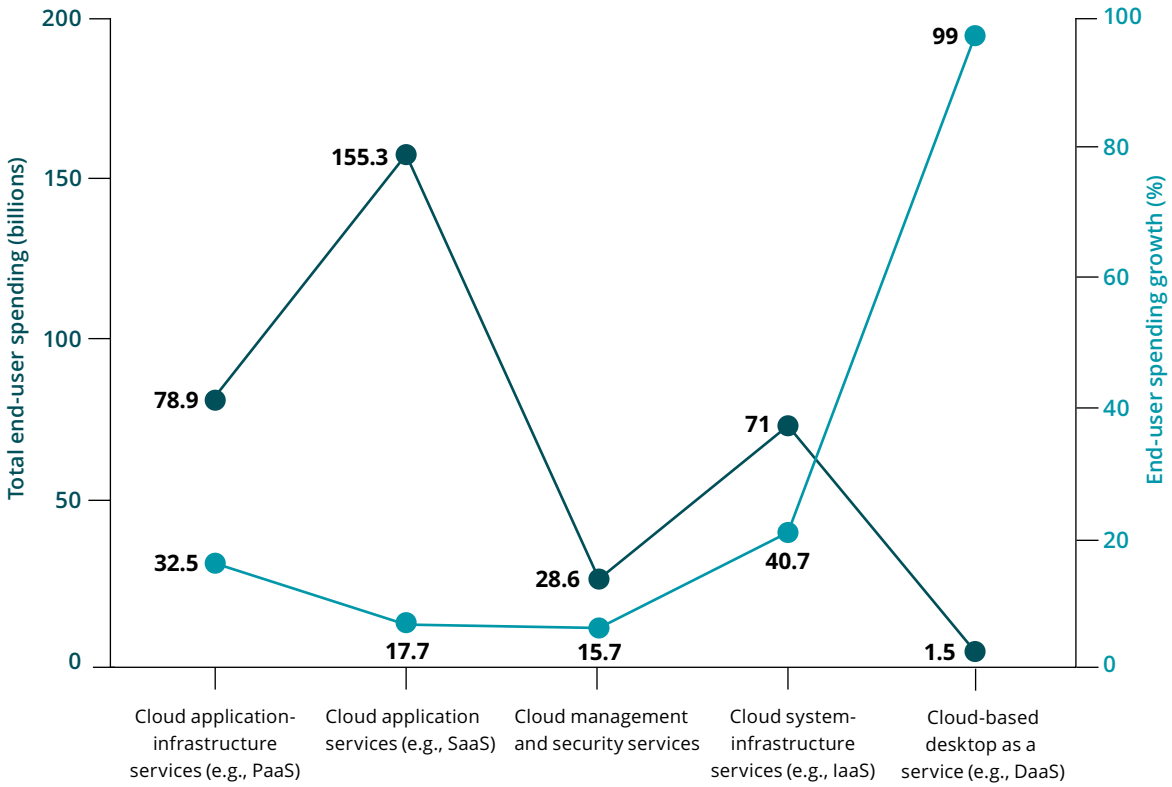
Addressing the *why*
The cloud imperative

In the wake of the pandemic, organizations worldwide raced to the cloud.

This trend also held true in Canada, where, despite the resulting economic recession that began in 2020, spending on cloud capabilities increased dramatically, especially on infrastructure as a service (IaaS), which grew by more than 40%.

Figure 1: Canadian cloud spend by market segment in 2020[3]

Source: Gartner: Forecast: Public Cloud Services, Worldwide, 2019-2025, 3Q21 Update



Many Canadian CXOs believe disruption is here to stay, and they're not alone. Deloitte's global resilience survey explored how organizations had been coping with unexpected challenges in 2020,[5] with six out of ten leaders responding that they expected to see occasional or pervasive worldwide disruption at the scale of the COVID-19 pandemic and climate change going forward. And yet, only 25% felt confident they would be able to quickly adapt and pivot in response.

This context underlies the cloud value proposition and imperative for investment. The cloud allows for business transformation and can help modernize a organization's core, power computing infrastructures, drive data strategies, and act as a catalyst for future next-horizon technologies such as artificial intelligence (AI) and machine learning (ML). "The pandemic really demonstrated to companies that digital technology must be a core part of their future levers and strategies," says Jason Hermitage, Enterprise Commercial Lead, Microsoft Canada. "It's not just about reducing costs; it's about responding to changing markets, meeting new customer expectations, managing supply-chain disruptions, and so much more. That recognition really pushed the cloud conversation from being an IT issue to being something that executives across every function care deeply about." We believe modernizing an organization's technology backbone to build resiliency and agility is a competitive necessity in this increasingly challenging, disruptive operating environment.

The cloud isn't simply something technology teams worry about when they want to access on-demand storage and computing power. It's a platform that enables organizations to deliver customer-facing features and experiences faster and more responsively. It's increasingly the destination for big data, providing access to analytics and AI tools to allow companies to gain insights that can guide strategic decisions and automate tactical processes. It helps break down traditional barriers to integration, unlocking the power of ecosystems, and it's a prerequisite for remote work and virtual collaboration.

Do Canadian leaders agree? For the most part, our survey suggests they do. Consider the following:

64% Of them characterized cloud solutions as "very important" to achieving business success.

88% Plan to increase use of advanced technology to help their organizations create new business models and market opportunities.

75% Identified a change in mindset to digital-first as "important" or "very important" to maximizing value from the cloud.

88% Have recently invested or plan to invest in new technology and systems that support remote work.

Canadian leaders understand the strategic value of the cloud and see its inherent relationship to digital technology, virtual work, and broader business-model transformation. As Hesham Fahmy, Chief Development Officer, TELUS puts it, "We have some very ambitious strategic imperatives for the next three years and believe that cloud technology will be a true accelerator for us. Being in the cloud allows us to improve our agility and time-to-market, scale as needed, and iterate our processes quickly and efficiently."

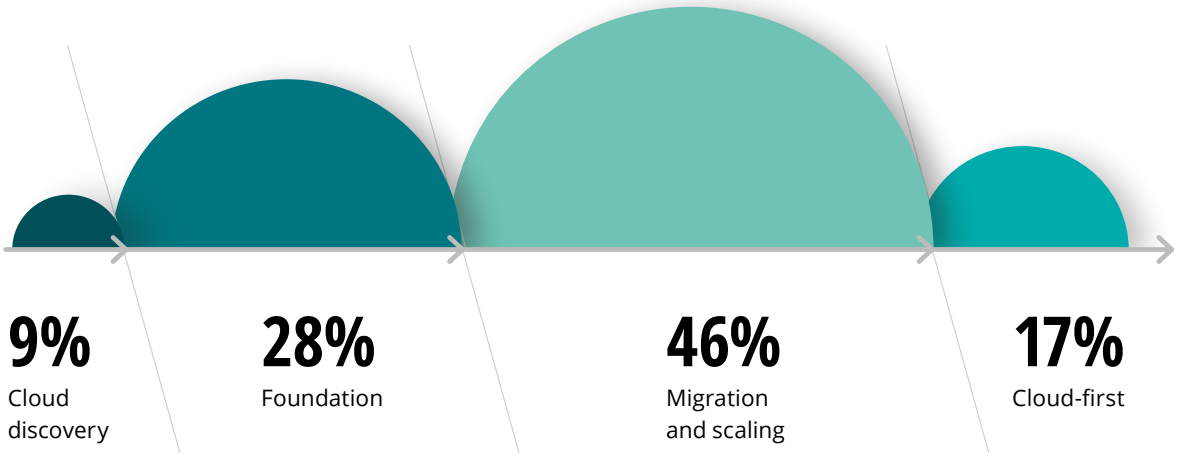
The journey so far
Cloud-adoption maturity

Let's take a closer look at where Canadian organizations are in their journeys. Only 9% are still in the cloud-discovery phase (see figure 2): These businesses are in experimentation mode, typically using software as a service (SaaS) implementation as their entry points into the public cloud. SaaS solutions are designed to be used in the cloud, with the software provider doing most of the heavy lifting, hosting the application within their infrastructure.

"We've had a couple of SaaS solutions running for the past few years—that was the easy part," admits one Canadian CIO. "Now we're starting to look at how we use the cloud as a transformative catalyst; that's proving to be much more difficult."

Figure 2: Canadian respondents' cloud-journey self-assessments

Where would you place your organization on the cloud journey at this particular time?
Source: Deloitte, *Accelerating to the cloud: breaking through the cloud-adoption plateau,* 2021



74% Believe that their cloud capabilities are ahead/far ahead of those of their peers

Meanwhile, 28% of organizations have advanced to the foundation phase (see figure 2), building in-house cloud capabilities and partnering with early adopters—either businesses or specific functions—to start moving workloads to the cloud or to establish new cloud services from the get-go. At this stage, organizations generally start with less complex workloads to minimize risk, build technological capabilities, and maximize learning.

Perhaps not surprisingly, a substantial amount of companies (46%) self-identified as being in the migration and scaling phase of their journeys. Scaling cloud capabilities introduces new challenges. Workloads become more varied and complex. The number of teams and people to train rapidly expands, bringing heightened demands for governance, coordination, and controls.

Less than one-fifth of respondents—17%—characterized their organizations as being in the cloud-first phase.

We believe that how companies define the commonly used term *cloud-first* offers a good barometer of their overall ambitions for the cloud. We asked Canadian leaders what being cloud-first meant to them: the most popular association (42%) was with SaaS solutions—in our view, a limited and incomplete definition, especially compared with the 26% who linked the term with exiting data centres or establishing the cloud as the default space for all workloads.

Overall, our data suggests that Canadian decision-makers are confident thus far about their progress in adopting and implementing the cloud. More than eight in ten said they had been using the cloud for more than three years. Interestingly, a majority (74%) believed that their cloud capabilities were ahead or far ahead of those of their peers. This might indicate that Canadian leaders are overconfident about their cloud-adoption progress.

Figure 3: Canadian CXOs' self-perceptions of being cloud-first organizations (%)

Source: Deloitte, *Accelerating to the cloud: breaking through the cloud-adoption plateau,* 2021

- New or modernized services and solutions will be centered on SaaS products first
- The majority of my workloads, projects, workflows, and processes are or will be enabled by cloud services
- Cloud native, the cloud as default for all workloads, etc
- We are no longer in the data-centre business

*Line of business

Platforms of choice
The benefits and risks of multi-cloud approaches

Ninety-three percent of organizations using cloud infrastructure have been employing multi-cloud strategies. Our survey highlighted the importance Canadian leaders place on choice—specifically, access to additional platform services—as a key driver for multi-cloud capabilities, with increased resiliency and flexibility also scoring high. But they also see the risks, highlighting the additional investment, operational complexity, training, and lead time required to create platforms across more than one ecosystem.

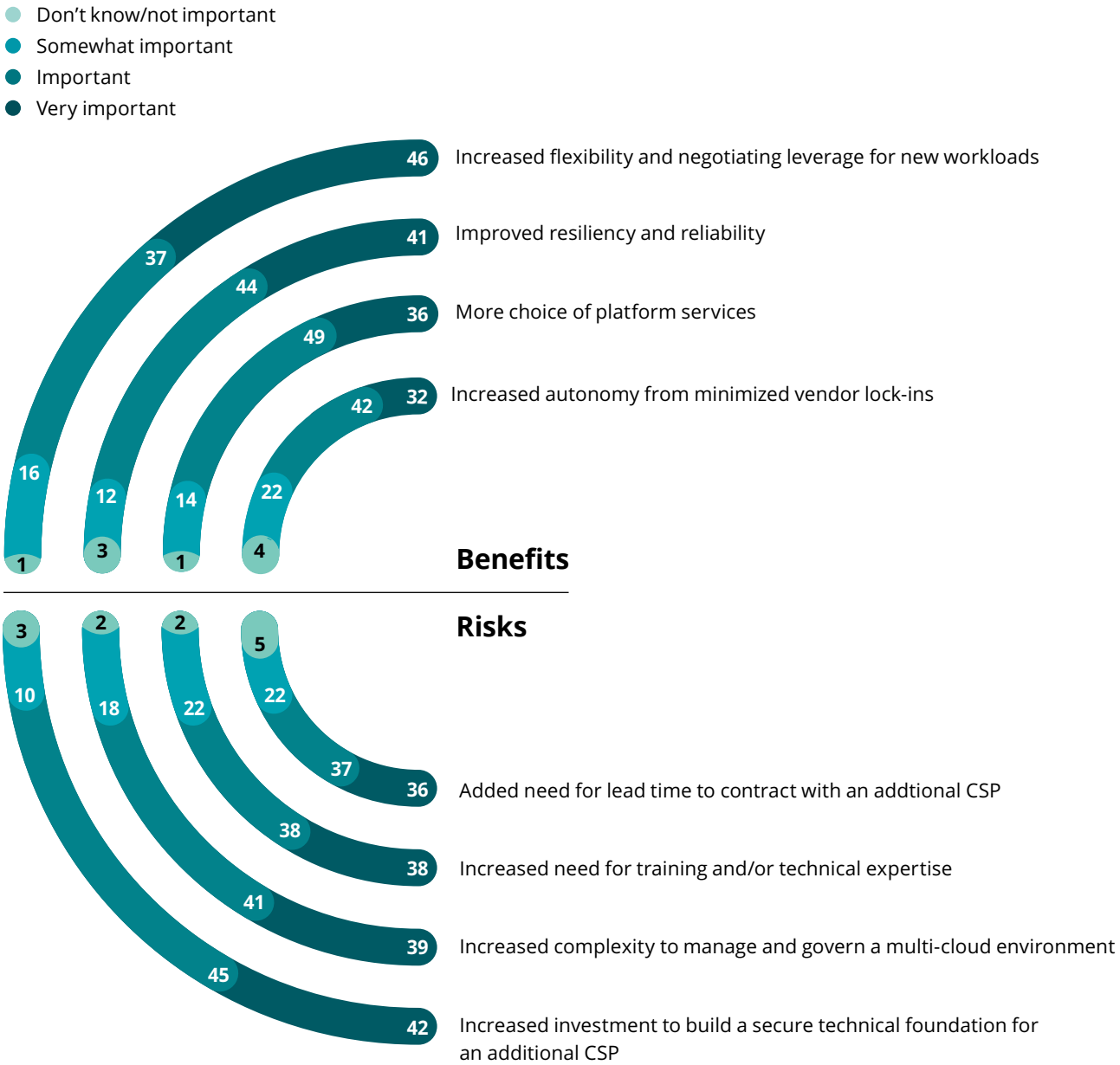
The majority of leaders we interviewed framed their approaches to multi-cloud measures in more conservative terms. Focus was typically on scaling with a primary cloud provider, and then using a secondary provider for specialized-use cases only. Still, most viewed the move to a multi-cloud platform as inevitable.

Perhaps surprisingly, for the largest Canadian organizations, private cloud approaches still dwarf those of the public: 35% of respondents with more than 20,000 employees were using private cloud capabilities for their workloads, versus the estimated 12% using the public cloud (excluding SaaS applications). But the attitude toward private systems is shifting.

"We realized early on that private cloud providers would have challenges keeping up with the hyperscalers in terms of operational resiliency and capability at speed," notes CIBC Senior Vice President of Architecture, Data, and Analytics Bradley Fedosoff. "So we decided that our cloud strategy, as a component of our tech strategy, would be hybrid."

Figure 4: Benefits and risks of multi-cloud solutions (%)

Source: Deloitte, *Accelerating to the cloud: breaking through the cloud-adoption plateau,* 2021



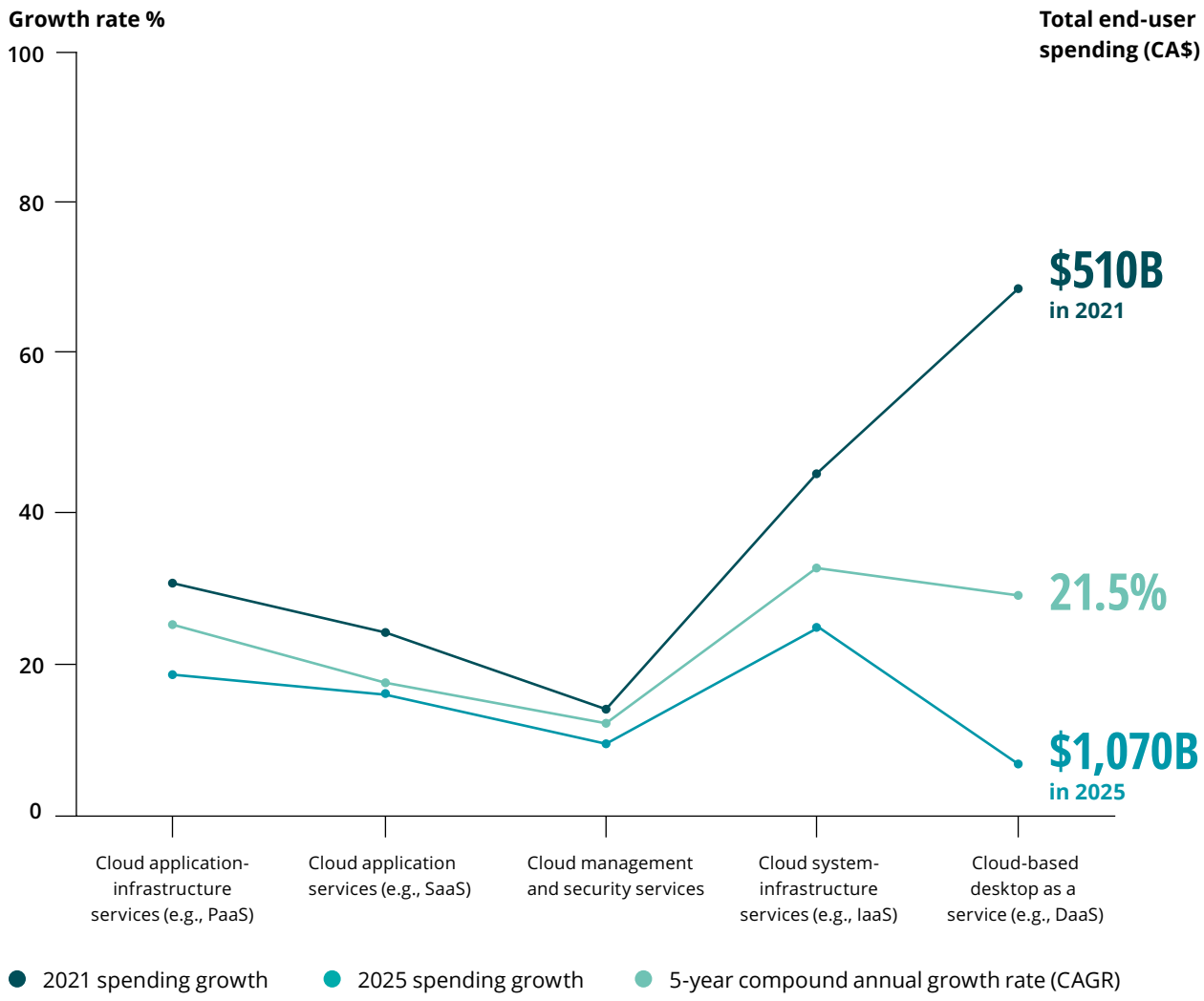
40% Of those executives who perceive multi-cloud as 'one primary provider and leveraging the secondary for specialized use cases', view the need for additional training/expertise as a 'very important' risk factor

Looking ahead
The cloud-adoption plateau

Most Canadian cloud leaders (74%) plan to increase their cloud spends. We see this reflected in the forecasted amounts allotted to public cloud services for the Canadian market overall:

Figure 5: Forecast for Canadian cloud spend by market segment, 2021–2025[6] (%)

Source: Gartner: Forecast: Public Cloud Services, Worldwide, 2019–2025, 3Q21 Update



Some of the AI and ML tool sets that are in the cloud really allow us to do things that we couldn't do on-prem. Being able to have data exposed in real-time to the data scientists has been a massive value driver for the business, enabling them to drive new models and new capabilities.

Shannon Bell
Senior Vice President of Information Technology at Rogers Communications

But how does this growth in spend translate to business impact and change? Surprisingly, our respondents expected to shift just 5% more of their total workloads to the cloud (both public and private) over the next three years. More than one-quarter said they'd probably still be in the experimenting and planning stages in two years, and just three in ten believed they would be cloud-first in that time.

"I'd say we're making good progress, but it's very incremental at this point," admits one IT leader. When looking to the future, there's a clear gap between the level of investment organizations expect to make in cloud platforms and the progress they expect in moving data and workloads onto those solutions. What's behind this rather conservative forecast?

We propose that businesses are experiencing a cloud-adoption plateau[7]—a stall in cloud adoption and, thus, true organizational transformation—that limits what companies can achieve with the cloud. Organizations are likely to hit a plateau if they haven't built their capabilities to scale. They may lack the appropriate organizational skills, the right operating model, suitable expertise, leadership support, and/or ways of working to drive the program forward. Alternately, they may not have invested sufficiently in proper technical foundations, establishing standards for platforms and tooling, and patterns for deployment and security controls, which are required to move quickly to the cloud.

Given the challenges of cloud adoption, all organizations should ask themselves the following:

1. Have we hit the plateau?
2. If so, how will we break through?

(Continued on page 20)

Cloud survey results

We surveyed 200 business leaders from across Canada on the state of their organizations' cloud adoption

Here's some of what we heard →

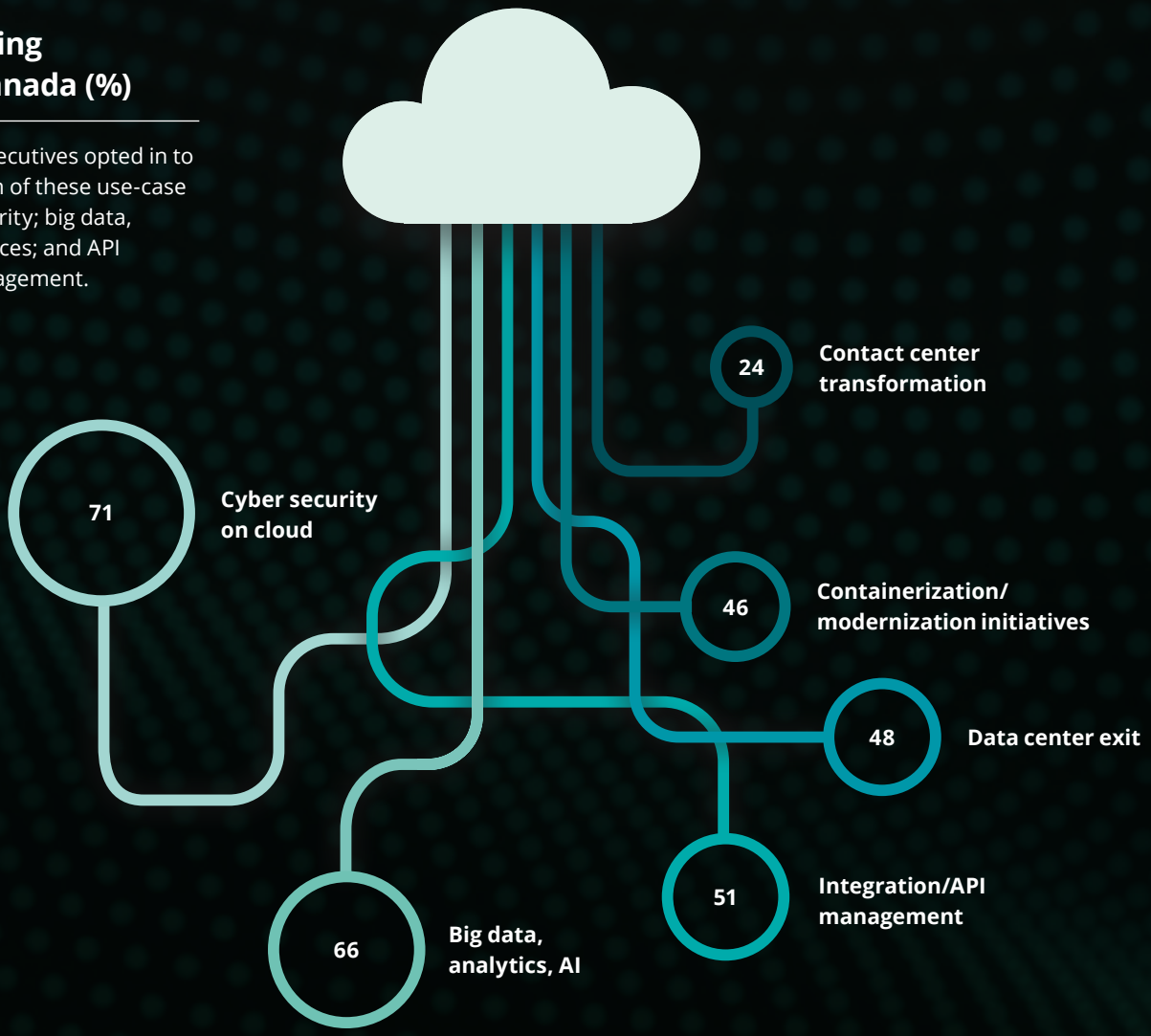
Starting the ascent

Canadian leaders realize the value of organization-wide cloud adoption—and are taking steps toward it

Cloud cybersecurity is the most dominant use case driving adoption, followed by the grouping of big data, analytics, and AI, and then by integration and API management.

Scenarios driving adoption in Canada (%)

More than 50% of executives opted in to the cloud due to each of these use-case scenarios: cybersecurity; big data, analytics, and AI choices; and API integration and management.



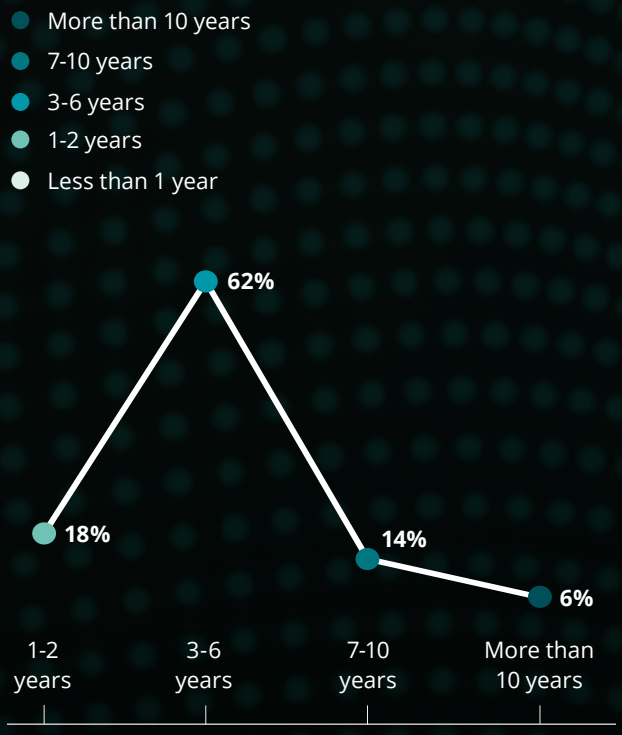
Source: Deloitte, *Accelerating to the cloud: Breaking through the cloud-adoption plateau,* 2021

While the COVID-19 pandemic has undoubtedly accelerated the move to the cloud for many, most Canadian organizations started their journeys long before. The majority (62%) began three to six years ago.

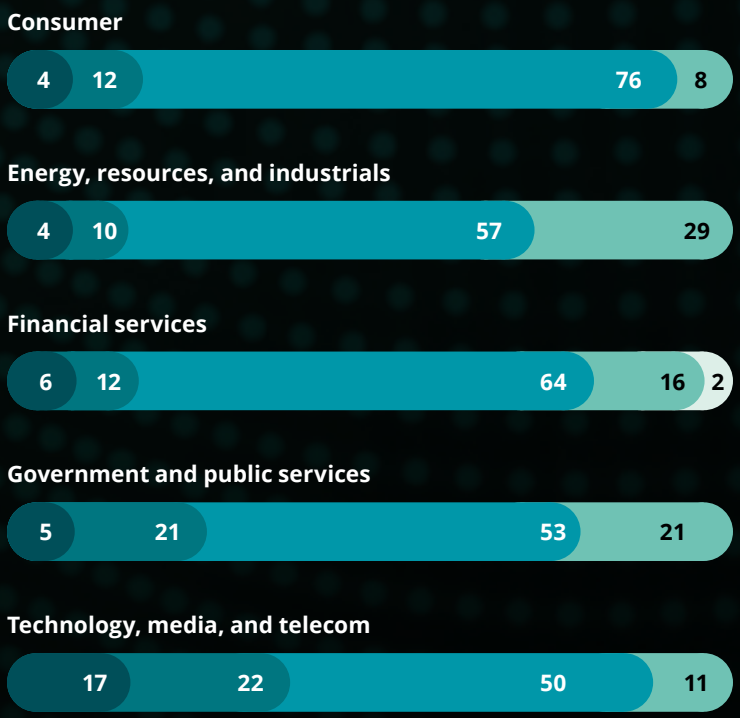
Timing varies by industry, with technology, media, and telecom (TMT) having begun earlier than consumer and energy, resources, and industrials (ER&I) sectors.

Head in the clouds: Organizations' time spent in the cloud to date (%)

TMT was an early adopter, with two-fifths of companies having used cloud solutions for at least seven years, whereas ER&I started later, with one- third having been on board for one to two years.



Cloud adoption timeline
How long has your organization been utilizing cloud solutions?



Source: Deloitte, *Accelerating to the cloud: Breaking through the cloud-adoption plateau,* 2021

Early sense of ambition?

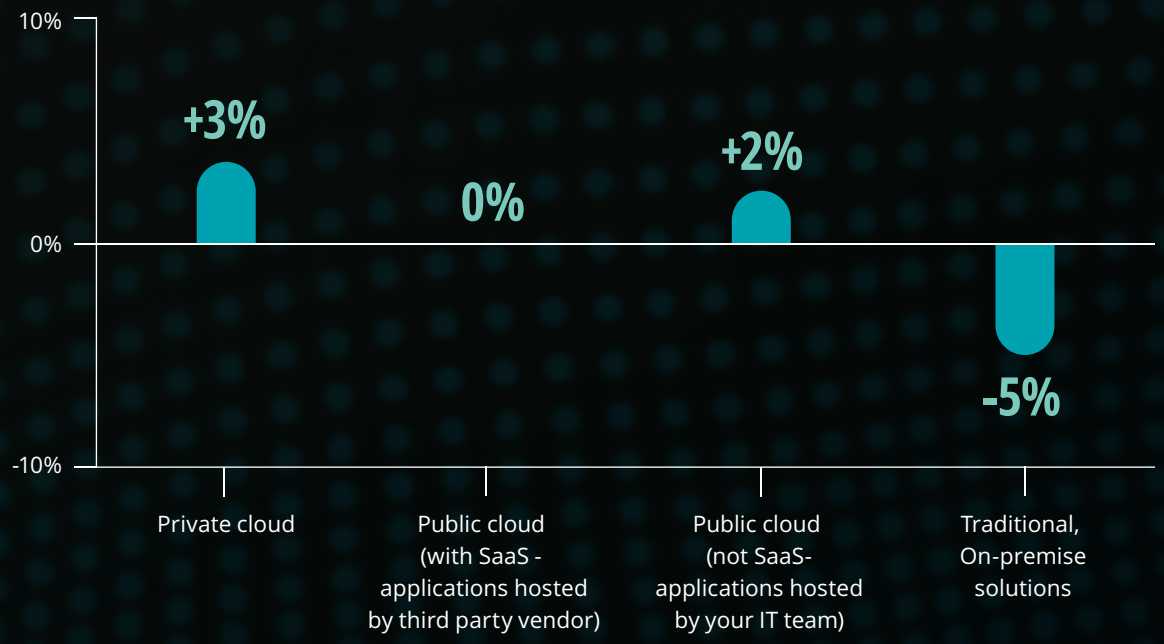
Many are confident in their migration efforts, with industry-specific discrepancies

The majority of Canadian organizations self-identify as being in the migration and scaling stage of maturity, with variations by industry. Most are confident in their cloud-capabilities progress, with 74% believing they're ahead or far ahead of their peers.

Yet this confidence hasn't translated into a bold forecast for future progress.

When asked how workloads will be distributed over the next three years, leaders predicted only modest increases, with an additional 3% anticipating moving to private cloud services and only 2% to public.

Changes to workload distribution over the next 3 years



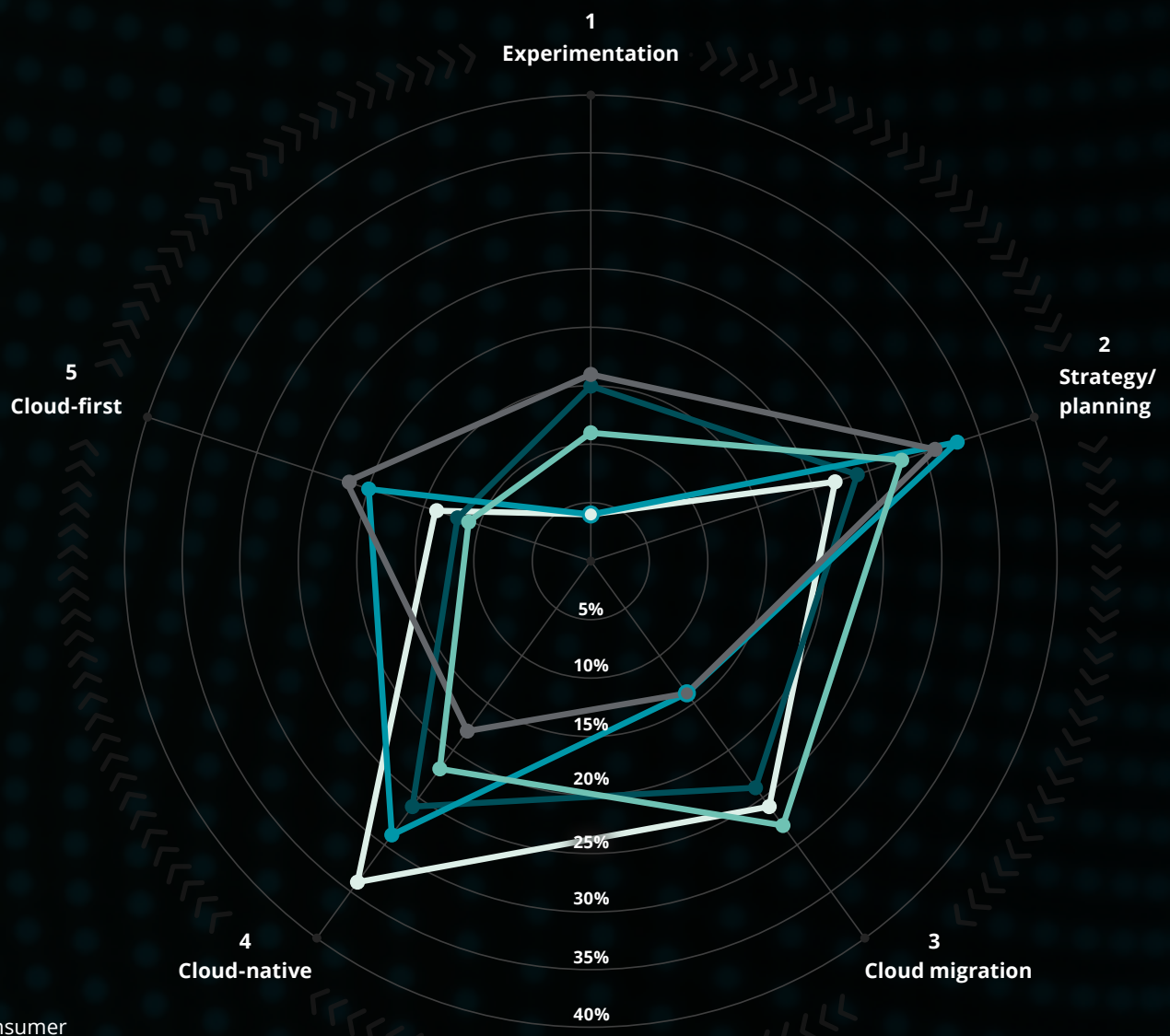
Source: Deloitte, *Accelerating to the cloud: Breaking through the cloud-adoption plateau,* 2021

State of cloud maturity, by industry

49% in ER&I are in advanced stages i.e., cloud-native/cloud-first; although 25% of them have been using cloud for less than 2 years.

Comparitiveley, only 33% in TMT (lowest among all industries) are in advanced stage, although 50% have been using cloud for more than 7 years.

74% believe that their cloud capabilities are ahead/far ahead of those of their peers.



% Indicates share of respondents

Source: Deloitte, *Accelerating to the cloud: Breaking through the cloud-adoption plateau,* 2021

Security still top priority for C-suite

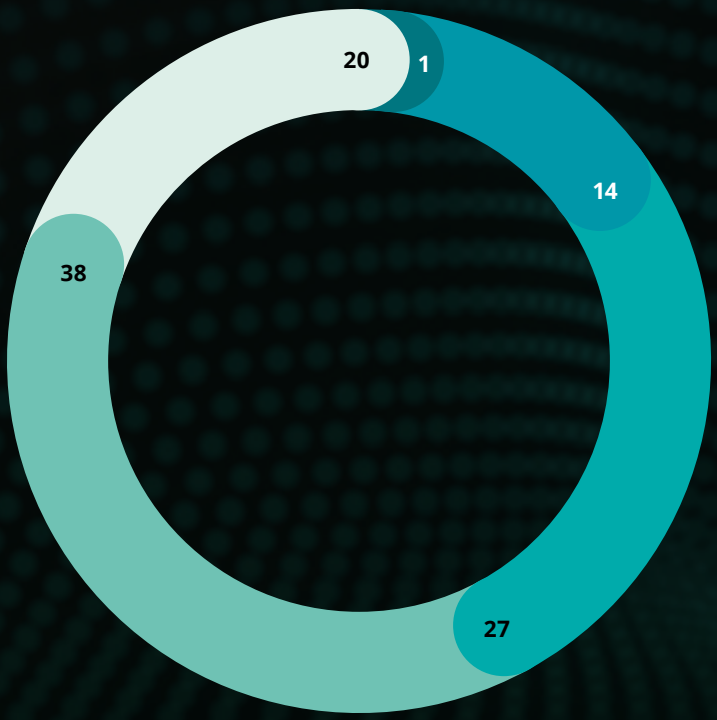
Concerns involve privacy and transparency—specifically in hybrid cloud environments

Canadian cloud leaders identify security as a top driver of and barrier to cloud adoption. Despite overall increased migration to the public cloud, many leaders (58%) still cited challenges convincing decision-makers of the platform's security. Top concerns were data privacy, complexity of hybrid cloud environments, and cloud transparency.

Most organizations (60% and above) rely on native cloud-security tools and focus on building cyber talent through hiring and training programs.

Degree of challenge in convincing decision-makers of security of cloud-based platforms, applications, and providers (%)

Overall, 58% of those surveyed indicated "very challenging" or "challenging," with top root causes flagged as data privacy and managing security in hybrid cloud system, as well as a lack of transparency.

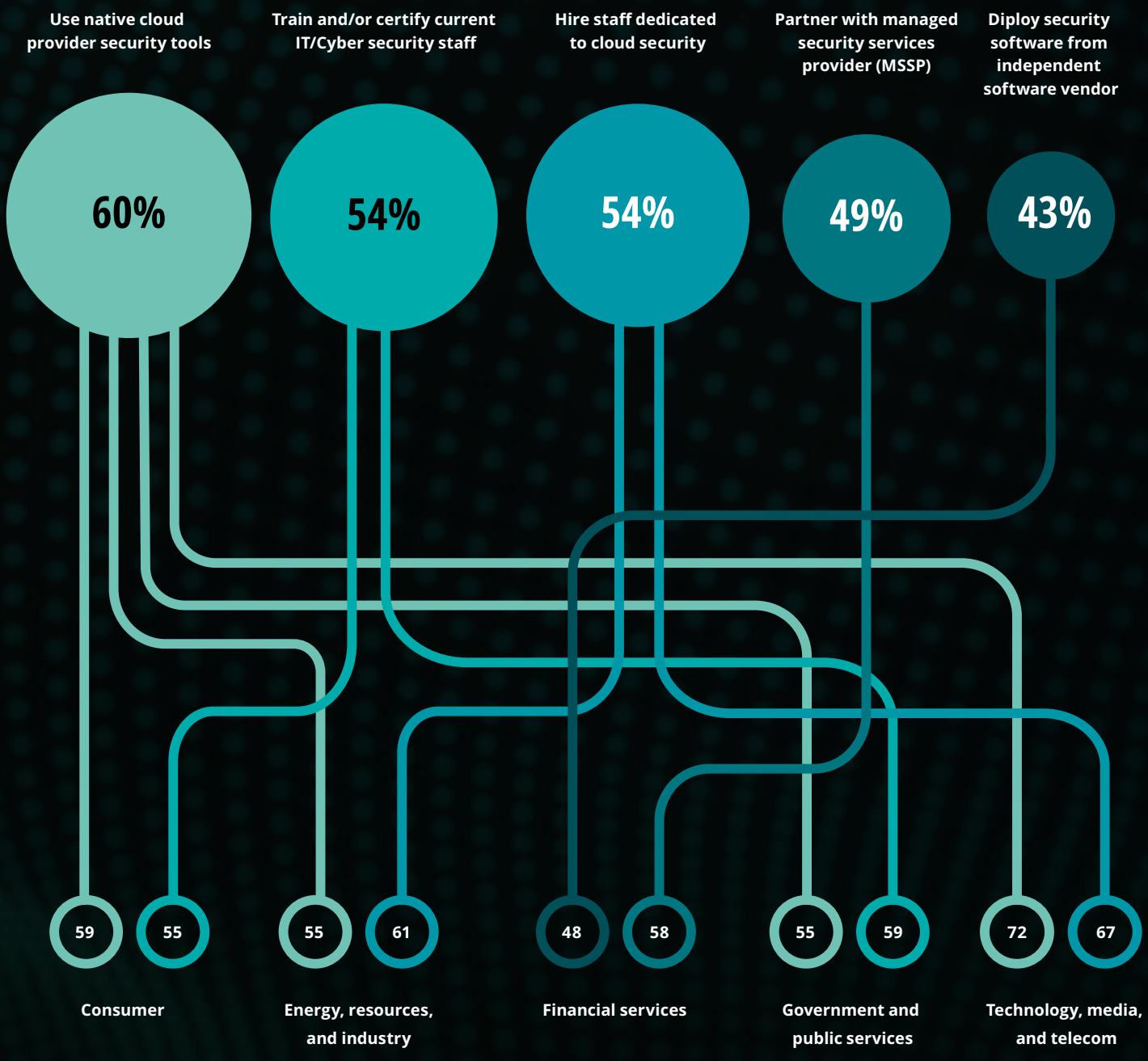


- Not at all challenging
- Not very challenging
- Somewhat challenging
- Challenging
- Very challenging

Source: Deloitte, *Accelerating to the cloud: Breaking through the cloud-adoption plateau,* 2021

Managing security needs

Using native cloud-provider security tools, training current IT/cyber staff, and hiring personnel for cloud security were the top three measures identified for staying secure



Top 2 ways of managing security needs per industry (%)

Source: Deloitte, *Accelerating to the cloud: Breaking through the cloud-adoption plateau,* 2021

Cloud skills required

Canadian organizations need a mix of cloud and cybersecurity skills to support their business transformations

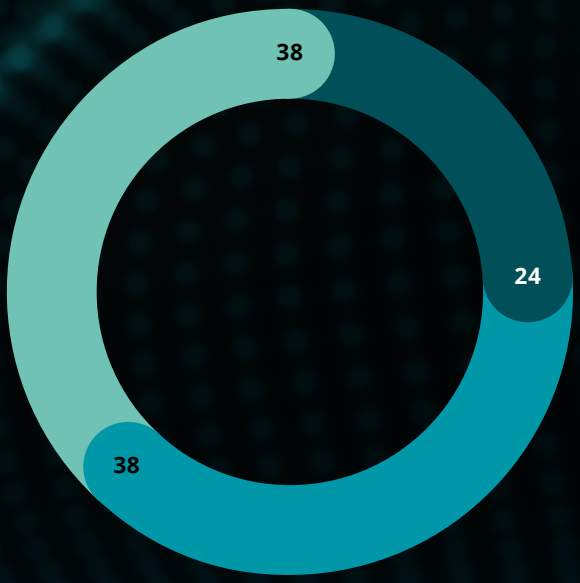
Canadian cloud leaders identified talent as the No. 1 overall factor in advancing their cloud programs, followed closely by changes in the ways their teams work.

When asked which skills were in highest demand, they identified technical cloud competencies, with cloud engineering and cybersecurity skills afforded equal urgency. Interestingly, answers varied with organization size, with smaller companies citing cybersecurity as a more immediate need and larger ones favouring more technical cloud roles.

Skills demands for future cloud transformations (%)

Overall, Canadian organizations anticipate an equal need for both technical cybersecurity skills and cloud-specific skills (38%) to support their future cloud transformations

- Non-technical business skills needed
- Technical cloud specific skills needed
- Technical cybersecurity skills needed



Top five (5) factors seen as most critical to success in scaling to the cloud

37%
Training/re-skilling current workforce

36%
Changing the way we work—processes, governance, operations

33%
Early vision to show long term cloud success

31%
Setting foundation, infrastructure early in process

29%
Acquiring new talent and thinking "big"—to consider cloud as more than just avoidance

Source: Deloitte, *Accelerating to the cloud: Breaking through the cloud-adoption plateau,* 2021

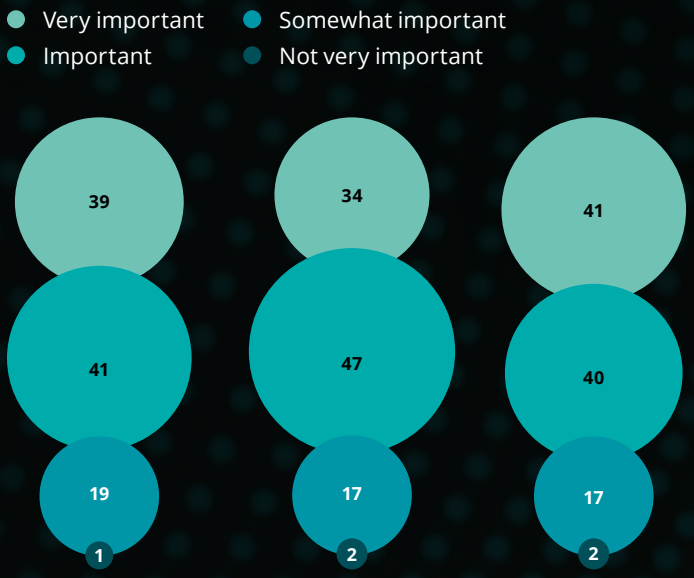
Maximizing cloud value to accelerate adoption

Mastering analytics, security, and new ways of working are seen as top ways to enhance value

Respondents overwhelmingly saw value in the cloud, with 91% identifying it as very important or important for achieving overall business success.

When asked about ways to use the cloud to maximize its value, the top three answers—cited as significant by 80% of the executives—involved data analytics and process automation, cloud security, and shifts in traditional operating models. Interestingly business/functional use cases to support team processes and transitions from legacy systems were both ranked lower, at 73% and 71%, respectively.

Top 3 ways to maximize cloud value (%)



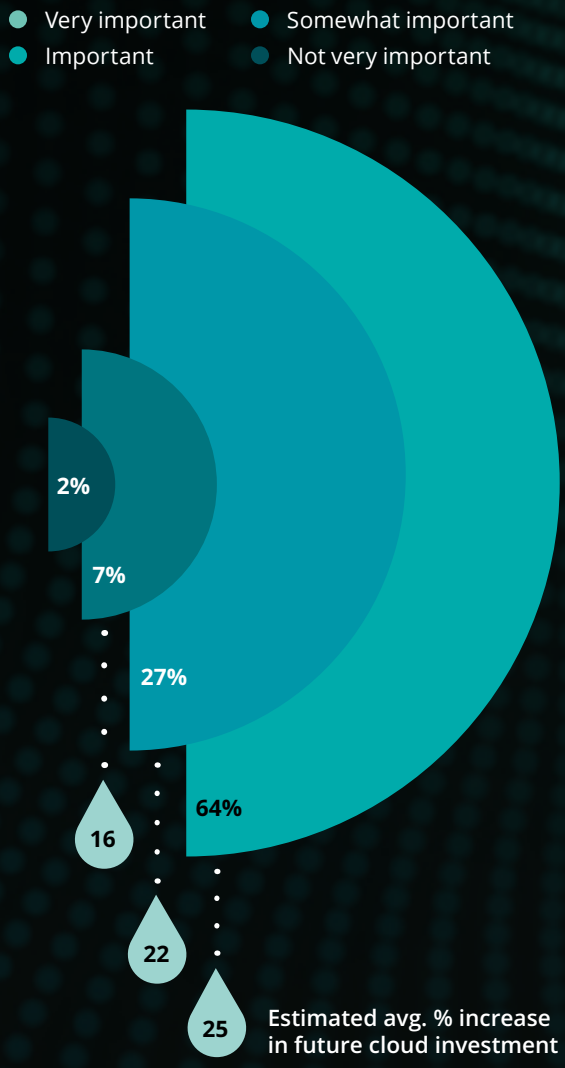
Shift traditional way of working—people and processes—to be successful in the cloud

Show how cloud solutions are more secure than on-premise solutions

Use cloud to automate our data/ analytics processes

How important are cloud solutions in achieving overall business success

The majority (64%) of executives characterized cloud solutions as "very important" for achieving business success and are more likely than their peers to invest in the cloud in future



Source: Deloitte, *Accelerating to the cloud: Breaking through the cloud-adoption plateau,* 2021

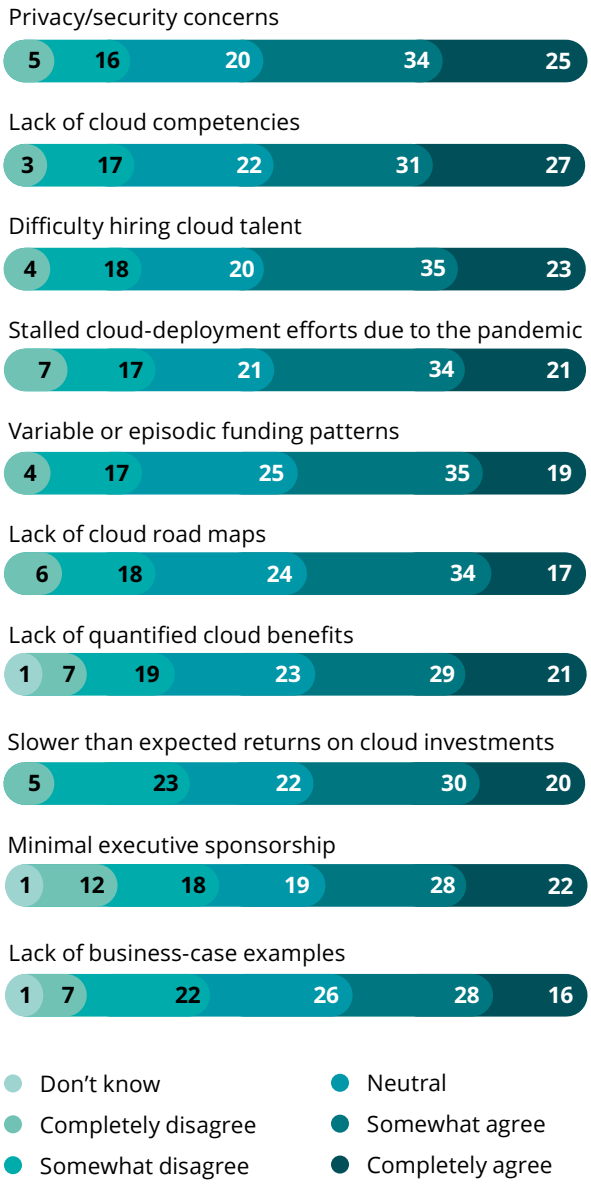
Breaking through
Addressing barriers of cloud-implementation

What's slowing the progress of cloud adoption for Canadian enterprises?

From the following data, it's clear there's no single barrier. In our survey, the range with which Canadian leaders either somewhat or completely agreed that a given barrier existed varied between 41% (for a lack of business-case examples) and 59% (for privacy/security concerns), representing a relatively small differential. A key takeaway is that barriers are numerous and vary based on organizational aspirations and maturity stage. Broadly speaking, these hurdles affect three areas: security, talent and competencies, and governance and funding. Let's examine each.

Figure 6: Barriers to cloud progress, according to Canadian leaders

Source: Deloitte, *Accelerating to the cloud: breaking through the cloud-adoption plateau,* 2021



Security in a cloud-enabled world

Security has the dubious distinction of being the top barrier to cloud progress while also flagged as the No. 1 driver of cloud adoption. The decision-makers we spoke with praised the public cloud for its security, and recognized the unparallelled investments that larger hyperscalers are making[8] to secure organizations' workloads and data.

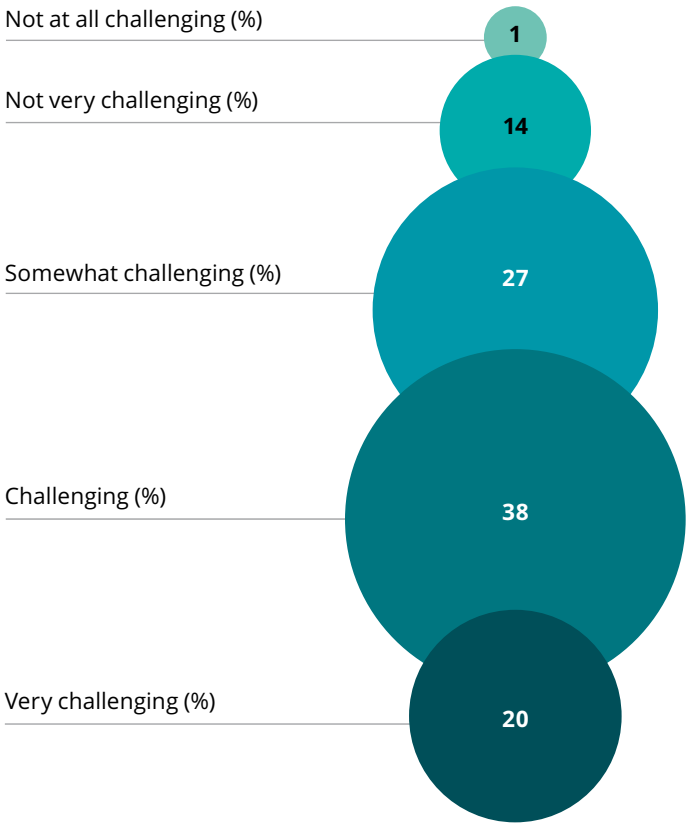
But whether this recognition is broadly acknowledged across an organization is another question. In our survey, 85% of respondents said that convincing other decision-makers that the cloud is secure is challenging, given data-privacy and hybrid cloud-complexity concerns. "I believe moving to the cloud will help us strengthen our security position. But there are still things we would probably keep on-premise regardless—things that have the biggest security implications and are core to our business," says Innovapost President, CEO, and interim Chief Digital Officer Franco Chirichella.

Our view is that you should not lift and shift (i.e., rehost) on-premise controls to the cloud. Migration requires a mindset shift, from managing physical infrastructure to monitoring access across a distributed public/private cloud environment. Controls need to address network, platform, and infrastructure issues, as well as user, data, and core-application security.[9] "At AWS we have a shared responsibility model with the customer; AWS manages and controls the components from the host operating system and virtualization layer down to the physical security of the facilities in which the services operate, and AWS customers are responsible for building secure applications," notes Dan Stark, enterprise sales lead at Amazon Web Services (AWS) Canada. "We spend a lot of our time helping customers to setup and maintain the right security controls in the environments they build. We are constantly innovating to improve on and create new tools for customers to protect and monitor their environments in AWS."

An organization's view of security as either a barrier or an opportunity may depend on its maturity. Less mature companies point to security as a bottleneck to speedy cloud adoption. By contrast, more mature organizations talk about 'shifting left'-engaging security and operations earlier in the development cycle-with DevSecOps (development, security, and operations),[10] and security-by-design cloud migration, bringing together cloud and cyber teams in centres of excellence. Finding the right talent who can shift left in a way that balances security and velocity is a challenge in the Canadian marketplace.

Figure 7: Challenges of bringing other leaders on board for cloud investments

Source: Deloitte, *Accelerating to the cloud: Breaking through the cloud-adoption plateau,* 2021



The skills and talent to succeed

Talent is seen as critical by Canadian cloud decision-makers. Lack of cloud competencies and challenges to hiring were flagged as two of the top three barriers to cloud adoption (see figure 6). “More than anything, I need more capabilities to drive our agenda forward. The ultimate linchpin is talent,” argues Hayden Lansdell, the Assistant Deputy Minister in the digital platforms and data division of the Government of British Columbia. “It’s worth investing early in up-skilling to prevent delays and problems due to lack of training” says Shannon Bell of Rogers Communications. “It’s easy to underestimate the amount of training and up-skilling people need in order to successfully deploy the cloud.”

Our survey respondents also ranked training/reskilling their current staff and changing the ways they worked as the top two factors most critical to success. The need for the former is likely to be felt first, as it represents an initial constraint on delivery pace. But the latter is the key to overcoming the cloud-adoption plateau and thus achieving sustained transformation. We believe cloud capabilities play a central role in enabling the future of work, including supporting innovative new business and organizational strategies, new operating models, and agile ways of working.

This key role of the cloud in business processes points to four shifts in how companies have been thinking about the future of cloud-enabled workforces and frameworks:

Embracing workforce ecosystems

Organizations are thinking more broadly about workforces and other players in the ecosystem—e.g., employees, contractors, gig workers, professional service providers, application developers, crowd-sourced contributors, and vendors alike.[11]

Changing the way they change

As organizations adopt agile shift-left mindsets,[13] one-time project-management technologists are now becoming part of long-term product-management teams that partner with their companies for specific product and/or customer journeys.

Going beyond reskilling

Organizations may instead consider talent models that focus on building cloud skills, enduring capabilities, and life-long learning cultures that are embedded into the flow of work.[12]

Embracing cloud-ready culture

Organizations have been working to engage technology, business, and HR leadership to activate, reward, and celebrate the values and behaviours that they want to reinforce organization-wide—namely, empowerment, collaboration, engineering, and innovation.[14,15]

Organizing for change

Subsequent barriers to progress that we discovered—intermittent funding, lack of cloud road maps, minimal executive sponsorship, and poorly quantified business cases and benefits (see figure 6)—touch on organizational dimensions required to plan, fund, and govern cloud expansion.

As organizations scale, making broad technology and investment decisions can be a significant challenge. There needs to be a balance between developing overall standards while addressing the needs and preferences of an organization's individual businesses and functions. Choosing between adopting best-of-breed technologies and minimizing downstream operational complexity also requires trade-offs. Having the proper governance and processes in place to identify who makes these decisions—and why—is therefore critical to scaling quickly.

For large, complex organizations serious about cloud adoption, this represents multi-year technology and business transformations that can command significant financial and management resources. Therefore, the right elements need to be in place, beginning with top leadership: strong support and oversight from boards, sponsorship from senior leaders with the organizational capital to make substantial changes, and alignment across C-suites on a vision for transformation that can be sustained for years to come. For public sector organizations, this means strong political or ministerial leadership, and willingness to invest in modernizing the policy and legislative framework as needed to pave the way for cloud.

Time to accelerate

Canadian organizations are clearly committed to moving processes into the cloud. They're starting to grasp the wide range of benefits and value propositions that the cloud can deliver and they're feeling the urgency of accelerating this process. So, what will it take to overcome the barriers that currently exist and start fast-tracking the cloud-adoption journey?

10 conditions for cloud acceleration

Our work and conversations with hyperscalers and cloud leaders suggest there are 10 key elements to successfully accelerate cloud adoption:

1. Board support

Cloud progression must be at the top of a board's agenda. For their part, these executives must act as catalysts for change and alignment, driving accountability for progress into all areas of the organization.

2. C-suite alignment

The C-suite will need to align business outcomes and priorities for cloud adoption, driving an enterprise-wide approach to achieve economies of scale. For public-sector organizations, this means driving alignment across political and ministerial leadership.

3. Operating model

This should define clear governance and funding standards while establishing organizational mechanisms needed to adopt new technical standards and ways of working, develop talent and capability, and share new information and ideas. This work may include updating internal policies and processes; and, in the case of public-sector organizations, it may even require legislative changes.

4. Patterns-based approach

To achieve rapid scale, an organization will need to establish repeatable patterns for modernization and migration, as well as defined standards for non-differentiated technologies and services.

5. Scalable delivery

This involves implementing defined approaches to rapidly integrate and train talent, including processes for triaging and executing new-workload migration and modernization across an organization.

6. Alignment

It's critical to align IT and the organization on cloud road maps for priority businesses and functions, as well as to establish a cloud-first collaborative approach.

7. Internal talent

Talent and capability gaps must be addressed with effective workforce planning to reskill staff, enhance change management and communications, and make better use of external partners.

8. Hyperscaler partnerships

Organizations should focus on creating and maintaining robust, enterprise-wide relationships with hyperscalers and cloud providers to help ensure they achieve economies of scale and capture opportunities for innovation.

9. Security with velocity

Keeping security levels high while ensuring minimal interruptions to business processes through self-service will be essential.

10. Culture and communication

Encouraging a culture that drives innovation, iteration, and adoption across an enterprise and its value chain is vital.

Getting the help you need

Hyperscaler alliances and industry clouds

Our conversations with cloud leaders clearly indicate the pace of acceleration is often influenced by an organization's ecosystem. Starting with hyperscalers, defining a strategy is one of the most important decisions any organization faces: Which platform will be used for which use cases and deployment patterns?

While concerns about vendor lock-in—the risk of being tied to one provider—persist, our interviews revealed a trend toward larger, more strategic agreements with the big hyperscalers. Each partnership is unique, but they typically involve trading larger, longer-term commitments on cloud consumption in return for investment. This investment can include reduced consumption rates, but for many cloud clients, support in augmenting capability can often be more valuable.

"We didn't just sign a cloud deal with Google; we created an innovation partnership with them," says Hesham Fahmy of TELUS "Our alliance goes beyond just cloud migration; we're working closely with Google to co-create, innovate and evolve customer experiences and solutions in key industries such as health, agriculture and smart home technology."

Each of the three major hyperscalers active in Canada offers a range of services to help accelerate an organization's journey to the cloud—including groups of data scientists, cloud engineers, and security specialists helping to solve complex problems through their partner networks or via organization teams. These external and in-house resources then work together to provide on-the-job training, often with an extensive curriculum to certify staff across a variety of platforms and technical domains. When done right, the focus is less on staff augmentation and more on transitioning and developing in-house talent. With competition fierce, large cloud providers are interested in exploring opportunities to help co-fund cloud implementation at major Canadian organizations.

"Yes, we're going to help you reset your baseline costs. Yes, we're going to help you be more agile and flexible. But more importantly, we want to work with you to determine how we can co-innovate, co-create, or co-develop interesting and new business ideas and service opportunities. That's where the value is—for our clients and for us," notes Jim Lambe, the managing director at Google Cloud Canada.

"It's certainly about more than just moving workloads into the cloud for us. We want to help business leaders understand the art of the possible. We want them to see how simple some of this stuff can be with the cloud. We want to change mindsets about how technology can help—and the speed that it can bring," adds Amazon Web Services Canada's Dan Stark.

Hyperscalers, system integrators, and service providers are also developing increasingly industry-focused cloud solutions that can accelerate change and supplement areas traditionally thought of as core internal capabilities. We refer to these solutions as industry clouds: they're pre-built accelerators that bring together advanced technology capabilities including AI, cloud competencies, and cyber systems to solve sector-level business challenges.

Ultimately, there's no shortage of organizations, models, and tools to help drive massive acceleration of cloud adoption. By pulling the right levers at the right times, Canadian organizations may very well find themselves flying beyond their barriers.

With competition fierce, large cloud providers are interested in exploring opportunities to help co-fund cloud implementation at major Canadian organizations

To boldly go?

The time, investment, and commitment required for the journey to the cloud might be substantial, but none of the barriers considered in this report are insurmountable.

Consider that 42% of respondents defined "cloud-first" as pursuing SaaS products for new services and solutions. SaaS is an important component of any cloud strategy, but it just scratches the surface.

Consider, too, that despite so many respondents still being in the early stages of cloud adoption, 74% believed their cloud capabilities were ahead or far ahead of those of their peers. What does this say about this peer group?

There's another conclusion we could draw: that Canadian organizations can and should be bolder. Over the next decade, there will be a gravitational pull toward the cloud. Cloud technologies are the new norm, options for SaaS solutions will continue to expand, and all of this will dictate where IT workforces of the future invest to build their skills. Even those organizations behind the curve will incrementally get pulled into the cloud over time.

If not, they'll be left behind.

To borrow a sailing metaphor, post-pandemic waters will be choppy, with competitive pressure, extended disruptions to supply chains, and lasting shifts in customer behaviours and expectations. Legacy technology can anchor your organization in place and leave you taking on water.

So the key question becomes: Are you holding a bucket to bail water or a knife to cut the line?

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Methodology

This report is based on a survey of 202 Canadian executives and senior public-sector leaders, including CEOs and presidents, ministers and deputies, CIOs, CDOs, and CTOs. The survey was conducted by KS&R, Inc., in March, April, and May 2021, with respondents from Canadian organizations ranging from small (100–499 employees) to large (20,000 or more employees). Additionally, KS&R and Deloitte conducted select, one-on-one interviews with private-sector industry leaders and academics.

All private-sector respondents came from organizations with annual revenues of $50 million or more, with 37% earning $1 billion to less than $5 billion yearly. Among the public-sector leaders surveyed, 32% represented organizations and agencies with annual budgets of $100 million or more.

Twenty-five percent of respondents were from the consumer business industry and financial services (respectively); 24% were from the energy, resources, and industrials industry; 17% were from government and public services; and 9% were from technology, media, and telecom.

In terms of their roles in advancing their organizations' cloud transformations, 42% of respondents determined cloud technology spending and/or approved cloud investments; 25% managed or oversaw cloud technology implementation; 17% made or influenced decisions about cloud technology; 14% developed cloud technology strategies; and 2% identified as cloud technology subject-matter specialists.

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