



2022

Cloud Transformation Benchmark Report

A survey of 1,000+ IT decision-makers reveals how they're leveraging the cloud and where organizations' biggest opportunities and hurdles lie.



Section I: Executive Summary

The Role of Cloud in Digital Transformation

Organizations are adopting the cloud to drive increased long-term growth, accelerate innovation while increasing operational efficiency through standardization and automation.

Moving business applications, IT infrastructure and platforms to the cloud is a vital part of digital transformation, expanding organizations' storage repositories and giving them greater compute power, flexibility, security and access to the latest AI, machine learning and automation capabilities. It also has the potential to create a competitive advantage, drive operational efficiency and enable innovation and growth.

Coinciding with digital transformation, the amount of data (structured and unstructured) organizations create, capture, copy and consume is growing substantially. As organizations focus on standing out from their competitors and improving the customer experience, their ability to aggregate, analyze and extract meaningful insights from their information has become mission critical.

Insights into Organizations' Cloud Struggles

There's often a significant disconnect between how easy it is to "go to the cloud" and achieving the desired results. Advancing cloud maturity is often hindered by IT's relationship with their business. Those that are equal partners to the business in developing organizational strategies and are further ahead in driving successful outcomes.

Organizations that aren't united, lack the right expertise, or don't plan their cloud migration properly are more likely to experience:

- **Data source challenges** – 70% of respondents reported difficulties with too many disparate data sources, and almost two-thirds (65%) find having actionable data and dashboards accessible to the right users challenging. Additional serious data challenges include having real-time access to data (62%), finding meaningful insights from data (62%) and supporting machine learning (60%).

Across most challenges listed, respondents in the healthcare sector were more likely to find this challenging than those in the financial services or the

public sector. The exception was "my data doesn't support machine learning," where public sector respondents were the most likely of the three to find this challenging.

- **Skills gaps** – Less than 1 in 5 organizations say their teams are proficient with cloud operating models, and just 14% say they are proficient in artificial intelligence and machine learning. Additionally, less than a fifth (17%) of IT decision makers say their team is currently proficient with DevOps and automation.
- **Security challenges** – This is the top challenge cited by 44% of IT decision maker respondents across all sectors. Respondents in healthcare (46%) and financial services (50%) are most likely to cite security concerns as their top challenge in adopting cloud technology.

How the Right Partner Ensures a Better Cloud Experience

To overcome challenges with cloud adoption, many organizations are looking for trusted partners to integrate modern security policies from the start and build a contingent workforce to address skills gaps. Many organizations (94%) report that it's important to work with a partner with a broad range of security expertise and experience in modern network technologies that can handle all types of data and span on-premises and cloud. Additionally, the right partner can provide a neutral third-party perspective, break down silos and help IT leaders drive business strategies that stimulate innovation and growth.

To better understand these challenges – and identify solutions – Presidio commissioned an independent survey of 1,000+ US-based IT decision makers from medium to large enterprises across several industry sectors, including healthcare, financial services, state and local government and others.

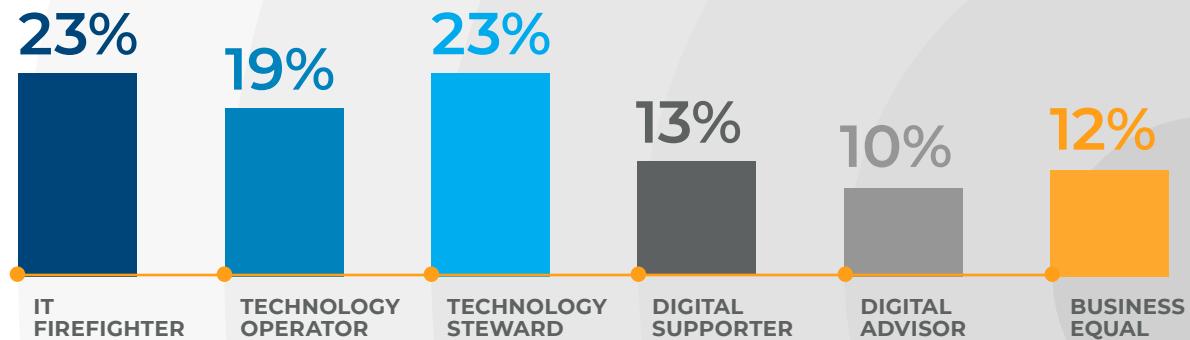
IT Leaders' Business Influence Varies Widely

A key element of successful cloud transformation starts with IT's relationship with their business. To look at this, respondents were asked to select which of the following best describes their relationship with their business:

1. **IT firefighter**—technology is viewed as a reactive cost center
2. **Technology operator**—limited technology maturity and executive sponsorship
3. **Technology steward**—technology-focused with little business interaction
4. **Digital supporter**—technology as a business advocate
5. **Digital advisor**—technology as a priority influencer and consult
6. **Business equal**—technology and business as equal partners

The data below shows that IT's relationship with the business varies widely. In addition, this study found an IT department's relationship with the business is a primary indicator of how proficient an organization is with cloud adoption. For example, IT firefighters are most likely to cite budgets and funding as a cloud adoption challenge (41%). Additionally, IT firefighters and technology stewards are nearly twice as likely as digital advisors to cite executive buy-in as one of the challenges to adopting cloud technology (31% vs. 16%).

Not surprisingly, the survey revealed that a much higher percentage of business equals (70%) and digital advisors (66%) had experienced greater efficiency from cloud adoption than technology operators (46%) or IT firefighters (48%). Similarly, business equals (68%) have experienced the most increased speed to market from cloud adoption.



Section II: Cloud Drivers, Obstacles & Trends

What's Driving Organizations to the Cloud

The business drivers for using the cloud are very similar, whether a company falls into the IT firefighter category or the other end of the spectrum, business equal. IT decision makers' main drivers for adopting the cloud are:

1. To more easily update technology to comply with new regulations/compliance changes (53%)
2. To become more agile and support innovation (45%)
3. To scale and grow the company (43%)
4. To bring new products to market faster (43%)
5. To save money or drive operational efficiency by reducing infrastructure costs (42%)

While responses such as "supporting innovation" and "reducing infrastructure costs" (the top drivers) aren't surprising, those who reported using the cloud for "better compliance with new regulations/compliance changes" was a surprise at first glance. In the past,

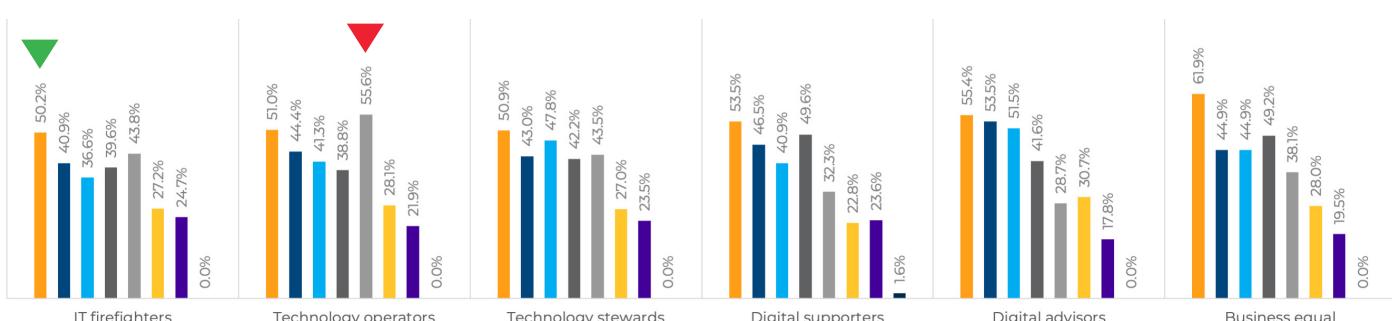
companies governed by regulations such as Sarbanes-Oxley, the European Union Data Protection Act, PCI DSS or HIPAA were more hesitant to move sensitive workloads to the cloud. Today, however, the cloud has become a critical component in achieving and maintaining compliance with these regulations thanks to standards like ISO 27001, SAS 70, and guidance from organizations such as the [Cloud Security Alliance \(CSA\)](#), the [Cybersecurity and Infrastructure Security Agency \(CISA\)](#) and [National Institute of Standards and Technology \(NIST\)](#).

Cloud adoption drivers vary with the ability to innovate, scale growth, optimize costs and modernize technology ranking highly for all.

WHERE IT IS CURRENTLY

01

What have been your main drivers for adopting the cloud? (select up to 3)



- To more easily update technology to comply with new regulations/compliance changes
- To scale and grow the company
- To save money or drive operational efficiency by reducing infrastructure costs
- To reduce technical debt

- To become more agile and support innovation
- To bring new products and offerings to market faster
- To differentiate our business in our market
- There are no main drivers for adopting the cloud

Medium vs. Large Business Cloud Adoption Drivers

The main drivers for cloud adoption are very similar between medium businesses (251-1,000 employees) and large companies (1,001+ employees), with a few notable exceptions:

- Large businesses are over 10% more focused (52% vs. 41%) on becoming more agile and supporting innovation than medium businesses.
- The only category medium businesses surpassed large businesses was their drive to save money or increase operational efficiency by reducing infrastructure costs (43% vs. 41%).

Cloud Drivers by Industry

Looking at the data from an industry perspective, one notable finding is that over half of the respondents in financial services (57%) and healthcare (56%) now see the cloud as helping them with compliance. This was the top driver for healthcare, financial services and public sector decision makers.

The next most popular driver among the three verticals was "saving money or driving operational efficiency by reducing infrastructure costs," with 52% of healthcare respondents, 48% of financial services respondents and 38% of public sector respondents weighing in.

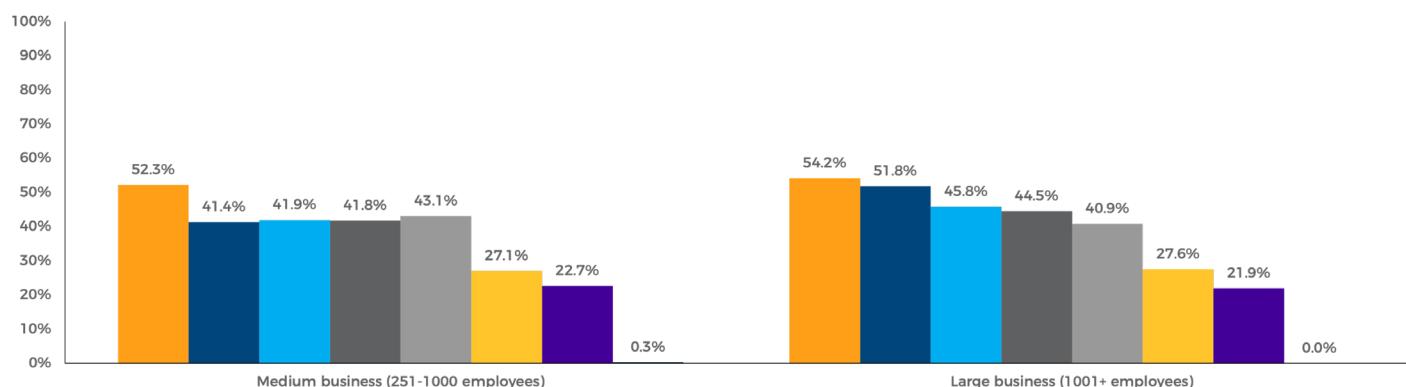
Another top driver among healthcare and financial services decision makers was "to become more agile and support innovation," with 46% of healthcare respondents and 47% of financial services respondents listing this response.

COMPANY SIZE

02

What have been your main drivers for adopting the cloud? (select up to 3)

Over half (52%) of large businesses said one of the main drivers for adopting the cloud has been to become more agile and support innovation, compared to just around 2 in 5 (41%) of those from medium-sized businesses.



- To more easily update technology to comply with new regulations/compliance changes
- To become more agile and support innovation
- To scale and grow the company
- To bring new products and offerings to market faster

- To save money or drive operational efficiency by reducing infrastructure costs
- To differentiate our business in our market
- To reduce technical debt
- There are no main drivers for adopting the cloud

Cloud Adoption Status

Most IT decision makers (81%) surveyed are using Software-as-a-Service (SaaS), followed by:

- Infrastructure-as-a-Service (IaaS) (67%)
- Platform-as-a-Service (PaaS) (63%)
- Private cloud (60%) and
- Cloud-native applications (59%).

The fact that more advanced cloud services such as IaaS and PaaS are trailing behind SaaS adoption suggests some cloud immaturity, despite respondents indicating otherwise.

The Growing IT Skills Gap

More than half (60%) of IT decision-makers say their organization is very skilled at building cloud-native applications. Yet, over a quarter (27%) say they are not skilled or are just getting started. This stark reality is further illustrated by the fact that less than a fifth

(17%) of IT decision makers say their team is currently proficient with DevOps and automation.

Additionally, only 19% say their teams are proficient with cloud operating models, and just 14% say they are proficient in AI/ML. Despite this, most respondents expect their teams to be proficient with these technologies within the following year.

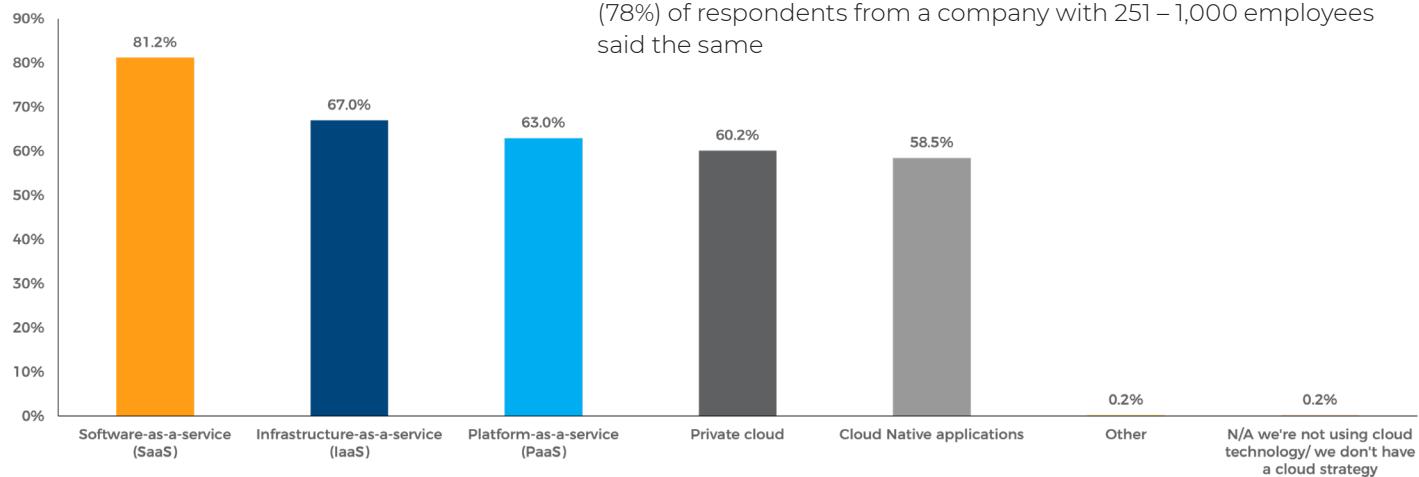
However, respondents' hopes for attracting and training IT talent must be viewed in light of the "Great Resignation," a mass exodus in the workforce, creating labor shortages in many sectors and rising salaries. For instance, according to the U.S. Bureau of Labor Statistics, 47 million employees quit their jobs in 2021. All this turnover exacerbates an already big workforce gap in the cybersecurity sector. For example, the U.S. Commerce Department estimates there are about 464,000 U.S. cyber job openings, but not enough new, qualified workers to fill them. Moreover, with cyber-attacks increasing significantly, the need for qualified cybersecurity staff continues to grow.

OVERALL

03

What are you using cloud for in your organization, if anything? (check all that apply)

- Just over 4 in 5 (81%) respondents said they are using cloud in their organization for software-as-a-service (SaaS) in their organization
- Just over two-thirds (67%) of respondents said they are using cloud in their organization for infrastructure-as-a-service (IaaS) in their organization
- Over 3 in 5 (63%) respondents said they are using cloud in their organization for platform-as-a-service (PaaS) in their organization
- Nearly 9 in 10 (89%) respondents from a company with 1,001 – 2,000 employees said they are using cloud in their organization for software-as-a-service (SaaS), whereas more than three quarters (78%) of respondents from a company with 251 – 1,000 employees said the same



Cloud Maturity: Perception vs. Reality

Another prevalent theme is a gap between companies' perceived cloud maturity and the reality of their situation. For example, 60% of IT decision-makers say their organization is very skilled at building cloud-native applications. Yet less than a fifth (17%) say their team is currently proficient with DevOps and automation. Further, only 14% say they are proficient in artificial intelligence (AI) and machine learning (ML). Figure 4 below shows the other categories where organizations are currently not proficient.

A few additional cues that IT decision makers are perhaps not as 'cloud mature' as they may think can be seen in the following:

- Just 1 in 6 (16%) say their team is currently proficient with microservices

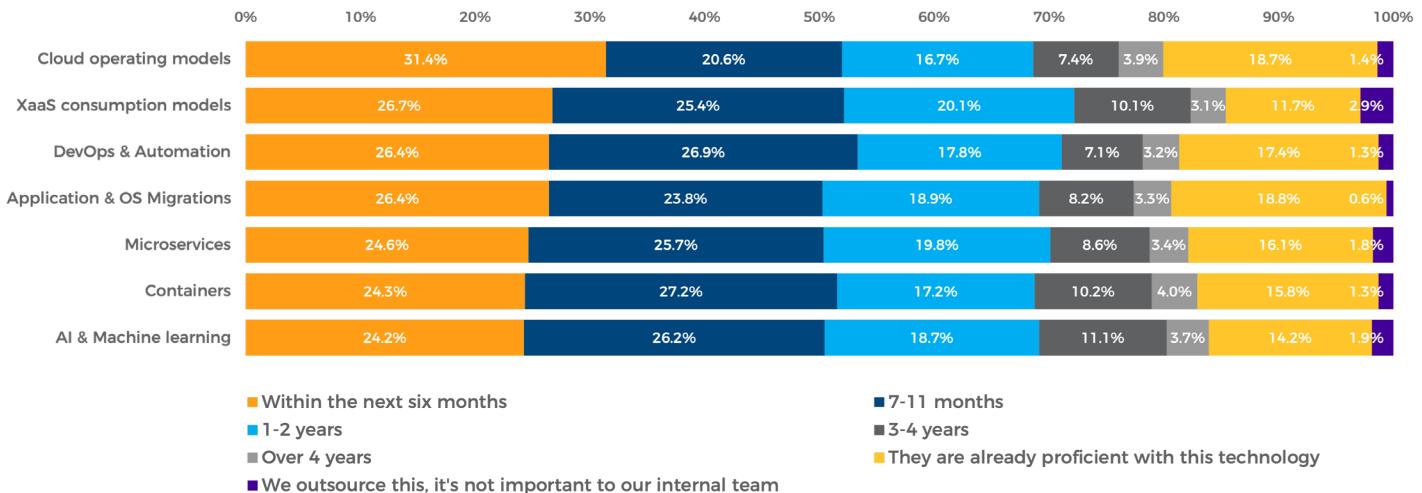
- Just under 1 in 5 (19%) say their team is presently proficient with cloud operating models
- Just 1 in 8 (12%) say their team currently is proficient with XaaS ("Everything as a Service") consumption models

With that said, over a quarter (27%) say they are not skilled or are just getting started, and a further 13% say they outsource cloud builds. When asked about their cloud challenges, the skills gap ranked second highest (security concerns were number one), with 36% of IT decision makers saying they were struggling to staff positions or their current employees don't possess the necessary skills to lead the transition. Further, most respondents expect their team to be proficient with advanced cloud technologies within the next year.

OVERALL

04 When, if ever, do you think your team will be proficient with the following technologies?

Nearly 1 in 5 (19%) respondents said their team is already proficient with application & OS migrations, but half (50%) expect their team will be proficient within the next 11 months*



*'Within the next six months', '7-11 months' responses combined

The Top 3 Cloud Adoption Challenges: Security, Skills and Partnerships

The data clearly shows many benefits from cloud adoption, so it's essential also to understand the barriers and challenges companies experience. The top three challenges are:

1. Security concerns (44%)
2. Skills gaps (e.g., expertise and staffing) (36%)
3. Finding the right partner with the right experience (35%)

Just over a third (34%) have found shadow IT a challenge in adopting cloud technology, while almost a third (32%) have struggled with budgets and funding. Less common challenges to cloud technology adoption are staff turnover (24%) and executive buy-in (27%).

However, one of the most notable differences is that 'IT firefighters' are most likely to cite budgets and funding as a cloud adoption challenge (41%).

Respondents in healthcare (46%) and financial services (50%) are most likely to cite security concerns as their top challenge in adopting cloud technology. However, this category was tied for second (along with the skills gap) for public sector respondents (32%) – budgets and funding (33%) are their primary challenges.

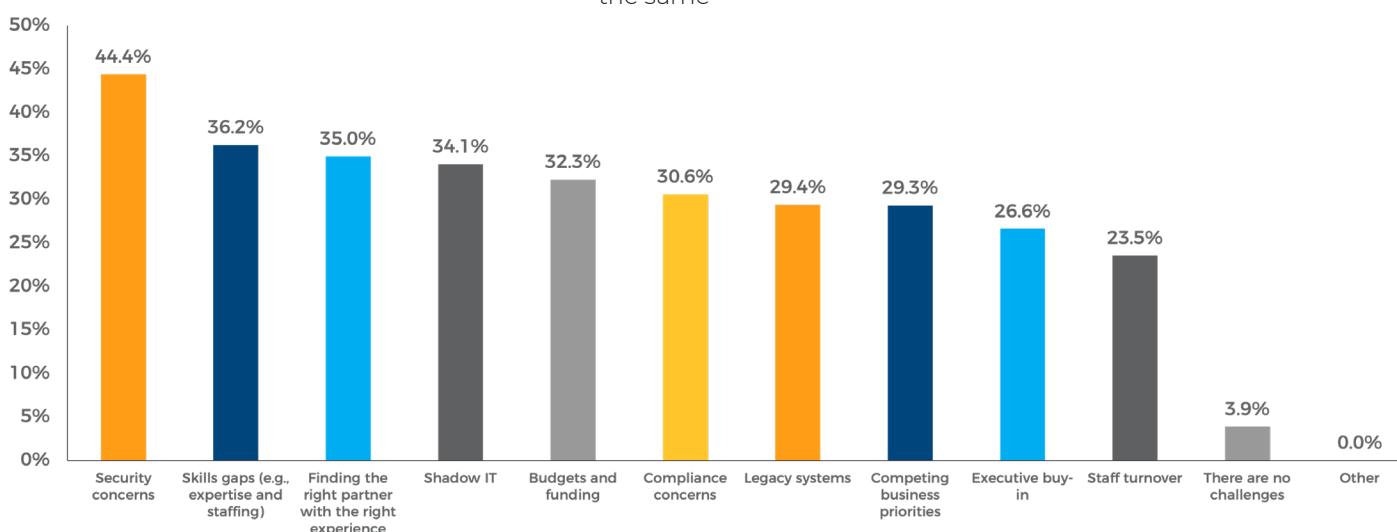
The second most significant challenge among healthcare (35%) and financial services (47%) respondents was finding the right partner with the right experience. This category ranked fourth (30%) for public sector organizations.

OVERALL

05

What have been your challenges around adopting cloud technology? (select all that apply)

- The top three challenges in cloud technology adoption are security concerns (44%), skills gaps (36%) and finding the right partner with the right experience (35%)
- Nearly half (46%) of respondents from companies with 1,000+ employees said security concerns have been a challenge around adopting cloud technology, whereas more than 2 in 5 (44%) respondents from companies with 251 – 1,000 employees said the same



Data Source Challenges

Nearly all corporations value information as a critical enterprise asset and analytics as an essential competency. According to IDC analysts, businesses spent a whopping \$215 billion last year on big data and business analytics solutions, which was a 10% increase over 2020.

Despite being viewed as a gamechanger, this survey found that the amount of data out there can be overwhelming and unharvested. Seventy percent find having too many disparate data sources challenging. Further, three in five (63%) find it challenging that they lack confidence in their data for business analysis, with over a quarter (26%) finding this very challenging. As such, 62% find gaining meaningful insights from their data challenging or very challenging.

When spotlighting challenges around data sources, there are many additional factors that IT decision makers find difficult, for example:

- 65% find having actionable data and dashboards accessible to the right users challenging
- 62% find having real-time access to data challenging or very challenging
- 60% find that their data not supporting machine learning challenging or very challenging

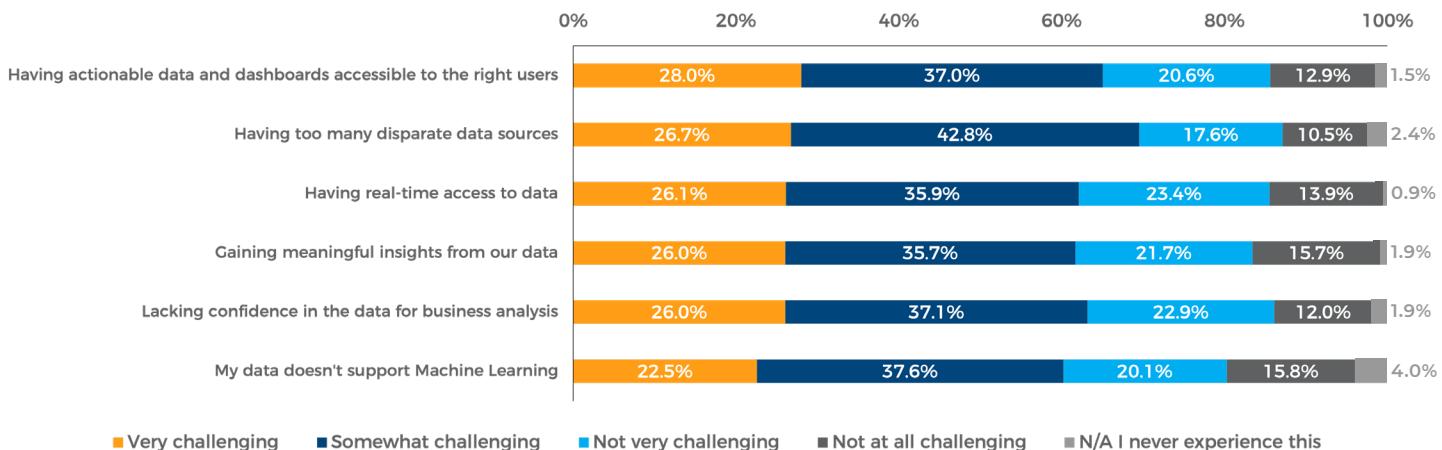
Legacy data residencies are inhibiting innovation.

OVERALL

06

Let's talk about data sources. How challenging, if at all, do you find the following?

- 7 in 10 (70%) respondents said they find having too many disparate data sources challenging*, with nearly 3 in 10 (27%) saying it's very challenging
- Over 3 in 5 (62%) respondents said they find gaining meaningful insights from their data challenging*, with just over a quarter (26%) saying it's very challenging
- Over 3 in 5 (63%) respondents from a company of 1,001+ employees said they find having too many disparate data sources challenging*, whereas less than two-thirds (61%) of respondents from a company with 251-1,000 employees said the same



* 'Very challenging', 'Somewhat challenging' responses combined

Cybersecurity: An Opportunity or Obstacle for Going to the Cloud?

IT decision makers are almost 3 times more likely to view cybersecurity as an opportunity than an obstacle (29% vs. 10%), although nearly 3 in 5 (59%) view it as both an opportunity and an obstacle. Moreover, those who think cybersecurity is an opportunity to adopt the cloud mainly believe cloud service providers and cyber security SaaS companies have more resources to keep up with the bad actors (68%).

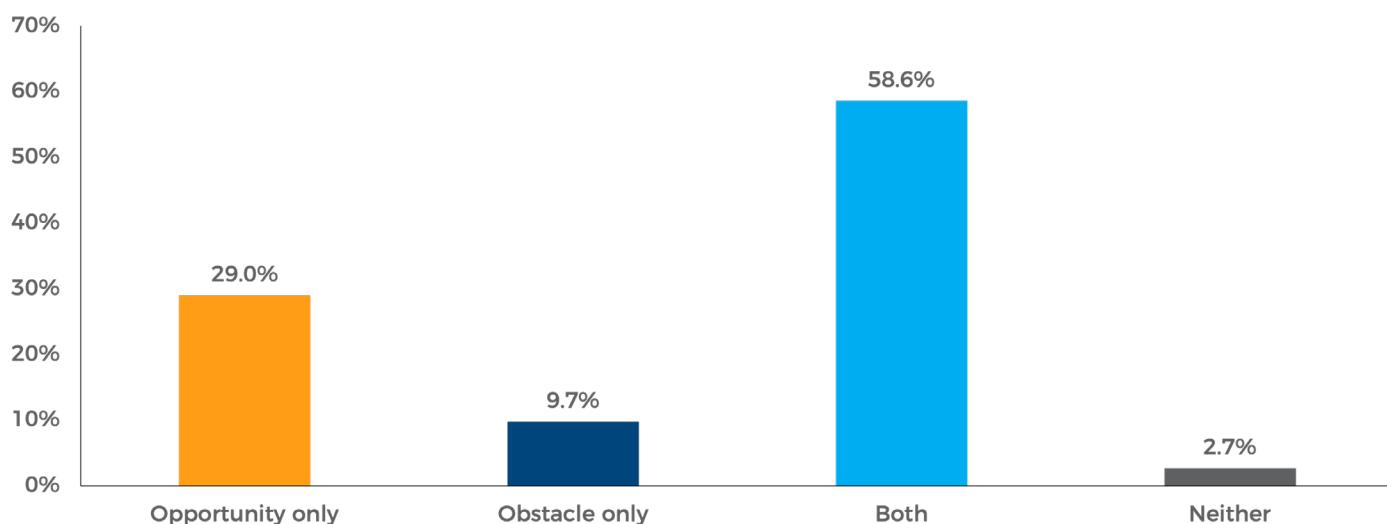
Sixty percent view cybersecurity as an opportunity because it allows them to meet regulatory and compliance requirements more easily and just under 3 in 5 (58%) believe it's an opportunity because it enables greater flexibility and allows them to respond faster to threats.

OVERALL

07

Would you say cybersecurity is an opportunity or obstacle to adopting cloud?

- Nearly 3 in 5 (59%) respondents said they think cybersecurity is both an opportunity and an obstacle to adopting cloud
- Nearly 3 in 10 (29%) respondents said they think cybersecurity is only an opportunity to adopting cloud
- 1 in 10 (10%) respondents said they think cybersecurity is only an obstacle to adopting cloud



Cybersecurity Challenges

1 in 10 (10%) IT decision makers surveyed view cybersecurity as an obstacle to adopting cloud; the top reasons they cited were:

- Costs—they'll need to invest in new cybersecurity solutions (69%)
- It's unclear how the cloud can be more secure than on-premises (50%)
- They don't have the security experience in-house (28%)

This demonstrates that budget is more of an issue than a lack of belief that cloud security is superior to on-premises.

Finding the Right IT Assistance

Given that finding the right partner with the right experience was the third most common challenge for adopting cloud technology (35%), it's critical to understand what respondents look for in a technology partner:

- Over 9 in 10 (95%) say a technology partner must understand data and access security, threat protection and recovery
- Over 9 in 10 (94%) say it's essential a technology partner has experience in modern network technologies that can handle different data types and span on-prem and cloud

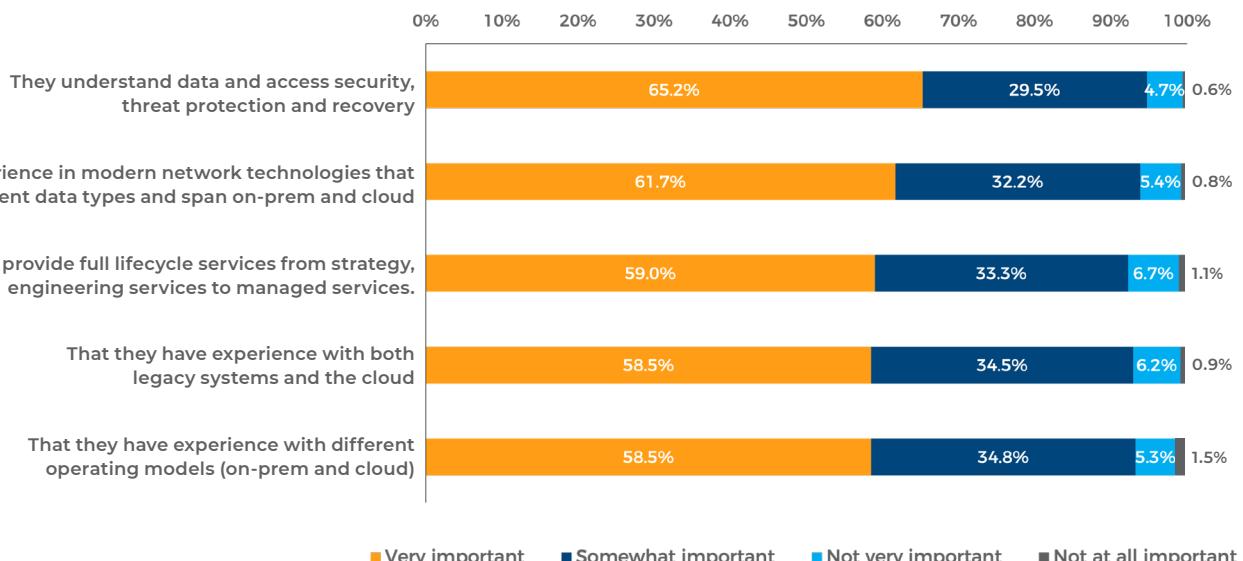
- Over 9 in 10 (93%) say it's vital a technology partner has experience with both legacy systems and the cloud
- Over 9 in 10 (93%) say it's essential a technology partner has experience with different operating models (on-prem and cloud)
- Over 9 in 10 (92%) say it's important a technology partner can provide full lifecycle services from strategy and engineering services to managed services

OVERALL

08

How important are the following in selecting a technology partner, if at all?

- Over 9 in 10 (95%) respondents said it's important* for a technology partner to understand data and access security, threat protection and recovery, with over 3 in 5 (65%) saying it's very important
- Over 9 in 10 (93%) respondents said it's important* for a technology partner to have experience with both legacy systems and the cloud, with nearly 3 in 5 (58%) saying it's very important
- Nearly all (98%) of respondents from a company with 1,001 – 2,000 employees said it's important* for a technology partner to understand data and access security, threat protection and recovery, whereas over than 9 in 10 (93%) respondents from a company with 251 – 1,000 employees said the same



*'Very important', 'Somewhat important' responses combined



Environmental Sustainability

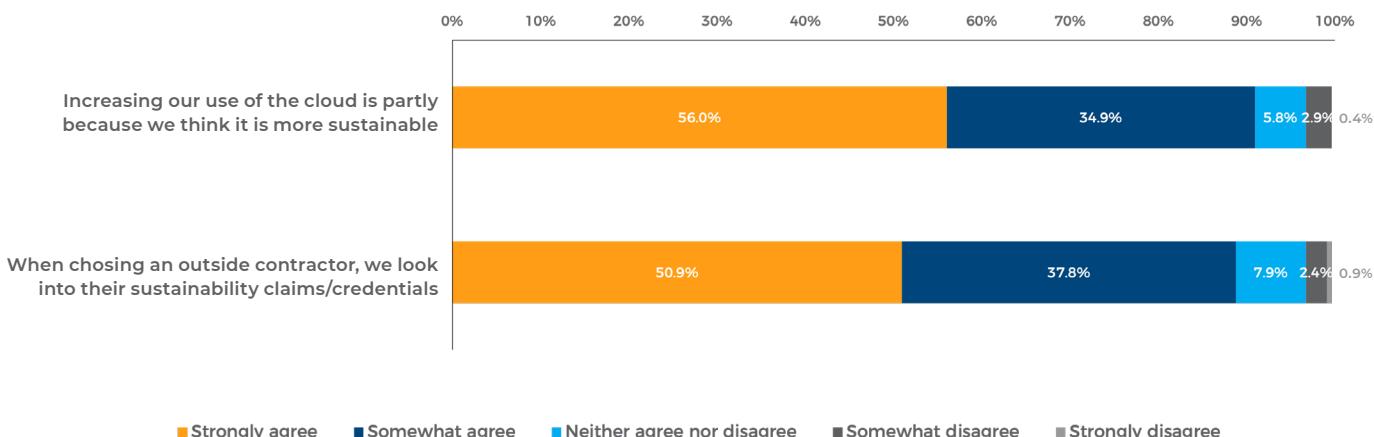
Goals for environmental sustainability rank highly as a crucial aspect when increasing cloud usage for most (91%) respondents. In addition, nearly 9 in 10 (89%) IT decision makers agree that when choosing an outside contractor, they investigate their sustainability claims/credentials, with just over half (51%) strongly agreeing.

OVERALL

09

Thinking about environmental sustainability goals in your organization, to what extent do you agree or disagree with the following statements?

- Just over 9 in 10 (91%) respondents said they agree* that increasing their use of cloud is partly because they think it is more sustainable, and over half (56%) strongly agree
- Nearly 9 in 10 (89%) respondents said they agree* when choosing an outside contractor, they look into their sustainability claims/credentials, and just over half (51%) strongly agree
- Over 9 in 10 (94%) respondents from a company with 1,001 – 2,000 employees said they agree* when choosing an outside contractor, whereas more than 4 in 5 (84%) respondents from a company with 251 – 1,000 employees said the same



*'Strongly agree', 'Somewhat agree' responses combined

Section III: Summary & Recommendations

Solving the 3 Biggest Challenges Identified in the Survey

Most companies are moving data, apps and other critical and strategic IT workloads to the cloud as part of their digital transformation initiatives, but not without challenges. The biggest challenges uncovered include:

1. An IT skills shortage among existing employees coupled with difficulty finding and hiring additional talent
2. A divide between business and IT leaders regarding IT's role as a cost center as opposed to a business driver
3. A perception problem among IT leaders regarding their current level of cloud competency and maturity

Many organizations (94%) report that it's important to work with a partner with a broad range of security expertise and experience in modern network technologies that can handle all types of data and span on-premises and cloud. For a smoother, more effective digital transformation, organizations can work with a partner with broad expertise who can help bridge the IT skills gap. Additionally, the right partner can provide a neutral third-party perspective, break down silos and help IT leaders drive business strategies that stimulate innovation and growth.

Presidio is the ideal partner to help our customers connect their business quickly, safely and efficiently—to multiple clouds, the edge, remote workers, e-commerce and their entire ecosystem. We have been in the business of enterprise networking for more than 40 years, and have deep and broad experience across thousands of clients in all major industries. There isn't a problem we haven't solved or a need we haven't anticipated. Our holistic, strategic approach will ensure you're more than ready for your digital future.

Looking for help with your company's digital transformation? [Click here](#) to reach out and learn more about Presidio's executive briefing program.

About the Research

The research was conducted in April and May of 2022 by Censuswide, a research firm that abides by and employs members of the Market Research Society and incorporates ESOMAR (European Society for Opinion and Market Research) principles to ensure accurate and reliable research. The survey was conducted with a sample of 1,007 US-based respondents in various IT decision making roles.





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