

2021 Technology Leadership Survey

Contents

3

Introduction

4

Cloud Reigns Supreme

- Enterprise Investment in Cloud Continues to Rise

6

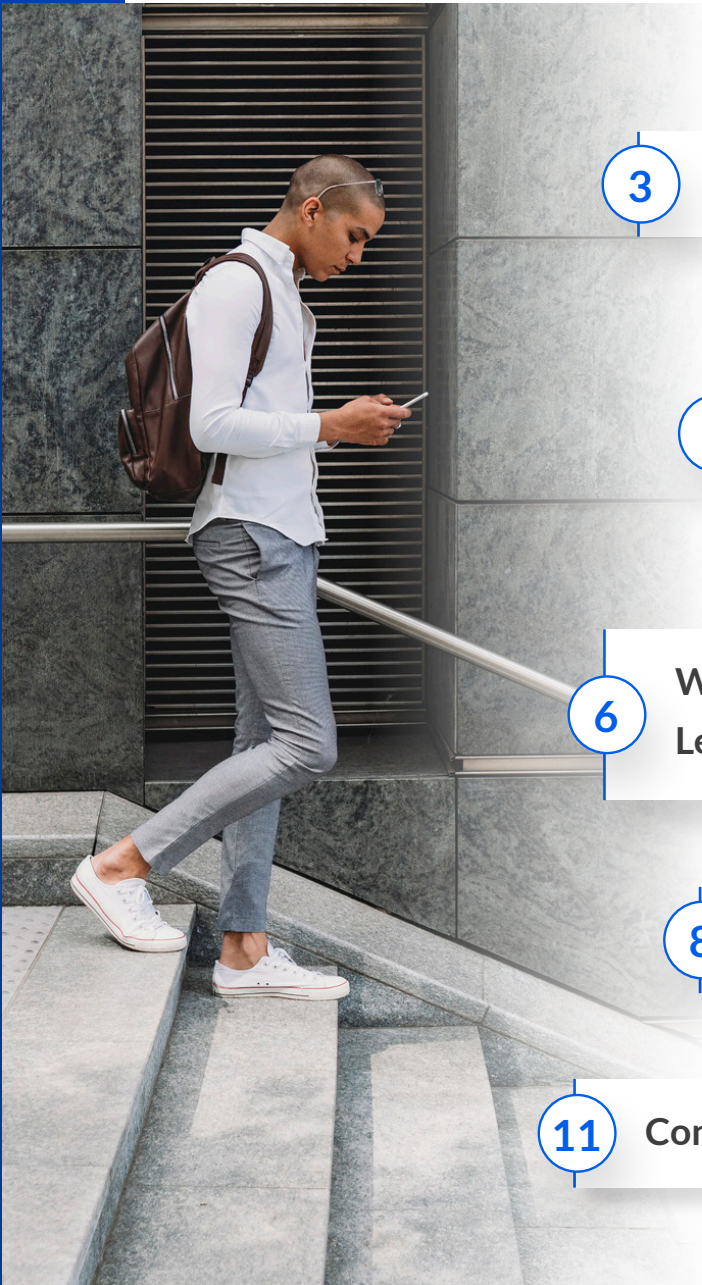
What Keeps Tech Leaders Up at Night?

8

Why Tech Skills Pay the Bills

11

Conclusion



Introduction

Cloud computing has become the status quo for IT infrastructures for a vast number of reasons. There are the obvious business benefits: improved speed and agility, cost reduction, energy savings, and business continuity — to name a few.

But that's not all. The adoption of cloud has been further accelerated by the impacts of the COVID-19 pandemic in 2020, where a remote workforce sustained the digital economy. Halfway through 2021, remote work remains “the new normal” for many (if not most) large enterprises, with no signs of turning back anytime soon.

Against this backdrop, Cloud Academy surveyed technology leaders from global brands to capture insights about their current IT infrastructures, biggest technology concerns, and keys to success. Conducted between April — May 2021, more than 100 respondents provided details on the status of their organization's investment in the cloud, what resources are needed to achieve tech goals, and how talent management plays a critical role in executing against business objectives in the digital age.

Key Findings

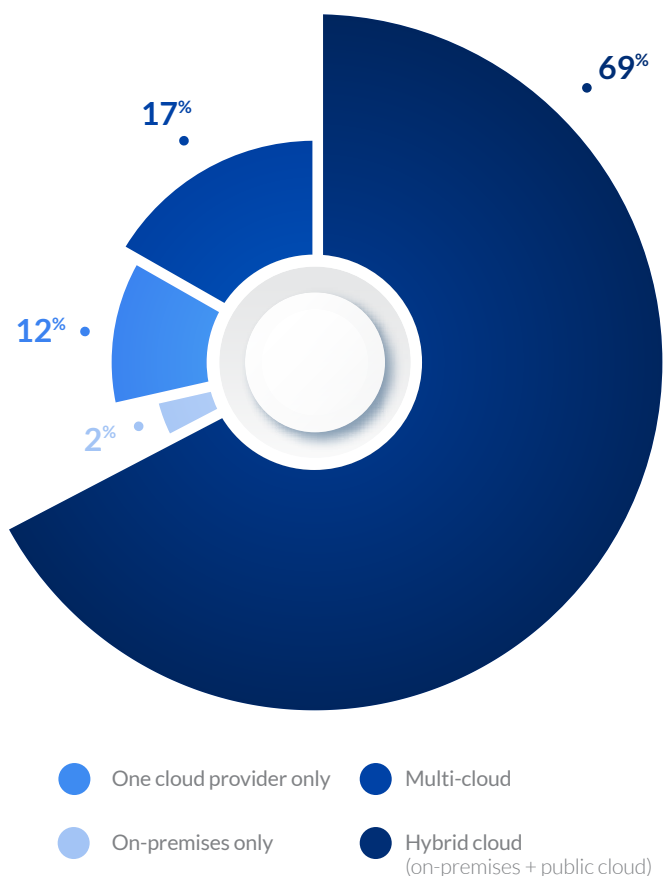
- 95% of respondents expect to invest more in cloud this year compared to last
- 81% say they will invest more in improving their team's tech skills, with 75% naming upskilled employees as a critical component to achieving 2021 goals
- 69% of tech leaders are using a hybrid cloud approach to manage their enterprise architectures

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95% of enterprise technology leaders are investing more in cloud infrastructure in 2021

Cloud Reigns Supreme

In an era where efficiency and globalization of services is a key competitive advantage, hybrid cloud and multi-cloud architectures are quickly becoming the new case studies for success.

Figure 1: What type of implementation do you use for your tech infrastructure?



Source: Cloud Academy, Inc.

Of tech leaders surveyed, the vast majority (69%) are taking a hybrid cloud approach to managing their applications, services, and development. This is on par with findings from the [2020 Denodo Global Cloud Study](#), which also named hybrid cloud the most common enterprise deployment strategy. Microsoft Azure defines hybrid cloud as, “a computing environment that combines an on-premises datacenter (also called a [private cloud](#)) with a [public cloud](#), allowing data and applications to be shared between them.”

Multi-cloud deployment ranked as a distant second amongst respondents, with nearly 17% saying they leverage multiple cloud providers in their IT architectures. Less than 12% say they use only one cloud provider and no on-premises hosting services, and fewer still, just over 2% of tech leaders operate strictly on-premises.

Source:
Cloud Academy, Inc.

95%

5%

Figure 2: How much do you predict you'll invest in cloud infrastructure during 2021, compared to last year?

Enterprise Investment in Cloud Continues to Rise

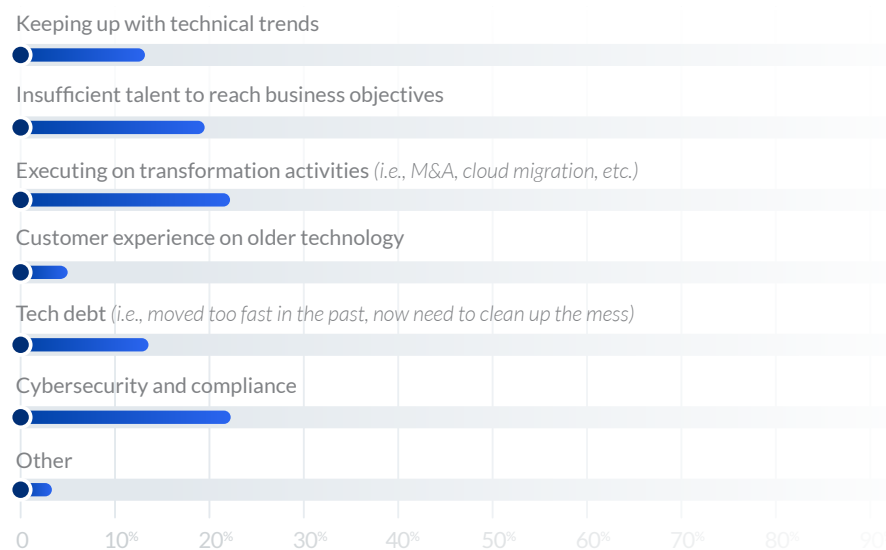
The advantages of cloud computing have clearly been recognized and adopted by business and technology leaders alike. Survey respondents overwhelmingly said they are investing more in their cloud infrastructure in 2021 when compared to last year.

Almost unanimously, 95% of tech leaders say they are putting more budget toward the cloud this year. The [2020 IDG Cloud Computing Study](#) predicted that nearly one-third (32%) of IT budgets will be allocated to the cloud in 2021. We expect that number to continue rising in the years to come.

What Keeps Tech Leaders Up at Night?

To better understand the motivations and drivers behind enterprise IT decisions, we asked tech leaders to let us know about their greatest areas of distress.

Figure 3: What is your biggest technology concern?



Source: Cloud Academy, Inc.

Not surprisingly, cybersecurity and compliance ranked as the top technology concern with nearly 23% of respondents making that selection. Data privacy worries have given rise to many [compliance regulations and frameworks](#) that companies must follow under threat of steep financial penalties. For instance, under the EU's General Data Protection Regulation (GDPR), non-compliance can lead to fines up to 20 million euros, or as much as 4% of revenues from the prior year — whichever is higher. This means tech leaders are under tremendous pressure to safeguard their data under management.

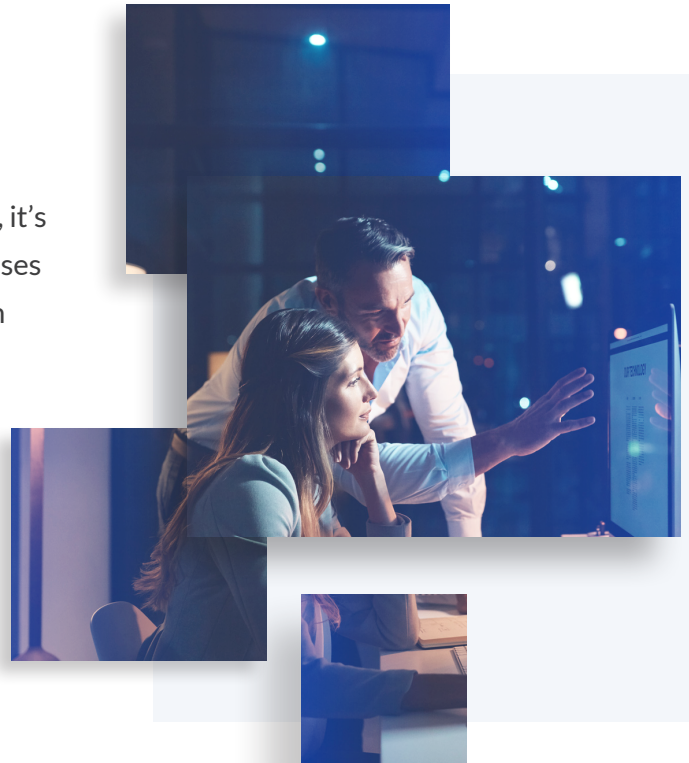
Executing on transformation activities (i.e., M&A, cloud migration, etc.) came in a close second for top technology concerns. About 22% of IT leaders said this was a key area of focus which, based on the trends surrounding cloud computing, makes sense with regard to the migration of applications and services.

On the M&A front, while there was a slight downturn in merger and acquisition activity due to the pandemic in 2020, those companies that have fully embraced digital transformation found continued success via inorganic growth. Software-as-a-service (SaaS) companies in particular are leading the way in both the frequency and value of deals. Two recent examples include [Salesforce's \\$28 billion purchase of Slack](#) and [SAP's acquisition of Signavio](#). Technology leaders play a critical role in the successful execution of M&A in any industry — especially in the due diligence and post-merger integration phases.

“companies with 500-1,000 employees worry about insufficient talent at a rate **2.5 times higher** than those with a workforce greater than 1,000

The third most common technology concern expressed by respondents was insufficient talent to reach business objectives (18%). Interestingly, those surveyed from companies with 500-1,000 employees worry about insufficient talent at a rate 2.5 times higher than those with a workforce greater than 1,000. A likely cause here is that they feel the squeeze of competition more tightly than organizations who have stronger access to resources.

Concerns about the skills gap in specialty IT positions have been well recognized for years, and at the pace technology is advancing today, it's next to impossible for individuals and enterprises to keep up. This is a theme that we often see in speaking to our customers at Cloud Academy, and one that isn't expected to slow down. According too [The World Economic Forum](#), there will be a 30% increase in demand for data, AI, engineering, and cloud computing roles by 2022.



Why Tech Skills Pay the Bills

As a follow-up to tech leaders' concerns about having the proper talent to execute against current and future business goals, we asked them how they currently gauge the skill levels of employees in their organization. After all, you can only manage what you can measure (see Figure 4).

Figure 4: How do you quantify the technical skill levels of employees and teams?



Source: Cloud Academy, Inc.

45% I use an internal Learning Management System (LMS)

40% I don't currently know my team's exact skill levels

15% I listen to managers' reports of team skills

Figure 5: What resources do you anticipate needing to achieve your tech goals through the end of 2021 and beyond?



Source: Cloud Academy, Inc.

To that end, we asked tech leaders to rank what resources they need to reach their goals in the foreseeable future (see Figure 5).

You may have noticed a common thread from these results: **tech talent is priority #1**. Nearly 75% of IT leaders responded that upskilling their current employees to perform new roles is a key component to achieve tech goals, and more than half (51%) say they will need to bring in new talent to do so.

The Numbers Don't Lie:

- It's estimated that the U.S. shortage for software developers sits at 1.4 million, with only 400,000 students with applicable degrees expected to graduate this year ([source](#))
- The cost to hire a software developer with the appropriate technical and interpersonal skills can exceed \$50,000, not factoring in the unforeseen costs of turnover and ramp time ([source](#))

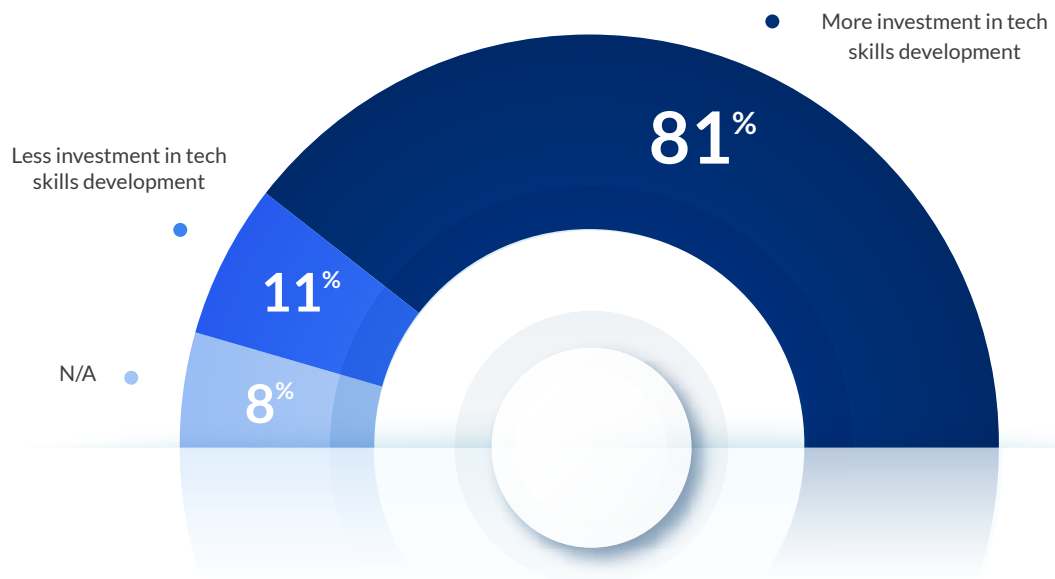
In short, this means that the market for people with the tech skills required by modern enterprises is tight, and will get even tighter. As more organizations adopt cloud technology, the competition to attract and retain workers with the right skills is going to continue to rise.

These factors have made upskilling an essential piece of the talent management puzzle. More than 80% of tech leaders are investing more in skills development in 2021 (see Figure 6).

Other resources that respondents deemed necessary to achieve success (see Figure 5) included access to new tools (50%), increased buy-in from leadership to help drive innovation (38%), and a larger IT budget (32%). Each of these are important in their own right. Tech leaders know that to thrive in a cloud native world, the entire organization must be bought in – and that starts at the top. Executives must show confidence in their IT leadership and invest in creating a digital-first culture with the proper tooling to compete.

“ More than 80% of tech leaders are investing more in skills development in 2021

Figure 6: How much do you predict you'll invest in improving tech skills for your teams during 2021, compared to last year?



Source: Cloud Academy, Inc.



Conclusion

The insights gleaned from this report paint an all-too-familiar picture. The right people, with the right skills, are critical to maintain a competitive edge.

As companies continue to invest in building out and optimizing their cloud infrastructures, the role of IT leadership is becoming ever more complex. The intersection of business and technology has created additional challenges that run in parallel with the day-to-day operations of ensuring systems and processes run smoothly. Beyond managing, engaging, and retaining a high functioning team, tech leaders must keep pace with trends and shifts in the marketplace — all while safeguarding their exponentially growing data to remain compliant.

Want to see where your team's tech skills are—for free?
We do that at Cloud Academy.

[Free Tech Skills Assessment](#)

Cloud Academy is the leading enterprise tech skills development platform that accelerates innovation through guided learning paths, hands-on labs, and skill assessments.

Companies trust Cloud Academy to benchmark talent then deliver role-specific, fully customizable training on AWS, Azure, Google Cloud Platform, and Alibaba Cloud. Users can also learn DevOps and security methodologies in addition to capabilities that enhance operational performance — including big data, artificial intelligence, machine learning, and IoT.

