THE TALENT GAP:

Why Cloud & AI Investments Aren't Delivering

Inside the execution breakdown slowing cloud and AI returns

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Introduction

In 2026, organizations can no longer deny the impact of AI, automation, and advanced cloud environments on IT. Early adopters of these technologies are already seeing outsized gains when it comes to productivity, efficiency, and revenue growth, while those who struggle to implement them fall further behind—often, because they don't have the qualified team that modernization requires.

Organizations largely say they're ready to modernize—in fact, of the 259 IT professionals and business executives we surveyed for this report, 90% said they felt prepared to execute their cloud strategy, while 85% felt confident in their team's ability to incorporate AI into key workflows. But despite that optimism, **32% reported IT project delays** due to talent or skill constraints.

IDC estimates that **AI skills shortages** may cost the global economy up to $5.5 trillion by 2026 in product delays, quality issues, missed revenue, and impaired competitiveness.

Even when organizations have a clear vision of where they want to go, they can't get there without the right people, skills, and expertise.

Although the respondents we surveyed are attempting to fill the gaps with hiring and upskilling, the impact of these efforts depends on who you ask.

Nearly all executives (90%) say their efforts to close the skills gap have been effective, but only 39% of technical contributors agree.

And while those responsible for implementing changes see the skills gap play out on a day-to-day basis, critical IT modernization projects grind to a costly halt—resulting in stalled innovation, missed value, and increased pressure.

In this report, we dive deep into the skills gap to understand what's causing it, where it's most pronounced, and, most importantly, how organizations can overcome it.

Methodology

RapidScale partnered with UserEvidence to survey 259 IT professionals and business executives across the United States to understand how IT leaders and practitioners are approaching modernization and the challenges they face when it comes to staffing, resourcing, and upskilling.

Respondents represented organizations of varying sizes, with an average company headcount of 2,448 employees. Most participants came from mid-sized and enterprise organizations, with 61% working at companies with between 1,000 and more than 5,000 employees.

Those we surveyed came from a variety of industries, including enterprise technology, manufacturing, healthcare, finance, professional services, and others.

Participants also represented a mix of roles and seniority levels. Senior leaders, including VPs, Directors, and Heads of Functions, made up 32% of respondents, while C-suite or board-level executives accounted for another 12%. The remaining respondents included middle managers, frontline leaders, and technical practitioners such as developers, analysts, and architects.

Together, this mix of industries, company sizes, and seniority levels provides a realistic benchmark and a range of perspectives, making the findings relevant to organizations across diverse environments.

Survey respondent roles

- C-suite or board-level executive: **12%**
- Senior leadership: **32%**
- Middle management: **31%**
- First-line or team-level manager: **9%**
- Technical contributor: **16%**

IT leaders' confidence outpaces reality

Major technology shifts often follow a familiar cycle: A breakthrough emerges, excitement builds across organizations, and widespread adoption eventually follows. We saw this dynamic play out during the early days of software as a service (SaaS), again with public cloud infrastructure, and more recently, with generative AI, automation, and advanced cloud environments.

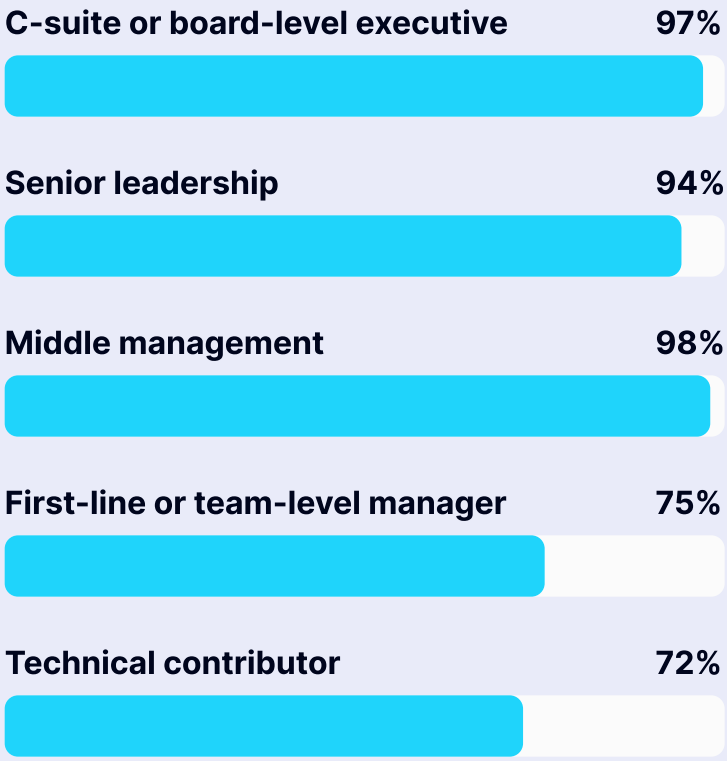
But the path between that initial surge of excitement and adoption is never completely straightforward. Before organizations can truly operationalize new technologies, they need to establish the right foundation, yet many overestimate how prepared they really are. This optimism is often highest among leaders who are further removed from the realities of implementation.

For example, 97% of C-suite or board-level executives and 94% of senior leaders said their teams were prepared to execute their cloud strategy, but just 75% of team-level managers and 72% of technical contributors agreed.

While this still represents a majority, the 20-plus percentage-point difference between high-level leaders and team-level managers and contributors indicates a notable decrease in confidence among those closest to the frontline.

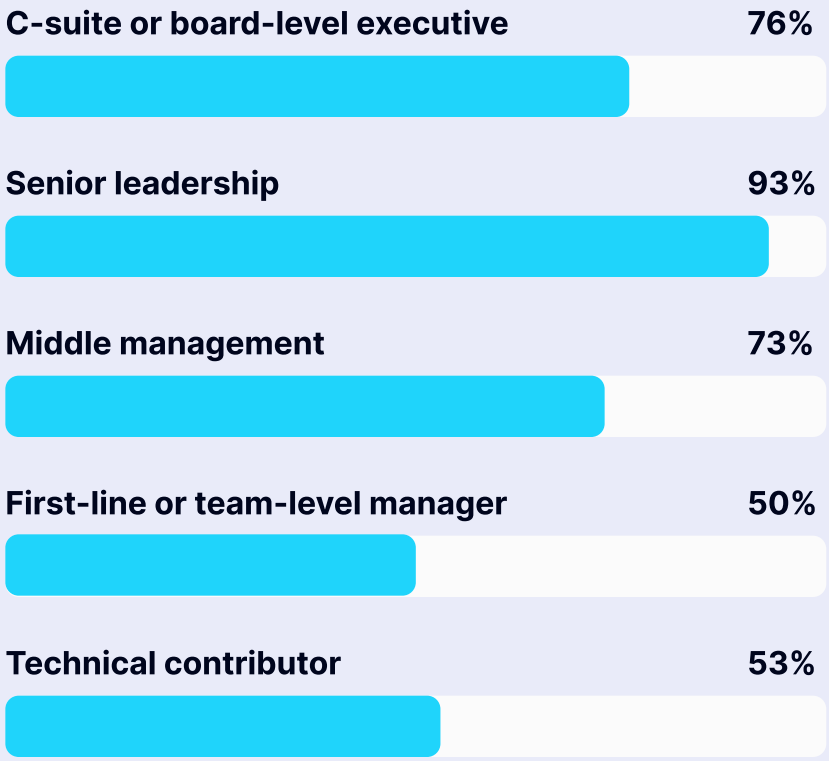
Leadership and frontline teams differ on cloud readiness

Respondents who think their organizations are somewhat or very prepared for cloud strategy



AI readiness looks different depending on where you sit

Percent of respondents who are somewhat or very confident in the organization's readiness to deploy AI



That gap grows even wider when it comes to deploying AI. Only 50% of first-line or team-level managers and 53% of technical contributors expressed confidence in their organization's AI readiness, compared to 93% of senior leaders and 76% of executives.

While leaders have visibility into strategy, budgets, and long-term plans, team-level managers and practitioners implement these initiatives day-to-day, which typically gives them a more realistic view of capability, readiness, and progress.

The growing divide in technical readiness

Teams' confidence in implementation, however, is far from consistent, with skill level varying significantly across capabilities. Respondents ranked their proficiency across eight key areas as follows:

1. **Cloud architecture design**
2. **Cross-team communication and collaboration**
3. **Security and compliance management**
4. **Platform monitoring**
5. **Automation and orchestration of cloud workflows**
6. **Application modernization (e.g., refactoring or re-platforming for cloud)**
7. **FinOps (cloud financial management)**
8. **AI/ML integration**

While respondents rated their cloud architecture design, cross-team communication and collaboration, and security and compliance management skills highly, some of the skills that will be most critical in the near future—such as application modernization and AI/ML integration—ranked near the bottom.

The uneven skill levels reported by teams have real consequences: Respondents reported that, on average, 32% of IT projects have been delayed due to talent or skill constraints.

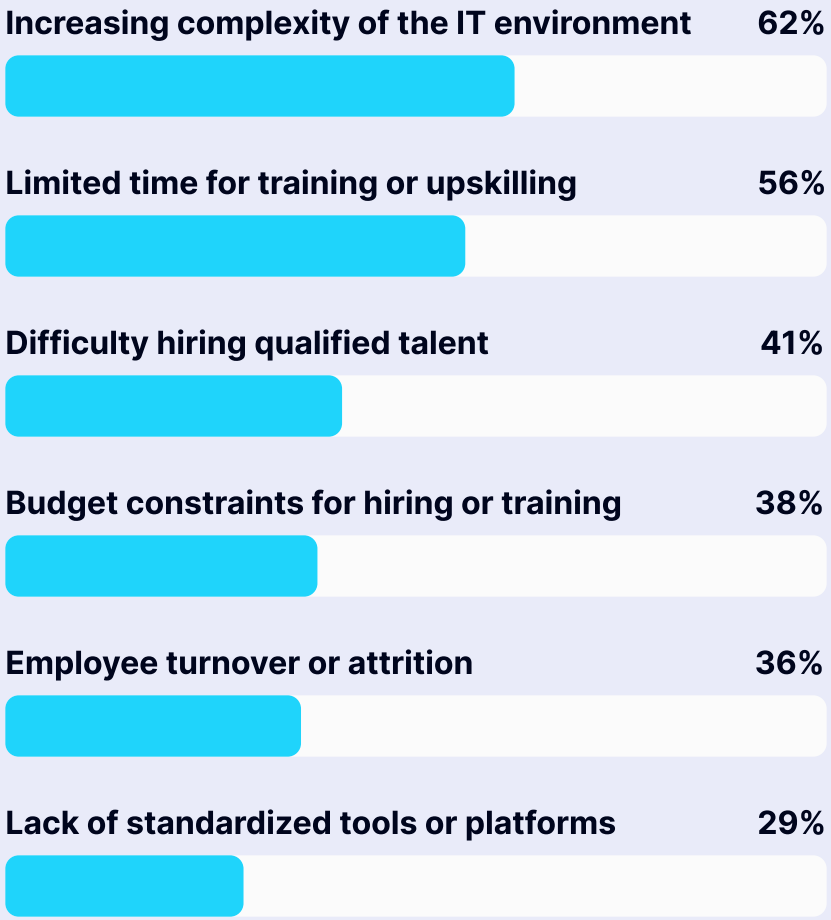
A significant share reported that the impact was even greater, with nearly a quarter (22%) of respondents saying that over half of IT projects at their organization have been delayed. Within this group, technology companies were disproportionately represented, suggesting an outsized problem with delays in the sector.

32%

of IT projects are delayed by talent and skills gaps

With respondents pointing to a range of factors behind these skills gaps, there's no single quick fix.

Main causes of skills gaps



According to respondents, the top three causes included:

1. **Increasing complexity of the IT environment:** With new platforms, tools, and features constantly emerging, technology is moving faster than teams can keep up with.

2. **Limited time for training or upskilling:** Between resolving day-to-day issues and laying the technical groundwork for what's to come, teams have little to no time to set aside for meaningful upskilling.

3. **Difficulty hiring qualified talent:** The pool of qualified candidates is limited to begin with—add in challenges securing head approval and fierce competition for top talent, and staffing gaps are inevitable.

In the meantime, modernization initiatives linked to AI, automation, and the cloud fall further and further behind.

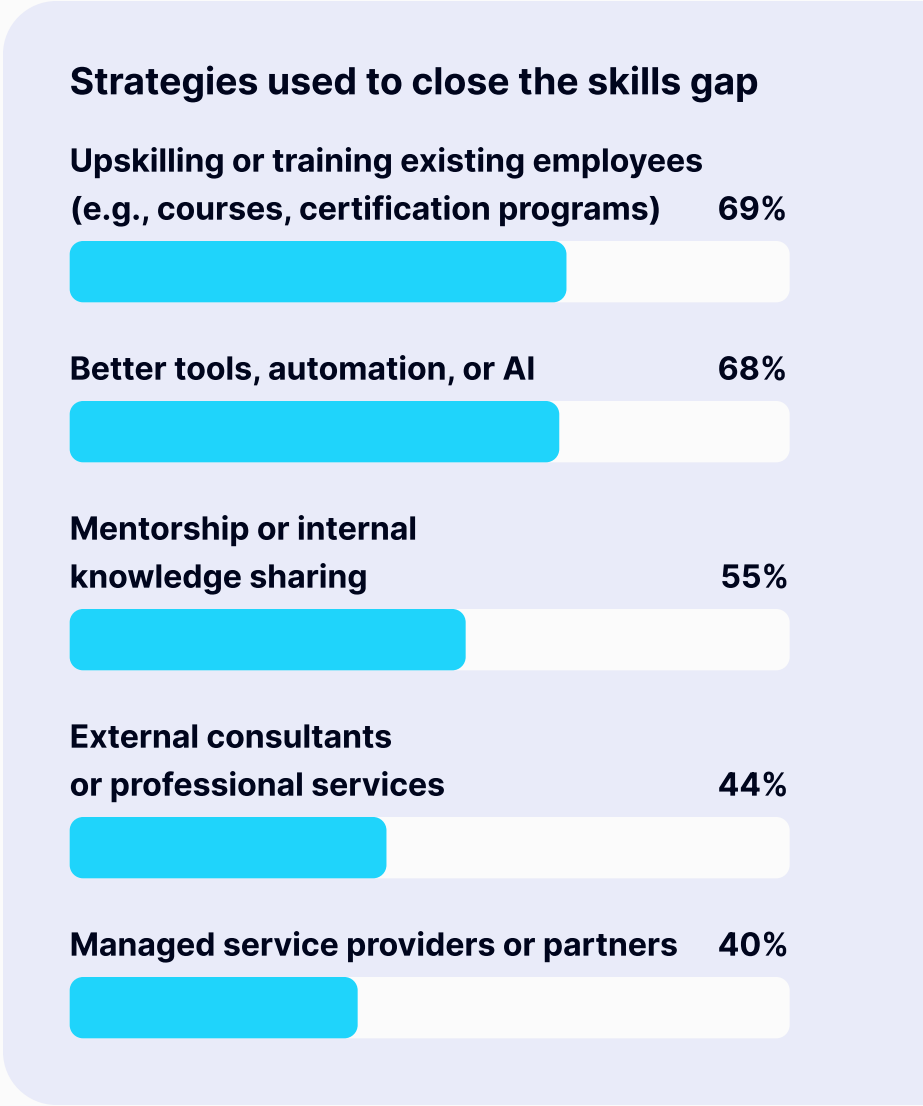
How organizations are attempting to close the skills gap —and how it's going

Fortunately, many organizations recognize the gravity of skills shortages, and are already taking steps to stay ahead.

For many, that work starts internally, with 69% of respondents saying they're upskilling or training employees through courses and certification programs. Equipping teams with better tools, automation, or AI came in at a close second (68%), with supporting employees through mentorship programs or internal knowledge-sharing initiatives (55%) rounding out the top three.

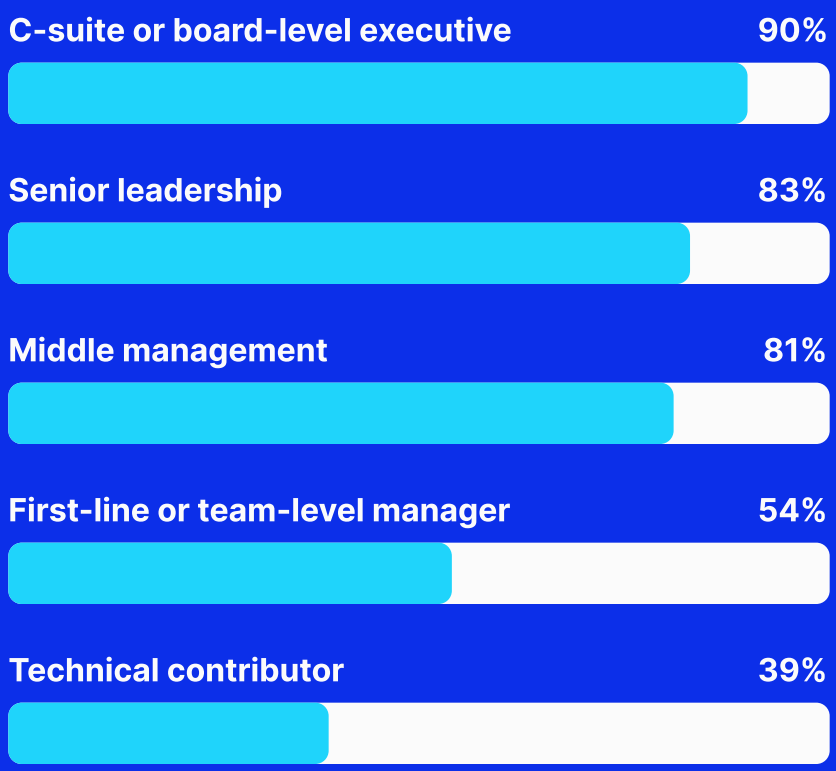
The success of these efforts depends largely on who you ask, though. Our data shows that 90% of executives believe their efforts to close the skills gap have been effective, compared to just 39% of technical contributors.

That gap in perception may indicate a mismatch between the strategies organizations are currently pursuing and what's required to keep critical initiatives moving. Fewer than half of respondents work with external consultants (44%) or managed service providers (40%), although those who do are more likely to focus on advanced skills like app modernization and cloud migration, suggesting a correlation between skills gap complexity and need for external support.



How effective are organizations at closing the skills gap?

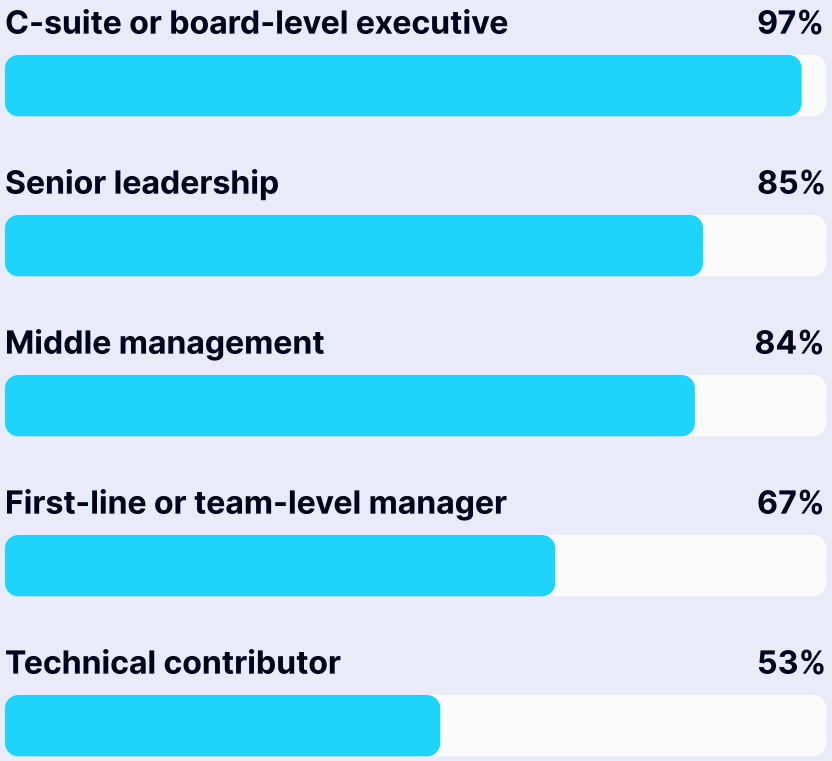
Percent of respondents who said efforts to close skills gap are somewhat or very effective



A similar pattern played out when we asked respondents whether leadership was providing their teams with the resources they needed to meet the demands ahead. Nearly all (97%) executives believed they were, while only 53% of technical contributors agreed.

Leadership support for closing the IT skills gap varies by role

Percent of respondents who somewhat or strongly agree that leadership provides the resources and training needed to close the skills gap



Hiring's role in closing the talent and skills gap

Organizations often focus on upskilling before hiring to reduce costs, speed up timelines, and eliminate the new-hire learning curve; but building from within can only take organizations so far. When organizations lack specialized skills across teams, hiring or outsourcing becomes necessary. Many organizations, however, are currently struggling to find the right talent.

Altogether, respondents said that hiring timelines average about three months, although nearly a quarter (22%) said it took four to six months or longer to hire highly skilled technical talent.

The most difficult positions to hire included AI engineers, cloud architects, and FinOps specialists, all of whom sit at the forefront of this wave of IT innovation.

Much of that difficulty stems from the talent market itself. Nearly 75% of respondents pointed to a direct skills gap among applicants, while 63% cited competition from other employers, and 49% cited a limited local talent pool. This indicates external challenges on several fronts. Not only is the pool of qualified professionals small, organizations must also compete with one another to attract them.

Most difficult technical roles to fill

1. AI engineer
2. Cloud architect
3. FinOps specialist
4. Security specialist
5. Automation engineer
6. Network engineer

Top barriers to hiring technical talent

Internal factors, on the other hand, included inadequate compensation packages (40%), slow hiring processes (39%), and a lack of employer brand awareness (31%).

But unlike the broader talent shortage, these factors are within an organization's control, meaning that those who move quickly, clearly define their hiring needs, and offer competitive compensation that reflects demand have an opportunity to stand out.

One bright spot we found in our data: Retaining employees is less of a challenge than hiring them, with 53% of respondents saying retention was somewhat or very easy.

To continue supporting retention, though, IT leaders will need to ensure they maintain a strong company culture—a key component of which is recognition. Although 87% of executives said IT leaders often or always gave employees recognition, only 35% of technical contributors agreed. Meanwhile, just over a quarter (26%) of technical contributors said they rarely or never received recognition.

The gap is growing, and the stakes are rising

With teams already falling behind, rapid technological innovation will likely only widen existing gaps between strategic vision and execution. Seventy percent of respondents said that AI and automation will change the skills IT teams need to a significant or extreme degree, something that's clearly reflected in the IT skills respondents expect to become most important in the near future:

Top IT skills needed over the next 3 years

1. AI/machine learning literacy and implementation
2. Cybersecurity and zero-trust architecture
3. Cloud architecture and platform engineering
4. AI governance, risk, and compliance
5. Automation and orchestration

70%

of respondents said AI and automation will significantly or extremely change the skills IT teams need

These rankings point to the growing complexity of modern IT environments and the speed at which teams need to evolve. In addition to maintaining infrastructure, teams need to embrace AI and machine learning, adopt heightened security measures, and increase automation and orchestration, without causing disruption or introducing unnecessary risk.

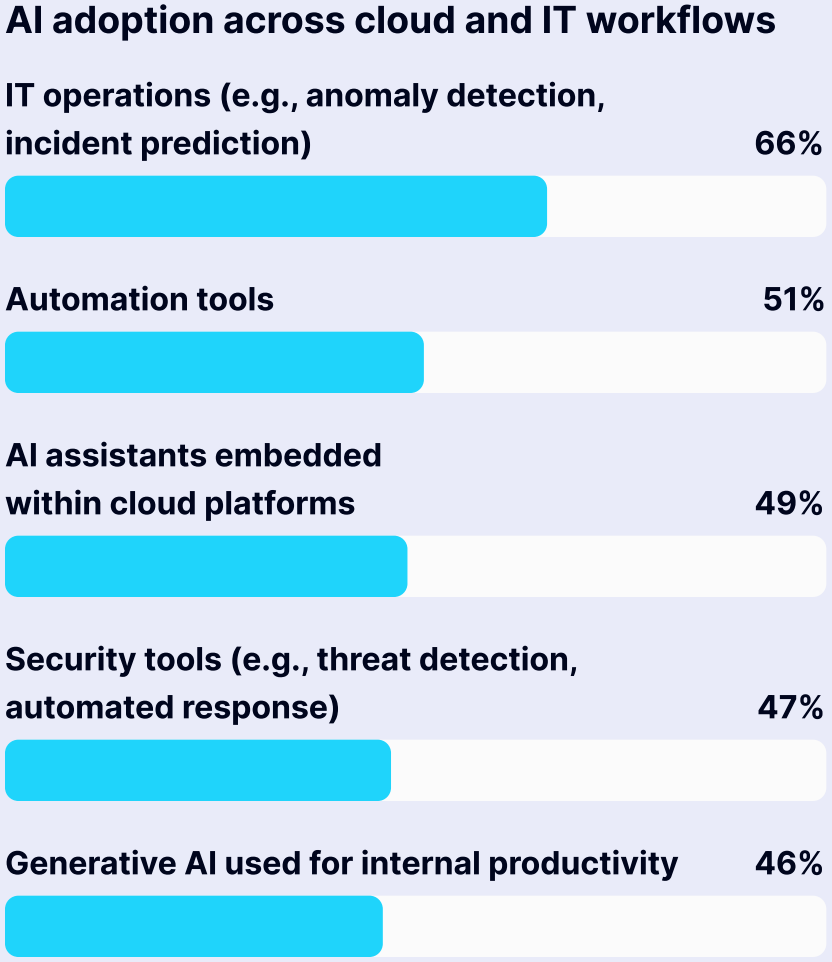
But not all AI-related skills will require deep technical expertise. Forward-thinking teams should also prioritize talent with more practical, applied knowledge, such as prompt engineering and management, the latter of which will play a role in implementation and long-term adoption across teams.

Those skills are already becoming relevant as organizations begin putting AI to work, with many deploying it in production environments to reduce manual workload and augment staff (44%), accelerate cloud migration and modernization (44%), and to a lesser extent, reduce dependency on hard-to-hire roles (10%).

Rounding out the top three use cases for AI tools and capabilities are IT operations (66%), such as anomaly detection and incident prevention, automation tools (51%), and AI assistants embedded within cloud platforms (49%).

Still, adoption isn't universal. While many teams are experimenting with or have implemented AI, others have shied away.

As a result, AI is showing up across a range of real-world cloud and IT workflows:



When asked how widely their companies have embraced AI and automation, over a quarter (28%) of respondents said their organizations have either mostly (18%) or completely (10%) resisted the technology.

Degree to which organizations have embraced AI/automation

- Completely resisted AI and automation: **10%**
- Mostly resisted AI and automation: **18%**
- Neutral: **12%**
- Somewhat embraced AI and automation: **41%**
- Completely embraced AI and automation: **19%**

Among those more cautious organizations, several barriers stand out:

1. Security risk
2. Initiatives failing to progress beyond pilot stages
3. Job displacement
4. Insufficient skills

This reveals a growing tension: While many organizations believe AI has the potential to transform IT, there are still persistent doubts about how to implement it in practice and the internal capacity to do so.

As a result, teams are left with two imperfect options: delay AI adoption or execute without the required talent and expertise, which can result in failed pilots, operational risk, and diminished return on investment.

7 practical ways to close the talents and skills gap ASAP

Despite the upskilling and hiring challenges organizations face, they can take proactive steps to close the gap by prioritizing continuous learning and rethinking how their teams operate. A few strategies worth considering include:

1 Creating time and incentives for learning

When teams are under pressure to deliver, learning gets pushed aside in favor of near-term goals. But if organizations want to close the gap, they must make learning and development part of the job. Encourage teams to set aside dedicated time for learning each week by building training blocks into sprint cycles, providing incentives, or even embedding training and learning milestones into your team's quarterly goals.

2 Combining internal development with external expertise

Internal training and learning should remain a priority, but they're often not enough to close skills gaps on their own —especially when organizations are also struggling to hire highly qualified employees.

This is where strategic partners, consultants, and specialized vendors can provide technical expertise and introduce proven frameworks that reduce the burden on teams, shrink the risk of delays, and free teams to continue learning while critical work continues.

But with only 40% of organizations leveraging external consultants or managed service providers, many are missing out on a powerful way to both address immediate needs and free up time for internal team members to hone their skills to shore up for the future.

3 Building internal knowledge-sharing systems

Too much technical expertise remains siloed within teams and among employees. To spread that knowledge more effectively—and prevent institutional knowledge from leaving—invest in strong documentation, mentorship programs, and shared collaboration channels to make it easier for teams to learn from one another.

AI-powered documentation tools and knowledge base features make it easier than ever to generate and surface internal documentation, reducing reliance on any single person or team for institutional knowledge.

Take your internal knowledge-sharing efforts a step further with structured opportunities like hackathons, working groups, or dedicated teams focused on experimenting with new technologies.

4 Prioritizing long-term needs

The skills organizations lack today may not be the ones they need most tomorrow, so maintaining a long-term view of the evolving IT landscape is important.

Take note of emerging IT skills early through analyst reports, industry events, and forums, and consider conducting a skills assessment within your organization. Once you've identified the gaps, you can invest in training before they widen.

5 Simplifying tech stacks

Complexity is one of the biggest drivers of today's skills gap, often driven by layered point solutions. Beyond standardizing platforms and reducing redundant tools, organizations can ease that pressure by intentionally designing systems for simplicity and defining, monitoring, and enforcing guardrails. Ultimately, complexity is a governance and architecture issue—not just a tooling one.

The result is less fragmentation and a smoother learning curve, making it easier to train new hires and build platform-specific expertise.

6 Rethinking workforce planning

As AI becomes even more embedded in IT, organizations should begin preparing employees from day one. That means introducing AI literacy—the top skill respondents said IT professionals would need in the next three years—into the onboarding process.

This might include structured courses, introductory conversations with internal AI leaders, and early exposure to the tools they'll eventually use. From there, you can reinforce skills through ongoing learning opportunities, such as training programs, peer workshops, office hours, or sandbox environments where they can safely experiment and practice.

7 Listening to frontline employees

The best insights on how to close the skills gap come from the people experiencing them daily. Hosting regular feedback sessions with technical contributors and including them on advisory boards ensures that upskilling efforts are built around the real-world needs of the teams they are meant to support

This is by no means an exhaustive list of strategies to close the skills gap, and some organizations might find that certain strategies work better than others. Still, the broader message should be clear: The organizations that succeed will be those that take proactive steps, give teams space to learn, and create a culture where experimentation is part of growth.

By strategically bringing in an outside partner like RapidScale, you can keep daily operations on track, provide teams with the room they need to grow, and continue building toward the future.

Preparing for what's next starts now

IT has always been unpredictable. New technologies emerge quickly, priorities shift, and teams must respond almost overnight. While it's impossible to predict exactly what the next major wave will look like, one thing is certain: The skills required to keep pace will continue to evolve.

Today, it's AI, automation, and cloud migration that are at the forefront, putting pressure on IT leaders to modernize quickly, deliver measurable impact, and future-proof their organizations. While IT professionals are largely bullish on these innovations, they can't successfully implement them without the right people, skills, and expertise in place.

A small pool of qualified candidates, intense competition, and slow hiring processes make assembling the right team more difficult, but closing the skills gap is possible—it just requires deliberate action. When organizations plan ahead and lean on trusted partners, they can both meet today's needs while also preparing for what's on the horizon.

Organizations navigating cloud, AI, and automation transitions don't have to choose between speed and access to the right talent. With the right balance of internal talent and external support, you can keep modernization efforts on track while developing the workforce you need to stay ahead.

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As a Broadcom Pinnacle Partner, AWS Premier Partner, Microsoft Azure Expert MSP, and certified Google Cloud Partner, RapidScale transforms complexity into agility. Our services span the full cloud lifecycle—from strategy to execution—with embedded cyber resiliency and AI-powered data insights that protect today's operations and enable tomorrow's competitive edge.

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These principles guide all research efforts at UserEvidence—whether working with a vendor's users for our Customer Evidence offering, or industry practitioners in a specific field for our Research Content offering. The goal of these principles is to give buyers trust and confidence that you are viewing authentic and verified research based on real user feedback, without interference, bias, and spin from the vendor.

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