Cloud-led innovation in the era of AI: The new rules for driving value with cloud

A global report

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Introduction

Where cloud ambition meets AI reality

AI is rapidly changing how organizations operate, compete and create value. Today, as AI experimentation gives way to AI-driven execution, cloud is no longer just an enabling technology. Instead, it has taken on a new and critical role as the execution layer of the AI operating model — the place where AI systems reason, act and scale.

Across industries, the impact is clear. In travel, for example, cloud-native virtual concierges are serving real-time recommendations to tens of millions of airline customers. In insurance, intelligent agents operating on secure cloud platforms are accelerating claims approvals through real-time, event-driven decision-making. And in IT, autonomous agents on cloud-native service platforms are shrinking incident resolution times from days to hours.

Yet, despite nearly two decades of cloud adoption and a growing dependence on cloud, most organizations have not yet achieved the highest levels of cloud maturity.

NTT DATA's global survey of more than 2,300 senior decision-makers across industries and regions reveals a gap between cloud ambition and reality. Organizations that fail to evolve their cloud foundations risk constraining the growth and value of their AI investments.

This report offers clear guidance on how to close the gap.

AI increases cloud reliance — and complexity

While cloud is widely viewed as central to innovation and growth, and nearly all respondents recognize cloud as critical to their innovation agenda, fewer than half are fully satisfied with its role in innovation. This problem is becoming more acute as AI dramatically increases organizations' dependence on the cloud.

Even as AI transforms operating models, there is recognition that current levels of cloud investment won't do the job. Organizations overwhelmingly acknowledge that AI is increasing their reliance on cloud capabilities.

Cloud leaders — organizations that are "cloud-evolved," the most advanced status when it comes to cloud adoption and impact, and that demonstrate strong revenue growth and operating profit — tell a different story. They are more likely than other organizations to be fully satisfied with their cloud initiatives and their impact on the business. They are also more inclined to see AI as a true game changer.

Who are the cloud leaders?

In this report, cloud leaders are defined as "cloud-evolved" organizations — the most advanced when it comes to cloud adoption and impact — that achieved operating profit growth of more than 10% in the past year, alongside an increase in their annual revenue.

These leaders are mature, well-structured and translating cloud maturity into measurable business performance. They are nearly 2.5 times more likely than other organizations to deliver revenue growth exceeding 10%, and more than twice as likely to operate at margins of 15% or higher.

Against this backdrop, our report outlines six imperatives, or "rules," for turning cloud into a strategic value engine in an AI-driven landscape. These rules show how organizations can meet today's demands by evolving their approach to cloud.

The new rules for driving value with cloud in the era of AI

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Cloud and AI strategies need to be developed in tandem

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Rethink your cloud approach

To scale AI confidently and deliver real business value, organizations need to reassess their cloud approach — from strategy, modernization and architecture to platforms, key performance indicators (KPIs) and security. Those that don't follow through with this are likely to see costs spiral, controls weaken, AI pilots stall and opportunities slip by.

This reinvention works in two ways: Cloud gives AI the power to scale, and AI changes how cloud transformation happens — speeding up migration, guiding modernization decisions and continuously tuning for cost, performance and risk.

This report is intended to help you move from intent to impact.

It brings together practical, experience-led guidance to help you evolve your cloud strategy, reach the next level of maturity and deliver tangible results in the era of AI.

Wherever you are on your cloud journey, our goal is to offer you clear direction you can apply immediately. Ultimately, it's about turning cloud into an engine for business value at a moment of unprecedented opportunity.

The state of cloud maturity

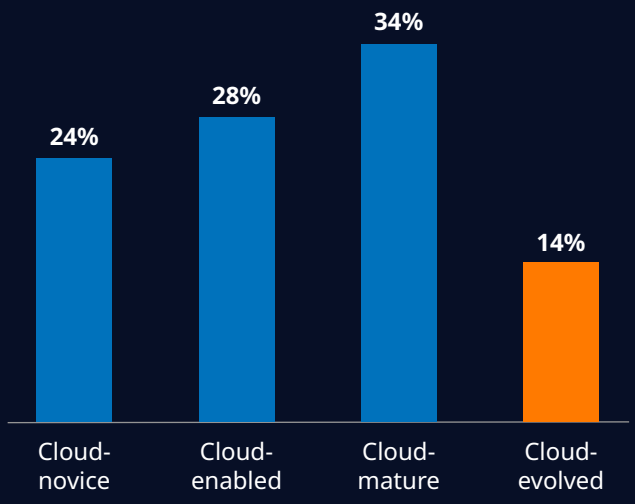
For many organizations, achieving a high level of cloud maturity remains elusive. Yet, as entire industries double down on AI, cloud maturity has never been more critical. Cloud enables AI workloads to scale, integrate with enterprise data and operate reliably across the organization.

However, only 14% of the organizations we surveyed consider themselves "cloud-evolved" — the most advanced when it comes to cloud adoption and impact. At this level, cloud-led innovation accelerates business transformation, while cloud-native services are embedded into core business strategies, offering advanced automation, AI and machine learning, and continuous delivery.

Many organizations are in the earlier stages of maturity, using cloud mainly for infrastructure hosting or isolated workloads. This maturity gap helps explain why many organizations struggle to translate cloud adoption into sustained business value.

After 15 years of cloud adoption, organizations still struggle to realize the full promise of cloud

Current level of cloud maturity



How would you describe your organization's level of cloud maturity?

Base: All respondents, excluding "don't know" responses (n=2,335)

Levels of cloud maturity

Cloud-novice

- Just starting with public cloud
- Limited experience and minimal governance, security or optimization

Cloud-enabled

- Cloud used for infrastructure purposes (to host enterprise and business applications)

Cloud-mature

- Broad and strategic cloud use across business units
- Strong governance, best practices, scalable workloads and cloud-native services

Cloud-evolved

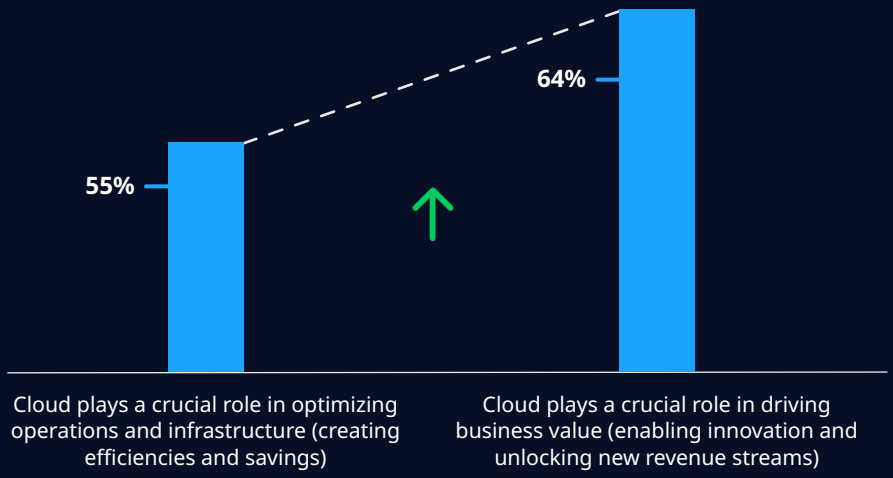
- Cloud-led innovation accelerates business transformation
- Cloud-native services embedded in core strategies, offering advanced automation, AI and machine learning, and continuous delivery

The gap is reflected in how organizations evaluate the returns on their cloud investments. While nearly all respondents (97%) agree that cloud plays an important role in innovation — and more organizations overall view cloud as an engine of growth than as a mere tool for efficiency (64% versus 55%) — far fewer are convinced it's delivering. Only 49% report being fully satisfied with its impact on innovation, and just 44% say they're fully satisfied with their broader IT modernization progress.

In other words, cloud is widely seen as essential, but its impact remains limited — not because of a lack of intent but because of how it has been adopted and integrated into business and operating models.

Organizations' view of cloud

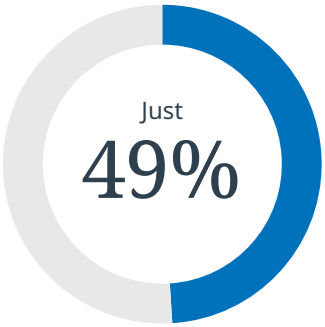
Efficiency play or growth engine?



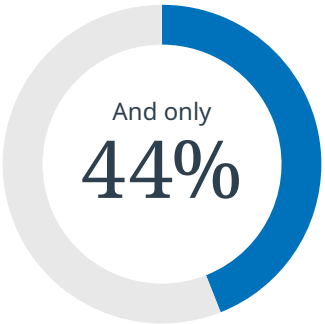
What is the role that you'd like cloud to play within your organization? — Driving business value (enabling innovation and unlocking new revenue streams)/Optimizing operations and infrastructure (creating efficiencies and savings)

Base: All respondents, excluding "don't know" responses (n=2,335)

The cloud satisfaction gap is real



are fully satisfied with the role of cloud in innovation.



are fully satisfied with their overall IT modernization progress.

Several barriers to cloud maturity persist

Aligning cloud initiatives with business strategies remains a struggle for many.

Cloud programs are often executed as technology upgrades or infrastructure cost-saving initiatives, not as enablers of industry-specific outcomes, revenue growth or business transformation. Without a clear line of sight to business objectives, cloud investments remain fragmented and deliver uneven returns.

Legacy systems and technical debt continue to constrain modernization efforts.

Many organizations manage complex application estates that are difficult to refactor, integrate or retire. Skills gaps in cloud-native development, automation and DevOps compound the challenge, slowing progress and increasing execution risk as AI places new demands on application architectures.

Total cost of ownership and scalability remain ongoing concerns.

While cloud offers flexibility and innovation potential, many organizations lack the automation capabilities, cost governance and operational discipline needed to manage cloud economics confidently. This makes them less willing to modernize ambitiously and constrains their ability to drive scale.

Addressing these barriers is not optional in the era of AI. The remedies must form the backbone of a truly aligned cloud and business strategy — one that this report explores in detail.

Underinvestment in cloud

Expectations for AI are accelerating, but cloud investment has stalled. Our data shows 84% of organizations report flat cloud spending over the past year, even as 99% say the rise of AI, including agentic AI, has increased their need for cloud investment.

This disconnect raises concern. Nearly 9 in 10 organizations (88%) acknowledge that their current cloud investment levels put cloud-native, AI and modernization initiatives at risk. That being said, many are now preparing to act, with 75% of cloud leaders planning to significantly increase cloud investment, compared with 43% of other organizations.

Cloud investment is critical for AI success

Past 12 months

84%

of organizations say their cloud spending has been flat in the past 12 months.

Today

99%

say the rise of AI, including agentic AI, has increased their need for cloud investment.

88%

say their current level of cloud investment puts cloud-native, AI and cloud modernization initiatives at risk.

Next two years

75%

of cloud leaders are planning significant increases in cloud, leaving them better positioned to capitalize on AI.

43%

of all other organizations plan to do the same.

Cloud leaders report significantly less budget pressure than other organizations, with most (55%) saying their cloud funding is more than sufficient to meet their business goals, compared with just 34% of all other organizations. This helps them make proactive, strategic decisions rather than incremental or defensive ones.

Cloud leaders face less budget pressure than other organizations

Percentage of organizations that describe their cloud budget as "more than sufficient" to help them reach their business goals

How would you describe your cloud budget(s) as it relates to helping you reach your organization's business goals?
Base: All respondents, excluding "don't know" responses (n=147/2,188)

Without renewed and targeted investment in cloud, AI initiatives will struggle to progress beyond experimentation and deliver the full value of their investment.

Cloud leaders are building for AI, not catching up to it

Cloud leaders approach cloud with a fundamentally different mindset from that of their peers and are significantly better positioned to capitalize on AI as a result. Rather than viewing cloud primarily as an infrastructure platform, they treat it as a strategic foundation for long-term innovation.

This difference shows up most clearly in how they prioritize outcomes. For cloud leaders, advancing AI readiness is the top priority: 48% say they want their cloud capabilities to enable greater AI readiness over the next 12 to 18 months, compared with just 34% of all other organizations.

Cloud leaders place greater importance on AI readiness

Percentage of organizations that want their cloud capabilities to enable greater AI readiness over the next 12–18 months

Looking ahead, what do you want your cloud capabilities to enable over the next 12–18 months?
Base: All respondents, excluding "don't know" responses (n=147/2,188)

Leaders are also far more convinced of the transformational potential of agentic AI, with more than half (53%) viewing it as a complete game changer for cloud, compared with less than a third (30%) of other organizations.

Confidence in agentic AI is split sharply between cloud leaders and the rest

Percentage of organizations that view agentic AI as a complete game changer for cloud

Which of the following best describes your organization's sentiment on agentic AI capabilities as part of your cloud-native application modernization and cloud infrastructure efforts?

Base: All IT respondents, excluding "don't know" responses (n=116/1,714)

Cloud leaders also consistently report higher satisfaction with all core cloud initiatives. These include building cloud-native applications tied to specific business outcomes (55% of leaders say they're fully satisfied, compared with 48% of all others), adopting managed cloud services (59% versus 46%) and advancing cloud-native optimization practices such as site reliability engineering (SRE), DevSecOps and observability (58% versus 49%). These capabilities allow leaders to operate cloud environments more effectively.

Cloud leaders report higher satisfaction with core cloud initiatives

Percentage of organizations that are fully satisfied with cloud's role in building cloud-native applications for specific business actions

Percentage of organizations that are fully satisfied with cloud's role in adopting managed cloud services

Percentage of organizations that are fully satisfied with cloud's role in cloud-native optimization: SRE, DevSecOps, observability

How satisfied are you with the following cloud areas used within your organization?

Base: All respondents, excluding "don't know" responses (n=146/2,180)

The payoff is clear. Cloud leaders are already more likely to view cloud as central to innovation, and they expect it to become even more important in the future. They are also benefitting from being able to move with more agility and speed because of cloud, reinforcing the link between strategic intent, sustained investment and real business value.

Leaders already see cloud as central to innovation, while others expect its importance to grow

Percentage of organizations that say cloud should play a crucial role in driving value (enabling innovation and unlocking new revenue streams)

What is the role that you'd like cloud to play within your organization? — Driving business value (enabling innovation and unlocking new revenue streams)

Base: All respondents, excluding "don't know" responses (n=147/2,188)

Percentage of organizations that say cloud makes it easy for them to move with agility and speed

Please describe the role cloud plays in innovation initiatives.

Base: All respondents, excluding "don't know" responses (n=147/2,186)

However, reaching a "leader level" of cloud maturity in an AI-driven world requires more than accelerating existing programs. It also demands a reframing of the role of cloud — from being a place where systems are hosted to becoming the execution layer of AI — as well as clear priorities and a willingness to make cloud decisions in new ways, aligned with business outcomes.

The new rules for driving value in the era of AI

The challenges holding organizations back from cloud maturity — misalignment with business strategy, legacy systems and technical debt, and ongoing concerns about cost and scale — have been around for years. Becoming more cloud-mature means overcoming these barriers to transform cloud from a technology play into a driver of business value.

The context in which these long-standing challenges play out is changing, and their urgency is intensifying as AI takes on a more central role and cloud becomes increasingly key to realizing its value.

Against this backdrop, organizations must revise their approach to cloud. The rules that follow set out what needs to change to unlock greater value from cloud at a time when expectations are higher than ever.

Rule #1: Cloud and AI strategies need to be developed in tandem

Cloud has moved beyond being a place to host systems. It's now the operational core of AI, where models make decisions, trigger actions and expand efficiently to support the business. As cloud becomes the execution layer for AI operating models, strategies must evolve together.

The acknowledgment that cloud and AI are now inseparable is clear. Our data shows that organizations cite a shortage of AI skills as the single largest cloud-related skills gap, highlighting how closely cloud execution and AI capability are linked.

Cloud leaders feel the skills gap more acutely, and they don't believe it will close anytime soon: 49% say it will remain a challenge over the next 12 months, compared with 33% of all other organizations.

Organizations rank AI skills as their number-one cloud skills gap.

AI identified as the top cloud skills gap

Percentage of organizations that say a lack of AI skills will remain the top skills challenge affecting their cloud strategy over the next 12 months

Which, if any, of the following cloud skill gaps do you anticipate having in the next 12 months?

Base: All respondents, excluding "don't know" responses (n=147/2,183)

Cloud's new champion: The Chief AI Officer

Chief AI Officers (CAIOs) are 11 percentage points — or 22% — more likely than CIOs and CTOs to feel very strongly that the rise of agentic AI has increased the need for cloud investment, further highlighting how cloud and AI are interconnected.

Cloud investment is critical for AI

Percentage of CAIOs and CIOs/CTOs that strongly agree the rise of agentic AI has enhanced their need for cloud investment

To what extent do you agree with the following statement? — The rise of AI and agentic AI has enhanced our need for investment in cloud.

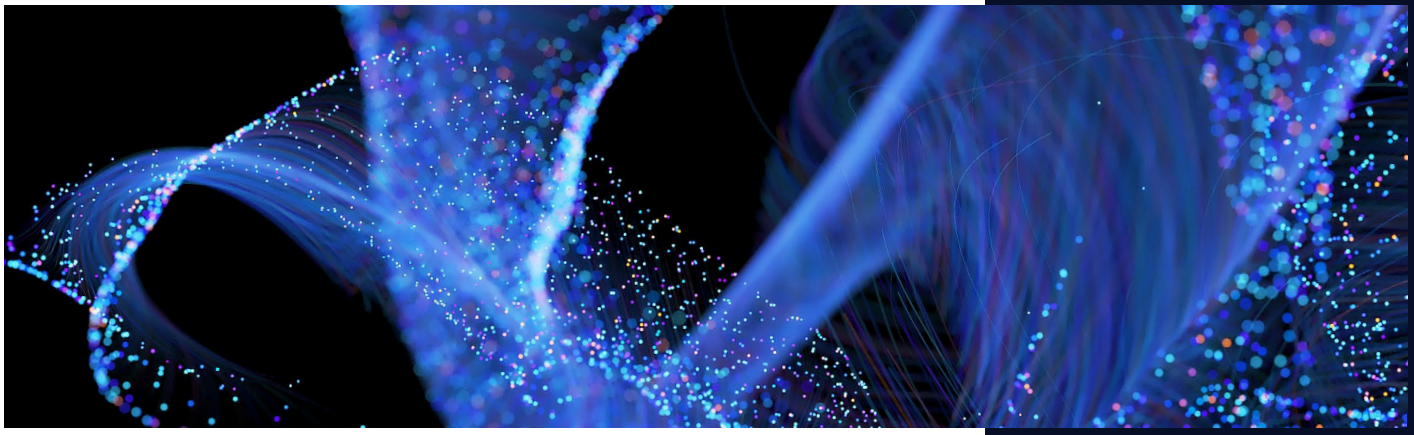
Base: CAIO and CIO/CTO respondents, excluding "don't know" responses (n=113/556)

This exposes a growing pressure point. While business and AI leaders push to seize the opportunity of AI, IT leaders are under pressure to make sure the technology foundations can actually support those ambitions.

AI doesn't run on its own. It depends on cloud infrastructure, platforms, data and security mechanisms to function at all. When cloud and AI strategies are developed in isolation, organizations risk a misalignment between ambition and execution. When this happens, AI initiatives struggle to scale and cloud environments aren't built for current enterprise needs.

Developing cloud and AI strategies together enables organizations to treat cloud not as an end goal but as the foundation that allows AI to deliver value. This alignment ensures that cloud architecture choices, platforms, skills development and governance models evolve in step with AI ambitions, creating a clear path to impact.

Your key takeaway: Interlock AI and cloud strategies and ensure strong alignment between your CAIO and CIO or CTO so ambitions translate into scalable, enterprise-wide value.



Rule #2: Cloud architecture choices will make or break your success

Cloud deployment choices now directly influence AI outcomes. Decisions about landing zones — preconfigured, secure and scalable environments that form the foundation for deploying workloads in the cloud — play a major role in how AI workloads scale. Where these workloads run, and how they're deployed, matter more than ever.

With AI, cloud deployment is no longer confined to IT. It is a strategic concern and should be based on the business outcomes you want to achieve. Decisions about public, private, hybrid, multicloud and sovereign cloud environments are complex and difficult to reverse, yet they affect how organizations control spending, manage governance and security, and create value as they refine and expand their AI use cases.

Private and sovereign cloud in the spotlight

Amid growing concerns about data privacy, compliance and resilience, private cloud has come back into sharp focus.

Our research shows that nearly all organizations (99%) expect **private cloud adoption** to grow. When determining where to place AI workloads, data security, privacy and compliance are the leading considerations (51%), followed closely by the need for greater control over infrastructure and/or customization (49%).

Additionally, **sovereign cloud adoption** is projected to rise 50% in two years (from 28% to 42%). For organizations that are evaluating sovereign cloud solutions, the top concerns are integration, cost and scalability.

These models aren't replacing public cloud. They are being layered alongside it, creating more complex hybrid and multicloud architectures. Whereas in the past shifting between private and public cloud environments was relatively easy, hybrid and multicloud environments make changes more challenging, meaning that it's now very important to get your cloud architecture decisions right at the outset.

Organizations opt for private and sovereign cloud

99%

of organizations expect private cloud adoption to increase due to concerns about sovereignty, data ownership, cost and data security.

50%

Sovereign cloud adoption is projected to rise 50% in the next two years, from 28% of organizations to 42%.

The importance of accommodating AI workloads

As AI workloads become more central to operations and part of the IT fabric, organizations are emphasizing control in their cloud environments. These workloads are computing-intensive, data-hungry and often unpredictable — characteristics that directly affect performance, cost and governance. Where AI workloads run and how they're deployed matter more than ever.

In distributed cloud environments, deployment choices can be the difference between AI initiatives that remain manageable and economically viable, and those that don't. Data governance, privacy and compliance requirements only raise the stakes, increasing the need for robust control over how data is handled, protected and accessed.

As a result, cloud architecture choices can no longer be deferred. There is no such thing as a cloud-neutral strategy anymore. In hybrid, multicloud and sovereign environments, decisions about landing zones, deployment models and workload placement set the boundaries for what organizations can realistically build, scale and govern.

Cost is one of the first places the consequences of these choices show up. AI workloads introduce new cost dynamics through heavy computing demand, data movement and storage needs. When architecture choices don't match the way workloads behave, costs become volatile and confidence in cloud investments starts to wane. Early architectural decisions can therefore lock in financial outcomes for years to come as AI starts to scale.

Sustainability has also become a prominent consideration in cloud strategy, especially in the AI era. According to NTT DATA's global research on AI, 1 in 3 organizations (34%) identify sustainability outcomes — including data center energy consumption — as a leading trust and ethical factor affecting their AI adoption and deployment decisions.[1]

> "Where AI workloads run and how they're deployed matter more than ever."

No success without integration

Integration is the other major pressure point. As cloud environments become more distributed, organizations need to think about how these environments work together. In fact, organizations rank integration with existing multicloud and hybrid cloud strategies as their number-one concern about the use of sovereign cloud.

Governance must be built into cloud architecture from the start. In distributed environments, governance cannot rely on manual controls or after-the-fact oversight. It needs to be embedded into architecture, platforms, identity, and integration standards so that guardrails can be applied consistently across environments.

As organizations adopt AI, cloud architecture choices determine far more than infrastructure layout. They influence cost, governance and and organizations' ability to realize business value.

#1

Organizations rank integration with existing multicloud and hybrid cloud strategies as their number-one concern about the use of sovereign cloud.

Your key takeaway: Architect for scale at the outset. Cloud deployment decisions should be driven by the business outcomes you want to achieve.

[1] NTT DATA global AI research, October 2025

Rule #3: Reimagine how you drive business value with modern applications

The ability to deliver business outcomes with AI depends on having modern, cloud-native environments and applications on which AI can run. In this context, what modernization means has changed, and business value is now the main measure of success.

As organizations reassess their cloud priorities to deliver more business value, the data points to a new reality: Cloud modernization — using cloud-native capabilities to modernize applications and workflows — will remain the top cloud focus for the next two years, ahead of migration, optimization and managed services.

At the same time, 50% of organizations say the need to modernize applications and data platforms is holding them back from cloud-related innovation. This highlights a tension: Modernization is key to the ability to drive outcomes with AI, but organizations are not where they know they need to be.

Cloud modernization is critical for AI success

Cloud modernization is — and will remain — the top cloud priority in the next two years, ahead of managed services, cloud-native optimization and cloud migration.

50%

of organizations say the need to **modernize applications and data platforms** is holding them back from cloud-related innovation.

> “There is no realistic path to AI-driven value without cloud modernization.”

AI has fundamentally changed what modernization means. No longer simply a place to host applications, cloud is now the operating environment for AI-led decision-making and execution. Supporting this shift requires applications that are truly cloud-native: Able to scale on demand, plug directly into data and AI services, and keep running smoothly even as conditions change.

In light of these changes, modernization is no longer about moving to the cloud for cost or efficiency gains alone. It’s also about enabling AI to deliver concrete business outcomes. Cloud-native applications make it possible to create and capture AI-driven value in real time.

Many organizations are, however, still restricted by legacy environments built on applications that were not designed for the cloud. These environments limit scale, hold back change and create operational drag. Surface-level automation may improve productivity at the margins, but it does not fix the structural constraints of legacy architectures.

There are no shortcuts here. Meaningful business impact requires modernizing the applications themselves.

This shift is already evident among the most advanced organizations. NTT DATA’s **2026 Global AI Report: A Playbook for AI Leaders** shows that AI leaders — organizations combining advanced AI adoption with strong financial performance — are more likely to rebuild applications with AI embedded at the core than rely on bolt-on AI tools or superficial automation. Less mature organizations tend to layer AI on top of their existing application estates, which limits both impact and scalability.[2]

The lesson: There is no realistic path to AI-driven value without cloud modernization.

[2] NTT DATA. 2026 Global AI Report: A Playbook for AI Leaders. December 2025.

> “Without a data readiness strategy tied to business goals, cloud and AI initiatives fail to deliver.”

36%

of organizations say that agentic AI has intensified the need for clean, well-governed and AI-first data models and architectures.

#1

Data readiness and analytics challenges are the main reason for dissatisfaction related to building cloud-native AI applications.

2 in 3

organizations say **industry cloud solutions** will be extremely important to their cloud strategy.

Data readiness matters

The need for data readiness is becoming impossible to ignore. In fact, 36% of organizations say that agentic AI has intensified the need for clean, well-governed and AI-first data models and architectures. Not only is the modernization of data platforms a critical factor in being able to innovate, as mentioned above, but data readiness and analytics challenges are the number-one reason organizations say they are dissatisfied with their efforts to build cloud-native AI applications.

Simply moving data to the cloud is not enough. Without a data readiness strategy that ties data quality, governance, integration and real-time access directly to business goals, cloud and AI initiatives fail to deliver value.

AI agents will not replace modernization

Applications provide the foundations that organizations depend on — transaction systems, application programming interfaces (APIs), business rules, compliance controls and audit trails. They make reliability, trust and scale possible.

AI agents add a new layer of probabilistic reasoning that interprets intent, orchestrates work and speeds up outcomes — but only when they’re anchored to these deterministic systems. Organizations that try to skip modernization and rely on agents alone risk creating opaque, fragile environments that are difficult to govern and scale.

Industry cloud is a pathway to value

Industry cloud solutions play a critical role in helping organizations modernize more effectively in this AI-driven context, with nearly 2 in 3 organizations (64%) saying these solutions will be extremely important to their cloud strategy. This reflects a growing understanding that cloud value is tightly linked to industry-specific workflows, data models and regulatory needs.

Industry cloud applications embed not only processes but also structured data models, integration patterns and governance frameworks that make data usable for AI-driven execution.

The difference between cloud leaders and other organizations is telling. Leaders are far more likely than others — 82% compared with 63% — to use industry cloud solutions over the next two years.

For real business value, organizations are embracing industry cloud

Percentage of organizations that are likely to use industry cloud solutions in the next two years

How important will tailored, industry-specific cloud solutions be in the next two years?

Base: All respondents, excluding "don't know" responses (n=147/2,186)

Cloud can deliver scale and access to models, but AI produces meaningful results only when it is grounded in real industry context. Industry cloud solutions combine modern application architectures with preintegrated industry data, workflows and governance, providing the deterministic foundations that allow AI to operate safely and effectively.

Built using cloud-native services, these solutions can continuously absorb new technologies and innovations without forcing organizations to rebuild core capabilities from scratch. As AI shortens modernization timelines, industry cloud is becoming the fastest and most trusted path from experimentation to enterprise impact.

Industry cloud also provides a practical way to align cloud capabilities to support AI. According to our global research on AI, about 1 in 3 organizations (34%) are already building centralized, cloud-native platforms to manage the growing demand for AI[3] — a clear sign that the number of deployed AI agents is increasing.

At the same time, 39% of organizations say they are concerned about moving agentic AI from pilot phase to production. Common challenges affecting adoption include skills, governance, cost uncertainty and control. These concerns explain why many organizations are better served by adopting industry solutions, with AI embedded by design, than by custom-building foundational processes that can be difficult to scale and hard to govern.

Make modernization count

In an AI-powered environment, modernization must be outcome-driven and industry-aligned, and include data readiness. Modern applications are not optional, and AI agents are not a substitute for extensive modernization. Organizations that modernize with this understanding are far better positioned to translate cloud investment into sustained business value.

Supporting AI at scale

1 in 3

organizations are building centralized, cloud-native platforms to manage the increase in demand for AI.

39%

of organizations are worried about moving agentic AI from pilot projects to production with confidence.

Your key takeaway: Modernize with the end in mind. Build an end-to-end cloud modernization program designed to operationalize AI across the organization, moving beyond surface-level proofs of concept to sustained business impact.

[3] NTT DATA global AI research, October 2025

Rule #4: A platform-led approach is no longer optional

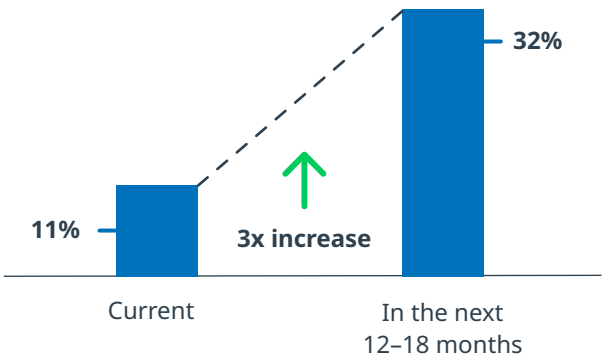
As cloud investments stall and environments become more complex with AI, a platform-led approach is now essential for turning cloud investment into real business impact. As organizations modernize applications, adopt industry cloud solutions and introduce AI agents into core business processes, operational complexity rises quickly. Mastering this complexity is critical to both ensure smooth cloud operations and unlock cloud value to reinvest into modernization initiatives, especially as cloud budgets remain under pressure.

Modern cloud environments span applications, infrastructure, data, networks and, increasingly, AI-driven workflows. While many organizations have relied on skilled teams and repeatable practices to manage this complexity, a more technology-driven operating approach is now needed.

Over the next two years, organizations expect their use of fully managed and automated cloud platforms — delivered by strategic partners — to triple. This reflects a growing recognition that platforms, not manual practices, are becoming the primary way cloud environments are operated and governed at scale.

A sharp shift to fully managed cloud platforms delivered by strategic partners

Current and future view: Fully managed and automated cloud capabilities



How do you view your cloud platform capabilities today, and where would you like to see them in the next 12–18 months?

Base: All respondents, excluding "don't know" responses (n=2,333/2,334)

AI is a major driver of this shift. AI-driven architectures are inherently distributed, with work flowing dynamically across applications, data pipelines, infrastructure and networks. AI agents add another layer of motion by calling services, accessing data and triggering actions in real time. As interactions multiply and dependencies constantly change, manual coordination quickly reaches its limits.

What is a platform?

In this context, "platform" refers to a management or managed services platform that governs business and IT resources which are hosted on infrastructure-as-a-service or platform-as-a-service platforms. Such resources include private, public and sovereign cloud solutions.

Platform-led approaches make it possible to scale governance

As cloud environments become more distributed, governance can no longer depend on reviews, committees or after-the-fact controls.

Instead, guardrails must be embedded directly into platforms through standardized architectures, shared identity frameworks, policy defined as code and automated enforcement mechanisms.

Organizations therefore need platforms that can orchestrate, monitor and enforce guardrails across the entire stack, allowing them to stay in control without slowing innovation.

Cloud leaders are far more likely than others (59% versus 47%) to say it is extremely important to have a unified view of IT performance across clouds, networks, data centers, business applications and digital engagements, reflecting the recognition that cloud management platforms both support operational efficiency and drive savings that can be reinvested in modernization and innovation. The reason is simple: Real business outcomes are delivered across end-to-end workflows, not inside silos.

In addition, just over half of all respondents (51%) say it's extremely important to connect cloud infrastructure managed services and cloud-native application services.

Percentage of organizations that say it's extremely important to have a unified view of IT performance across clouds, networks, data centers, business applications and digital engagements

How important are the following to your organization? — Having a unified view of our IT performance across clouds, networks, data centers, business applications and digital engagements.

Base: All IT respondents, excluding "don't know" responses (n=125/1,714)

Over half

of all respondents say it is extremely important to connect cloud infrastructure managed services and cloud-native application services.

More than half the organizations surveyed (57%) say cloud cost management remains a challenge and that they need to place greater focus on cost optimization. As AI workloads drive higher and more unpredictable infrastructure use, cost signals — the indicators that reveal how, where and why cloud spending is changing — show up faster and in more places. Platform-led approaches bring cost visibility, optimization and governance directly into day-to-day operations. This makes it possible to manage spending continuously and in the context of real business processes, rather than relying on periodic reviews after the fact.

57%

of organizations say cloud cost management is a challenge and that they should apply more focus to cloud cost optimization.

A safe foundation from which to scale

Looking ahead, the next generation of cloud management platforms is expected to deliver end-to-end visibility of business processes, not just technical observability. These platforms will show how processes execute across systems, data, integrations and AI-driven actions — from initiation to outcome. They will give leaders real-time insights into performance, risk and value.

But platform-led approaches are not about centralizing authority for its own sake. Instead, they are about creating repeatable, automated capability. By codifying best practices and automating routine decisions, platforms provide the safe and predictable foundation needed to scale modern applications, industry cloud solutions and AI-driven workflows.

The industrialization of platform operations

Nearly half the organizations surveyed (49%) now execute SRE practices entirely through a service provider, with 39% having adopted a hybrid model, combining internal teams with third-party support, and just over 1 in 10 (11%) handling SRE fully in-house.

This shows how platform operations, particularly reliability and resilience, are increasingly being industrialized rather than managed as bespoke, in-house capabilities.

Turning cloud investment into sustained business value

In an AI-enabled business environment, platforms are the key to successful operating models. They connect modern applications, industry cloud capabilities, AI agents and data into a coherent whole and create end-to-end visibility of business process performance. They also ensure that organizations realize operational savings they can reinvest in modernization and innovation initiatives. Once organizations make the shift to management platforms, they can turn cloud investment into sustained, scalable business value.

Your key takeaway: Develop a strategy to standardize your cloud automation and productivity efforts, and consolidate these into a single, platform-based cloud management approach, driving gains that can be reinvested into the business.

Rule #5: Reset your cloud transformation KPIs

In the AI era, cloud transformation metrics need to change to reflect the transformative effect of AI on the speed and effectiveness of cloud initiatives. Measuring the success of migration and modernization needs to be continuous and focused on business value, rather than just technical metrics — and AI makes this possible.

Although AI tools are widely available, adoption is uneven, with 47% of cloud leaders saying they used AI in their last cloud migration project, compared with only 35% of all other organizations. Many organizations also remain cautious about the impact and ROI of agentic AI in cloud-native application modernization and cloud infrastructure, with 62% of all organizations in our survey expecting these initiatives to fall short of expectations.

Taken together, these findings point to a deeper issue: Organizations are unsure about AI's ability to transform cloud initiatives. As a result, they may be underusing the capabilities that could dramatically improve speed, accuracy and outcomes. This is not simply about technology readiness; it also reflects how success is still being measured.

Percentage of organizations that used AI in their last cloud migration project

Thinking now about your last cloud migration project, which of the following best applies?

Base: All IT respondents, excluding "don't know" responses (n=116/1,715)

Percentage of organizations that expect the impact and ROI of agentic AI for cloud-native application modernization and cloud infrastructure efforts to fall short of expectations, despite significant potential

Which of the following best describes your organization's sentiment on agentic AI capabilities as part of your cloud-native application modernization and cloud infrastructure efforts?

Base: All IT respondents, excluding "don't know" responses (n=116/1,714)

Measure value, not just activity, throughout the project

Traditional cloud transformation KPIs were built for an earlier phase of cloud adoption. Metrics such as the number of applications migrated, infrastructure cost savings or the completion of predefined milestones track activity, not value. They're also backward-looking, assessed at fixed points in time — often long after the most important decisions have already been made.

In dynamic, AI-driven cloud environments, these static metrics no longer tell the full story.

AI fundamentally changes what's possible during migration and modernization itself. By automating workload discovery, mapping dependencies, reverse-engineering existing code and simulating cost and performance outcomes, AI can compress transformation timelines. Issues that used to surface late, after go-live, can now be identified and addressed much sooner. The added speed also introduces more variability, which makes delayed measurement increasingly risky.

As a result, cloud transformation can no longer be evaluated only at the end of a project. Success must be measured early and continuously, based on signs that indicate whether modernization efforts are on track to deliver value for the business. Dynamic insights into performance readiness, cost behavior, operational stability and risk exposure become far more meaningful than static completion metrics, and value-oriented results are more important than operational ones.

Track the right metrics, at the right time

Resetting KPIs therefore means shifting from retrospective operational reporting to value-based, forward-looking measurement. Instead of asking whether applications have been migrated, organizations need to ask whether modernized environments are behaving as expected, whether costs are predictable and whether AI-enabled workflows are improving business outcomes.

A platform-led approach makes this possible. Platforms increasingly provide end-to-end visibility of how processes run, allowing technical performance to be connected to business impact in real time. KPIs can therefore move from lagging indicators to leading signals that guide decisions as transformation unfolds.

Resetting cloud transformation KPIs is not about tracking more metrics. Rather, it is about tracking the right ones, at the right time. Organizations that cling to point-in-time indicators risk optimizing for activity rather than business impact. By embracing continuous, value-driven measurement, they will be better positioned to accelerate transformation, build confidence in AI initiatives and turn cloud investment into sustained business performance.

> “AI fundamentally changes what’s possible during migration and modernization itself.”

Your key takeaway: Shift from technical to business metrics when measuring cloud transformation. Use AI to elevate cloud initiatives and drive measurable business outcomes.

Rule #6: Make cloud secure with a focus on the basics

Cloud security has moved from a technical concern to a business-defining priority. As cloud adoption speeds up and AI becomes embedded in core processes, traditional security models aren't keeping up with the speed, scale and complexity of evolving cloud environments. It's why security is now the number-one investment priority for cloud, according to our research.

The challenge is compounded by how organizations move to the cloud. Lift-and-shift migrations often carry legacy security gaps straight into cloud environments, where they're amplified rather than fixed. At the same time, cloud-native and AI-driven applications introduce new attack surfaces, from complex data pipelines to automated decision paths operating at high speed. In fact, organizations cite security, governance, risk and compliance concerns regarding autonomous agents as the top challenge to the adoption of agentic AI in cloud-based solutions in the next 12 to 18 months.

#1

Security is the number-one investment priority for cloud.

#1

Security, governance, risk and compliance concerns regarding autonomous agents are the top challenge to organizations' adoption of agentic AI in cloud-based solutions in the next 12 to 18 months.

Security cannot be managed in isolation

As cloud, AI and security ecosystems become more distributed and increasingly reliant on third parties, security can also no longer be managed in isolation. Controls, tools and responsibilities must work together. Organizations need an enterprise-wide view of risk that cuts across providers, platforms and partners, with a focus on built-in accountability and governance.

Concerns about security, resilience and data sovereignty are sparking a growing interest in private and sovereign cloud models, particularly for sensitive data, regulated workloads and AI systems. Private and sovereign clouds offer greater control over data location, access and compliance, while organizations benefit from cloud-native architectures and automation.

However, confidence diverges sharply. Among cloud leaders, 68% report strong confidence, compared with just 36% of all other organizations. Additionally, 69% of cloud leaders say they're highly prepared to manage cloud and AI security risks, with formal risk management plans in place, compared with 47% of all other organizations.

The confidence gap: Many organizations aren't ready to manage cloud and AI security risk

Percentage of organizations that are very confident in their cloud security posture

How confident are you in your organization's current cloud security posture?

Base: All respondents, excluding "don't know" responses (n=147/2,186)

Percentage of organizations that say they're highly prepared to manage cloud and AI security risks, with formal risk management plans

How prepared is your organization to manage cloud and AI security risks?

Base: All respondents, excluding "don't know" responses (n=147/2,188)

Governance remains uneven. Cloud leaders are far more likely than others (54% versus 34%) to define clear security roles and responsibilities, backed by regular audits and strong governance processes. They take ownership of risk rather than outsourcing it to hyperscalers. In fact, only 27% of cloud leaders rely primarily on a cloud provider's native security controls, compared with 44% of other organizations. To tailor controls to their specific risk profile, 50% of organizations now use a mix of native cloud security tools and third-party solutions.

Clarity in security governance: A key differentiator for leaders

Percentage of organizations that have clearly defined roles and responsibilities, with regular audits

How do you manage shared responsibility for security between your organization and your managed cloud service provider?

Base: All respondents using a cloud managed service provider, excluding "don't know" responses (n=103/1,408)

Although hyperscalers offer increasingly powerful native security capabilities, no single provider can deliver enterprise-wide visibility on its own. This is still the responsibility of each organization as modern cloud platforms become the connective tissue for security — bringing together native and third-party tools, enforcing policies consistently and providing a single view of risk. In AI-driven systems, where actions can be triggered automatically and at scale, this integrated perspective is essential.

Security is a prerequisite for delivering value

Rather than limiting innovation or overengineering controls, taking cloud security seriously means getting the basics right: strong identity management and control, clear data-protection policies, proactive risk management and governance, and continuous monitoring. When these fundamentals are embedded into cloud platforms and operating models, organizations can reduce risk, build resilience and proceed with confidence.

For AI in particular, security isn't a brake on value but a prerequisite for delivering value. Pairing modern cloud platforms with disciplined governance and a clear understanding of responsibility helps organizations scale AI safely, protect critical assets and maintain trust as cloud becomes the execution layer of the business.

Your key takeaway: As cloud and security ecosystems become more distributed, take a top-down, enterprise-wide approach to security to move forward with confidence.

Reset your cloud strategy

Despite years of widespread cloud adoption, most organizations have yet to realize the full promise of cloud. The rise of AI has introduced additional layers of complexity.

Cloud is no longer just where systems run; it's where AI is put to work, decisions are made and value can be created at scale. When you treat it as the execution layer of an AI-driven operating model — and align strategy, architecture, applications, platforms, metrics and security accordingly — your organization will be far better positioned to compete.

Organizations that don't adapt will keep struggling with cost volatility, stalled modernization and limited AI impact.

As our report shows, there are six rules to follow to unlock value with cloud in the era of AI:

#1 Cloud and AI strategies need to be developed in tandem

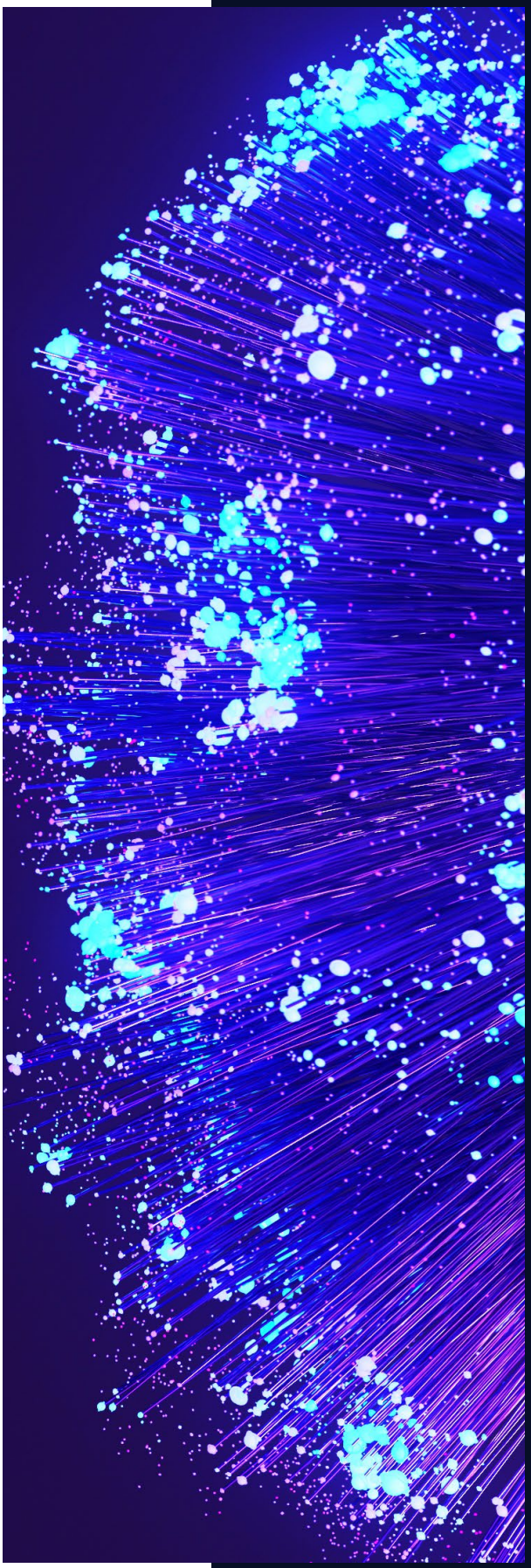
Cloud and AI are now inseparable, so treat them that way. Develop these strategies together, with close coordination between the CAIO and CIO or CTO, so cloud decisions and AI ambitions support rather than constrain each other.

#2 Cloud architecture choices will make or break your success

Early architectural decisions set the trajectory for everything that follows. Make structured discovery and analysis a standard step before launch, not an afterthought, so your deployment choices support the outcomes you want to achieve.

#3 Reimagine how you drive business value with modern applications

Modernize to scale AI. Real business value requires moving beyond small proofs of concept and embedding AI into end-to-end processes. To do that, you have no choice but to modernize, embracing industry cloud solutions and a robust data-readiness strategy aligned with your expected business outcomes.



#4 A platform-led approach is no longer optional

AI-driven workflows need to be supported by a technology-driven operating model. Consolidate and standardize your automation and productivity efforts with coherent, platform-led cloud management that streamlines operations and provides critical visibility, allowing you to reinvest in modernization and business innovation.

#5 Reset your cloud transformation KPIs

Transactional metrics won't suffice for transformation goals. Redefine your cloud KPIs around your business outcomes and use AI-driven insights to dynamically track your outcomes while improving success.

#6 Make cloud secure with a focus on the basics

As the cloud and AI landscapes change, security fundamentals matter more than ever. Embed strong identity and access management, clear data protection, proactive risk governance and continuous monitoring into your cloud platforms and operating model to move forward with confidence.

Make change management part of the strategy

Transformation will not succeed without deliberate, sustained change management. Reimagining your cloud strategy is an organizational transformation that spans funding models, operating structures, skills, incentives and culture. Leaders must align stakeholders to a clear narrative for change, equip teams with new capabilities, redefine roles and reinforce new behaviors through governance and measurement. Without this discipline, even the best architectures and strategies will stall.

The six rules outlined here are more than incremental tweaks. They represent a new way to define, deliver and govern cloud value in an AI-driven world. Cloud leaders are already making this shift, building foundations designed for intelligence, agility and sustained growth, rather than short-term efficiency gains.

As AI forces organizations to rethink how they operate, the question is no longer whether to invest in cloud but how deliberately that investment is made. Acting now — by treating cloud as a value creator, not a technology initiative — is the only way to unlock cloud's full potential in the era of AI.

Visit our website to see how NTT DATA can help you make clear and decisive progress in your cloud journey.

About the research

Our research is based on data gathered from 2,335 global respondents across 13 industries, spanning 33 countries in five regions.

These respondents are key decision-makers from large enterprises, in both IT (55%) and non-IT (45%) roles. Some questions were intelligently routed for IT audiences only.

North America 500

Canada: **50**

US: **450**

Latin America 300

Argentina: **50**

Brazil: **50**

Chile: **50**

Colombia: **50**

Mexico: **50**

Peru: **50**

Europe 580

Belgium: **50**

France: **50**

Germany: **100**

Italy: **75**

Luxembourg: **30**

Netherlands: **50**

Portugal: **50**

Spain: **75**

UK and Ireland: **100**

Africa 125

Kenya: **50**

South Africa: **75**

Asia Pacific 830

Australia: **100**

China: **50**

Hong Kong: **50**

India: **100**

Indonesia: **50**

Japan: **100**

Malaysia: **50**

New Zealand: **30**

Philippines: **50**

Singapore: **50**

South Korea: **50**

Taiwan: **50**

Thailand: **50**

Vietnam: **50**

The research in numbers

Role levels

C-suite: **73%**

Vice President/Head of/Director: **21%**

Senior Manager/Specialist: **6%**

The C-suite includes:

CEO: **12%**

CAIO: **5%**

CIO or CTO: **24%**

Chief Data/Digital Officer: **7%**

CISO: **6%**

COO: **5%**

CCO or CXO: **5%**

Chief Legal/Risk/Compliance Officer: **5%**

CFO: **3%**

CHRO: **2%**

13 industries

Automotive: **10%**

Banking and investment: **10%**

Energy and utilities: **7%**

Healthcare: **8%**

Higher education and research: **5%**

Insurance: **9%**

Life sciences and pharmaceuticals: **7%**

Logistics, travel and transportation: **6%**

Manufacturing: **11%**

Mining and natural resources (including oil and gas): **5%**

Public sector: **7%**

Retail and consumer packaged goods (including ecommerce): **5%**

Telecommunications, media and technology: **8%**

Research methodology

All content in this report is based on independently sourced research data.

Participants were prescreened and then selected via random sampling on the basis that they had a direct or indirect influence on their organization's technology infrastructure and cloud requirements, or decision-making authority in that regard.

The research data was gathered via an online questionnaire that ran in September and October 2025. Primary research fieldwork was conducted for NTT DATA by STRAT7 Jigsaw, an international strategic-insight analytics and market intelligence agency with an exclusively senior team.

Data integrity, validation and analysis were performed by NTT DATA's specialist in-house Primary Research and Benchmarking Team. Data and outliers were validated in conjunction with STRAT7 Jigsaw and in accordance with standard research-industry rules, disciplines and best-practice approaches. The complete dataset is presented at a 99% confidence level with a 3% margin of error.

Drive business value with cloud

NTT DATA is one of the world's leading digital infrastructure providers, with unmatched capabilities in enterprise-scale cloud, AI, security, connectivity, data centers and application services.

We are committed to accelerating client success and positively affecting society through responsible innovation. Our full-stack, end-to-end portfolio of AI services and solutions incorporates models, data and platforms, secure ecosystems, and frameworks for governance, compliance and ethics.

We curate cloud and AI ecosystems for organizations in every industry, and our Smart AI Agent™ Ecosystem matches industry-specific agents to business processes.

With our local expertise and global reach, we are the smart choice for helping you succeed with cloud.

Visit nttdata.com to learn more.

NTT DATA is a $30+ billion business and technology services leader in AI and digital infrastructure. We accelerate client success and positively impact society through responsible innovation. As a Global Top Employer, we have experts in more than 70 countries. NTT DATA is part of NTT Group.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