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Beyond Infrastructure

Why Professional Services Is The Missing Link In Your AI-Ready Data Center

Enterprises are racing to scale AI, but most are about to collide with the same obstacle: a data center that wasn't built for it. Unlike traditional architectures, AI-ready data centers leverage nonblocking networking and offloaded security to maximize GPU utilization and economic efficiency, providing the agility to scale and pivot instantly as business needs evolve. Without AI ready designs, legacy data centers become bottlenecks, slowing model performance, driving up costs, and increasing operational and cyber risk.

Optimized data centers enable stronger data governance, observability, and resilience, all of which are essential as AI systems depend on large, distributed datasets and continuous processing. In short, AI can sustainably scale only when the data center is purpose built to support its intensity, complexity, and security requirements — not retrofitted as an afterthought but treated as a core strategic foundation.

Yet across enterprises, a growing disconnect is emerging between perception and reality. Organizations are confident in their AI trajectory, but that confidence often masks deeper structural gaps. As AI initiatives move from experimentation to operational scale, these gaps are becoming harder to ignore — and more costly to navigate.

In our study of 718 IT decision makers with responsibility for their organization's professional services for IT infrastructure, we found that while ambition is nearly universal, readiness remains uneven, and the consequences of that gap are beginning to materialize.

A FORRESTER CONSULTING THOUGHT LEADERSHIP PAPER COMMISSIONED BY CISCO, MAY 2026

KEY FINDINGS

AI ambition is high, but readiness lags. Nearly all respondents signal strong confidence in their ability to scale AI, reflecting a widespread belief that their organizations are prepared for the next phase of adoption. However, when evaluating the underlying capabilities required — such as infrastructure design, data pipeline maturity, governance frameworks, and security posture — many describe environments that are underprepared for AI's demands. This highlights a growing realization: Scaling AI is not constrained by intent but by the maturity of the systems supporting it.

The data center — not the model — is becoming AI's bottleneck. Technology design complexity (39%) has emerged as a top challenge, equal to skills shortages (39%). This is closely followed by cloud and hybrid interoperability challenges (36%), workload optimization (33%), and front end network integration (29%). These findings reinforce that AI success is no longer dictated by the sophistication of the model alone but by the performance and cohesion of the infrastructure beneath it. Legacy infrastructure and operating models (both 32%) further compound the issue, making modernization efforts slower, riskier, and more resource intensive than expected.

AI introduces new categories of risk that existing systems are not fully equipped to manage. Thirty seven percent of respondents cite AI specific security risks, shortages in AI security expertise, and data governance concerns. These risks go beyond traditional IT vulnerabilities, requiring new approaches to securing data pipelines, monitoring model behavior, and enforcing governance policies across distributed environments.

Professional services are becoming a strategic enabler of AI success. As organizations confront the realities of scaling AI, they are increasingly turning to external expertise, not just for implementation support but for long term guidance, optimization, and innovation. This shift reflects a broader recognition that AI transformation requires continuous evolution, not one time deployment.

AI-Ready Data Centers Will Help Scale AI … Once IT Organizations Figure Them Out

As enterprises transition from isolated AI pilots to organizationwide deployments, the nature of the challenge is changing. The initial phase, which focused on experimentation and proof of value, allowed organizations to operate within existing constraints. But scaling AI introduces a different level of complexity, one that demands rethinking core infrastructure and operating models.

This transition reveals what can best be described as a confidence paradox. While 95% of IT leaders report that their teams are equipped to scale AI, deeper responses reveal persistent capability gaps across architecture, operations, and security. The disconnect suggests that many organizations may be underestimating how far their current environments are from being truly AI ready.

> What starts as innovation momentum often exposes deeper issues in infrastructure readiness, integration, governance, and skills: **99%** of respondents believe professional services will be critical to building and optimizing IT infrastructure for the AI era.

- **Respondents see AI scale as constrained more by capability than intent.** Enthusiasm for AI remains high, but practical barriers are becoming more visible. Technology design complexity and architectural decision making were each cited by 39% of respondents — as significant as traditional skills shortages. These challenges are further amplified by operational readiness gaps and difficulties integrating AI workloads

across cloud and hybrid environments. Together, these factors indicate that scaling AI is not a linear progression from pilot to deployment but a structural transformation that many organizations have yet to fully undertake.

- **AI data centers must function as interconnected systems, not isolated components.** Respondents highlight cloud/hybrid interoperability (36%), workload optimization (33%), and front end network integration (29%) as critical friction points. These data points underscore a key reality: AI infrastructure is highly interdependent. Weakness in any layer such as compute, storage, networking, or orchestration can constrain performance across the entire system. When combined with legacy infrastructure (32%) and outdated operating models (32%), these dependencies create cascading challenges that are difficult to resolve incrementally.

- **AI stretches security and governance teams in new ways.** While initial AI deployments may be achievable with foundational capabilities, scaling and sustaining those environments requires a new level of sophistication. Thirty seven percent of respondents identify AI specific security risks and governance challenges as major concerns, alongside shortages in the skills needed to address them. These findings reflect a broader shift: AI changes how data is accessed, processed, and shared, expanding the attack surface and introducing new compliance considerations. As a result, traditional security frameworks often prove insufficient, forcing organizations to rethink how they approach risk management in AI driven environments.

The Missing Link: Specialized AI Expertise

As organizations continue their AI journeys, many are discovering that technology investments alone are not enough. The true challenge lies in operationalizing AI, including embedding it into business processes, managing it at scale, and ensuring that it delivers consistent, measurable value.

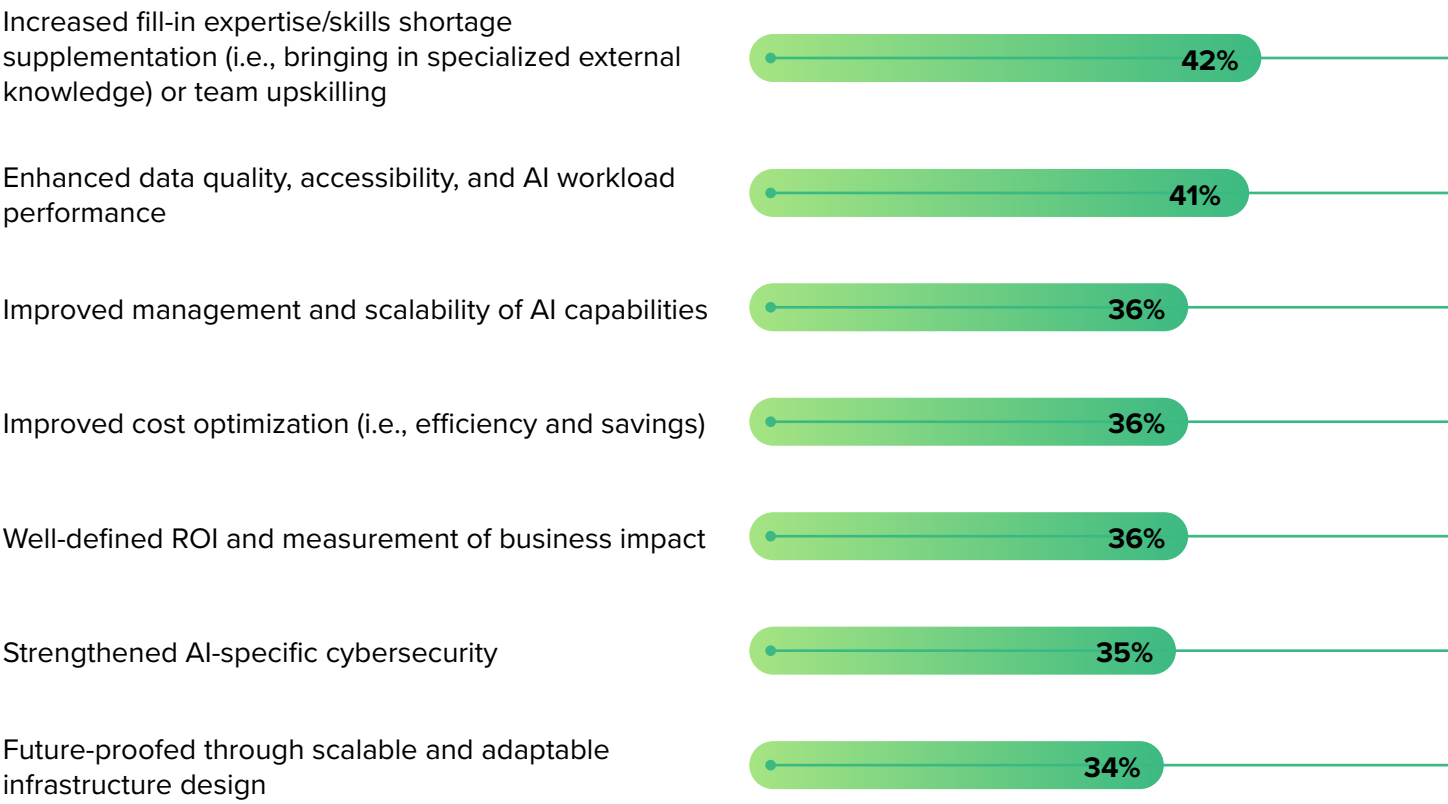
This is where expertise becomes a critical differentiator. Respondents consistently point to gaps in both technical knowledge and operational experience, particularly in areas such as infrastructure design, data management, and performance optimization. Addressing these gaps is essential for unlocking AI's full potential.

- **Organizations are seeking ways to close expertise gaps and improve data readiness as AI scales.** As environments become more complex, IT teams acknowledge that their understanding of AI ready infrastructure, data pipelines, and performance tuning is uneven. Skills shortages continue to limit confidence, particularly when it comes to scaling AI securely and efficiently. Respondents indicate that augmenting internal capabilities with professional services can deliver meaningful improvements, including better data quality, accessibility, and AI workload performance (41%). Additionally, 35% cite stronger AI specific cybersecurity as a key benefit of engaging external expertise (see Figure 1).

- **The skills gap is dual in nature — and both sides are critical.** Survey data reveals two distinct capability gaps: the skills required to build and manage AI infrastructure (39%) and those needed to secure it (37%). These challenges require different approaches and specialized expertise. Organizations that fail to simultaneously address both aspects risk creating imbalances. Imbalances like improving performance while leaving security vulnerabilities exposed, or strengthening defenses without optimizing underlying infrastructure.

FIGURE 1

Expected Benefits From Engaging With Professional Services To Create And Optimize AI-Ready Data Centers



Note: Showing "Ranked top five"
Base: 718 IT decision-makers at global enterprises with responsibility over their organization's professional services for IT infrastructure strategy
Source: Forrester's Q1 2026 AI-Enabled IT Professional Services Survey [E-66761]

- **The professional services model is transforming.** Organizations are reevaluating what they need from their professional services partners. While cost efficiency and speed have traditionally been primary considerations, priorities are shifting toward strategic outcomes. Clear ROI (43%) and engagement flexibility (41%) are now leading decision factors. Looking ahead, 63% of respondents expect AI powered services that are proactive, predictive, and personalized, while 37% seek long term partnerships that extend beyond individual projects. The preferred sourcing model (32%) combines technology vendors with authorized partners, reflecting a desire for both deep expertise and flexible delivery.

- **Long term success depends on reducing complexity while improving scalability and measurability.** Respondents view professional services as a means of not only addressing immediate challenges but also building a foundation for sustainable growth. They cite improved management and scalability of AI capabilities (36%), more adaptable infrastructure designs (34%), and faster realization of business value (34%) as key outcomes. Financial considerations remain critical as well, with respondents emphasizing better cost optimization (36%) and clearer ROI measurement (36%). Together, these priorities highlight a shift toward more disciplined, outcome driven AI investments.

Looking ahead, **63%** of respondents expect AI-powered services that are proactive, predictive, and personalized.

The Stakes

The implications of these findings extend beyond operational efficiency — they directly impact competitive positioning. Organizations that successfully align AI ready infrastructure with the right expertise are better positioned to capture measurable business value. Professional services are the bridge between AI infrastructure and measurable ROI.

Respondents who engage appropriate professional services report strong expected outcomes, with the most common view being:

- Up to 30% reduction in time to market.
- Up to 40% reduction in implementation and operational risk.
- Up to 30% cost savings.
- Up to 40% improvement in end customer experience.

These gains reflect both improved execution and a more mature and scalable approach to AI adoption.

By contrast, organizations attempting to scale AI on legacy data center foundations and outdated service models face increasing constraints. They are not simply moving more slowly; they risk accumulating technical debt, exposing themselves to new categories of risk, and missing opportunities to create value. The more pressing issue is whether the foundational systems supporting AI, such as the data center and the ecosystem of services around it, are designed to meet its scale, complexity, and security demands.

Those that recognize and address this challenge early will be better positioned to turn AI ambition into sustained advantage. Organizations that do not, however, may find that the greatest barrier to AI success is not the technology itself, but the foundation it was built on.

Appendix A: Methodology

Summary Of Results From The Cisco-Commissioned Thought Leadership Study, "The Cost Of Inaction: Why Leaders Must Modernize IT Infrastructure With Professional Services To Maximize AI Investments."

Cisco commissioned this study to understand evolving enterprise use of professional services for IT, especially AI-enabled professional services.

To achieve these objectives, Forrester conducted an online survey with 718 IT decision-makers at global enterprises with responsibility over their organization's professional services for IT infrastructure strategy.

To read the full results of this study, please refer to the Thought Leadership Paper commissioned by Cisco titled, "The Cost Of Inaction: Why Leaders Must Modernize IT Infrastructure With Professional Services To Maximize AI Investments."

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