



# Enterprise IT: Thriving in disruptive times with cloud and as-a-service

Deloitte Everything-as-a-Service (XaaS) Study, 2021 edition

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Deloitte has guided myriad companies through the transformation to XaaS models. We have deep knowledge of consumption-based business models and their challenges, and [we can help you think through the implications of the business decisions](#) you will need to make as you transition to a pay-per-use model. At the same time, a holistic customer success strategy enables organizations to shift to a customer-centric mindset for succeeding in the XaaS world, resulting in satisfied customers who drive long-term growth and profitability. Deloitte's approach is focused on [helping clients think through the model, capabilities, metrics, customer insights, and tools](#) required to operate a successful customer success strategy.

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# Introduction

OVER THE PAST decade, leaders have become increasingly taken with the idea of *everything-as-a-service* (XaaS).<sup>1</sup> Across industries, organizations have looked to take more control over the enterprise IT they use and how they pay for it—and technology companies and internal IT departments have met that demand by shifting to a flexible-consumption model for providing products, capabilities, and tools (see sidebar, “What is XaaS?”).<sup>2</sup> As of 2018, analysts estimated the global XaaS market to be worth US\$93.8 billion and forecast a compound annual growth rate of 24%, predicting that the market will surpass US\$340 billion by 2024.<sup>3</sup>

The value of IT flexibility only rose in 2020, as the COVID-19 pandemic thrust the world into a time of unprecedented disruption, bringing on a deep global recession and dramatic workforce changes. As organizations have endured shutdowns, layoffs, and furloughs—and in some cases hired employees

back—their IT needs have fluctuated. Most notably, organizations suddenly found they needed new kinds of IT tools to support the vast number of professionals around the world shifting to remote work arrangements. Indeed, the 2021 Deloitte Global Human Capital Trends survey named “introduction of digital collaboration platforms” the most important factor for sustainability of remote work.<sup>4</sup>

And for companies in some industries, the disruption has created extraordinary opportunities to develop new services, such as cloud-based telehealth platforms. Early in the pandemic, Deloitte predicted that leaders would come to see the XaaS model—which gives organizations the ability to rapidly scale IT capacity, operations, and associated costs up or down as needed—as key to companies staying resilient and nimble in these uncertain times.<sup>5</sup>



## WHAT IS XAAS?

XaaS—*everything-as-a-service* or *anything-as-a-service*—refers to products, tools, and capabilities that are delivered to users as services. For purposes of this article, we're considering only enterprise IT as-a-service. Unlike traditional IT, which requires up-front purchase or licensing, the XaaS or flexible-consumption model allows customers to consume and pay for IT services based on what they need and use, typically through a subscription or pay-per-use. Some prominent types of XaaS include:

- Software-as-a-service (SaaS): Business applications delivered as a service—e.g., customer relationship management, messaging and collaboration, enterprise resource planning.
- Infrastructure-as-a-service (IaaS): Cloud-based provisioning of computing resources over the internet—e.g., servers, networks.
- Platform-as-a-service (PaaS): Platforms that provide the tools and environment to build, manage, and run software applications.
- Hardware-as-a-service: Hardware components—servers, computers, devices, IoT sensors, etc.—that are borrowed rather than purchased. Managed service providers (MSP) install the hardware at a client's site, and a contract spells out terms—e.g., subscription costs, replacement terms, whether the provider handles monitoring and maintenance.
- Cybersecurity-as-a-service: Cybersecurity services that are integrated into corporate infrastructure on a subscription basis—e.g., authentication, antivirus, anti-malware/spyware, intrusion detection, penetration testing.
- Advanced/emerging technologies as-a-service: Advanced capabilities provided as services—e.g., AI-as-a-service, IoT-as-a-service, edge computing as-a-service.

Note that there can be overlap between these categories—for example, cybersecurity-as-a-service may be viewed as a specialized type of SaaS.

XaaS can be delivered in a variety of ways, such as on-premise (i.e., managed in one's own data center and either subscription-based or running in a private cloud), third-party hosted (i.e., a vendor hosts the service), or public cloud (i.e., provided by a "public cloud" company). And there are some instances of XaaS that run as "hybrid cloud," whereby some aspects of the service run on-premise and others are delivered via the cloud.<sup>6</sup>

Against this tumultuous backdrop, in Q4 2020 we conducted a new edition of Deloitte's Everything-as-a-Service (XaaS) Study—surveying 600 IT and line-of-business professionals responsible for XaaS at large US organizations where at least 15% of enterprise IT is consumed as-a-service (see sidebar, “Methodology”). Just as with our previous survey in 2018, our goal was to explore how companies gain value by adopting XaaS, including motivations, outcomes, challenges, preferences, and practices. This time, we also wanted to assess what may have changed in the interim and determine the effect of the pandemic. We uncovered key insights:

**The COVID-19 pandemic is accelerating the shift to XaaS.** The transition from traditional IT to XaaS—already well underway in 2018—continues to transform the enterprise IT landscape as we had projected and shows no signs of slowing.<sup>7</sup> Three-quarters of our respondents report that their organization already runs more than half of its enterprise IT as-a-service.<sup>8</sup> XaaS seems to have won enterprises' hearts, minds, and wallets. Remarkably, the COVID-19 pandemic is further fueling the transition: Leaders view XaaS as helping them create new solutions or business models to thrive in the new normal, and they're backing up that view by increasing their XaaS investments.

**Organizations use XaaS to unlock business agility and create a competitive edge.** The strategic trend our 2018 study discussed—using XaaS to boost business agility as well as to reduce costs and improve workforce efficiency—continues unabated. In particular, adopters are leveraging XaaS to access cutting-edge features and technologies, accelerate innovation, and get their products and services to market faster. The vast majority of adopters report that XaaS has helped them create new business processes, products/services, and business models and has even changed how they sell to their customers—and six in 10 say XaaS gives them a competitive edge (unchanged from 2018).

**As service-based IT becomes ubiquitous, competitive advantage may become harder to maintain.** One sign that the playing field may be leveling: More than eight in 10 of our respondents say their companies already use software-as-a-service (SaaS), infrastructure-as-a-service (IaaS), and/or platform-as-a-service (PaaS)—and nearly everyone plans to adopt them within the next two years. Deloitte believes there are two key activities that could help adopters gain and sustain a competitive edge:

- *Adopting emerging XaaS capabilities.* Companies that move beyond the usual as-a-service suspects and leverage XaaS for advanced or emerging technologies may be able to stay a step ahead of the game. Examples include “intelligent edge” services and new hybrid services that combine on-premise services and cloud.<sup>9</sup>

- *Overcoming persistent challenges.*

The same concerns we identified in 2018—data security, integration, and cost—continue to hinder efforts to scale up XaaS efforts. And while the vast majority believe their customer experience is better with XaaS than with traditional IT, adopters express little allegiance to their current XaaS vendors. Adopters are seeking more consultative relationships with their providers that can help them conquer their ongoing issues.

**XaaS providers should become partners in their customers' success.**

Major technology companies recognize the power of the as-a-service model and have announced plans to shift the majority of their portfolios to XaaS in the coming years to fuel their future growth.<sup>10</sup> The model means that customers don't have the same vendor lock-in as with traditional IT, however, and providers should be mindful that customers can move to greener pastures if they feel they're not getting optimal value from a solution or vendor. To succeed with XaaS, it's critical for technology companies to foster deeper engagement with their customers and help them achieve success with their as-a-service solutions.

In the pages that follow, we explore these study highlights, along with implications for both XaaS adopters and providers.

## METHODOLOGY

To obtain a cross-industry view of how organizations are adopting and benefiting from as-a-service enterprise IT, Deloitte conducted the Everything-as-a-Service (XaaS) Study, 2021 edition, surveying 600 IT and line-of-business (LoB) professionals from US-based companies in Q4 2020, during the COVID-19 pandemic. All respondents were chosen from organizations that consume 15% or more of their IT as a service and were required to have responsibility for enterprise IT and specifically for XaaS—for example, spending, strategies, deployments, and/or vendor selection/evaluation.<sup>11</sup>

Respondents are evenly split between IT and LoB professionals. Sixty-three percent are C-level executives: CEOs, presidents, and owners (32%); CIOs and CTOs (24%); and other C-level (7%). Ten percent are senior VPs/VPs/business unit heads, 16% are senior directors/directors, and the remaining 11% are senior managers/managers. In terms of company size, 16% have annual revenues of US\$100 million to US\$500 million, 30% have revenues of US\$500 million to US\$1 billion, 34% have revenues of US\$1 billion to US\$5 billion, and 20% have revenues of US\$5 billion or more. Six industries are represented: Technology, media and telecom (25%); energy, resources, and industrials (23%); consumer, retail, and automotive (22%); financial services (16%); life sciences and health care (9%); and education (5%).

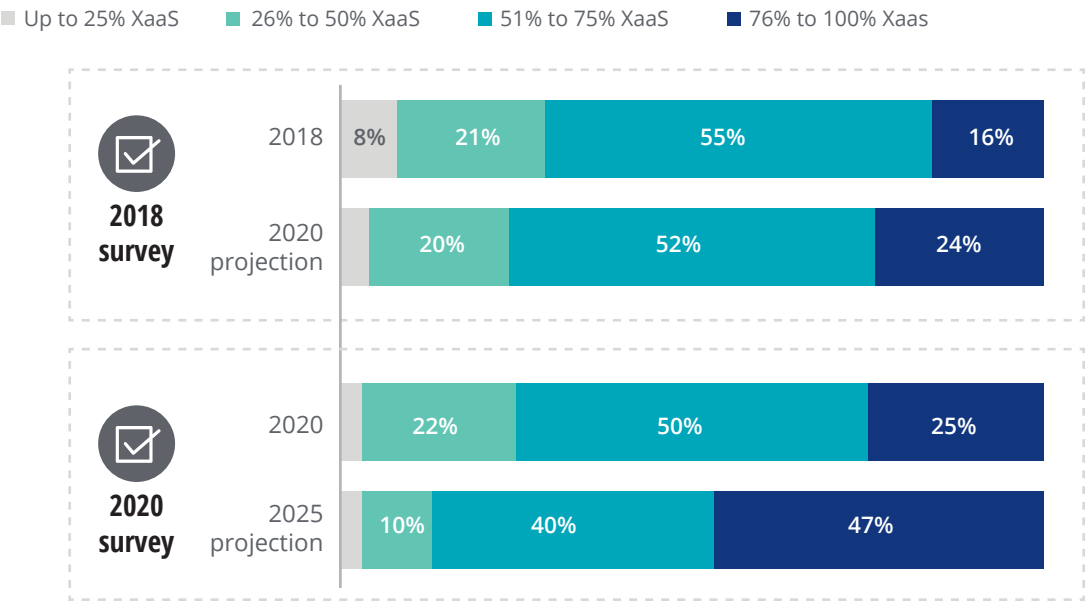
# The enterprise IT landscape, transformed

THE COVID-19 PANDEMIC has given rise to rapidly changing IT needs and an urgent need for companies to become more nimble to survive.<sup>12</sup> The new reality is demonstrating the value of XaaS and accelerating the shift away from traditional IT. Research suggests that, by Q2 2020 in the midst of the pandemic, as-a-service revenues were outperforming product revenues at many technology companies.<sup>13</sup>

Our 2018 survey found that organizations had already shifted a considerable proportion of the

enterprise IT they use to XaaS, and we projected the transition would continue (figure 1).<sup>14</sup> Our estimates have essentially been realized: In 2020, 75% of our respondents reported their organization consumes more than half its enterprise IT as-a-service (with the remainder being traditional, nonservice-based IT), up from 71% in 2018. And 25% reported over three-quarters of their enterprise IT is XaaS, up from 16% in 2018. IT spending reflects the transition to XaaS as well, with nearly half reporting that their organization allocates at least half of its IT spending to XaaS.

FIGURE 1  
**The shift to XaaS has progressed since 2018 and is expected to continue rapidly transforming the enterprise IT landscape in the postpandemic era**  
Proportion of organization's enterprise IT purchased and consumed as-a-service



Note: US IT and LoB professionals surveyed: 2020: N=600; 2018: N=1,170.  
Source: Deloitte Everything-as-a-Service (XaaS) Study, 2021 edition.



The XaaS model's flexibility—allowing organizations to quickly scale IT usage and costs up or down as needs change, and to acquire new kinds of IT capabilities—makes it an important tool for helping organizations not only survive the current crisis but position themselves to thrive in the postpandemic era. Indeed, over the next few years, these organizations plan to go all-in on XaaS: By 2025, 87% expect to consume more than half their enterprise IT as-a-service—and almost half expect to consume more than three-quarters as-a-service.

Given the economic uncertainties brought on by the pandemic, it's unsurprising that analysts have predicted annual IT budget reductions from 5% to 11%, depending on industry.<sup>15</sup> Cloud-based services represent one bright light, however, remaining a top IT budget priority.<sup>16</sup> Deloitte analysts recently predicted a resilient market for cloud—a critical as-a-service enabler—noting that lockdowns and work from anywhere have increased demand.<sup>17</sup>

They estimate that cloud revenue growth will exceed 30% from 2021 through 2025 as companies move to the cloud to cut costs, increase agility, and fuel innovation.<sup>18</sup>

Our study findings corroborate this optimism: Eighty-one percent of adopters agree that the pandemic has accelerated their organization's shift to XaaS from traditional IT, and 55% report that the crisis is causing their organization to invest more in XaaS than they had planned to (figure 2). Indeed, these leaders view XaaS as essential in these pandemic times:

- Eighty-six percent believe XaaS is critical to strengthening their organization's response to business/workforce challenges caused by the pandemic (46% strongly agree)
- Eighty-eight percent believe XaaS will be crucial as their organization recovers from the pandemic (43% strongly agree)

FIGURE 2

## The majority of XaaS adopters expect to boost their investment due to the pandemic

Effect of COVID-19 pandemic on organization's projected XaaS investment

■ Investing significantly less   ■ Investing somewhat less   ■ No change  
■ Investing somewhat more   ■ Investing significantly more



Note: N=600 US IT and LoB professionals.

Source: Deloitte Everything-as-a-Service (XaaS) Study, 2021 edition.

XaaS helps organizations respond to pandemic-related challenges in a variety of ways (figure 3), most importantly by helping them create new solutions or business models to thrive in the new normal. When the pandemic began, one Florida health system found itself in urgent need of a platform that could handle virtual employee health screenings, remotely connect clinicians with patients, and support virtual engagement between family members and hospitalized patients. The organization chose a mobile-enabled, cloud-based telehealth system and was able to start rolling out these capabilities within days.<sup>19</sup>

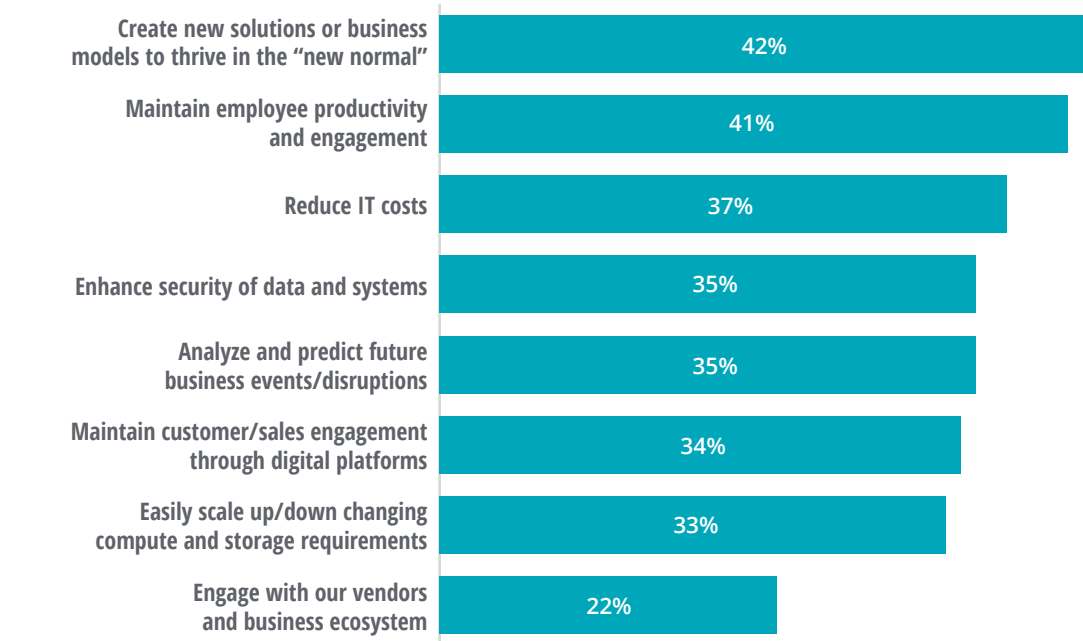
The number-two way XaaS helps is by enabling organizations to maintain employee productivity

and engagement; many remote working professionals are by now all too familiar with cloud-based tools for enhancing communication and collaboration within remote teams, such as videoconferencing, messaging, and project management applications, which have surged in use during the pandemic.<sup>20</sup>

And the number-three way XaaS helps is by reducing IT costs: Usage of XaaS systems—and associated costs—may be scaled up or down as needs change, and that flexibility can help control costs in uncertain times.<sup>21</sup> The pandemic may be accelerating XaaS adoption, but it’s likely that service-based technologies—and some of the associated behaviors—are here to stay.<sup>22</sup>

FIGURE 3  
**XaaS helps organizations respond to business and workforce challenges brought on by the pandemic**

Percent ranking each a top-three way that XaaS helps their organization respond to pandemic-related business and workforce challenges



Note: N=600 US IT and LoB professionals.  
Source: Deloitte Everything-as-a-Service (XaaS) Study, 2021 edition.

## Strategic importance and investment are growing

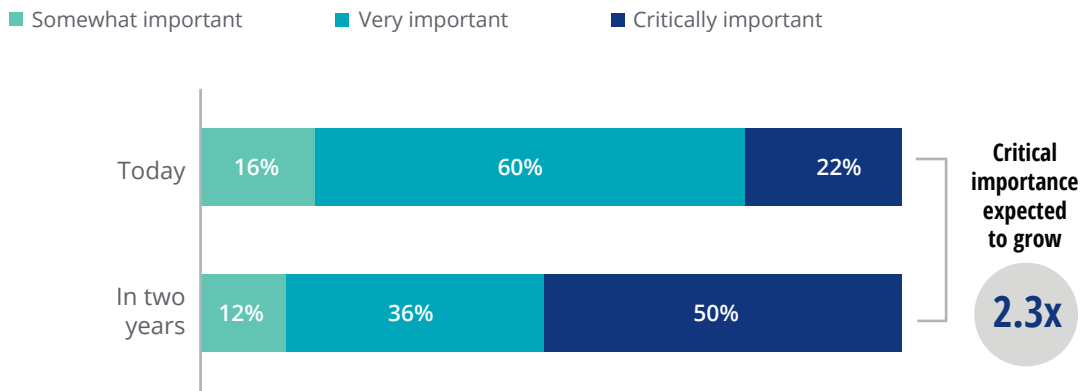
More than ever, adopters recognize the importance of XaaS to their business success and feel strongly that service-based IT will be critical to leading in the postpandemic era. Eighty-two percent currently view XaaS as “very important” or “critically important” for their business success—an

increase from 70% in our 2018 survey (figure 4). The portion that regards XaaS as critically important increased from 16% in 2018 to 22% today—and is expected to more than double (to 50%) over the next two years. Furthermore, eight in 10 adopters see XaaS as critical to the digital transformation of their company (43% strongly agree).

FIGURE 4

### Over the next two years, XaaS will become even more critical to organizational success

Strategic importance of XaaS to organization’s business success



Note: N=600 US IT and LoB professionals. Small percentages reporting “minimally important” are not shown.  
Source: Deloitte Everything-as-a-Service (XaaS) Study, 2021 edition.

FIGURE 5

**Organizations with higher annual revenues invest more heavily in XaaS and are slightly more likely to plan investment increases—but lower-revenue companies project bigger increases**

Annual revenue	Average XaaS investment in current fiscal year	Percent expecting to increase investment in next fiscal year	Average expected increase
All revenue sizes	\$20.0M	69%	23%
Less than \$1B	\$16.7M	68%	26%
\$1B to less than \$5B	\$18.6M	70%	22%
\$5B and more	\$29.8M	72%	20%

Note: N=600 US IT and LoB professionals: Less than \$1B (N=279), \$1B to less than \$5B (N=201), \$5B and more (N=120).

Source: Deloitte Everything-as-a-Service (XaaS) Study, 2021 edition.

To get to the level of XaaS adoption they expect to see by 2025, the organizations we surveyed are making considerable XaaS investments. On average, they're spending US\$20 million on XaaS in the current fiscal year—and the overwhelming majority (69%) plan to increase investment in the next fiscal year, by an average of 23% (figure 5). Only 6% plan to decrease their investments, and a quarter plan to keep investments steady. As one might expect, organizations with greater annual revenues invest more heavily on average and are slightly more likely to plan investment increases.

## Enterprises run a variety of workloads as-a-service

The surveyed organizations are deploying many different kinds of XaaS, either within selected departments or across their organizations (figure 6), including software-as-a-service (90% use it today), platform-as-a-service (84%), infrastructure-as-a-service (83%), cybersecurity-as-a-service (81%), hardware-as-a-service (79%), and advanced/emerging technologies as-a-service (72%). (For definitions, see sidebar, "What is

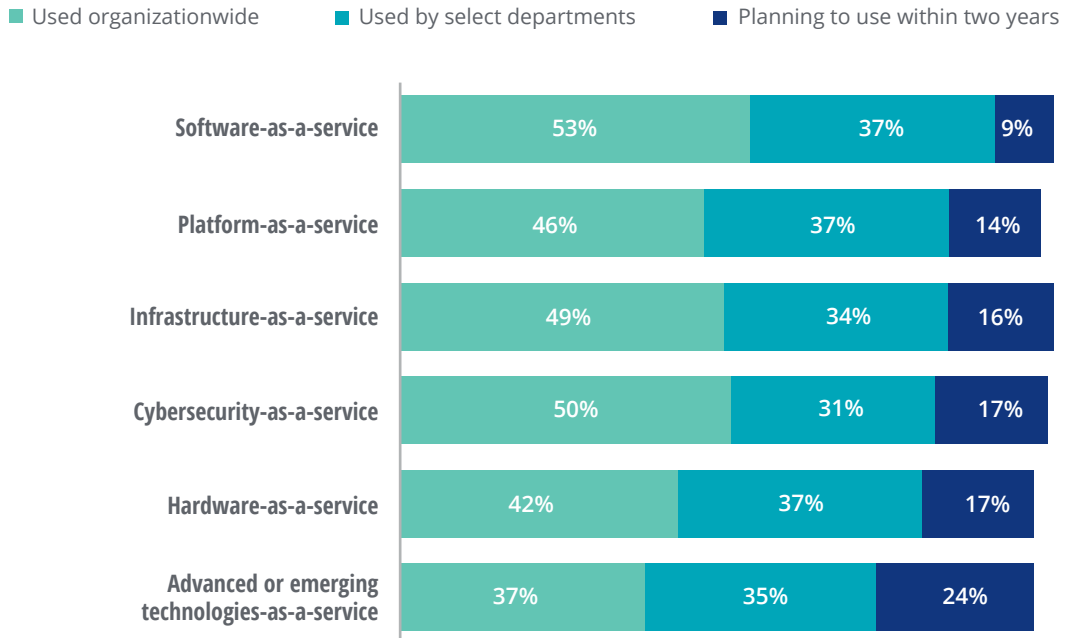
XaaS?") Near-universal adoption of these types is expected within the next two years. While not yet as widely used across organizations as the other types, advanced/emerging technologies as-a-service (for example, AI-as-a-service and IoT-as-a-service) represent significant and growing markets.<sup>23</sup>

To obtain a more granular view of how XaaS is utilized, we asked the surveyed IT professionals to tell us how they run their organization's workloads. Across a wide range of enterprise workloads, about eight in 10 say they tend to run them as-a-service, or as an even blend of traditional IT and as-a-service IT (figure 7). Financial systems are the sole area where over one-quarter (26%) say they still tend to run them more as traditional IT. Workforce productivity and collaboration systems are the most likely to run as-a-service: Forty-seven percent of respondents say they run those workloads more often as-a-service—followed closely by customer relationship management and mobile, both at 46%, and enterprise resource planning at 45%.

FIGURE 6

## Organizations are embracing many different kinds of XaaS, and nearly all expect to adopt each within two years

Level of adoption of various kinds of XaaS



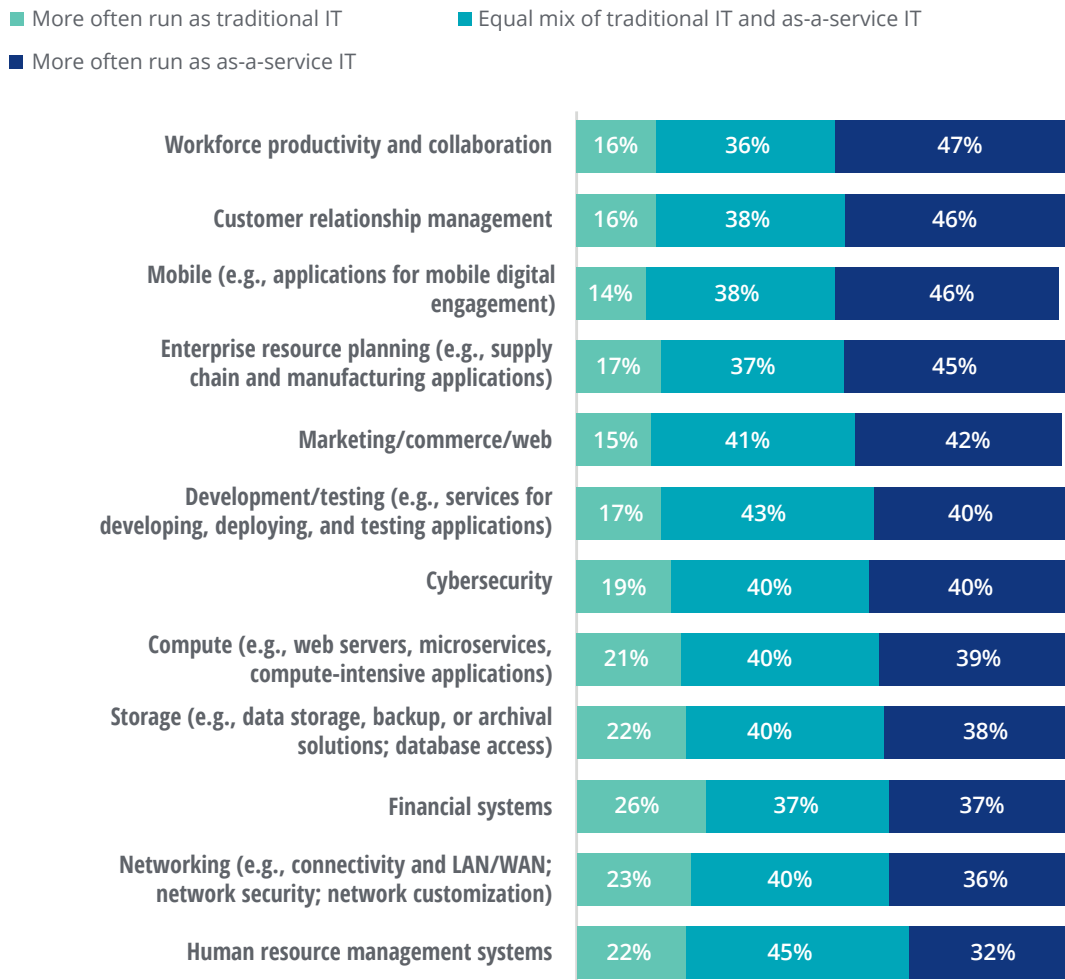
Note: N=600 US IT and LoB professionals. Small percentages reporting “no near-term plans to use” are not shown.  
Source: Deloitte Everything-as-a-Service (XaaS) Study, 2021 edition.



FIGURE 7

## IT professionals tend to run a wide range of enterprise workloads as-a-service or in a hybrid model, using both traditional IT and as-a-service IT

How organizations run various workloads



Note: N=298 IT professionals. Rows may not total 100%, due to "not applicable" or "don't know" responses.

Source: Deloitte Everything-as-a-Service (XaaS) Study, 2021 edition.

# Realizing the promise of XaaS

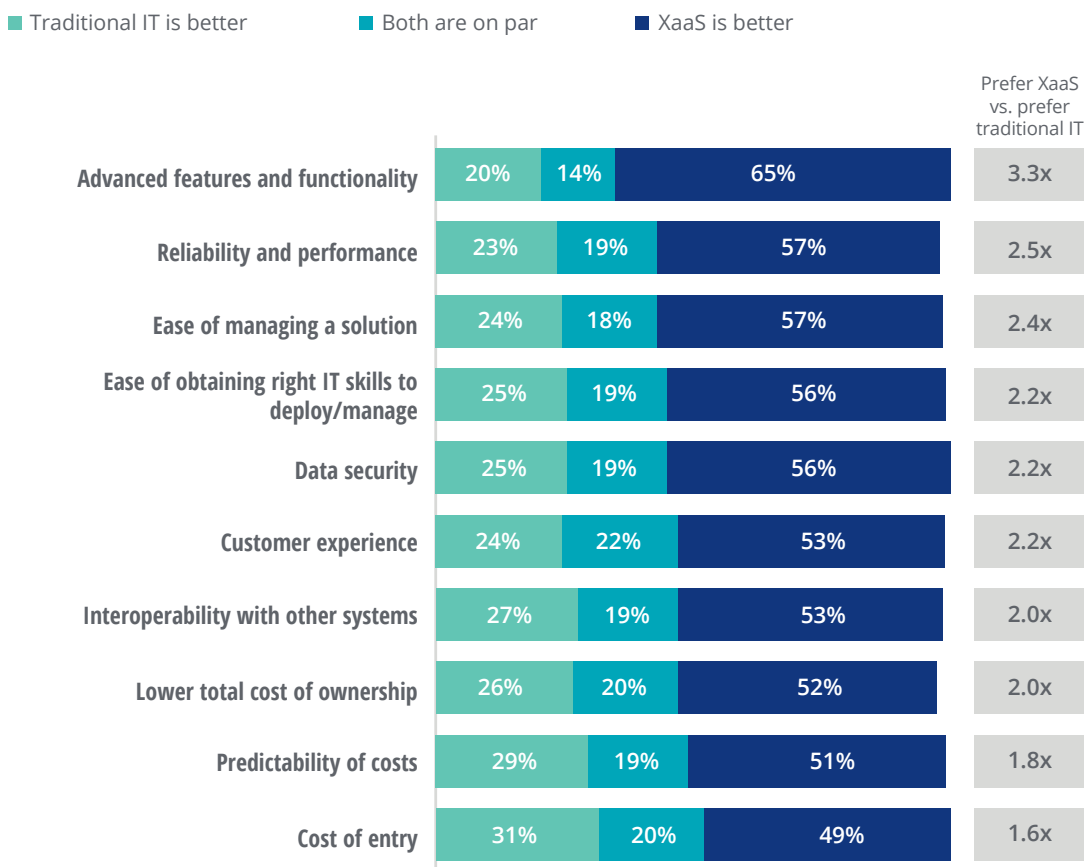
ORGANIZATIONS ARE EMBRACING the XaaS model. The professionals we surveyed are *more than twice as likely* to view XaaS as better than traditional IT across a wide range of IT attributes: advanced features and functionality, reliability and performance, ease of management, ease of obtaining the right IT skills

to deploy/manage, data security, and customer experience (figure 8). Remarkably, organizations prefer XaaS 3.3 times more than traditional IT for providing advanced features and functionality. With service-based IT, companies need not endure long procurement and installation cycles to test and use the latest advancements.

FIGURE 8

## Across a wide range of IT attributes, XaaS is considered better than traditional IT

Percentage rating their preference for traditional IT and XaaS IT for various IT attributes



Note: N=600 US IT and LoB professionals. Rows may not total 100% due to small percentages of "don't know" responses.

Source: Deloitte Everything-as-a-Service (XaaS) Study, 2021 edition.

## Achieving business agility

What has propelled XaaS into a favored model for purchasing and consuming IT? Adopters are targeting—and largely achieving—dual goals: increased operational efficiency and enhanced business agility (figure 9).

Operational efficiency remains a strong motivation for XaaS adoption. Top objectives include flexibility—the ability to quickly scale IT capacity, operations, and associated costs up or down as needs change, increased workforce efficiency, and ease of deployment. As service providers take on more responsibility for IT installation, upgrades, and maintenance, an organization can free up its own IT staff to work on higher-value tasks.

But organizations aren't merely focused on process improvement—they're using XaaS to advance their business agility. Leaders' No. 3 and No. 5 XaaS objectives are “access to cutting-edge features/technologies” and “accelerated innovation.” With providers pushing out regular updates to their services and making the latest technologies available, users can more easily access and start using leading-edge capabilities. In fact, 82% of our respondents agree that XaaS has accelerated experimentation by allowing their company to rapidly try out and evaluate new solutions. And recall from figure 6 that 72% of respondents already use advanced or emerging technologies as-a-service. Looking deeper, we learned that 66% use IoT-as-a-service and 53% use AI-as-a-service, many of them via cloud. Rather than take on the risk and cost of buying complex new technologies and hiring rare expertise to deploy and customize solutions, organizations can leverage the investments and know-how of savvy technology companies and get a jump-start on innovating their own products and services.

Consider how cloud-based computing and AI services have played a starring role in combatting COVID-19. A team of scientists at an Australia-based biotech firm used cloud-based AI and supercomputing to model the coronavirus spike protein and rapidly develop a vaccine candidate, progressing from design to human trials in just five months—a process that usually takes up to 15 years.<sup>24</sup> The research group has used the same cloud-based supercomputing programs to model multiple coronavirus proteins in 3D and rapidly screen existing drugs for possible effectiveness against them, identifying up to 80 potential drug treatment candidates. Cloud-enabled AI is helping combat the pandemic in other ways as well: Researchers are using machine learning to de-identify patient data at scale, so that it may be used for research; natural language processing, sentiment analysis, and machine learning are used to analyze calls to health care call centers and automatically prioritize them based on urgency; and predictive analytics services are being used to better understand the medical supply chain and predict shortages before they happen.<sup>25</sup>

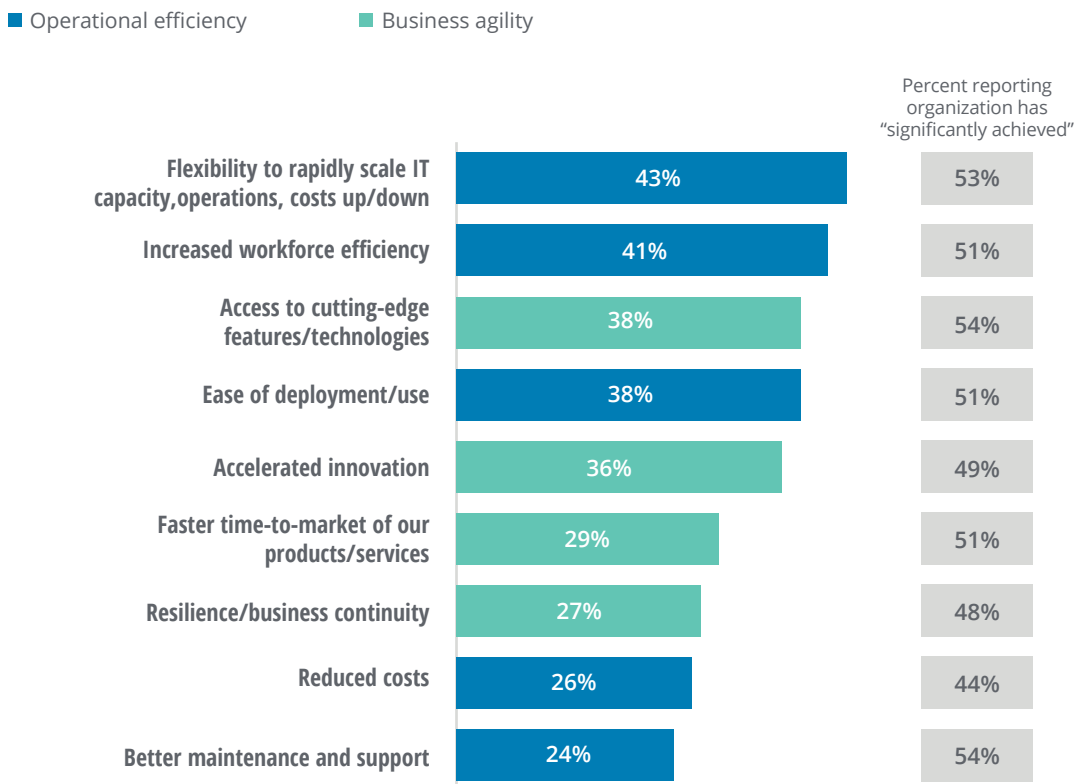
XaaS is delivering on the promise of both operational efficiency and business agility, with about half of adopters reporting they've “significantly achieved” each goal and another 40–47% reporting they've “somewhat achieved” each. One outcome that lags a bit behind the others is reduced costs, with only 44% of adopters reporting they've significantly achieved this. Interestingly, however, cost reduction has dropped in importance, from the No. 4 goal in our 2018 survey to nearly last in 2020.

The boost XaaS can give to innovation is wide-ranging: Eight in 10 agree that adoption of XaaS has led their organization to reinvent business processes, develop new products/services, invent a new business model, and even change how they sell to customers—and for each of these, a bit more than a third strongly agree.

FIGURE 9

## Operational efficiency and business agility are dual goals—and outcomes—of XaaS

Percent ranking each a top-three objective for their XaaS IT



Note: N=600 US IT and LoB professionals. For each objective, another 40%–47% report they have “somewhat achieved.”

Source: Deloitte Everything-as-a-Service (XaaS) Study, 2021 edition.

## Aiming to keep a competitive edge

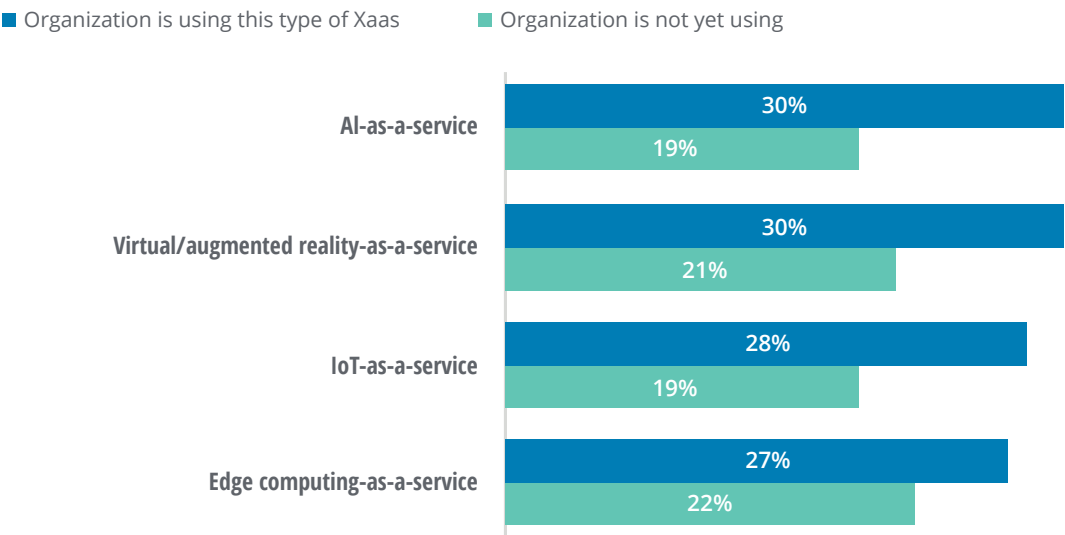
With these dramatic impacts, it may be no surprise that six in 10 adopters say they’re gaining competitive advantage through their use of XaaS—and that one-quarter report their lead is “significant.” But with XaaS rapidly becoming ubiquitous, adopters may have to work harder to differentiate themselves.

Continually monitoring the market for new and innovative XaaS solutions appears to give adopters an advantage: Thirty percent of them say XaaS helps their organization establish a “significant

lead,” versus 19% of organizations that aren’t keeping up with new developments. For example, edge computing—which combines hardware, connectivity, and artificial intelligence—is a relatively newcomer to XaaS.<sup>26</sup> Of course, keeping up with new tools and capabilities is just a start, and utilizing them is critical to stay ahead of the game. Twenty-seven percent of enterprises that use advanced or emerging technologies as-a-service (in select departments or organizationwide) say XaaS helps them carve out a significant lead, versus 19% of companies that aren’t using them. This advantage also holds when we look at specific kinds of advanced technologies (figure 10).

FIGURE 10  
**Organizations that already use various kinds of emerging technologies as-a-service are more likely to achieve a significant lead through their adoption of XaaS**

Percent reporting XaaS enables their organization to establish a “significant lead” over competitors



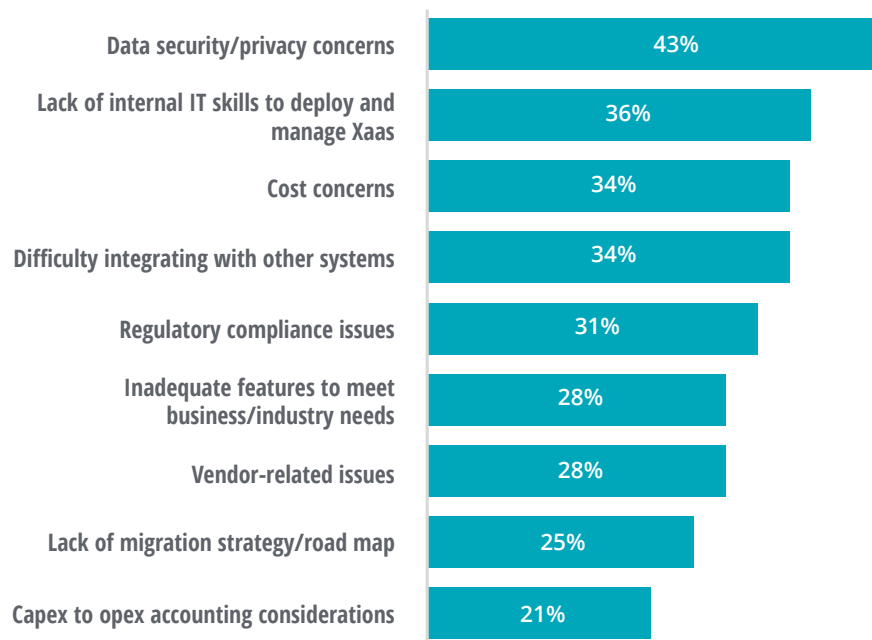
Note: N=600 US IT and LoB professionals.  
Source: Deloitte Everything-as-a-Service (XaaS) Study, 2021 edition.



FIGURE 11

## Issues around data security, IT skills, cost, and integration can hinder organizations' efforts to scale up XaaS

Percent ranking each a top-three challenge as they scale up use of XaaS



Note: N=600 US IT and LoB professionals.

Source: Deloitte Everything-as-a-Service (XaaS) Study, 2021 edition.

## Contending with challenges

Despite enthusiastically embracing the XaaS model, 93% of adopters report challenges scaling up their XaaS efforts. Chief among them are concerns around data security and privacy, inadequate IT skills to deploy and manage XaaS, concerns about unpredictable costs, and difficulty integrating with other systems; these surpass challenges relating to regulatory compliance, product features, vendor-related problems, migration strategy, and accounting (figure 11).

It's worth noting that data security, integration, and cost also topped the challenges list in 2018. The persistence of these issues, combined with the concern about lacking the right internal IT skills, suggest that relationships with XaaS providers deserve to be strengthened. Organizations may need to engage more meaningfully with their vendors to address issues they have struggled to conquer alone.

# Partnering for customer success

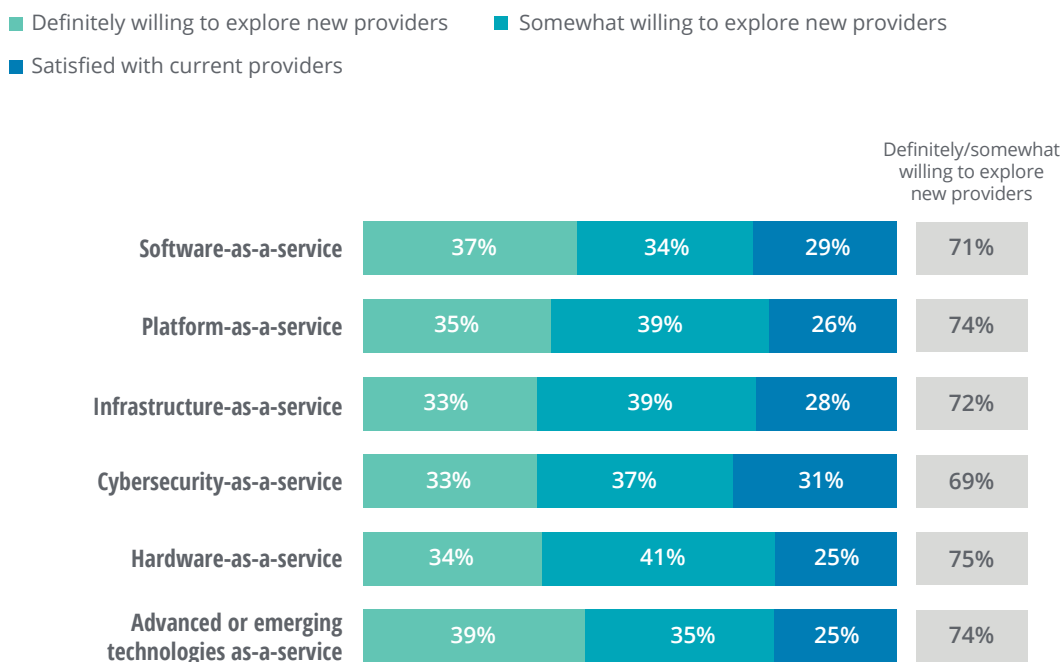
**W**HEN IT COMES to the overall experience of being an IT customer, there's good news for XaaS: Fully 83% of adopters agree that XaaS has improved their customer experience (39% strongly agree). And a majority (53%) believe XaaS is better for their customer experience than traditional IT, while only 24% prefer traditional IT.

However, when it comes to specific relationships between customers and providers, it's complicated. Our study reveals there's work to be done to establish stable, long-term provider/customer relationships. Across the various kinds of XaaS used, only three in 10 adopters are satisfied to stay with their current XaaS providers, with the remainder open to exploring new relationships (figure 12). That doesn't necessarily mean that

FIGURE 12

## Seven in 10 XaaS adopters are open to exploring new providers for the kinds of XaaS their organization uses

Willingness to explore new providers for the kinds of XaaS the organization uses

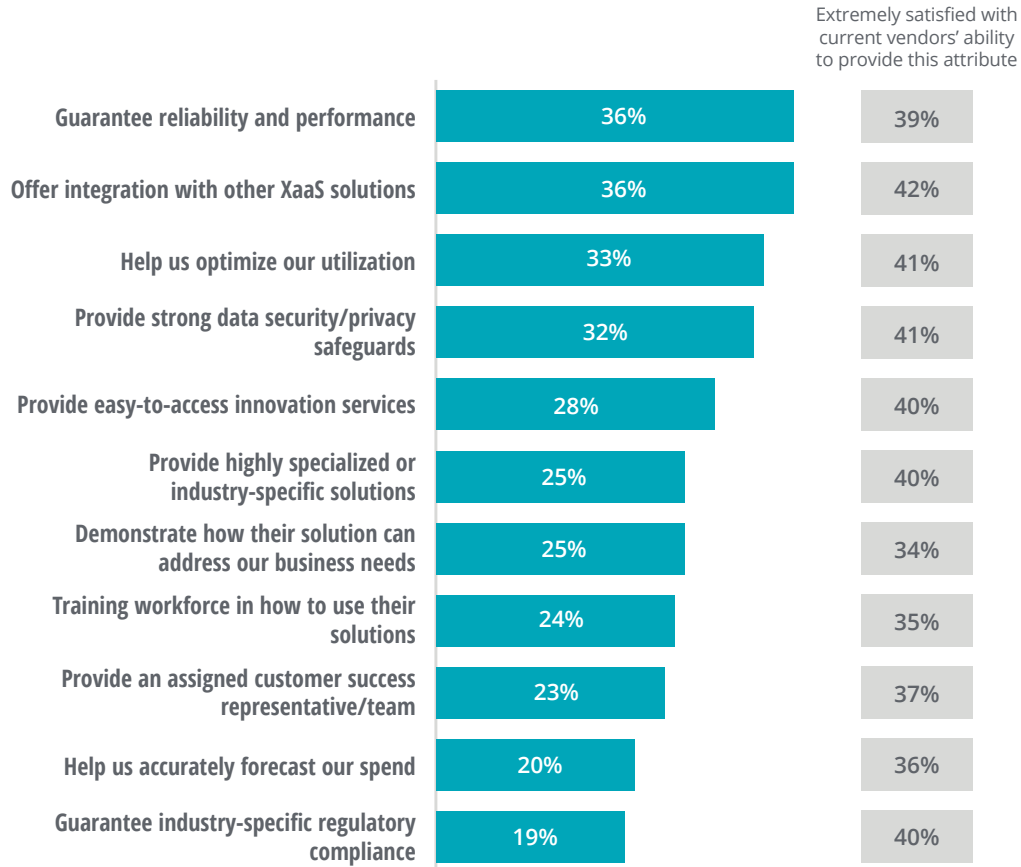


Note: Asked of organizations using a particular type of XaaS: software-as-a-service (N=538); platform-as-a-service (N=501); infrastructure-as-a-service (N=495); cybersecurity-as-a-service (N=487); hardware-as-a-service (N=476); advanced or emerging technologies as-a-service (N=430). Rows may not add to 100% due to rounding or "don't know" responses. Source: Deloitte Everything-as-a-Service (XaaS) Study, 2021 edition.

FIGURE 13

## Adopters want vendors to guarantee reliability and performance, offer integration, and help optimize utilization—but at best four in 10 are extremely satisfied with how vendors are delivering on these

Percent ranking each a top-three most-valued XaaS provider attribute for establishing and maintaining a long-term relationship



Note: N=600 US IT and LoB professionals. Respondents were asked to consider attributes other than “providing quality solutions.”

Source: Deloitte Everything-as-a-Service (XaaS) Study, 2021 edition.

switching would be easy: Three-quarters agree that data portability issues make it difficult for them to switch from one XaaS provider to another even if they want to (30% strongly agree).

## From providers to partners

While 83% of adopters believe their XaaS providers are committed to helping them achieve successful business outcomes with their solutions, only four in 10 strongly agree—which suggests there’s plenty of room for providers to focus more intently on helping their customers be successful. With so much potential to lose existing customers to pastures perceived as greener, it’s essential for XaaS providers to critically examine how they can better address customer needs and differentiate themselves. And adopters—some of which may feel stuck between vendor discontent and switching hurdles—also have an interest in improving their existing relationships.

What are XaaS adopters seeking? To establish and maintain long-term relationships, organizations most want providers to guarantee reliability and performance (for example, uptime and responsiveness), offer integration with other XaaS solutions, help optimize their utilization (that is, help them understand the full solution, prevent underutilizing services, and suggest additional or alternate services), and provide strong data security/privacy safeguards (figure 13).

Furthermore, they’d like providers to offer easy-to-access innovation services. It’s clear that adopters are getting less help than they would like: At best, only four in 10 report being extremely satisfied with their current vendors’ ability to provide these attributes. This is likely a major reason why adopters are so willing to entertain switching.

This “relationship wish list” should spark déjà vu: We’ve seen that data security/privacy concerns and integration difficulties are among the top challenges to XaaS adoption. And another top challenge—cost—is intimately related to optimizing utilization: To control costs, customers want to ensure they’re not paying for services they don’t know about, don’t need, or don’t know how to use. A recent Flexera cloud study reported that 56% of organizations find understanding the cost implications of software licensing for the cloud challenging and that, consequently, their cloud spending outruns budgets by an average of 23%, with 30% of their cloud spending “wasted.”<sup>27</sup> In our survey, we asked organizations what percentage of the capabilities of a purchased XaaS solution they typically use, and the results were startling: More than four in 10 companies use *less than half* of the capabilities of their XaaS solutions, and only 23% use three-quarters or more (figure 14). That’s a lot of potential functionality lying fallow—and a great opportunity for savvy providers to show their customers how to get more value out of a solution.

FIGURE 14

## Adopters reveal a disconnect between what they're paying for in XaaS solutions and what functionality they're actually using

Percentage of a purchased XaaS solution (features and functionality) the organization typically uses

■ Less than 25%   ■ 25% to less than 50%   ■ 50% to less than 75%   ■ 75% and higher



Note: N=600 US IT and LoB professionals.

Source: Deloitte Everything-as-a-Service (XaaS) Study, 2021 edition.

There's clearly work to be done to reimagine and develop mutually beneficial, value-based relationships between XaaS providers and adopters

**Eighty-two percent of adopters agree their organization could achieve better outcomes if their XaaS providers behaved more as consultative partners.**

that are consistently focused on customer success.<sup>28</sup> Adopters want vendors that will work with them to address their challenges—particularly around integration, optimization, and data security.

Moreover, two-thirds of adopters indicate their XaaS providers could do more in these areas:

- Regularly advise them about how to improve use of their services—for example, remind them of functionality they're not using or suggest additional or alternate services
- Continually improve services based on what they learn from an organization's usage

Indeed, 82% of adopters agree their organization could achieve better outcomes if their XaaS providers behaved more as consultative partners; 34% strongly agree.



# Considerations for XaaS adopters and providers

THE ENTERPRISE IT landscape has been shifting to XaaS for quite some time, and the transition is being accelerated by changing IT and workforce needs brought on by the pandemic—effects that may be with us for the foreseeable future. Adopters believe service-based IT helps them achieve both workforce efficiency and business agility, including easy experimentation with advanced technologies and accelerated innovation. For many, these advantages provide a competitive edge—one that may prove harder to keep as XaaS becomes ubiquitous. Our study makes it clear that many adopters are still grappling with challenges and looking to their service providers for help. Building deeper, consultative partnerships dedicated to customer outcomes appears critical to forging greater success with enterprise IT as-a-service.

## Adopter considerations

- **Strategy and road map.** Consider establishing an XaaS-first IT strategy and developing a road map for migrating to service-based IT from traditional IT. Assess whether you already have clear executive responsibility for XaaS adoption, whether in business units or companywide.
- **Scaling up.** Identify areas of your business where XaaS would be most valuable and where it may be underutilized. Review where and how your organization deploys XaaS and determine whether there are business units or departments that could be making more extensive use of diverse kinds, from hardware-as-a-service to cybersecurity-as-a-service.

Involve business units to find and select the best XaaS solutions for their needs. Determine and prioritize the workloads you'll move to XaaS.

- **Business agility and innovation.** Think beyond using XaaS for improved efficiency and imagine how it can enhance business agility—for example, providing access to advanced or emerging technologies and helping spur development of new processes, products and services, and even business models. Assess whether you could be making greater use of XaaS to recover from the COVID-19 pandemic, for example, by supporting employee engagement or creating new solutions or business models.
- **Execution.** Know your XaaS weaknesses. Organizations have varying levels of expertise in managing their XaaS solutions, integrating them with other systems, securing data, tracking utilization, managing costs (accurately forecasting costs or avoiding paying for unused or duplicate functionality), measuring business returns, and acquiring staff with the right skills to work with XaaS. Proactively address your shortcomings through hiring, training, and/or partnering with your XaaS providers.
- **Provider relationships.** Vendor selection is pivotal to success with XaaS. Be clear about your requirements, and have a plan for rigorously evaluating XaaS solutions and suppliers. Ensure that providers meet your data security and regulatory compliance needs. Determine which vendor attributes (figure 13) are most critical for your organization, and ensure that your chosen vendors can deliver. Seek providers that will be consultative and dedicated to your success.

## Provider considerations

- Transactions to trust.** XaaS providers could opt to be merely transactional, selling a high-quality service and staying largely hands-off. However, with most adopters willing to explore new providers, that approach seems risky. Providers that offer value-added services—such as assistance with integration and helping customers understand and optimize their utilization—will likely gain an edge. And there's plenty of room to increase customer satisfaction on the wide range of IT attributes shown in figure 13—for example, demonstrating how solutions can address specific business needs, providing training, and helping forecast spend. Customers may also welcome conversations to better understand how XaaS can help them respond to, and recover from, pandemic-related challenges.
- Commitment to customer success.** The most successful providers are likely to be those that become trusted partners committed to their customers' outcomes. Providers should consider more carefully analyzing organizations'

usage of their services, continually learning and improving their offerings. And as they understand how a particular customer uses a service, they should give advice on how that organization can improve their use—for example, educating them on helpful functionality they may have overlooked or suggesting other services. Winning XaaS providers are likely to be those that consistently help their customers overcome challenges, advise them how to maximize the value of the solutions they use, and help them keep a competitive edge by bringing new, advanced technologies to market as services. Going this extra mile will require an innovative drive and may mean establishing customer success programs.<sup>29</sup>

We've seen that enterprise IT is increasingly becoming an XaaS world and that embracing service-based IT confers many business benefits. However, organizations still face hurdles to scaling up as-a-service efforts, and stronger, outcomes-focused partnerships between adopters and providers may help unlock greater value for both parties.

## Endnotes

1. Sharon Lewis, "The XaaS phenomenon in the tech marketplace," *Jumpstart*, May 27, 2020; Netapp, "What is XaaS (anything as a service)?," March 22, 2020.
2. While XaaS sometimes refers to services beyond IT, for purposes of this article, XaaS refers to all kinds of enterprise IT consumed as-a-service, such as infrastructure-as-a-service, platform-as-a-service, software-as-a-service, and advanced innovation capabilities provided as-a-service. Delivery mechanisms may be on-premise (managed in one's own data center—e.g., private cloud or on-premise subscriptions), third-party hosted (a vendor hosts the service), or public cloud (provided by a "public cloud" company).
3. IMARC Group, "Global anything-as-a-service market to reach US\$344.3 billion by 2024, organizations undergoing digital transformation facilitating growth," December 2020.
4. Erica Volini et al., *The social enterprise in a world disrupted—Human Capital Trends 2021*, Deloitte Insights, December 9, 2020.
5. Paul Silvergate et al., *COVID-19 outlook for the US technology industry*, Deloitte, May 2020.
6. Mark Haranas and Gina Narcisi, "The intelligent edge: How smart solution providers are creating new services blueprints," *CRN*, December 14, 2020.
7. Gillian Crossan et al., *Accelerating agility with everything-as-a-service: IT providers are shifting from traditional models to XaaS flexible consumption models*, Deloitte Insights, September 17, 2018.
8. Respondents were asked to consider their organization's current enterprise IT products/services and estimate what proportion is being purchased and consumed as as-a-service IT versus traditional IT.
9. Haranas and Narcisi, "The intelligent edge"; Donna Goodison, "AWS Outposts ready launches with 32 validated partners," *CRN*, September 15, 2020.
10. Jessica Lyons Hardcastle, "HPE partners with Google Cloud, pledges entire portfolio 'as-a-service' by 2022," *sdxcentral*, June 18, 2019; Gina Narcisi, "Cisco CEO Chuck Robbins: COVID-19 forcing as-a-service transition," *CRN*, August 12, 2020; Mark Haranas, "Dell to make 'all offerings' as-a-service, says Michael Dell," *CRN*, September 14, 2020.
11. Please note that the insights in this article do not address *all* enterprises but, rather, are specifically about XaaS-adopting organizations that already consume at least 15% of their enterprise IT as-a-service.
12. Paul Silvergate, *2021 outlook for the US technology industry*, Deloitte, January 19, 2021; Paul Silvergate et al., *COVID-19 outlook for the US technology industry*, 2020.
13. Thomas Lah, "The surprising success of XaaS," *Forbes*, December 18, 2020.
14. Both in 2018 and 2020, we asked the following of survey respondents: "Regarding your organization's current enterprise IT products/services, estimate what proportion is being purchased and consumed as as-a-service IT vs. traditional IT." Respondents reporting their organization consumes less than 15% of their enterprise IT as-a-service were screened out of the survey. Respondents were given these definitions: Traditional IT: purchasing model for enterprise IT that allows continued use of a noncloud-based product/service, with or without a predetermined expiration date. Payment structure is typically one-time and upfront (e.g., traditional licensed software, contract-based hardware), and deployment is usually on-premises. As-a-service IT/XaaS ("everything-as-a-service") IT: purchasing model for enterprise IT that allows consuming and paying for products/services based on actual needs/usage (e.g., software-as-a-service, platform-as-a-service, other cloud-based services). Variations include subscription-based (access for a predefined time and/or predefined amount of usage)

and pay-per-use (consume and pay based on need and usage, generally with no minimum commitment). Sometimes called “consumption-based IT” or “flexible consumption.” Delivery models can vary (e.g., cloud, on-premise, hosted).

15. Ira Kalish, *Weekly global economic update*, Deloitte Insights, February 2, 2021; Melanie Wolkoff Wachsman, “Research: How COVID-19 will affect 2021 IT budgets,” *ZDNet*, September 1, 2020; Louis Columbus, “Covid-19’s impact on the future of IT budgets,” *Forbes*, August 9, 2020.
16. Wachsman, “Research: How COVID-19 will affect 2021 IT budgets.”
17. Duncan Stewart et al., *The cloud migration forecast: Cloudy with a chance of clouds*, Deloitte Insights, December 7, 2020.
18. Ibid.
19. Bill Siwicki, “Cloud-based telehealth, linked with Epic EHR, helps one hospital scale up virtual care,” *Healthcare IT News*, July 7, 2020.
20. Globe Newswire, “Global web and video conferencing SaaS industry,” September 4, 2020; Vartika Kashyap, “COVID-19 pandemic: 14 tools for remote teams to stay connected, productive and sane,” *Rev.com*, May 4, 2020.
21. Silverplate et al., *COVID-19 outlook for the US technology industry*.
22. David McFarlane, “Why ‘as-a-service’ models will reign in a post-pandemic world,” *VentureBeat*, May 16, 2020.
23. The global AI-as-a-service market was estimated to be worth US\$1.52 billion in 2018 and forecast to grow to US\$10.88 billion by 2023, at a 48.2% CAGR during that time frame. See: MarketsandMarkets, “Artificial intelligence (AI) as a service market worth 10.88 billion USD by 2023,” April 17, 2018. The global IoT cloud platform market size was estimated to be worth US\$6.4 billion in 2020 and forecast to grow to US\$11.5 billion by 2025, at a 12.6% CAGR during that time frame. See: MarketsandMarkets, “IoT cloud platform market worth \$11.5 billion by 2025,” April 30, 2020.
24. HospiMedica International, “Scientists use cloud-based supercomputing and AI to develop COVID-19 treatments and vaccine models,” September 16, 2020.
25. Lisa Noon, “Industry voices—How cloud, AI and machine learning are transforming healthcare through COVID-19 and beyond,” *Fierce Healthcare*, November 23, 2020.
26. Paul Gillin, “Out on the edge: The new cloud battleground isn’t in the cloud at all,” *Silicon ANGLE*, December 1, 2020.
27. Flexera, *State of the cloud report*, April 28, 2020.
28. Gopal Srinivasan et al., *2019 enterprise customer success (CS) study and outlook: Fostering an organization-wide CS mindset*, Deloitte, 2019; Gopal Srinivasan et al., *Enterprise customer success study and outlook part 2: What do customers value?*, Deloitte, January 2020.
29. Ibid.

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