



POINT OF VIEW | CLOUD TRANSFORMATION


# Clear Skies Ahead: Capturing Maximum Value From Cloud



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# The state of cloud



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It's been roughly 20 years since the concept of cloud computing started to gain significant traction in the business world. At the time, the idea of delivering software, platforms and even infrastructure as a service (IaaS) over the internet was revolutionary. Today, cloud adoption is all but universal, as nearly every sizeable company utilizes cloud services in some way. Yet, most companies still aren't maximizing cloud's potential.

It's not for lack of understanding. The business case for cloud is widely recognized and irrefutable. It offers access to powerful technologies on a subscription basis, avoiding massive capital expenditures on equipment and lowering operating costs. Cloud also provides scalability to ramp services up or down on demand. And it enables access to data and services from any device, anywhere in the world.

Digital-native companies were built in the cloud and capitalize on these benefits daily. But due to the complexities of breaking away from legacy systems, more traditional organizations tend to approach the cloud in a disjointed, piecemeal fashion and make incremental improvements, at best.

It's more apparent every year that the future of business will take place primarily in the cloud. To meet customer demands, satisfy employees and keep up with competitors, organizations face an increasing urgency to take advantage of the full complement of cloud capabilities.

But cloud migration is a journey of transformation, not a one-time project. Simply lifting and shifting legacy applications to the cloud is no longer a viable solution and often fails to capture its full benefits. With that in mind, companies must consider a more holistic approach to cloud migration and develop a fully formed, cohesive plan to empower the entire organization.

# What's driving the urgency of cloud adoption?

While there's been a steady rise in the adoption of cloud computing for many years, the motivation to migrate may be higher today than ever before. Gartner® estimates that worldwide end-user spending on public cloud services will grow 23.1% in 2021 and reach a total market value of \$397 billion by the end of 2022.<sup>1</sup> Why, exactly, is cloud growth accelerating? The pandemic has undoubtedly had a hand in it, but several other factors have come together at the same time to make moving to the cloud a top priority.

**Demand for seamless digital experiences.** Today's technology enables and connects countless aspects of the human experience. Conditioned by Apple, Google, Amazon, Facebook and many others, people have come to expect instant access to information and convenient services tailored to their needs and location. Myriad businesses jumped aboard the digital bandwagon to offer intuitive customer experiences across platforms, whether through feature-rich websites, mobile apps or artificial intelligence (AI) digital assistants – while also creating similar experiences for their employees and business partners to help people stay engaged and productive.

**Disruption from digital natives.** Relatively young companies created online have lived in the cloud from day one. They have the built-in advantages of speed and flexibility to match their contemporary cachet, and they're using both to grab market share from long-established industry incumbents. Beyond the obvious example of Amazon undercutting every conceivable brick-and-mortar retailer are all-digital banks like Chime competing with century-old giants. Airbnb and Vrbo are challenging the hotel industry, while tech-centric insurers like Oscar Health are pledging to bring simplicity to a notoriously complex industry.

**COVID-induced acceleration.** The pandemic added to the urgency of cloud adoption in two significant ways. First, when lockdown orders forced millions of workers to stay home, companies scrambled to equip employees with appropriate access to the tools and data they needed to be productive. IaaS and cloud-based collaboration platforms helped astute businesses avoid major disruptions.

Second, customers' changing needs during the pandemic forced companies to fast-track their digital transformation efforts. Online shopping skyrocketed, and organizations raced to provide touch-free digital versions of everything from healthcare and legal services to food delivery and entertainment.

This jump forward in tech-based services is unlikely to revert to pre-pandemic norms. Gartner predicts that, through 2024, organizations will bring forward digital business transformation plans by as much as five years to adapt to a post-COVID-19 world that involves permanently higher adoption of remote work and digital touchpoints.<sup>2</sup>

**IT staffing shortages.** Filling technology roles with qualified personnel is hard enough in any economic climate. But the past 18 months (and counting) of a global health crisis has created a strange side-effect: Employees are leaving their jobs – voluntarily – in record numbers. This so-called Great Resignation is creating staffing shortages across industries as many workers reevaluate their life priorities and seek greener pastures. It's making it exceptionally difficult for companies to hire and retain the talent they need in various job fields, including IT.

In addition to the cloud's other advantages, companies find it can help them overcome these staffing shortages. With a knowledgeable and experienced partner, they can outsource labor-intensive IT processes like software patches and infrastructure support and continue growing without additional IT resources.

**Ongoing uncertainty.** The pandemic isn't the first time an unforeseen event has changed the world – and it won't be the last. Given today's fast-paced mobile and digital society, constant change is the new normal, and organizations must adapt to survive. Yet, recent research shows nearly 70% of organizations are unprepared for continued industry disruption and competitive threats.<sup>2</sup> The majority of today's executives and technology experts recognize that doing business in the cloud gives them the flexibility and agility they need to respond to and overcome whatever major disruption comes next.

# What's holding organizations back?

If cloud offers so many clear benefits over traditional IT, why haven't more companies completely transitioned away from their legacy systems? The short answer is that moving to the cloud — and doing it the right way — isn't easy. Migration can present financial and operational challenges. And these factors tend to be more daunting for larger and long-established organizations.

Many companies of considerable size find themselves saddled with technical debt. That is, their operations are linked inextricably to legacy systems and once state-of-the-art applications that are now outdated and inferior compared to current offerings. Reducing the reliance on the systems on which so many critical business processes depend is a complex and time-consuming undertaking.

On the one hand, there's the "breaking something" concern. Migrating a sprawling, interconnected application to the cloud could be compared to performing transplant surgery: If not handled with the utmost precision, things may not work the way they're supposed to after the operation. Any missteps could disrupt the flow of business and upset customers.

On the other hand, even if the transition goes well, there's still the possibility that the move won't produce the anticipated return on investment (ROI). If not set up correctly, long-term costs for cloud services and retraining employees on new applications could offset any savings migration promises.

These risk factors lead many executives to drag their feet on cloud adoption. In some cases, they settle for an organizational mindset of "if it's not broken, don't fix it." In others, the attitude is "we know it's broken, but fixing it is too much trouble." As technology and indeed the world continue to progress, the risks of committing to the cloud are increasingly outweighed by the risks of inaction.

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# Maximizing value from cloud

Society's continual digital transformation, accelerated by recent events, makes cloud migration an ever-more prudent strategy for most organizations; today, some might say it's imperative. And though the majority of companies already use cloud in some way, most have yet to implement a fully formed, company-wide approach to maximizing its value.

The question remains: How can organizations take cloud-based initiatives to a higher level, capturing the cloud's greatest advantages? Leaders should focus on three key areas to achieve undeniable ROI and position their organizations for the digital future.



## 1. Acquire powerful digital capabilities

Every year, legacy IT systems grow closer to becoming obsolete and posing a more significant threat that the organization will fall behind competitors or miss out on business opportunities. By contrast, one of the major strengths of cloud services is that they're constantly updated to offer the latest and greatest capabilities on the market. What's more, the cloud enables any company to access enormous processing power (through pooled computing resources) that isn't realistically achievable using in-house equipment.

For example, most companies today look to data analytics to understand their customers better and make informed business decisions. While it's certainly possible to store data on-premises and analyze it using

legacy resources, doing that in the cloud changes the game. With cloud, any employee in any location can access data easily. Greater computing power can crunch massive amounts of data in far less time. And built-in, cutting-edge tools that use AI and machine learning can reveal valuable insights that might otherwise be missed.

Implementing automation, another high priority for many organizations, is easier in the cloud. In an infrastructure-as-code environment, for example, IT teams can completely automate previously manual workflows, freeing staff to focus on innovation rather than routine maintenance.

Big digital players have long since harnessed and honed these types of capabilities. And they'll continue to win in the marketplace unless traditional organizations can follow suit.

## 2. Achieve agile product development and innovation

Speed to market has always been a critical determinant of business success. But as more companies master technologies that help them work faster and smarter, the pace of innovation quickens, and the competitive pressure intensifies. When consumer expectations seemingly rise by the day, the business that can provide its customers with a steady flow of new products, tools, updates and features will have a significant advantage.

**“Rapid innovation opens doors to new business models and new markets, and the flexibility of the cloud allows businesses to scale up quickly”**

It's another reason a holistic approach to cloud migration is necessary. Compared to a legacy environment, establishing a microservices architecture in the cloud makes it faster and easier for teams to innovate without fear of bungling interconnected systems. Agile development and DevOps techniques can help teams rapidly develop and test new creations, optimize based on results and deliver new iterations.

Given the power and freedom to experiment and continually improve product quality, development teams can play a huge role in enhancing the customer experience. Most importantly, they can do it faster than the competition.

Such speed and agility are critical when organizations must respond quickly to unforeseen events. The most obvious example, of course, is COVID-19. Companies in every industry hurried to roll out new apps and ecommerce capabilities to serve customers in new ways. Those who moved the fastest fared the best.

But the speed advantages of the cloud are just as useful when it comes to proactive business growth. Rapid innovation opens doors to new business models and new markets, and the flexibility of the cloud allows businesses to scale up quickly and strike while the iron's hot.

## 3. Gain greater cost control

While the digital competence and agility gained from the cloud certainly yield long-term dividends, executives also want to see a more direct and concrete ROI. The most well-known advantage is the financial flexibility companies achieve by avoiding major capital expenditures in favor of scalable, subscription-based services.

More than that, today's cloud providers offer automated cost optimization tools that streamline the financial management of technology services. Companies can keep expenses as low as possible with automated service adjustments based on their workloads and utilization trends, set guardrails for access and usage, and take advantage of intuitive tools for cost visibility, allocation and reporting. Companies with legacy IT architecture are left to figure out all of this on their own and build bespoke systems and processes to manage it.

Finally, leading cloud providers offer the highest level of security to protect an organization's sensitive data. Preventing devastating data breaches and avoiding regulatory compliance issues are forms of cost control. And while managing security in-house has its upsides, it typically requires a team of highly paid experts to do it right.

With the cloud, hyper-security is native and automatically enabled. By deploying security as code along with the infrastructure, the company's security team saves time typically spent on mundane tasks, such as reviewing open ports, configuring firewalls, segmenting networks or managing access controls.

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# Conclusion

Perhaps 10 years ago the question for many businesses was “why move to the cloud?” Today, however, the better question is “why not?”

While cloud may not be the answer to every technology problem, arguments in favor of maintaining legacy systems get weaker every year. The cloud’s advantages of speed, scalability, enhanced capabilities and cost control are incontrovertible. And the incentive to pursue large-scale migration grows ever-stronger as digital leaders take the marketplace by storm.

Today, most companies would be well advised to move a substantial percentage of IT functions to the cloud. When organizations approach the migration with a comprehensive, cohesive plan aligned with business needs, they’ll be better prepared to compete in a future defined by rapid innovation and constant change

## About the author



**Emily Lewis-Pinnell**, Vice President, Cloud Transformation, NTT DATA Services. Emily leads the Cloud practice as part of the Consulting and Digital Transformation Services organization. She’s worked with hundreds of clients across a broad range of platforms, technologies and tools, helping them transform their IT environments and successfully plan, migrate and manage their businesses in the cloud. Emily has 20 years of IT industry experience in software development, operations, marketing, corporate strategy, portfolio management and sales. She has a BS in engineering from Stanford University and an MBA from the Wharton School at the University of Pennsylvania.

## Let’s get started

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## Sources

1. Gartner Press Release, “Gartner Forecasts Worldwide Public Cloud End-User Spending to Grow 23% in 2021,” April 21, 2021. <https://www.gartner.com/en/newsroom/press-releases/2021-04-21-gartner-forecasts-worldwide-public-cloud-end-user-spending-to-grow-23-percent-in-2021>
2. Gartner, “Forecast Alert: IT Spending, Worldwide, 3Q21 Update,” by John-David Lovelock and Linglan Wang, published October 15, 2021 [Gartner Doc ID G00759428]
3. NTT DATA. “Innovation Index: Digital Strategies for an Era of Constant Disruption.” November 11, 2021. <https://us.nttdata.com/en/engage/innovation-index>

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