Maximizing your cloud advantage

Five practices to thrive on the Cloud Continuum

Voices of **Change**

From insights to action, the path to extraordinary value starts here.

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The cloud value gap

Only a decade ago, companies were just beginning to explore this powerful new technology called cloud. Today many organizations run their business-critical operations there. The annualized cloud services market is quickly approaching US$1 trillion, and it's widely expected that within the next few years, businesses will, for the first time, spend more on cloud than on traditional IT.[1]

Cloud helps organizations innovate, create differentiated experiences and products, decrease time to market, enhance enterprise agility and improve sustainability performance. It is, quite simply, a key factor in enabling total enterprise reinvention.

While 86% of companies have increased the scope and scale of their cloud initiatives over the past two years, according to new Accenture research, few have achieved the expected value from their cloud investments.[2] In fact, many struggle to make cloud deployments work efficiently, with one-third of cloud computing spend going to waste.[3] As a result, only 32% of companies see their cloud journeys as complete and are satisfied with the outcomes; for many (68%), cloud journeys are ongoing and continue to evolve.[4]

Until now, most companies have focused heavily on the low-hanging fruit of cloud—i.e., the migration of legacy software and databases. But much of the hard stuff, which really moves the needle on enterprise value and reinvention, remains: higher-order services including platform as a service (PaaS), Edge computing and scaled data. These are among the areas showing the highest levels of growth across the large cloud providers.

With approaching economic headwinds and increasing scrutiny on cloud ROI, we believe that the value opportunity for your enterprise has never been greater. In fact, even though a vast majority of CXOs believe we're already in an economic downturn or expect one in the next few months, 91% said their organizations are increasing investments in technology—including cloud—to optimize operations and enhance performance.[5]

But organizations that focus only on technology are missing out on some of the key benefits of their cloud transformations. By focusing on cloud adoption rather than on what happens when you live in the cloud, most companies receive little, if any,

incremental value from their continued migrations. In fact, new Accenture research suggests that today, 42% of companies, on average, report fully achieving their expected cloud outcomes, up from 37% in 2020.[6]
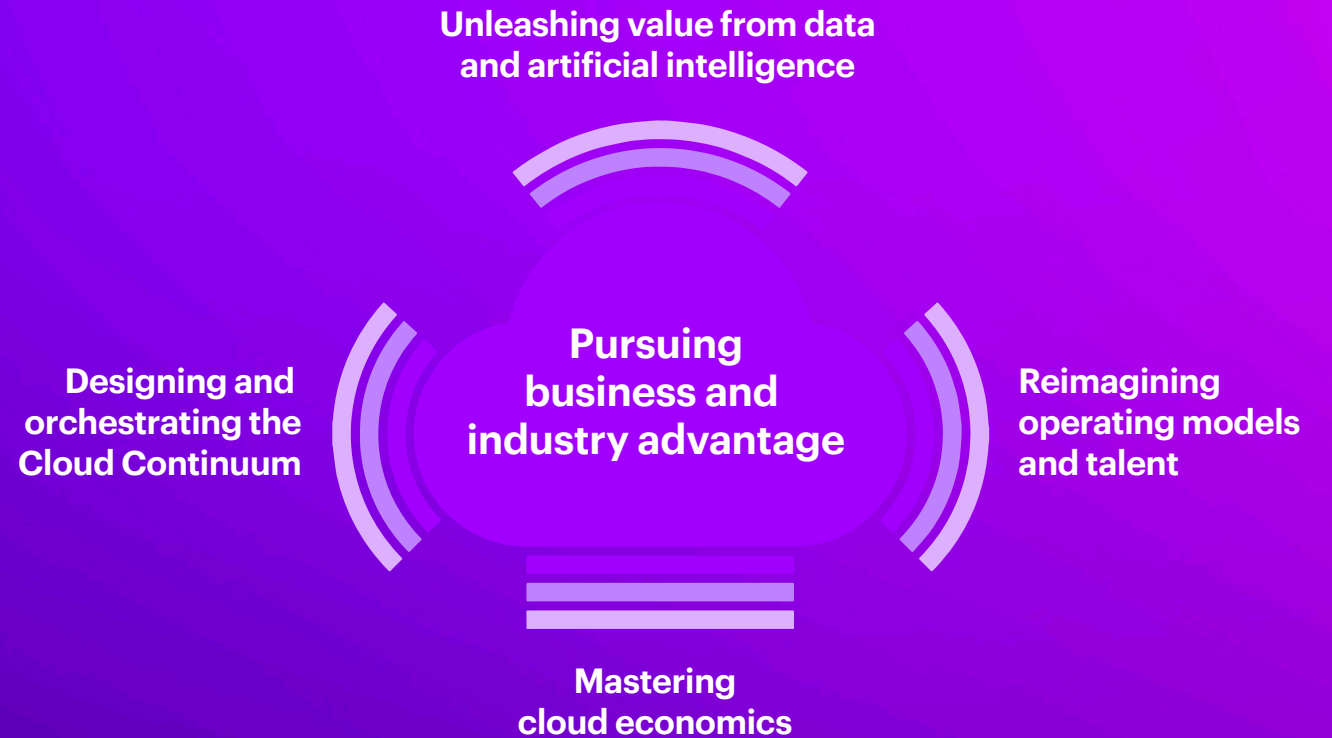
To unlock the full value of their cloud investments, organizations should look beyond technology adoption—anticipating new needs and introducing new ways of working to reinvent their businesses. This includes transforming IT estates and complex business-critical systems and tapping into trapped data to seize the opportunity for total enterprise reinvention.

Accenture's Cloud Continuum research, published in 2021, identifies practices that can unlock the potential of cloud. The Cloud Continuum is not one fixed destination, but a range of venues—from traditional hosting and private cloud stacks through scaled adoption of public cloud into next-generation services such as Edge computing.

Building on that research, we've now evolved our thinking to focus on five practices that help companies extract maximum value from cloud (see Figure 1). These five practices are explored further on the following pages.

Five practices to maximize cloud advantage

Unleashing value from data and artificial intelligence

Designing and orchestrating the Cloud Continuum

Pursuing business and industry advantage

Reimagining operating models and talent

Mastering cloud economics

Five practices to maximize cloud advantage

1 Pursuing business and industry advantage

Pursuing business and industry advantage is the most important practice. Organizations must focus on applying cloud strategically to help drive a total enterprise reinvention that creates new value for all stakeholders. Rather than using cloud to merely drive cost savings, industry leaders are applying it strategically as a force for change. They are realigning their cloud investments with their emerging business strategies to drive improved outcomes. Accenture research found that "high adopters"—organizations fully committed to the cloud—are 1.6x more likely to see strong strategic and operational business outcomes than those who have yet to start their journey.[7]

By exploring this practice in depth, organizations will establish the "why" of cloud, but not the "how." The remaining four practice areas must be mastered to maximize cloud advantage.

2 Designing and orchestrating the Cloud Continuum

Technology enablement is the foundational step to unlocking value through cloud. Our research found that organizations viewing cloud as a strategic enabler adopted between 25% and 80% more technologies while delivering far better outcomes.[8] CIOs and CTOs face many decisions regarding how to combine cloud technologies and services into best-practice architectures. Succeeding will require adopting the right mix of capabilities and services, from public through private to Edge and everything in between.

3 Unleashing value from data and artificial intelligence

Cloud and software-as-a-service (SaaS) providers have democratized access to individual applications and entire front-, middle- and back-office solutions. The new frontier of industry competition is data excellence and the ability to exploit data for value. The goal is to generate new insights that can help businesses compete and grow sustainably. Accenture found that companies with the most mature and diverse artificial intelligence (AI) capabilities achieve revenue growth 50% greater, on average, than that of their peers.[9]

4 Reimagining operating models and talent

Updated cloud technologies alone will not lead to sustained business value. Organizations should transform their people and processes across all levels, from ways of working to organizational cultures. They need to reimagine human capital and how the enterprise is constructed to promote agility.

5 Mastering cloud economics

Businesses are increasingly enabled and differentiated by technology, which is driving up IT costs. At the same time, the technology cost base has become more complex in response to the operating-expenditure-based model of cloud consumption and the shift toward more-modularized cloud architectures. Organizations need to get their cloud spending under control and move the conversation from technology cost toward technology value.

By embedding each of these practices across the organization, companies will be well on their way to thriving and succeeding in the Cloud Continuum.

01
Pursuing business and industry advantage

The first and most important practice in mastering the Cloud Continuum is the fundamental mindset shift to an obsession with value. Many of the companies we work with say they have been unable to realize the full value of their cloud investments. As the world economy exits an era of abundance and growth, companies will be under increasing pressure to qualify and prioritize value-based use cases and relentlessly measure and demonstrate return on investment.

When discussing cloud adoption with our clients, the first question we usually ask is "Why are you doing this?" In other words, what does cloud enable you to do that wasn't possible before? Our second question is, "Who are you sharing the success with?" Is this only about your team or department, or is there a broader and more powerful story that will lead to enterprise reinvention?

Today's cloud solutions are used to unleash corporate value through differentiation, revenue growth and new experiences. Being able to connect your business strategy to your cloud investment is the starting point for success.

However, there's often a misconception that cloud investments are mostly an "IT thing," which can lead to disappointment in the return on investment (ROI). Companies that approach cloud primarily to reduce IT costs are missing the potential impact of a cloud strategy on the broader C-suite agenda. Accenture's Cloud Continuum research found that viewing cloud as a strategic enabler led to better outcomes against multiple business priorities, including 1.2x-2.7x greater cost savings than using cloud primarily to drive operational efficiency.[10]

It is not enough to apply cloud to the context of the existing business and technology landscapes. Organizations should look beyond technology adoption and change the way they think and act to maximize strategic cloud benefits. They should ask how cloud can help power a total enterprise reinvention—both for the revenue-generating parts of the business as well as the supporting functions.

As the traditional boundaries between business and IT blur, C-suite executives are experimenting with technology quickly and cost-effectively to test bold ideas. This innovation focus is helping drive an era of technology-enabled enterprise reinvention. Businesses that move quickly to adopt a full range of cloud products and services will be well positioned to compete and grow.

While the commitment is clearly there, what's often missing is a disciplined prioritization of factors that connect cloud to an organization's business agenda rather than its technology agenda.

Actions for getting it right

- Realign your cloud investments with your business strategy—i.e., your growth priorities—through agile portfolio management to increase business agility and responsiveness to new opportunities.

- Show your leaders how cloud technology can help the business innovate faster.

- Conduct innovation exercises that identify industry-specific use cases that leverage the cloud to unlock new business value.

- Start moving away from your legacy technology and business processes to become cloud-enabled.

- Adopt a mindset of building differentiated intellectual property on top of available cloud products.

- Create new types of partnerships, and innovative B2B and B2B2C business models, that weren't possible before cloud.

Once your business strategy is connected to your cloud investment, you can move on to mastering the other practices for cloud advantage.

02

Designing and orchestrating the Cloud Continuum

Most early cloud adoption focused on migrating from on-premises infrastructure to a single public cloud venue. Now, organizations wrestle with hybrid and multi-cloud architectures. When are they necessary, and how can they be technically enabled? The challenge is to reuse and extend cloud ecosystems without major rework.

Technology enablement is the foundational step to unlocking value through cloud. Organizations should combine the spectrum of capabilities and services of the evolving cloud landscape, from public and private to Edge and everything in between. This effort will require skilled architects to navigate the large number of technical decisions, improve vendor and software selection, and avoid creating stranded data in cloud silos.

Many organizations operate on-premises and cloud technologies as mutually exclusive architectures. The two types of technologies are separated by an invisible wall, with different sets of standards, processes, tools and skills. These fragmented architectures can't be easily enhanced for risk, cost or application performance. What's needed are strategies for workload placement that embrace hybrid and multi-cloud architectures. Organizations should address factors such as network latency and the ability to move workloads between different cloud venues.

It's also important to integrate cloud with legacy hosting. Because cloud adoption takes time, cloud and on-premises architectures often co-exist for an extended period. As a result, organizations might need a series of transitionary architectures to de-couple and reduce legacy technology.

Actions for getting it right

- Define the business needs and drivers for the full suite of Cloud Continuum architectures—including co-location, private, public, Edge, hybrid and multi-cloud. Develop a decision tree to guide engineers and business leaders in workload placement.

- Develop and implement a Continuum Control Plane[11] to coordinate workloads across multiple venues. This approach uses consistent standards, processes and integrated toolsets to help developers and operators automate and scale common tasks and workflows.

- Break large systems into smaller, more independent services to increase the resilience of critical applications.

- Design modular and reusable architecture blueprints to increase the speed of infrastructure and software engineering and reduce complexity. This should include robust technical governance to ensure alignment across the business and between application development teams.

- Automate security and regulatory controls as code to improve the technology risk posture and reduce the need for manual governance processes.

- Pursue open-source packages that can augment and replace proprietary software and licensed components. The goal is to reduce costs, avoid vendor lock-in, and adopt community-driven technology innovation and standards.

- Re-engineer and automate legacy processes to help ensure value from new tools and ways of working in the cloud. This approach should include adopting continuous integration, delivery and deployment to reduce human-driven errors during the release cycle, increase repeatability and drive reusability.

- Aggregate and analyze metrics, events, logs and tracing data to detect and resolve anomalies through the automation of downstream processes. Doing so can help speed up troubleshooting and remove the need for human intervention when things go wrong.

Taking these actions will help organizations establish the technical architecture necessary to fully "live in the cloud"—and begin to reap the tremendous benefits of doing so.

03
Unleashing value from data and artificial intelligence

Two questions our clients often ask us are "How can I reduce network charges from data ingress/egress?" and "Has artificial intelligence evolved enough to the point that applying it is feasible?" While these questions might seem quite different, both essentially ask the same thing: What should our data strategy be, and how do we get more value out of cloud? The question for CIOs and chief data officers to answer is: How can we bring technology and data together to create value?

The key to answering this question is understanding that cloud is the enabler, data is the driver and artificial intelligence (AI) is the differentiator. Migrating data to the cloud, while a significant effort for many companies, is only the first step. Cloud supports the larger opportunity of creating a trusted data platform across disparate parts of the business. This data platform helps the business reinvent operational workflows, initiate more engaging customer and employee experiences, and fuel innovation and market growth.

But taking the next step is easier said than done. The technical hurdles have been removed, and the cost of experimentation has never been lower. Cloud vendors and SaaS providers have democratized access to targeted applications and entire front-, middle- and back-office solutions. Yet our experience shows that only a small number of enterprises are using cloud strategically today—implementing the advanced practices needed to drive profitable growth and innovation.

The total amount of data created, captured, copied and consumed globally is growing exponentially. Individuals now consume more data and store it longer, and each year hundreds of millions of other people start consuming digital services for the first time.[12]

Organizations need to take responsibility for how they use, store and share data. How long should it be stored? Do individuals have a right to delete personal data about them? Are AI systems being trained ethically? What is the sustainability impact of the ever-rising levels of data storage?

It requires an industry lens to manage trade-offs between consumer expectations and corporate responsibility. What is appropriate for data from health wearables, for example, will differ from what's appropriate for the use of industrial manufacturing sensors.

Early data migrations often focused on IT efficiency over broader value-creation opportunities. As a result, the limitations of legacy environments followed data into the cloud. Hybrid and multi-cloud architectures pose significant challenges to enabling broad data access and consistency. When data is trapped in legacy systems, it can't be used for strategic advantage. And if organizations fail to make data AI-ready and industrialize AI and machine learning (ML) workflows—both of which are key to data-powered growth—accessibility, quality, rapid experimentation and activation quickly fade.

Actions for getting it right

- Lead with an enterprise data strategy and architecture that incorporates external and real-time data sources and focuses on modernizing the data estate.

- Implement robust data governance processes to improve data quality, lineage, ethics and interoperability.

- Establish a trusted, democratized and reusable set of products to release the full value of data. Make data discoverable for cross-functional use cases.

- Deploy automated workflows for AI/ML model training, deployment and continuous improvement. Automated workflows enable teams to experiment quickly with a fast path to production, reducing the operational and skill burden on individual teams.

- Promote ways of working that drive reuse of AI/ML intellectual property across the business. The goal is to drive innovation and the normalization of advanced data processes.

- Evaluate and adopt AI "shortcuts." For example, there's a fast-growing catalog of pre-packaged AI cloud applications built to solve specific industry problems.

These steps don't have to be taken sequentially. With experienced help navigating this journey, any company can move beyond migration to realize broader business value from data and AI investments in the cloud.

04

Reimagining operating models and talent

Executives driving cloud adoption often believe that highly automated cloud services will replace the need for many people, especially those performing lower-level tasks. But as many of our clients have learned, adopting cloud often requires more people, not fewer, as well as a higher level of skills. So, what exactly is the role of people in the cloud equation: cost reduction or strategic enablement?

Our research shows that people are the key to unlocking faster migrations and greater cost savings. In fact, organizations that prioritize people and culture as a part of their cloud transformation achieve 60% greater value[13] by increasing their speed and agility. Through stronger IT and business collaboration, they enhance innovation and provide better customer and user experiences.

Yet cloud technology and people can easily get out of sync. Early in their cloud journeys, organizations can focus too much on technical enablement and minimize or ignore how people will interact with the new technology. Teams continue to operate in organizational silos, with practices like hierarchical decision-making and waterfall processes hindering speed and agility.

While many organizations focus on the immediate task of how to enable their workforce, they don't often focus on the broader and underlying question of whom to enable. With cloud enabling delivery of services to developers across the enterprise, the required level of technology literacy is rising exponentially. To get maximum value from cloud, organizations need to accelerate demand management, portfolio control, change management and other slow-moving governance processes.

All industries are competing for technology talent, and younger generations are less willing to work with legacy technology, making cloud an important recruitment and retention tool. In addition, people of all generations are looking for more flexible approaches to work. In response, IT and business leaders should work with the human resources department to develop talent strategies that can adapt to changing market needs.

Actions for getting it right

- Create a 360-degree view of how cloud can enable both internal and external stakeholders (e.g., engineers and business leaders, as well as shareholders and customers) to understand which people-based investments provide the best return.

- Build the required digital skills through structured learning pathways delivered through a variety of resources. These could include external vendors that can cost-effectively train large numbers of people, community events such as hackathons, and the creation of cloud academies.

- Evolve the operating model to reflect the new roles and ways of working enabled by cloud. Look for ways to redefine the relationship between the business and IT organization.

- Define the methods and practices for the new way of working. Key to this is the adoption of Agile and DevXOps processes to increase agility. Change across the organization should be scaled and coordinated to maintain alignment between teams.

- Recruit selectively and strategically at both the senior and operational levels to bring in fresh perspectives, experiences and skills. Invest in new talent pipelines with educational, engineering and community institutions to attract the next generation of superstars.

- Allow teams to make rapid, real-time decisions and embrace a culture of calculated risk-taking and learning from failure. Doing so should help instill a culture of continuous innovation and improvement.

A cloud-skilled workforce is the engine for navigating the future with resiliency. Building a digital workforce that has the skills and capabilities to handle unprecedented change and drive profitable growth at scale requires investing in people now. Doing so can prepare your business for the next wave of technology breakthroughs and protect your company against future disruption.

05

Mastering cloud economics

Cloud is driving two big shifts in technology spend.

First, cloud is becoming a dominant expense line item as organizations scale adoption across the enterprise. More than half (53%) of CIOs and CTOs we surveyed identified cloud migration and modernization initiatives as the top area of increased IT spend for their businesses over the next 12 months.[14]

Second, cloud is radically altering the technology cost base because it enables pay-as-you-go services that can adjust to meet business demand. As organizations transition from on-premises hardware and software to cloud, they move from a capital-based expenditure (CAPEX) model to an operational expenditure (OPEX) model. The CAPEX model is based on fixed costs, with established processes for forecasting and controlling IT spend. But cloud's OPEX model requires new forecasting mechanisms and processes to manage the dynamic, variable costs.

During the early days of cloud, vendors and service providers promised a 20-40% reduction in operational costs. While companies have achieved this for certain workloads and applications, few have realized these savings across a broad portfolio. In fact, many organizations are seeing delays in their ROI and struggling with increasingly high monthly bills.

Managing cloud costs while maximizing business value requires alignment between the CIO and CTO and their C-suite counterparts. Cloud has democratized access to technology, and there are offerings that cater to every possible customer need, from multiple architectures to varying service and performance levels. This explosion of choice can cause costs to spiral out of control when not managed with shared accountability across the business.

Fortunately, the past few years have given rise to FinOps—a new organizational discipline to control cloud spend. Short for "Financial Operations," FinOps is all about bringing greater financial accountability to managing the variable spend model of cloud. It enables distributed teams to make business trade-offs between speed, cost and quality.

Actions for getting it right

- Define an economic North Star for cloud adoption, including a periodically updated business case, to ensure alignment between technology consumption and business outcomes.

- Determine how cloud adoption will be funded to avoid "cloud-stall," the loss of transformational momentum. Significant levels of funding may be required to meet your business ambitions.

- Partner financially with cloud and professional service providers to access the up-front capital and skills needed to accelerate transformation.

- Implement modern tools and FinOps capabilities to avoid runaway cloud costs and a lack of economic accountability. Key capabilities include robust budgeting, forecasting and chargeback mechanisms, and real-time analytics.

- Modernize investment, funding and portfolio management processes to be responsive to changing business priorities.

- Redefine technology procurement processes to reflect the greater power of developers who are directly interacting with cloud services.

By mastering cloud economics, organizations can realize more of the true value of cloud computing and establish a greater alignment between technology consumption and business outcomes.

Maximizing your cloud advantage

Moving forward on the Cloud Continuum journey

While the Cloud Continuum holds the potential to create significant business upsides, mastering new practices is the key to successfully transforming the organization across the board.

No matter where an organization is on the Continuum, stronger ROI and continuous improvement are possible. It's about reinventing business on the back of the Cloud Continuum—and it's as much about investing in people as it is about the technology itself.

The first step for most organizations is to understand their current situation so that they can act strategically and maximize their future value from cloud. For those currently focused on just one or two practices, a broader perspective is needed—what Accenture calls "opening the aperture." Once a value creation strategy is in place, realign investments to enable the whole of the Cloud Continuum and its constituent practices.

The technical architecture; data and analytics; people and processes; the economics of cloud—each of these is critical to leveraging cloud for innovation, organizational reinvention and, ultimately, competitiveness and success in our rapidly evolving digital world.

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