Think strategic, not tactical.
It’s safe to say that cloud computing has moved beyond the “hype cycle” and into the mainstream. In fact, according to analyst firm IDC, over 90 percent of enterprises will use multiple cloud services and platforms by 2020,¹ which speaks to the cloud’s growth and acceptance. But that number masks some real concerns about the future. Many organizations are wondering what’s next for them when it comes to cloud and, for the most part, the road ahead is unclear. Talent shortages abound. Many large companies dabbled in the cloud but retained their legacy hardware and on-premise infrastructure. Some have taken a tactical approach and have not fully committed to the operating model changes necessary for long-term growth. Still others have been nibbling at the edges but are still wary of scaling up to enterprise solutions. For many, it’s time to reboot their cloud strategy.

At Accenture, we believe:

- Yes, the cloud is ready for fully committed, enterprise-grade computing, whether that’s a private, public or hybrid cloud approach.
- Getting there is a journey.
- The journey is not impossible or overly long, but it does require a strategic rather than a tactical approach.

It’s important to note that the journey to cloud isn’t linear, and one phase doesn’t necessarily build on another.

The journey can be an intricate and multi-disciplinary exercise with many organizational dependencies. Every enterprise is unique and has different short- and long-term goals. Nevertheless, some common signposts on the journey to cloud can help guide you on the way. These include:

- **STRATEGY AND BUSINESS CASE**
- **OPERATING MODEL**
- **APPLICATIONS**
- **INFRASTRUCTURE**
- **SECURITY**
- **ORGANIZATION, MANAGEMENT AND GOVERNANCE**
- **OPERATIONS AND MANAGED SERVICES**
Thinking strategically about cloud involves a number of critical issues, including desired business outcomes, investment priorities, deployment model, service providers, talent sourcing and cloud policies.

From an IT perspective, cloud technology requires IT teams to approach enterprise technology strategy in an entirely different way, focusing on three layers:

1. **Infrastructure**
2. **Applications**
3. **Operations**

It’s important to bear in mind that, when you transform one layer, those actions then impact the other layers. The middle layer—the application layer—is a **good place to start** because of the positive ripple effects on the other layers. When you take applications to the cloud, that results in less demand for data processing and frees up server space. So, infrastructure is impacted (fewer servers are required), which then impacts operations (less effort is required to maintain servers—effort that you can then redirect to more strategic activities).

During their journey to cloud, organizations should consult people who are not only experts within the particular domains of each layer, but who also understand the interdependencies among those domains.
Companies need to justify the cloud’s value proposition, especially as it relates to existing large investments in legacy technology infrastructure, including data centers.

From a business case perspective, cloud computing and as-a-service business models can create new and differentiating capabilities that can help enhance a company’s business strategy, drive competitive advantage and improve financial models.

The business case includes evaluating traditional financial measures such as total cost of ownership, return on investment (ROI) and payback period. To maximize shareholder and business value, companies should also evaluate cloud benefits, key performance indicators and value realization.
But as more companies joined, the company’s IT environment mushroomed to hundreds of different systems, applications and processes. The result was a fragmented, outdated, unstable and expensive environment that made collaboration difficult and undermined the customer experience. Working with Accenture, Towergate embarked on one of the most comprehensive IT reboots and ambitious cloud migration efforts ever in the financial services industry. The transformation—which focused on data center and hosting, network and telephony, end-user computing and service support—was completed in 12 months. It connected 4,500 employees and united 300 businesses, and now generates 30 percent annual savings. Perhaps most important, Towergate is now better positioned to execute more acquisitions that the company sees as key to future growth.
This new operating model can ensure that IT operates efficiently across multi-cloud environments, cloud services and new technologies. An effective operating model also encompasses service creation and delivery; execution and fulfilment; automation and governance of processes; and functional decomposition of IT capabilities.
Companies should look at their entire application portfolio and determine the disposition strategy as well as the timing, order and grouping of applications being moved to the cloud. To rapidly and efficiently migrate applications to the cloud, companies should ensure that their disposition approach incorporates tools around application portfolio assessment, application migration templates and the use of industrialized migration factories. Application dispositions will determine which functionality moves to Software-as-a-Service (SaaS), which moves to Platform-as-a-Service (PaaS) (to easily develop highly fit-for-purpose systems from service components), and which stays as packaged applications to be moved to Infrastructure-as-a-Service (IaaS).

Whether the need involves a single application, a group of applications or an entire portfolio, companies should have the capability to (1) migrate and/or modernize applications to be cloud-ready; (2) replace existing apps with SaaS/PaaS; or (3) build new, cloud-native applications.
Modern application architecture
Various components of modern application architectures can be leveraged in a cloud model to gain competitive advantage.

Modern application architectures should be formulated that build systems by integrating various microservices and by using container architectures as well as new and growing PaaS capabilities. In addition to tools, application development methodologies and approaches—such as agile, bi-modal system development life cycle (SDLC) and DevOps—enable automated ways to develop, test and rapidly deploy application functionality and maximize the capabilities to deliver applications at the pace of the business.

Next-gen application development
This focuses on high-value and high-impact cloud-native solutions in the mobile, data science (analytics), AI, machine learning and IoT domains.

Cloud-native application development includes custom-built, multi-tenant applications engineered for greater speed, consistency and reliability via DevOps and microservices.
Which **applications** should we move to the cloud? Which type of cloud? Public? Private? Hybrid? Which path will achieve the right endgame?

These are some of the big questions your organization should answer about your cloud applications:

- **REPLATFORM:** Lift and reshape—move assets to the cloud with a small amount of up-versioning to benefit from cloud infrastructure.
- **REHOST:** Lift and shift, essentially a forklift approach to migrating applications to the cloud, moving them without any code modification.
- **REFACTOR:** Rearchitect and recode some portion of an existing application to take advantage of cloud-native frameworks and functionality.
- **REPURCHASE:** Drop and shop/replace, which involves migrating to a different product or license, often SaaS.
- **RERETIRE:** Decommission or rationalize—shut down redundant and obsolete applications while retaining access to the historical data.
In addition to thinking about on-premise and public cloud, companies should make many other decisions about IaaS capabilities and services in areas such as network, storage and compute.

Infrastructure architecture
Strategies for cloud infrastructure architecture should consider these and incorporate proper infrastructure sizing that balances the levers of cost, performance and resilience. Also recommended are engineering principles that incorporate reference designs, deployment templates and automated provisioning to ensure that the infrastructure meets the needs of the business.
Organizations must have the required capabilities to inventory, assess and protect enterprise assets across the cloud component of the extended enterprise landscape.

**Security, risk and compliance**

Cloud environments and information assets can span different cloud providers, making it vital to provide a proper security architecture and in-depth protection of resources.

As part of the journey to cloud, companies should ensure that they have proper adherence to all legal, risk and compliance requirements. A security operations playbook, DevOps, and threat modeling should also be updated and incorporated in the context of a company’s cloud transformation.
One of the responsibilities of Mercedes-Benz’s internal digital services provider, Mercedes-Benz.io, is to help Mercedes-Benz reimagine how the company delivers digital marketing and sales solutions for customers globally.

To that end, Mercedes-Benz.io sought to consolidate Mercedes-Benz’s fragmented online presence with a cloud-based solution dubbed “OneWeb.” Mercedes-Benz.io teamed with Accenture to build and deploy a powerful Infrastructure-/Platform-as-a-Service solution on Amazon Web Service (AWS), which was subsequently rolled out to 22 companies initially (with 30 more in the queue). With OneWeb’s rapid provisioning of compute power, Mercedes-Benz can now quickly respond to customers’ demands for information and functionality—thus delivering a better customer experience. Currently, more than three million unique visitors access OneWeb every month, and traffic continues to grow as new markets are added.
Carefully consider the impact of your enterprise cloud journey on your people, organization and ecosystem.

**Organization, roles and skills**

Cloud computing and supporting as-a-service business models require not only changes to organization structures but also robust change management for the organizational areas impacted. Companies on their cloud journey should create a cloud-friendly organization structure that includes updates to job descriptions, skills matrices, training plans and talent sourcing. The structure includes being more agile and organizing around “IT services” coordinated via architecture boards instead of the old way of organizing around IT technologies. The role of the IT architect will be increasingly important for cloud development as IT becomes more of an integrator of digital services.

**Management and governance**

A holistic management and governance approach is needed as part of the cloud journey to manage not only multiple cloud environments, tools and providers but also the growing number of services each cloud provider delivers. This includes automated compliance, acceptance to operational control, monitoring, managing and improvement of services. Management of these changes requires (1) a strong and efficient governance capability to ensure proper standards alignment; and (2) enforcement of standards to maximize cloud benefits and minimize risk. Companies should automate functions such as compliance and monitoring to improve overall management and governance.
Some questions to ask when calculating the effects of cloud migration:

**How much of the work people are doing goes away in a cloud model?**
Strong candidates include: acting as in-house infrastructure integrators; creating customized workflows for basic automation functions; and trying to create in-house versions of developer and application services readily available in the public cloud.

**How many of your current people can make the transition to the next cloud model?**
One popular approach is lifting some of your people into a “cloud team” that can move faster than mainstream IT without undue friction. Focus them on putting the cloud to work, and not attempting to recreate what’s already available in the marketplace.

**Which of your vendors can make the journey with you?**
How many of your vendors will be truly relevant in the cloud era? Ideally, you would start to shift investments away from vendors that won’t be making the transition, and toward vendors that can deliver enterprise-grade cloud capabilities.
Cloud managed services provide skilled resources that augment in-house functionalities and IT infrastructure to be managed in collaboration with a third-party managed service provider (MSP) via cloud platforms.

Cloud managed services
A broad spectrum of MSPs exist, so companies should carefully consider which characteristics are most important for the MSP they choose.

Core to the ongoing management of the cloud environment with our clients is the Accenture Cloud Platform (ACP). ACP is a centralized management plane designed to help a company discover, manage and optimize its cloud resources. ACP can deliver hardened cloud best practices, automate most cloud management activities and deliver a full range of cloud management services. These capabilities can move an organization away from commissioning servers and balancing loads to:

- Provisioning the middleware needed for application deployment
- Overseeing database management systems
- Continuously monitoring the cloud infrastructure and identifying opportunities for efficiency gains and service improvements
- Effectively governing usage, and managing cost and security
CONCLUSION

Moving to the cloud is a complex endeavor and should be thoughtfully planned and executed. Companies need to carefully consider each component of the enterprise cloud journey both separately and in relation to others, because components can intersect at many different points. Such an integrated approach enables companies to create a unique and successful cloud roadmap; ensure their plans are executed based on a strong foundational strategy; and ultimately experience an efficient and timely transformation that is aligned to their business goals and desired outcomes.

Companies should also determine where it makes sense to bring in outside help during their enterprise cloud journey. An experienced partner with deep and broad cloud expertise can help develop an effective strategy and provide critical execution capabilities to get companies to the cloud and then continuously optimize their operations once there.
Accenture has served as a trusted partner for many companies throughout their journey to cloud. We have delivered more than 20,000 projects with more than 80 percent of the Global Fortune 100. Key to Accenture’s work are our cloud migration factories and certified experts, which handle the complexity of data migration or the building of new applications.

But other attributes are equally important to helping companies achieve their cloud goals. One is business and industry expertise. Accenture’s heritage in business process optimization underpins a deep understanding of how to transform and operationalize core business functions in the cloud. Additionally, Accenture has developed industry-specific visions and blueprints that show how applications and operations support one another as a company builds functional solutions.

Another attribute is the ability to help a company adopt a cloud-native mindset and then continuously innovate. Accenture’s broad and deep relationships in the ecosystem of technology partners, big and small, position us to gain early access to new technologies that we can use to help companies rethink workflows and develop applications faster and efficiently.

A third focus is on achieving outcomes, not just building systems. The methodologies, tools and intellectual property embedded in Accenture’s cloud management and optimization capabilities help companies continue to realize significant, measurable business value past go-live and ensure that IT technology, skills and culture evolve in line with business needs.

As the number-one integrator for Amazon Web Services, Inc., (AWS), Microsoft Azure and Google, Inc. as well as for Salesforce, Inc., Workday, Inc. and Pegasystems, Inc., Accenture is uniquely qualified to help companies unlock the exponential value of the cloud to transform their business.
About Accenture

Accenture is a leading global professional services company, providing a broad range of services and solutions in strategy, consulting, digital, technology and operations. Combining unmatched experience and specialized skills across more than 40 industries and all business functions—underpinned by the world’s largest delivery network—Accenture works at the intersection of business and technology to help clients improve their performance and create sustainable value for their stakeholders. With approximately 442,000 people serving clients in more than 120 countries, Accenture drives innovation to improve the way the world works and lives. Visit us at www.accenture.com

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