

Moving to the Cloud

Part 2:

A Field Guide to Cloud Migration



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Introduction

Migration to the cloud will vary significantly by organization. Understanding the value that can be gained by your organization, prioritization according to desired business value and carefully planning your migration are important to any cloud adoption journey.

Caution Ahead! Cloud Migration Pitfalls

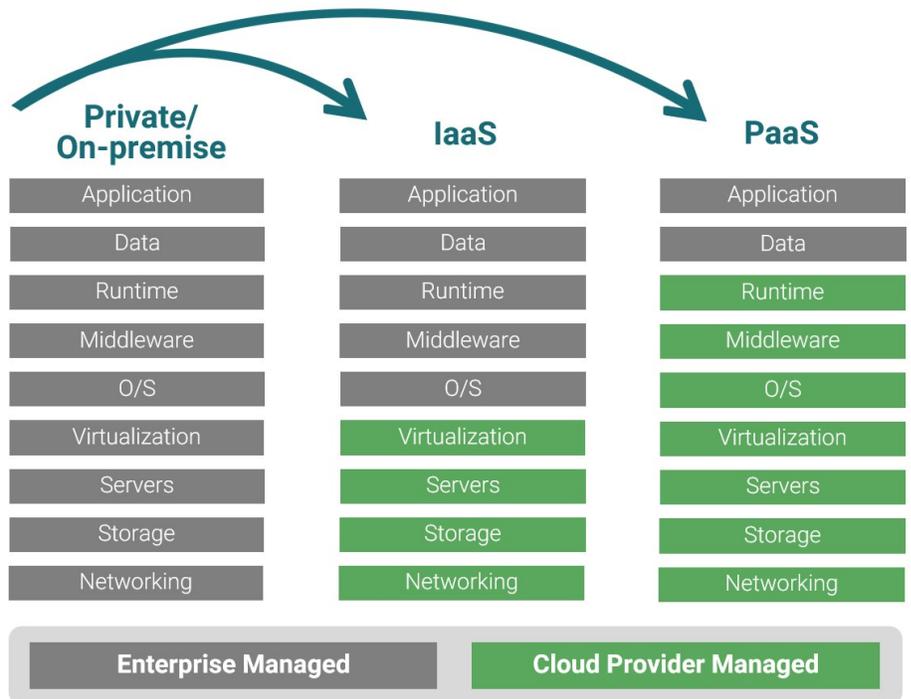
While significant value can be realized by moving to the cloud, the migration process should not be oversimplified. It's true that many forward-thinking organizations have achieved the desired results and value from their enterprise cloud adoptions, but some others are slower to mature, capture less value and in some cases end up in situations where they are spending more than they did for previous data center or on-premise environments.

Moving to the cloud requires significant operational and workforce changes, as well as significant adjustments to platform, application, data and security architecture. A limited strategy and poorly planned effort to migrate your application portfolio to the cloud is unlikely to yield the benefits that cloud computing can provide. In fact, in some cases, that approach can result in IT architectures that are more complex, risk-exposed, and costly than before. Further, attempts by IT to operate in the same way within the cloud as in on-premise operational models often lead to gaps in services, misaligned talent needs and the introduction of added business risk.

Many companies have made the mistake of believing that they can achieve the desired value of the cloud by simply moving their application portfolio to the cloud in a “[lift-and-shift](#)” fashion. This approach produces poor results for three key reasons:

- **Legacy Systems** - Existing business applications were created following traditional IT application architecture. As a result, these applications often have monolithic architectures and are configured for fixed/static capacity that was typical of their tenancy within previous [data centers](#). Some benefits can be achieved with an “Infrastructure-as-a-Service” approach with legacy systems, but moving them to the cloud without rearchitecting won't take full advantage of the inherent scaling, resiliency or other dynamic features of the cloud.
- **Team & Skills** - The typical IT workforce of an enterprise whose systems have been developed in the traditional IT framework and housed on premise or in a data center will need to be reskilled or upskilled for the cloud environment.

Cloud Destination Models



The type of cloud destination you choose (private, on-prem, IaaS or PaaS) impacts speed-to-value and speed-to-market gains. Architecture, governance, economics, capabilities and speed-to-value all shift for each Cloud destination. Each destination requires planning and execution at the strategic, technical and operational level.

- **Operating Model** - The IT services definition and operating model for traditional IT ecosystems changes significantly in cloud with the elimination of roles, responsibilities and processes and the addition of new services, processes, roles and responsibilities.

Adopting the cloud and migrating enterprise IT requires significant operational and workforce changes.

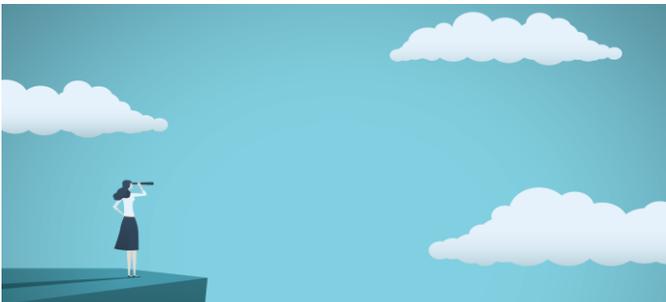
Strategic Imperatives to Business Success in Cloud

To fully recognize the value of cloud, organizations will need to invest upfront. For a small IT footprint, a migration journey can be a 6-to 9-month timeframe. For Fortune 500 organizations, it may amount to a multi-year effort to migrate to the cloud.

We've identified seven business strategic imperatives for cloud migration success:

1. Define your strategy, goals, objectives and capture executive sponsorship.

- *Choose your transformation approach.* Involve all key stakeholders in determining whether your enterprise will be an aggressive or opportunistic transformer.
- *Articulate IT and business goals.* Create a well-defined set of outcome-oriented aspirations for both the short and long term in line with your approach. In alignment to the advantages of cloud relating to agility, elasticity, security and lower cost, many organizations set their strategy based on what is most critical.
- *Secure buy-in.* Ensure commitment and investment from senior management, particularly finance leaders, who must support the transfer from capital to operations and maintenance investments/accounting.



2. Evaluate the current IT ecosystem.

An initial understanding of your existing environment is necessary to develop a business case for migration. Through data on actual utilization of your on-premise resources, you can create a more accurate forecast of the total cost of ownership (TCO) to run these workloads in the cloud. Before beginning any cloud migration, take a careful look at the existing IT ecosystem to understand existing infrastructure, network configurations and integration requirements, operating systems, development platforms, data and middleware platforms, data architectures, security requirements and architecture, and your business application portfolio. It is important to understand the lifecycle state of all of these ecosystem components to assess motivations and alternatives for consideration during your migration.

3. Assess your legacy application portfolio for refactoring, re-engineering, re-platforming or retiring.

As we mentioned above, careful planning is important to capturing cloud value. Planning includes the assessing of your current applications to understand readiness for cloud architecture.

While an Application Portfolio Assessment will not reveal your entire current TCO, it will arm you with the TCO of future modernized cloud footprint. This includes developing your migration strategy by collecting application portfolio data and rationalizing applications using the seven common migration strategies:

- Relocate
- Rehost
- Re-platform
- Refactor
- Repurchase
- Retire
- Retain

This includes leveraging cloud-provider or proprietary tools to collect and present detailed information about application dependencies and utilization to help make more informed decisions as you plan your migration. You map, classify, and validate interdependencies between upstream/downstream applications and

libraries. This includes third-party, commercial software, open-source, in-house developed applications, and everything in between that you deem to be in scope.

The end goal is a clear migration strategy and understanding of what must be done for each application to prepare it for migration to the cloud.

4. Plan for organizational change

management. A typical heavily automated cloud operating model will require significant shifts in [IT behaviors and mindsets](#). Invest in both change management and the talent development of cross-functional skills across infrastructure, security, application environments and IT cloud operations.

5. Adjust measures and KPIs to reward

modern behaviors. Measure and reward your technology team for standardization and automation rather than, say, for availability. Reprioritize KPIs from SLA adherence to services certification and learning, and from provisioning time to ongoing cost reduction through innovative thinking.

6. Chose a cloud computing platform such as [Microsoft](#), [AWS](#), [Oracle](#), [Google](#) or [IBM](#).

Choosing a cloud provider is an important success factor of your cloud computing adoption. You should choose your providers after you have assessed your application migration candidates (see item 3 above) but in parallel with analyzing and preparing these workloads for migration.

When it comes to selecting a cloud provider, your requirements and evaluation criteria will be unique to your organization.



When it comes to selecting a cloud provider, your requirements and evaluation criteria will be unique to your organization and many historical differentiators are no longer relevant as the big providers have largely matched up on security practices, core services capability, tools and frameworks, administration and financial management tools and processes, certifications and reliability and performance.

That said, there are some common considerations to keep in mind. Here's a partial list we start with at Impact Makers when advising clients:

- Provider's service development roadmap
- Synergies with existing development platforms and directory services implementations
- Strength of scalability
- Whether you have a cloud native or agnostic/third-party services strategy
- Pricing discounts available
- Migration tools
- Your desire for cloud-provider native business services beyond the core services
- Hybrid cloud or multi-cloud capabilities

7. Transform and build up your

workforce. Develop a detailed workforce transformation plan that accounts for current state assessment of roles and responsibilities, future state skills and capabilities, training needs, hiring needs and third-party professional services engagement to assist with these and other integrated transformation workstreams where integrated teams can drive knowledge transfer and on-the-job training.



Multi-pronged Approach to Cloud Computing Management & Transformation

A typical cloud transformation will include multiple parallel workstreams. As an example, one team of cloud engineers will work to prepare for the cloud migration by setting up the cloud environment. Another group may be assessing and planning the applications to move and selecting and preparing tools for migration. A

third team may be establishing and executing an organizational readiness plan focused on talent realignment, operating model plans, cloud center of excellence implementation and DevOps and Agile delivery training and deployment across IT and in some cases, the business. This multi-pronged approach has significant management challenges, but with strong leadership, it's the [fastest path to transformation](#).

The end goal is a clear migration strategy and understanding of what must be done for each application to prepare it for migration to the cloud.

Any business transformation effort requires strategic planning, vendor due diligence and people and process planning and change. A migration to the cloud is no different, and starting with the steps detailed above will ensure your cloud journey starts on a successful path.

Partner with us to see where cloud can take your business.

Impact Makers works with customers to deliver and enable strategic business advantage with cloud services. Our cloud consultants leverage comprehensive and mature practices to enable customers to see all facets of their cloud ecosystem. Every project has unique elements that must be incorporated into a [comprehensive strategy](#) in addition to identification and execution of technical work.

As an [AWS Advanced Consulting Partner](#), Impact Makers' comprehensive cloud framework includes the [AWS Well Architected Framework](#) and industry best practices in addition to elements like compliance, asset and metadata management, business strategy alignment, service portfolio management, support model definition, [service design and deploy](#), and [CloudOps](#).

Contact us at (804) 774-2600 or through our [website](#) to learn more.