

Cloud journey
and governance:
enabling a hybrid
IT environment



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As organisation refocus on their digitalization agenda, cloud is a key enabler. Businesses are at various stages in their journey to adopt cloud. In some cases this has been deferred because of existing capital investment in infrastructure, in other cases because of scepticism or fear from losing control. However, technology leaders are more than aware that at least a partial move to the cloud is unlikely to be avoided. Technology vendors have been adapting the traditional on-premise deployment model for their solutions and now offer only them in the cloud - as deployable solutions on cloud platforms or purely as a Software-as-a-Service model. In other cases, an internal IT environment does not always provide the necessary agility and elasticity that cloud provides.

Even in organisations that do not yet have a clearly formulated cloud strategy, you will find the use of cloud-based Software-as-a-Service solutions being used by the users. IT does not necessarily have the visibility and control on what applications in the cloud are being used. It is too easy for someone in the company to start an online subscription or create an account to start using web and mobile based on solutions - without involving IT. Such shadow IT presents major risks in terms of data leakage and operational risks as the necessary control and governance structures are not in place.

The cloud journey starts at the point that there is a realization by the management and IT leadership that this cannot be left unnoticed. To achieve the competitive advantage in a dynamic world with increased levels of digitalization, cloud adoption should be part of the foundations of the IT strategy.



Cloud Adoption Overview Roadmap



- Foundational
- Upskill
- Migration



What If You Could...

- ▶ Improve your enterprise's overall flexibility and reliability with a modern IT infrastructure that is cost effective?
- ▶ Accelerate speed-to-market by testing ideas quickly, adopting them and then moving quickly to scale?
- ▶ Build a sustainable next generation cloud-based, firm-wide digital capability to grow your business?
- ▶ Improve your security posture through simplification and standardization of your IT infrastructure and applications?
- ▶ Move your technology operations from legacy systems to flexible subscription models where business units pay for consumption?

Cloud Strategy

The key components of a successful cloud strategy are 1) establishing clear positioning and vision for cloud adoption in the organisation 2) defining a cloud architecture that defines the required capabilities, cloud components, integration to the internal network and on-premises or datacentre hosting, security, 3) a roadmap for adoption including migration of workloads or strategic transitioning from hosted applications to Software-as-a-Service(SaaS) and Platform-as-a-Service (PaaS) solutions, and 4) the ongoing practices to improve and optimize the utilization of cloud especially when it comes to the implementation of security controls and cost management.



Cloud Governance Framework

Cloud has an impact to the processes and practices of the organisation beyond the technology aspect. Changes to IT procurement, contracting, budgeting and cost management, risk management and operations must be weaved into the operating fabric of the organisation. This is not just an IT challenge, but a concerted effort by various stakeholders of the organisation including finance, legal and operations, just to name a few. At the early stages of establishing the cloud strategy for the business, successful cloud adoption involves establishing the necessary policies, processes and governance. EY helps customers using an established Cloud Governance Framework that helps decision makers and stakeholders in understanding these practices and how the organisation needs to change.

IT Operating Model

Another critical component of this journey is to assess and decide on the operating model for the engineering and operations of the cloud environments. Many organisations are opting for a hybrid sourcing model with an outsourcing of the operations of the cloud environments to managed service providers that can provide best-practices, skilled resources and economies of scale, avoiding the need to build up such competencies internally especially as the technology portfolio provided by the cloud is much more extensive. This does not imply that internal IT resources need not be aware and trained on the technical aspects and best-practices, internal IT roles must be in a position in to guide business adoption, architect solutions and managed the service providers.



Cloud Modernisation

We assist clients by providing services designed to meet each company's unique cloud and legacy modernization requirements.

Cloud economics and strategy

This service helps organizations with a "cloud-first" strategy, including the development of a financial model to calculate both current and future cost at workload and application levels to highlight potential savings. CIOs will also benefit from a cloud strategic roadmap with specific initiatives in conjunction with potential infrastructure operating model changes.

- ▶ Cloud strategy
- ▶ Business case for cloud
- ▶ Decision framework
- ▶ Financial and accounting models
- ▶ IT finance impact

Enterprise security

Moving to the cloud requires effective security measures and procedures to manage your migration effort, and then helps safeguard your applications and data in a hybrid cloud environment.

- ▶ Cyber as a service
- ▶ Active detection and response
- ▶ Identity and access management
- ▶ Cyber orchestration and automation

Cloud platform

EY teams help you re-think business processes and operating models through cloud-enabled platforms. We provide the following guidance on various platform options, migration approaches, data engineering and data security.

- ▶ IaaS, PaaS, SaaS
- ▶ Cloud migration factory
- ▶ Cloud 2.0: foundations, automation and security
- ▶ Cloud architecture/engineering support
- ▶ Cloud patterns/reference architectures/automation

Cloud operating model

EY teams will assess your existing IT or infrastructure operating model to understand how well positioned your organization is to support your future IT infrastructure in the cloud, including core business applications and tools.

- ▶ Cloud Center of Excellence (CoE) setup
- ▶ Organizational change management/roles/skills
- ▶ Cloud transformation program
- ▶ DevSecOps/NoOps for Day 2 operations

Application modernization

EY teams assist clients with updating their legacy applications to support modern architectures, including rewriting code to take advantage of cloud capabilities.

- ▶ Application modernization/innovation factory
- ▶ Container management/containerizing applications as part of the move to cloud
- ▶ CRM/ERP on cloud
- ▶ Robotic process automation and machine learning
- ▶ Internet of things

Key Client Questions

- ▶ How do we leverage real-time event-driven architectures to modernize legacy batch-driven processing?
- ▶ How do we decompose our monolithic applications to loosely coupled, microservices architectures?
- ▶ How do we move legacy mainframe applications to the cloud while prioritizing security and SLA's?
- ▶ How do I appropriately establish hosting arrangements for all application workloads?

How EY Can Help

This hybrid approach, which blurs the lines between private and public cloud, and hardware and infrastructure, is increasingly becoming the norm, as organisations realise that there is no one single technology that can satisfy all business requirements. And this is the reason why expert help is becoming a must, as businesses navigate the rather complex tech landscape to achieve desired business outcomes.

EY's portfolio of high-demand services is designed to support your cloud strategy and address your security and regulatory compliance requirements in a holistic and impactful way. As a leader in 2020 IDC Worldwide Cloud Services, EY delivers on understanding of technology and security risks, cloud technologies and services, industry-leading risk practices and regulatory compliance expectations.

Cloud Positioning and Strategy

- ▶ Holistic analyses of an IT organisation, including business-IT alignment, technology, operations, governance and processes
- ▶ End-state definition, including target portfolio, infrastructure, governance, program management office (PMO) alignment, architecture, strategic sourcing and staffing models

Cloud Governance and Practices

- ▶ Structured approach to ensure compliance to regulatory requirements, industry standards and organisation's policies
- ▶ Establishing processes and alignment of procedures across IT, Procurement, Information Security, Legal and Finance

Cloud Architecture

- ▶ Defining the architecture of the target IT landscape including identity, security, connectivity, monitoring and management
- ▶ Establishing architecture standards and guidelines to manage the technology adoption while establishing a managed portfolio aligned to the economics and operational capabilities of the organisation

Cloud Controls Framework

- ▶ Defining and establishing the required controls from a policy, process and technology perspective based on industry standards and specific regulatory requirements
- ▶ Establishing roles and responsibilities across stakeholders involved

Application Assessment and Cloud Modernisation

- ▶ Analysis, redesign and implementation of applications to leverage the capabilities of the cloud
- ▶ Establishing Cloud Migration Factory for a systematic agile approach to move workloads to the cloud

DevOps Adoption

- ▶ Evolution of project management, requirements engineering, development and operations to bring about the agility that cloud platforms provide



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