The Cloud paradigm: Transforming the workplace

Evolution across the technology stack is merging to become a single set of business enabling conponents, supported by the cloud. A successful cloud transformation is measured by its ability to facilitate faster change and evolve along with business needs.



Organisations across the spectrum are under increased pressure to drive speed, agility and strategic impact for the business. Cloud technologies enable organisations meet these growing needs. More than a cost play or a new third party service, the cloud model enables rapid innovation cycles which accelerate time to market and provide the agility to respond to changes in business requirements and emerging technologies.

In order to take advantage of these new capabilities, IT organisations must evolve from a centralised authority into an orchestrator of business services, with a focus on constant improvement and innovation. We should have a Cloud Operating Model that provides a blueprint for the transformation of IT to support an agile enterprise.

Shifting IT to a cloud-enabled model

This requires a new mindset across several key areas of the organisation. Transformation requires an organic change in the culture and goals of IT, and must be communicated and managed carefully. We are moving from a software defined enterprise to fluid, agile, iterative microservices-based organisation.

This type of fundamental shift will be challenging for any organisation, and the entire transformation may not happen all at once. However, in order to fully take advantage of the agility and responsiveness enabled by cloud technologies, each area must eventually be addressed and aligned to the new model.

Cloud technology adoption

Collaboration between IT and business units will be critical to grow scope appropriately while ensuring that the business does not circumvent the IT organisation in search of better solutions (i.e. "Shadow IT").

IT must support a fluid, iterative, assemble-to-order approach that emphasises collaboration and innovation. Ideas will come from a cross-functional community of engineers, developers and business stakeholders, through a structured innovation and design process.

The new IT model in the cloud era

Organisations should take a business focused approach, by breaking down cloud solutions into the essential components which make up the service. From the consumer's perspective, these components are similar to the structure of a typical IT services contract.

Comparing clouds should be the process of comparing these contracts. A primary consideration when introducing new services is how they will be integrated with the existing technology environment. Workflows must have the ability to communicate between different systems and users with transparency.

Enabling the change

As the organisation shifts to a cloud-enabled structure, the governance model must also evolve. Trying to write detailed policy and controls for the cloud environment is unrealistic and acts as a roadblock to innovation. Governance should be lightweight and enough to change quickly, but strong enough to understand and support the security and regulatory requirements of the organisation.

Focus on principles before driving policies

When first defining cloud policies and governance, a "boil the ocean" approach of mapping all existing controls to the cloud environment is overwhelming and results in inconsistent governance. Policies should be aligned to a strong set of principles which can be modified and customised as the cloud environment matures.

Establish a firm-wide, multi-tiered cloud governance early and implement, automate, forward-thinking governance

Organisations should implement a comprehensive governance model at every level of the cloud journey, including a Cloud Steering Committee, Cloud Governance Group, and Cloud Working Groups. Each group should have a defined purpose, set of responsibilities, and cadence. The organisational structure supporting governance must be developed with the adoption lifecycle in mind, as the cloud transformation will change the nature of the decisions and discussions (initially focused on risk and strategy to later focus on operational stability and cost).

The organisation should recognise the significant effort and tackle the most challenging changes in a prioritised order. A Cloud Centre of Excellence (CCOE) can act as the fulcrum for change and help support adoption by demonstrating and socialising value from transformation. CCOE may serve as the centre for ideation, proactively focusing on the most challenging business problems, with a feedback loop to capture and disseminate the learning over the entire end-to-end process as part of the knowledge centre.



In focus: Cloud deployment and the government -Meghraj Project

The Ministry of Electronics and Information Technology (MeitY) has done a lot of work in providing clarity on cloud adoption in India, focusing on concerns related to data breach and access to information that cloud service providers need to adhere to in the areas of data protection throughout the life cycle, especially as it relates to personally identifiable information, tenancy of data, and due diligence prior to go live with the provider.

The regulatory tone is supportive of cloud adoption, subject to necessary recommendations being incorporated to safeguard the interest of stakeholders during on-boarding and ongoing usage. In fact, MeitY has already accredited a set of service providers to offer cloud services in India to the Government and enterprises including the FS sector.

The Leading cloud service providers (CSPs) have invested in local cloud data centres in India, to satisfy the requirement of Indian FS companies keeping sensitive customer data inside the country. Data sovereignty was a major concern before this.







Access to the latest technologies, cost savings, ease of scaling-in and scaling-out, faster time-to-market for deploying systems, enterprise technology standardisation, and the ability to access data and applications on the move are all benefits that are driving financial services firms to ado cloud computing. Also, the latest innovations in the areas of machine learning (ML) and artificial intelligence (AI) further pushes customers towards the cloud.

According to the Institute for Development and Research in Banking Technology (IBRDT) established by the Reserve Bank of India there are four factors that need to be considered for cloud adoption:

- Technical adequacy for porting the application to the cloud - assess the application profile to ensure it is a right fit be ported to the cloud
- Cost efficienc
- Risk including availability requirements, regulatory, compliance and statutory requirements, data sensitivity
- Control over intrusion decisions, vulnerability-monitoring, and denial of service attacks.



While the Financial Services (FS) sector has been slow to adopt the cloud for the right reasons, we may have reached a tipping point in terms of significant movement to the cloud in the next three to fiv years across banking, insurance and NBFCs. It is important that FS companies invest time in defining their cloud strategy and adoption roadmap, along with their cloud policies and operating model, which will provide a lot of clarity on the boundary between the cloud provider and the company. FS companies should also spend time evaluating their application portfolios that have been built up over the last several years and then come up with a meaningful migration strategy to the cloud.

According to a PwC global survey of FS organisations, the following interesting insights have come out. Graph 1 illustrates the main reasons why respondents said they are adopting cloud, and Graph 2 are the main challenges as per respondents in adopting cloud.





Risk on data security

High operating cost

Relaibility/availability

Compliance restrictions

Dependency risk o provider





Pawan Kumar S pawan.k.s@pwc.com

About the author:

Pawan Kumar S is the Technology Consulting Leader for PwC India. With around 27 years of experience in the industry, Kumar has a deep knowledge of the data and analytics area and emerging technologies and has helped multiple large clients in their transformation journey.

