



ecoming a Cloud-first organization is no longer a choice for business. The more relevant questions today are 'how soon can we get there' and 'how much do we need to invest'. According to a Forbes article discussing Forrester's Cloud computing predictions for 2018, "Forrester predicts that more than 50% of global enterprises will rely on at least one public Cloud platform to drive digital transformation and delight customers." The worldwide public Cloud revenue is expected to grow 21.4% in 2018 alone, according to a recent Gartner². Clearly, Cloud computing is one of the most disruptive technologies IT has seen since the early days of digital age. Its massive growth comes from its rapid adoption across industries and businesses of all sizes, thanks to its benefits - elasticity, scalability, agility, and pay-as-you go pricing models.

Migrating to the Cloud, however, is not just limited to merely shifting workloads and applications. It requires organizations to reimagine their IT infrastructure and operating philosophies to drive innovation, create new opportunities, and future-proof their success. Tackling the Cloud adoption and migration effectively can maximize the Cloud benefits. 66% of IT decision makers admit to delaying the migrations because "migrating complex apps to the Cloud is perceived more trouble than it's worth". 44% of businesses have experienced some kind of Cloud migration failure³.

What makes Cloud migrations such a headache and how can the right planning and execution methodology help organizations steer clear of the pitfalls?

Three key challenges plaguing Cloud migrations

While the benefits of migrating to the Cloud are many folds and well proven there are challenges: time factor, costs involved, integration complexity, data risk, people and process, downtimes and so on.

Let's discuss in detail three of the biggest challenges in migrating to the Cloud (of any type):



#1 Assembling the right ingredients

Think of Infrastructure-as-a-service (IaaS) such as AWS, Azure and Google Cloud, as well as people and processes as building blocks – you can assemble them in various ways to get different outcomes. Outcomes to your business are important and to know the need to prioritize them. While the technology challenge is addressed by opting for right platform, which is more prescriptive in nature, getting the right people and devising the right strategies to drive them.



#2 Accurately forecasting time, cost, and resource investment

Most companies that become frustrated with their Cloud migration often do not do their homework. They miscalculate the time required to migrate to the Cloud, which in turn, affects the cost of service and resources required, ultimately undermining the benefits. The trick to realizing superior cost savings with migration is to begin with migrating in-house services that are least used to the Cloud first, and gradually progress to most-used services. Another factor here is that most organizations' legacy systems (records and transactional processes for instance) are not Cloud-ready and require re-architecting. Enterprises typically calculate Cloud costs by looking at the cost per service unit but fail to multiply this correctly over the length of time required to migrate, say a month or a year.



#3 Protecting and securing data in the Cloud

Migrating their in-house security posture as-is to the Cloud is one of the biggest challenges any organization can make. While a majority of organizations have made the leap to the Cloud, nearly a quarter are still wary of migrating primarily due to concerns over security. Gartner's recent report on Cloud security makes an interesting point here – it says most security failures result due to a fault on the users' part, not Cloud providers', as the former fail to manage the controls used to protect corporate data. Gartner predicts that through 2022, at least 95% of Cloud security failures will be the customer's fault4. While public Cloud platform providers have taken note of customer's distrust and are bolstering security through fully integrated and unified security solutions.

Managed Cloud migration services: The panacea to the challenges

Efficient planning is the most important stage for successful migration. There is no predefined formula for migrations, this can change based on the enterprise needs.

Planning for migration could involve:

- · What to move
- What's right fit
- Methodology used
- Tools that can help
- · People and process involved and more

Automation becomes key to build workflows for standard SOPs during migrations; this improves the efficiency and eliminates possibilities of human error during migration.

#1 In-depth planning with phased migration:
Opt for a Cloud service partner with considerable experience in assessing and migration planning, and well-developed process and capabilities to execute migration in a phased manner:

- Initiation: Determine objectives, develop a preliminary business case, and baseline the success criteria
- Partner: Vast experience in migrations through standard approach involving experts from infrastructure and application with strong governance model to effectively run the migration process
- Discovery: Discover hardware and software configuration in the enterprise datacenter; determine relationship and dependency data, and map applications to the IT infrastructure.
- Assessment: Using automated tools, rapidly determine Cloud readiness of workloads, which workloads make the best candidates for which type of Cloud, and address other mission-critical concerns. Come up with move groups and what application treatment the workload has to undergo for migration.
- Plan and schedule: Understand the IT portfolio and application dependencies to zero down on the best-fit migration strategy, in the interest of business continuity. Scheduling the migration in phases and batches to ensure dependency are taken care without/minimal disruption to business.

 Migration: Execute the last-mile using best-fit tools and technologies, and extend post-migration management support to drive seamless operations at zero risk. Scale is key to ensure the cost of migration is low.

#2 Automation for migration: Reduction in time, cost and risk brings major success in migration projects, enabling large and complex Cloud migrations. This drives faster migrations, improves accuracy by reducing manual errors, tools and process automation for higher availability of service that help in reducing cost of manual actions.

Here are the key benefits an expert Cloud managed services provider (MSP) can bring to the table:

- # Increased agility and scale: While increased agility and scale are the inherent benefits of Cloud computing, realizing these with your in-house IT team can prove to be daunting. Cloud service partners that bring an industrialized approach to migration, backed by robust infrastructure, SLAs, software-defined policies, and standardized processes can enable up to 90% automation for assessment/data analysis, in addition to the capacity to scale up to 500+ migrations per week. Cloud service partners with access to migration best practices across industries, ready blueprints, proprietary frameworks, tools, and technologies are able to significantly accelerate and streamline migration.
- # Predictable cost savings: Outsourcing Cloud migration to the right service partner enables end-to-end visibility and control over costs through automation, and reduces network maintenance costs as well. Flexible pay-per-service or consumption-based payment plans add to the convenience as businesses need not pay for unused capacity. Cloud migration service partners that offer advanced analytics capabilities further facilitate automated intelligent orchestration of workloads to the best-fit Cloud, maximizing ROI and capacity utilization. Some migration service partners also offer converged solutions such as security protection, network monitoring, and disaster recovery that further augment cost savings.

The road to successful Cloud migration

As businesses increasingly move beyond a single Cloud to adopt a multi-Cloud approach, migration and interoperability challenges loom large.

Operational cost, time, effort, and resource savings that can be achieved by partnering with a managed Cloud provider far outweigh the savings of managing the migration in-house. A managed Cloud provider combines automated

assessments with industrialized approach to migration, resulting in seamless post-migration digital operations at zero risk. The bottom-line: a combination of careful planning, detailed deliberations, and partnerships with managed Cloud providers can help anticipate and overcome potential roadblocks and ensure migration success.

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