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CLOSING THE CLOUD GAP

THE CIO MANDATE FOR
THE POST-COVID-19
FUTURE

An Infosys Consulting Perspective

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Abstract

CIOs have been central to the COVID-19 response by pivoting to their organization's needs to enable widespread remote working. This was largely achieved by expediting digital collaboration and other business systems through cloud technologies.

Due to recent events, CIOs and CTOs now find themselves on the front foot thanks to their crucial role during the COVID-19 pandemic. That makes now the ideal time to further elevate top-team support for reinvigorating or rebuilding a cloud program to deliver enduring value.

It is likely that the first response to the pandemic may have addressed the most critical elements of the business value chain. As we move towards a new normal, businesses need to focus their cloud programs on transforming the rest of the value chain to optimize costs and reduce dependencies on physical facilities. There may still be some "I's to dot and T's to cross" due to the speed required at the height of COVID-19's initial response. As digitization programs accelerate, the cloud allows them to make business strategies successful beyond the remit of IT.

In this POV, we look at the drivers for change, the challenges faced by CIOs when implementing a cloud strategy, and practical steps for reinvigorating their program in 2020 and beyond.

Introduction

COVID-19 has widened the gap between digital leaders and digital laggards. Those companies with a digitized value chain, or an 'asset light' cloud-based model, had a distinct advantage during the outbreak of the pandemic.

The benefits of cloud computing are well-known, but implementing a business-wide transformation program is often challenging.

These 'asset light' models gave business and IT execs stronger capabilities in risk management, greater visibility over their supply chain, and the flexibility needed to make quick decisions and adjustments. These enablers were instrumental in keeping businesses running to deliver services that previously were either partially through digital means or in a completely non-digital format.

Cloud adoption was already increasing rapidly before COVID-19. IDC's Worldwide Quarterly Cloud IT Infrastructure Tracker - 2020 shows spending on cloud infrastructure overtook its non-cloud equivalent later this year, forecasting cloud spend to comprise 54% of overall IT infrastructure outlay.¹ The pandemic has simply accelerated this movement, enabling enterprises to be agile and adaptable with their workloads and the support they can give to remote workforces.

The benefits of cloud computing are well-known, but implementing a business-wide transformation program is often challenging. Key challenges include generating enthusiasm to move among stakeholders, technical and business alignment and having a clear business case.

In order to overcome these challenges, there are a number of critical success factors to put in place as a foundation to a sustainable cloud program. In this POV, we outline these factors, and offer a four-step guide to reinvigorating and scaling existing cloud transformations.

COVID-19 and its Impact on Business IT

Cloud is the catalyst and the enabler of the important technological shift that was already well underway before COVID-19.

“What the pandemic has bought into sharp relief is how a flexible cloud deployment is critical to enable enterprises to be agile and adaptable with their workloads, processes and the support they can give to remote workforces.”

- Raconteur²

Before 2020, businesses typically took incremental steps towards rolling out digitization programs; this phased approach would take place over a number of years. However, the effort to maintain operations during COVID-19 put cloud computing at center stage, and organizations that delayed making the move in the past had to rapidly skill-up in response to challenges to their business model.

For businesses that were further behind on their transformation journey, the pandemic is likely to have exposed shortcomings in their operating models. Many will have transferred existing processes and ways of working to virtual work set-ups, investing in off-the-shelf solutions like Zoom®, Office365® and Google's G-Suite® as a way of rapidly improving efficiency and agility. In places, this has been so successful that some will look to make the change in work patterns a more permanent set-up.

For those companies further along the maturity scale, this shift to the cloud was always inevitable, but the pandemic proved to be a “live-fire stress test” of many initiatives that were still in the process of being rolled out. While this will have come with its own challenges, there's now a significant increase in the willingness to engage in multi-stakeholder conversations on the benefits of cloud – giving CIOs the chance to build momentum and accelerate existing transformation initiatives.

Cloud as an Enabler for the New Normal

The IT industry has been evolving since its inception, and cloud is fundamental to what happens now and in the future. Thanks to COVID-19, it is inevitable that a cloud-first model will be at the core of the new normal for business.

Through cloud adoption, companies can achieve significant increases in top-line revenue and profitability through cost control. Importantly, while companies see benefits of cloud at all stages of maturity, these benefits accelerate as the business moves up the adoption scale.

Unlike on-premise systems, the cloud allows for scalability, reliability and distribution across zones and regions, which will be critical to cope with possible resurgences of the virus and the unpredictability of the markets.

Figure 1 shows five of the key benefits which are particularly pertinent in the post-pandemic landscape.

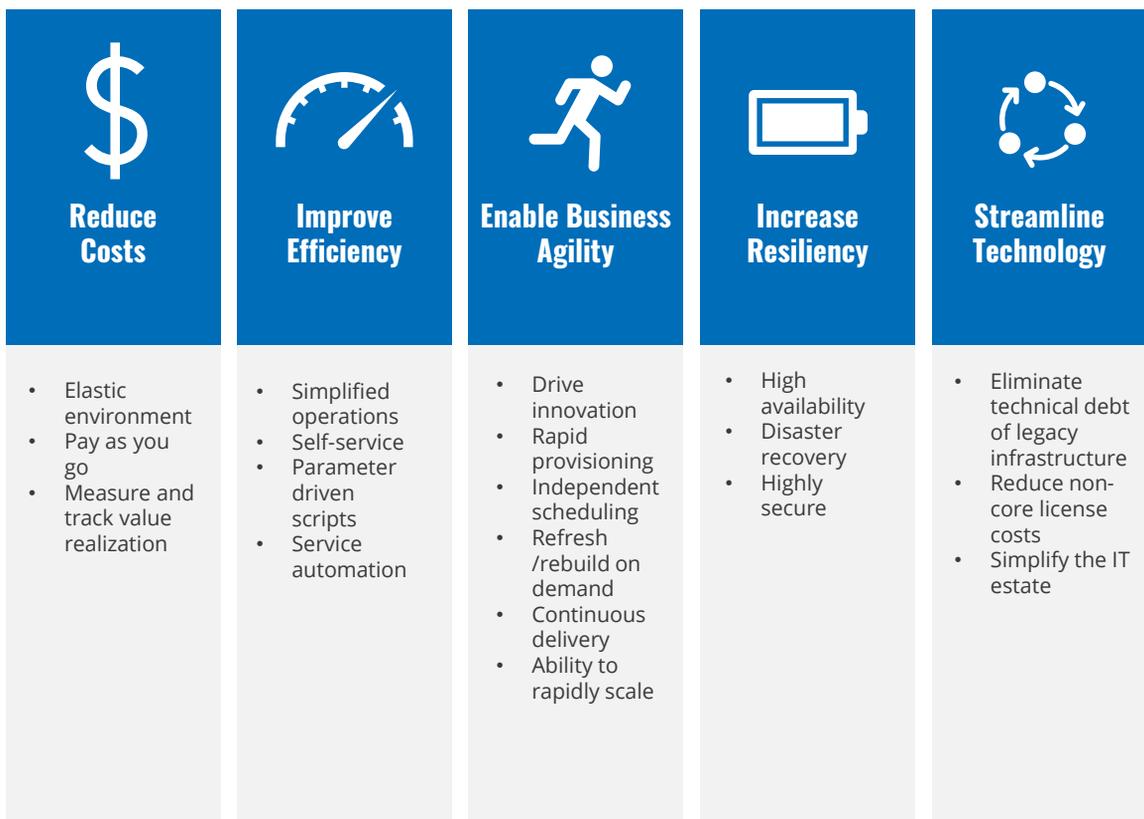


Figure 1

“As companies adopt cloud strategies for sourcing and building IT services, they are both expecting and achieving significant gains in business key performance indicators (KPIs) including revenue growth, strategic IT budget allocation, IT costs, quicker time to provision, and increased ability to meet SLAs.” IDC³

Reduced costs

Along with making tactical cuts quickly, businesses must consider how they can find ways to reduce costs whilst also building resiliency for the future. Cloud enables a more automated and efficient infrastructure, providing a consistent platform and allowing organizations to scale without having to overprovision up front or add expensive resources.

Improved efficiency

Greater automation and integration means standardized processes with fewer manual interventions, as well as providing output more quickly. Cloud can also support analytics that would be uneconomical or simply impossible with traditional technology platforms.

Business agility

We've had to work faster and better than ever before to match the dramatic shifts in customer expectations, and these new standards for agility will overturn old paradigms. Cloud platforms can scale up and down with flexibility, so they can cope with volatile conditions like those currently being experienced from the pandemic.

Increase resiliency

Cloud is secure by design and often more secure than legacy systems for most businesses. Transparent multi-site resiliency is a standard offering from the hyper-scale cloud providers.

Streamline technology

Buying cloud-native solutions eliminates the technical and financial debt of legacy infrastructure while simplifying the IT estate.

Finally, the cloud is fundamental to driving innovation within a business. For example, the immediate access to powerful, ready to use, solutions for analytics, AI and automation in the cloud allow businesses to generate competitive advantage quickly without the up-front costs and lead times of traditional platforms.

Traditional Challenges of Cloud Platforms

For CIOs and their teams, the benefits of cloud, particularly post-COVID-19, are readily apparent. In many cases, they've already been pushing their organization to accelerate adoption for a number of years.

Resources focused on on-premise infrastructure may feel left behind or threatened, leading to attrition and disengagement from resources critical to continuity of the on-premise environment.

However, there are a number of common bottlenecks that most businesses encounter as they accelerate their journey to cloud, which have traditionally slowed or even halted programs. We've outlined some of the most common of these below.

Complex technology-funding mechanisms:

Technology-funding mechanisms can hinder cloud adoption—they prioritize features requested by the business in the immediate term, rather than critical infrastructure investments that will benefit them in the future. Additionally, many organizations do not have a clear view of total IT costs, including where they spend, how effective that spend is, and how reliable and accurate their data is.

Lack of clarity around the operating model: Lack of clarity around target state can create anxiety around the impact it will have on people's jobs. Resources focused on on-premise infrastructure may feel left behind or threatened, leading to attrition and disengagement from resources critical to continuity of the on-premise environment.

Skills and tools: Transitioning from a plan-build-run model to source-manage-innovate means that some resources may lack the skills and tools to fulfill their new roles. Although cloud computing can dramatically boost the productivity of technology, it often requires specialized and technical talent.

Lack of rewards and consequences: Cloud transformation is a long-term journey, and change fatigue can cause people to give up on cloud and revert to old behaviors – particularly if they are not being given the appropriate motive to change.

As a result of these challenges, the journey to cloud may have traditionally been slower than CIOs might have liked. However, thanks to the pandemic, there are compelling reasons for businesses to increase their cloud adoption level in the immediate term.

Building your Post-COVID-19 Cloud Program

CIOs and CTOs are on the front foot right now thanks to their crucial role during the COVID-19 pandemic. That makes this the ideal time to further elevate top-team support for reinvigorating or rebuilding a cloud program.

“Moving up the maturity scale is an incremental process. It’s also possible for organizations to start at different stages or skip some stages completely. But the key is to adopt best practices such as workload portability, security, and policy-based automation to continue moving up the curve.” IDC³

Eight Critical Success Factors

Many organizations strive to become efficient in what they do with the use of technology to constantly meet customer demands and compete against new market entrants.

Yet, their cloud adoption programs are not moving fast enough, because they haven’t considered a number of critical success factors that must form the foundation of every cloud program. These eight factors are outlined in Figure 2.

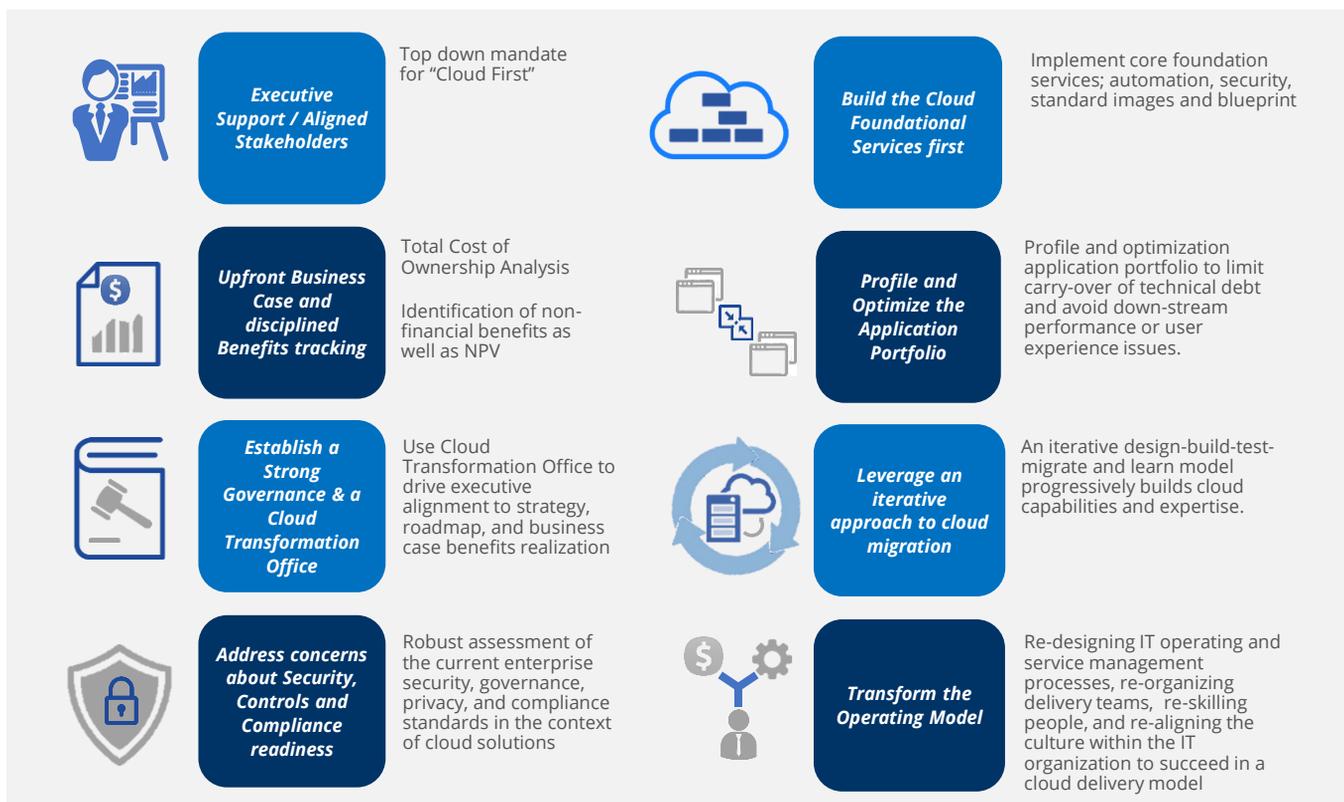


Figure 2

Everything in enterprise technology implies risk. To mitigate security, resiliency and compliance concerns relating to the adoption of the cloud, companies must be clear about what these risks are and what they mean.

1. Executive support

The transition to cloud computing represents a collective-action problem—one that requires a coordinated effort across the team and a top down mandate for 'cloud first' in the organization. Together, these interventions will help the executive team unite around a coherent point of view about the business-driven value that the cloud represents, how to capture that value, and how to evolve the company's operating model accordingly.

2. Upfront business case

Thanks to COVID-19 forcing change at greater speed, there's likely to be a greater understanding in the executive team of 'what' it is that they want to achieve through cloud. However, equally important is helping them understand the 'why' and the 'how'. By evaluating the current technical landscape and effort needed from both a people process and technology perspective, stakeholders have the chance to buy into the change.

3. Establish strong governance

Creating a Cloud Transformation Office will help to drive executive alignment to the strategy and roadmap, as well as business case benefits realization. Typically run by the program governance and steering group, with representatives from different business units, the Cloud Transformation Office will proactively manage the exceptions and risks that arise as part of the program.

4. Address concerns about security

Everything in enterprise technology implies risk. To mitigate security, resiliency and compliance concerns relating to the adoption of the cloud, companies must be clear about what these risks are and what they mean. Among other things, that means a robust assessment of the current enterprise security, governance, privacy, and compliance standards in the context of cloud solutions.

“Cloud is as much an operating model as it is a technology. Organizations that find success with cloud adapt their operating process to fully leverage cloud principles.” Gartner⁴

5. Build the cloud foundational services first

Before embarking on the transition to the ‘To-Be’ state, CIOs and their teams should ensure that they have a standard and compliant environment set up as a destination. This includes core foundation services like authentication, automation and security.

6. Profile capabilities and optimize the application portfolio

As the business and IT environment have evolved, the portfolio of applications needed to support the business may have become overly complex and difficult to manage. Successful cloud transformations often include Application Portfolio Management (APM), a practice that helps rationalize the systems landscape in line with required capabilities, with the benefit of limiting carry-over of technical debt and improving user-experience.

7. Leverage an iterative approach to cloud migration

An iterative design-build-test-migrate and learn model progressively builds cloud capabilities and expertise. We recommend focusing on enabling the key IT services that are most significantly impacted by the cloud first, and enabling additional services in a future phase if required.

8. Transform the operating model

This step focuses on transforming key characteristics of the operating model, such as business processes, people, roles and organizational structure. It is important to take a holistic view here to ensure that all bases are covered; for example, new talent with specialized skills might have to be hired externally or upskilled from within.

Practical Steps to Reinvigorate your Cloud Program

As well as considering the eight critical success factors that we've outlined in this paper, there are a series of practical steps that CIOs and their teams can take to reinvigorate their cloud program for the post-COVID-19 landscape.

Key to this is understanding exactly where they sit on their cloud adoption journey, and where they want to get to in the future; not all businesses will have the same target end state, or the same method of reaching it.

Four steps to success

In our experience, successful programs have four key steps in common. These four steps are only the beginning of a long-term cloud transformation program, but they result in a clear plan and concrete milestones to ensure future success (Figure 3).

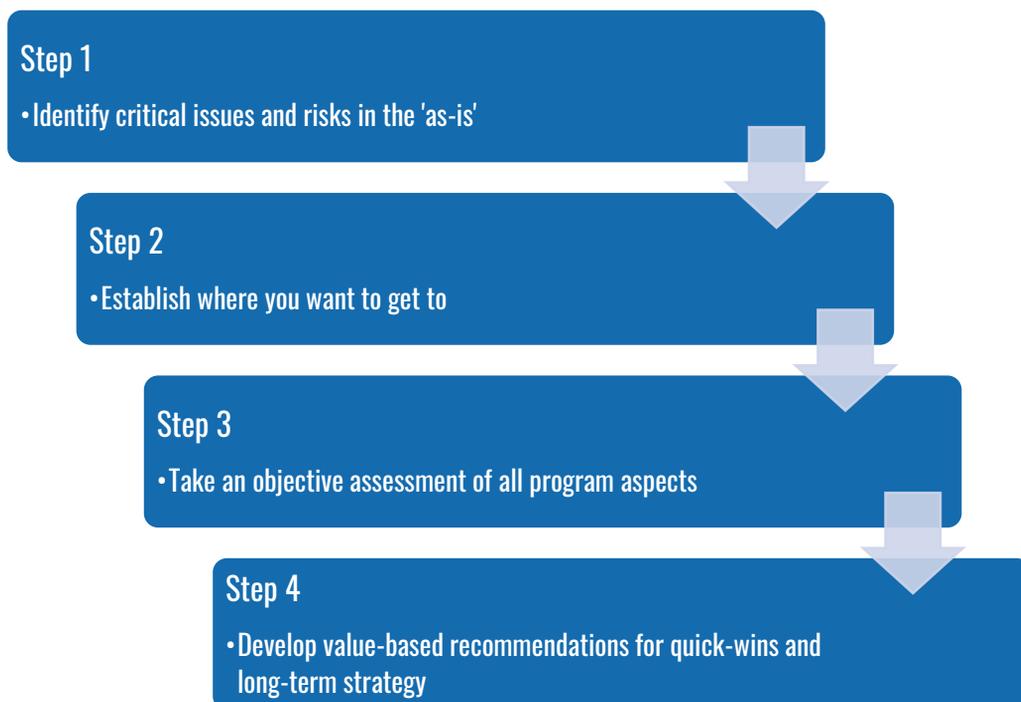


Figure 3

Let's look at each step in more detail and consider some of the key points from the roadmap.

No two businesses will have the same goal – every cloud transformation is different, and there is no one-size-fits all solution.

1. Identify critical issues in the ‘as-is’

As a first step, organizations should carry out a baseline assessment to identify existing issues and risks. This assessment should include both individual contributions and collaborative sessions to build a shared view of the ‘as-is’ organizational state. We recommend undertaking the following activities as part of this step:

- **Qualitative Analysis**
 - Structured maturity assessment
 - Targeted operational team interviews
- **Quantitative Analysis**
 - Cloud suitability analysis
 - Metrics analysis and benchmarks
- **Present findings and gain stakeholder buy-in**
 - SWOT
 - Initial cloud roadmap hypothesis

2. Define your target state

During any cloud implementation program, organizations will need to run in three different modes concurrently: legacy systems of the past, the ‘to-be’ state of the future, and the transition phase between the two.

Having a clear view of the target state (operational as well as technical), is essential to making effective progress, reducing the complexities and effort spent on interim modes. The target state needs to be carefully shaped to best support the business needs. No two businesses will have the same goal – every cloud transformation is different, and there is no one-size-fits all solution.

3. Take an objective assessment of all program areas

After assessing the ‘as-is’ and defining the target state, we recommend organizations assess six core business dimensions to create actionable recommendations for reaching their ‘to-be’ state:

- **Alignment to business strategy:** Test and validate how the business strategy is supported by the cloud to ensure business buy-in for adoption.
- **Transformation:** Understand current initiatives.
- **Platform and architecture:** Understand the requirements and possibilities of cloud.
- **Service management and operating model:** Understand how the business will interact with the changing services and the organization needed to support.
- **Risk and compliance:** Understand the risk and compliance issue associated and how these can be managed and mitigated.
- **Security:** Understand the changing security posture both threats and solutions as companies move to a more digital delivery.

4. Develop value-based recommendations for quick-wins and long-term strategy

Following this assessment, organizations will be in a good place to create recommendations and prioritize practical steps for each dimension, covering process, organization, technology and data. These directional insights can be shared with management, and might include the examples below (Figure 4):

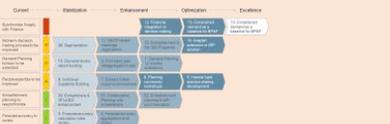
Report	Summary	Example
Top Improvement Areas	Summary of the assessments of the current state with maturity gaps, high level root cause and key areas of improvement regarding the 6 core dimensions	
High Impact Initiatives	Set of recommendations and improvement measures to bring leading practices into initiatives, linked to their impact on business value and core dimensions	
Actionable Roadmap	A 4-Month Quick Wins and a 12-Month Improvement Plan, with clarity of value brought over time to the business across the 6 dimensions and impact on business.	

Figure 4

Based on these insights, companies will have a clear understanding of the maturity and performance of their cloud capabilities, and strategic direction, enabling them to plan their sustainable digital future.

LOOKING TO THE FUTURE

Every downturn produces opportunity for innovation, and COVID-19 is no exception. Looking at the sudden shift to remote working and its impact on businesses worldwide, its hard to argue against the notion of cloud computing becoming standard.

The future will see a continued investment in technology that presents the opportunity for long-term growth and stability. Cloud platforms can help deploy new digital initiatives in days rather than months, and can support analytics that would be uneconomical or simply impossible with traditional on-premise platforms.

Moving forward, IT leaders must take a comprehensive approach to managing cloud, uncovering opportunities to streamline costs while continuing to provide the infrastructure needed to support their workforce and drive innovation. While there can be bottlenecks on the journey to cloud adoption, CIOs are in prime position to elevate top-team support for reinvigorating or rebuilding their program.

At Infosys Consulting, we help businesses assess their current position and chart a path forward to their target state. Get in touch with our experts to find out more.

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¹ <https://cloudcomputing-news.net/news/2020/jun/29/cloud-it-infrastructure-spend-still-going-up-amid-covid-19-says-idc/>

² <https://www.raconteur.net/technology/cloud-business-2020/benefits-cloud-computing-covid>

³ https://www.cisco.com/c/dam/m/en_emear/internet-of-everything-ioe/iac/assets/pdfs/cloud/cisco-bca-cloud-adoption-wp-255771-final.pdf

⁴ <https://www.gartner.com/smarterwithgartner/the-top-10-cloud-myths/>

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