kyndryl

4 Pathways to mission-critical infrastructure modernization

Accelerate digital transformation and drive exponential value with Kyndryl and Microsoft Azure

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Executive summary

When the pandemic hit, it changed cloud adoption from a long-term transformation goal to an immediate business need. A recent study found that more than 50% of enterprises increased cloud usage as a result of the pandemic, while 92% said their journey to cloud was accelerating faster than anticipated.[1]

Cloud has undoubtedly proven vital for agility and making security-rich IT environments accessible from anywhere; however, in the rush to cloud, some unintended outcomes have been complexity and increased cost. Without the right mix of planning, strategy, and skills, many businesses move to cloud without realizing any of the innovation, insight, and enhancements along the way.

In this paper, we'll discuss different approaches to transformation, each led by a specific business need, and outline Kyndryl services to support your modernization journey from strategy and planning to migration, modernization, and management.

Introduction

Cloud-enabled computing offers many benefits to help enterprises operate more efficiently and effectively, but it comes at a price. Cloud can be complex, costly, and difficult to manage, requiring significant investment in IT skills and resources.

The adoption of cloud is further complicated by rapid data growth, security concerns, need for policy compliance, and the acceleration of automation and AI adoption. Even so, business leaders are aggressively choosing cloud for the agility, faster time to market, cost optimization, high availability, and improvements to performance and security.

These factors weigh heavily on the minds of CIOs as they consider their need for IT transformation against the challenges of implementing that transformation in their enterprises. The case for digital transformation has never been clearer or more urgent; however, many enterprises still experience a variety of obstacles standing in their way.

Common impediments to the digital transformation journey include:

Decentralized workloads: As workloads are increasingly spread between existing infrastructure, public cloud, and private cloud, it elevates the focus on IT-enabled business outcomes and drives the need to outsource non-differentiating IT functions.

Modern operations: As containers and cloud-native environments quickly become mainstream, it's imperative to transform your operating model accordingly for unified observability and management across ITSM and DevSecOps.

Drive to deliver business results: Business outcomes are increasingly dictating the application modernization agenda, driving needs for migration, modernization, and management.

User experience and engagement: Low adoption of self-service capabilities, a poor end-user support experience, and inconsistent new employee onboarding processes all impact productivity, retention, and overall employee engagement.

AI implementation: AI can bring a huge competitive advantage, but it requires the right mix of strategy, integration, and agile execution to combine cloud, data, governance, your tools ecosystem, and AI algorithms.

Data modernization and migration: To support analytics and AI, it's critical to modernize and migrate data as a key part of any transformation effort.

In the face of these obstacles, it can be easy to lose sight of business goals and start lifting and shifting workloads simply for the sake of getting to cloud—sacrificing valuable innovation, insight, and enhancements along the way.

Pathways to transformation

There is often confusion about how to start a transformation journey. Many organizations work diligently with their cloud service providers to make intelligent, informed decisions about the design and implementation of their mission-critical infrastructure modernization.

A successful transformation journey typically begins in one of four ways.

Infrastructure-led transformation
The first step toward IT transformation, this pathway helps enterprises lift and shift workloads before embarking on a full-fledged application-led modernization journey. Benefits often include cost optimization, streamlined operations, and significant reduction of technical debt.

Kyndryl's cloud-first approach allows for agile service delivery, helping to reduce operating costs and accelerate cloud adoption from day one. When combined with Microsoft's Azure services and Cloud Adoption Framework, our methods can help your enterprise overcome some of the most common transformation challenges, such as business continuity, cost optimization, and evaluating gaps in your current technology infrastructure.

Business-led transformation
Cloud has become the premier foundation to address current business priorities for digital transformation. The agility, flexibility, and strategic value of cloud multiplies when the cloud transformation strategy aligns with business and digital transformation strategy. This consultative-led approach helps with selecting the right hyperscalers, hybrid strategies, network integration architecture, security architecture, guidance on application placement, and aligned ROI models with well-articulated business benefits.

Kyndryl can help accelerate your transformation progress by articulating a strategy that aligns with your business goals and delivering the blueprints to help you achieve them. We evaluate transformation readiness and identify any gaps, define your technology vision and process modernization, and deliver the prioritized roadmap, business case, and technology architectures crucial to helping you meet your goals.

Application-led migration and modernization

Applications are the backbone of digital transformation initiatives. The shift toward cloud-native technologies, hyperscaler PaaS services adoption, SRE-based operating models, and integration needs all drive application modernization. Businesses expect faster time to market, improved innovation, improved customer experience, greater agility, cost reduction, IT simplification, and simplified operational benefits when following this transformation path.

Kyndryl has the capabilities and vision for application modernization with continuous enhancements and expansion, including investments in service delivery assets. In this kind of migration, we can help with common challenges like risk and regulatory compliance, gaps in skilled resources, integration with existing applications and processes, and creating an architecture to minimize business disruption.

Analytics-led transformation

With the explosion of digitization, data has become a strategic asset for today's businesses. But despite the volume of data they possess, many enterprises struggle to derive insights from their data, often due to operational inefficiencies, exponential data growth, poor data integrity, and a lack of data management and engineering skills. Data modernization, data democratization, and AI-assisted data governance lead to the monetization of data and create differentiations for the business.

By 2025, an estimated 75% of organizations looking to drive revenue growth will only select vendors with a portfolio of strategy, design, and technology services.[2] Kyndryl can provide skilled experts and data fabrics to help you modernize the data landscape, as well as build and manage a data platform that lets your team focus on deriving critical business insights.

Kyndryl services

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Consulting services

Work with Kyndryl experts to develop a transformation strategy that's aligned to your unique business goals. We evaluate the gaps between your current and target states, outline a roadmap, and recommend the resources, organizational culture, and governance necessary for a successful transformation.

Kyndryl consulting services include:

Strategy and roadmap for operating environment transformation

Automation assessment and Microsoft® Azure DevOps

Microsoft Azure resiliency and disaster recovery

Microsoft Azure network consulting services

Microsoft Azure cloud adoption

Migration and modernization services

Building upon the transformation strategy developed during the consulting phase, our migration and modernization services can help you execute that strategy, and rehost, refactor, or even rebuild applications depending on your business requirements. Our experts use DevSecOps principles to drive efficient and agile delivery models.

Kyndryl migration and modernization services include:

– **Workload migration:** Our migration services include discovery and analysis to understand your environment and interdependencies, as well as migration event planning and execution with detailed runbooks and automation to move workloads to Microsoft Azure without impacting the business.

– **Application containerization and platform migration:** Our experts can assist with application discovery, remediation, and containerization, and help you deploy each application to your chosen container platform on Microsoft Azure.

– **SAP modernization and migration:** For businesses that rely on SAP applications, we can help with modernization and migration to Microsoft Azure, including analysis of the SAP application landscape, definition of strategy, and implementation services.

Cloud development services

Our cloud experts can provide design and implementation solutions for workloads across public, private, and hybrid cloud environments. We'll help you enable further digital transformation with a standard, scalable, security-rich cloud platform, built with deep technology expertise and proven accelerators to drive agility, efficiency, security, and predictability.

Managed services

We provide intelligent, pre-emptive management services for your entire Microsoft Azure environment, including IaaS, PaaS, and containers, as well as hybrid extensions of your cloud services and landing zone provisioning. Our 24×7 management services employ cloud-native management, modern service management, and transform-to-cloud operating models to maintain compliance and optimize your environment.

Network transformation services

Our network configuration services can seamlessly integrate network components both on premises and on Microsoft Azure cloud, while modernization services ensure the implementation of 5G and software-defined networking.

Data and AI services

Realize more value from your data, applications, and AI capabilities with a modern approach to data and data management. We'll help you derive insights from your data using Azure Synapse, Azure Big Data, and Azure AI to facilitate intelligent decision-making.

Cyber resiliency and security services

No matter where you are in your transformation journey, security is vital. Maintain business continuity and constantly adapt to new threats and regulatory standards with our advisory-led managed services for Microsoft Azure workloads, with resiliency orchestration to manage cyber threats, maintain availability, minimize the risk of data loss, and facilitate a rapid return to business operations.

Why Kyndryl?

Kyndryl has deep expertise in designing, running, and managing the most modern, efficient, and reliable technology infrastructure that the world depends on every day. We are deeply committed to advancing the critical infrastructure that powers human progress. We're building on our foundation of excellence by creating systems in new ways: bringing in the right partners, investing in our business, and working side by side with our clients to unlock potential.

Learn more

To learn more about how Kyndryl and Microsoft are working together to modernize mission-critical infrastructure around the world, visit kyndryl.com/us/en/about-us/alliances/microsoft

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1   Microsoft, *Hybrid & Multicloud Perceptions Survey*, March 2022

2   IDC, *Top 10 Worldwide Services 2021 Predictions*, December 2020