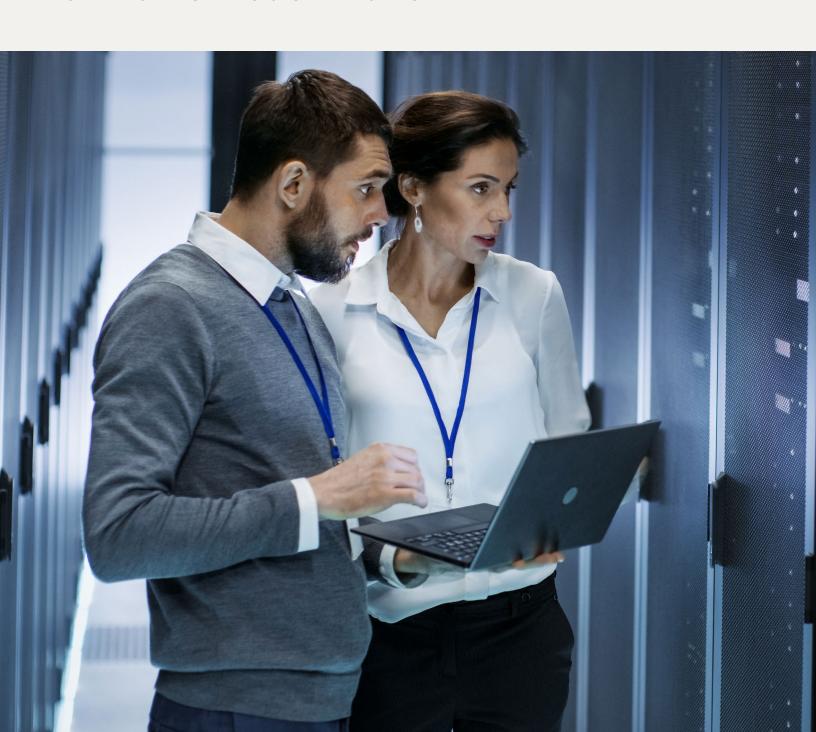
# kyndryl

Why banking and insurance should double down on mainframe modernization



There's a familiar discussion playing out in the offices of bank executives around the world. Once again, the role of the mainframe is up for debate.

Leaders across the banking and financial services industry are now asking themselves the same questions: What does the future of this enduring technology look like for the banking sector and how can it support the digital transformation I need to achieve?

Today, the mainframe remains integral to the security and resilience of financial service providers big and small and continues to serve as the backbone for some of the world's most robust financial systems. As a result, the stakes of this debate are high—but so is the need for cloud-based applications and other new technologies revolutionizing how banks do business.

Many of the customers we work with find themselves at an inflection point. For banks looking to future-proof their organizations, the time to act is ripe. To continue providing value from past mainframe investments and position themselves for future opportunities, business leaders must determine how, what, and when to modernize.

#### What does success look like?

The goal of most mainframe modernization journeys is relatively simple: to increase agility alongside the freedom to experiment, quickly join new markets, attract new customers, and rapidly convene ecosystems. In embarking on this path, we have seen a tendency to race full throttle towards a technology-defined finish line, which obscures the original purpose of increased business agility.

As a result, a commonly held misbelief—that mainframe modernization equates to migrating all workloads to cloud—has long prevailed, creating its own challenges. In a 2021 report, Gartner® found that organizations that rush into cloud investments with little to no cost optimization plans are not only unable to derive the value they expect, but they also end up overspending on these services by up to 70%.¹

To move forward with confidence, we believe it is crucial for banking leaders to reevaluate mainframe modernization through a fresh lens. This transformation is as much about an individual enterprise's culture, pain points, and use cases as it is about the overarching IT landscape. The challenge is to find which combination of integrating with mainframe, modernizing on mainframe, or migrating off mainframe will work best for their specific workforce, operations, and workloads.





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Day in and day out, we see customers from organizations of all sizes asking themselves the same **questions**:

- Should I invest further in my mainframe technology—and if so, why and with which technology?
- How do I modernize my mainframe without compromising on the resilience of my business and our high-security environment?
- How do I make the data and logic on my mainframe available to the cloud—and how do I do that in a secure manner? Should I move some or all of my applications and data over to the cloud—and if so, how do I decide which ones?
- I've invested in my mainframe technology for 30+ years and there is a lot of data and business and application logic there that is core to my business. How do I modernize while continuing to use the data and logic on my mainframe to drive my business forward?



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Here are **four fundamentals** we often share with our customers to help them start their own mainframe modernization journeys.

# 1.

## Adopt a hybrid approach

The first fundamental step of any successful mainframe modernization journey is to find the answers to these questions through the lens of your company's current application and data estate. Where will investing in, divesting from, or maintaining your mainframe estate create the most value? Which applications are best suited to stay on the mainframe and which will be better suited to move off the mainframe and into a cloud environment? And finally: How can you best combine the benefits of these approaches to address your operational and business needs?

This process is what we mean by a hybrid approach. The goal is to determine which of your workloads will work best on which platform. In other words, it's all about finding the right platform for the right workload.

Particularly during the first stage of your journey, adopting a hybrid approach to mainframe modernization unlocks incremental benefits of cloud integration while continuing to capitalize on your mainframe's stability, reliability, and security. Unlike a full migration off the mainframe—an effort that can take years—a hybrid approach grants your enterprise the flexibility to generate immediate business impacts while minimizing risk, service outages, and unnecessary spending.

# 2

## Leverage your (existing) data

Another integral fundamental we don't see discussed enough is the exposure of applications and data through APIs, using tools such as IBM zOS Connect, Amazon API Gateway, Google Apigee, or Azure Logic App Connectors.

The business value of comprehensively and securely exposing your applications and data cannot be underestimated, especially given the number of different data sources and technologies on the mainframe that have been used through the years. Unlocking the data for use in new and innovative ways—from in-depth analytics to fraud detection and Al—is a crucial step forward, and one businesses should not shy away from. Taking that step not only facilitates improved business outcomes and customer insights, but also grants teams new capabilities to leverage machine learning functionalities, improved reporting, and even create low-code or no-code applications.

This exposure has the added benefit of making the mainframe accessible to a newer, younger workforce. If, through API integration—which allows apps to run both on and off the mainframe—you enable more modern types of languages like Java or Python, new hires can be directly involved in your application, development, and maintenance (ADM) space.



3.

### Invest in the development workforce

Modern language enablement leads us to our next fundamental: When it comes to mainframe technology, there are fewer and fewer developers in the workforce who are familiar and comfortable with older languages and technologies, such as COBOL, PL/I, CICS, or IMS. Younger developers are instead entering the workforce with expertise in Java and Python and associated products like Spring.

We believe that banks need to look at this application development workforce challenge as a call to invest in the skillsets required to monitor, manage, and build a new, hybrid environment. For instance, facilitating IMS skill-building for existing Java programmers enables them to write new IMS applications in Java, just as they would Spring applications. Whether that enablement means working with partners to help fill these skills gaps or establishing your own roadmap to bring in new faces, mainframe modernization will continue to be a workforce-related strategy as well as digital one.

This skills renovation can also lead to new and innovative uses of modern mainframe technologies. For example: with the latest mainframe technology, it is now feasible to build and run Al solutions on the mainframe instead of having to run the Al component offboard—which, in turn, makes it possible to run Al capabilities where necessary against all mainframe workloads instead of a smaller percentage.

4.

# Embrace progressive transformation

Finally, and perhaps most importantly, any mainframe modernization journey should be one based on progressive transformation. This process is one of constant evaluation and re-evaluation to determine how your business is best served by evolving with, around, or without the mainframe, and how your team will decide to take the necessary steps to success—by adopting a hybrid approach, leveraging applications and data, investing in the application development and production workforce, and embracing progressive transformation.

This journey is not about overnight change; it's about finding a set of solutions driven by business needs to deliver value today, tomorrow, and in the years to come.



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#### About the authors

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#### For more information

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 customers to unlock potential.

Learn how Kyndryl helps customers across the banking and financial industries modernize their mainframe.



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1 Realize Cost Savings after Migrating to the Cloud. Gartner, 28 April 2021