

How to Choose Your Mainframe Modernization Strategy

With quick and cost-efficient digital transformation top of mind, a future-proof strategy to modernize your mainframe infrastructure could be a catalyst for growth.

Mainframe Transformation — Why Now?

As an IT decision-maker, you face pressure from many angles. **You're expected to reduce costs and barriers to digital transformation**, ensure an ROI on current and future technology investments, and protect against business interruption, while also improving the customer experience by enabling faster business processes in a secure environment.

The mainframe is often viewed as a high budget, legacy technology that stands in the way of these strategic priorities. However, that is far from the truth.

There is significant value in staying on the mainframe. Mainframes process billions of secure transactions for mission-critical applications, such as in finance, accounting and research, that need a strong backbone for optimal performance. In fact, 93% of IT leaders report combined long-term and new mainframe workload strength.

Even more, **a full migration to the cloud requires significant time and financial investment** — and may prove less cost-effective and agile than modernizing or optimizing what you currently have.



83%

of IT leaders say infrastructure is challenged to meet business demands.

Determining Your Mainframe Strategy: Optimization, Modernization and Migration

The mainframe is a valuable component of your greater IT ecosystem. Before considering a complete migration to the cloud, evaluate the benefits of optimization and modernization of your existing mainframe investment:

MAINFRAME OPTIMIZATION.

To keep costs down, work with a managed service provider (MSP) to optimize the mainframe at both a system and application level. An MSP works with you to optimize the performance of your current mainframe infrastructure by streamlining databases, reducing inefficiencies and offloading workloads. Mainframe optimization reduces maintenance costs and leverages new technologies, while maintaining current mainframe infrastructure.

MAINFRAME MODERNIZATION.

If mainframe optimization is not sufficient to reach your desired business goals, look next to mainframe modernization — a low cost, lower risk alternative to migration. [In a recent IDC study](#), IBM i and System z shops that modernized scored higher across metrics like customer experience, overall performance, agility and DevOps compared to colleagues who chose to migrate. Those that modernized rather than migrated also reported spending less on hardware, software and staffing, and generated higher revenues.

3 Strategies for Mainframe Modernization

There are three mainframe modernization strategies outside of a complete migration. Each strategy meets a different business need.

01 | ENABLE MODERN CAPABILITIES TO MAKE THE MOST OF YOUR EXISTING CODE AND DATA.

To reduce long-term capital costs and foster a lower total cost of ownership (TCO), consider integrating the mainframe into broader IT strategies and application development. For example, introducing **bi-directional API connectivity allows for seamless communication between mainframe and non-mainframe apps**. In addition, modern capabilities like artificial intelligence (AI), hybrid data analytics and DevOps increase agility and the ability to innovate while staying on the mainframe.

02 | CONVERT AND CONSOLIDATE SELECT APPS AND DATA ON THE MAINFRAME.

To more closely align with skills and talent needed for the future, convert legacy code and data to run anywhere. **Consider deploying the converted code (i.e., in Java) or data (i.e., Relational) on the IBM Z platform** to take advantage of the z Integrated Information Processor (zIIP) engine and to reduce MIPS and costs. These changes enable enhancement and agility of mainframe apps and data with cloud native functions, such as containers and microservices.

03 | MIGRATE SELECT APPS, CODE AND DATA TO THE CLOUD.

To propel a stagnant cloud journey, create an intentionally built environment. Selectively migrate apps to the cloud, retiring, rehosting, replacing or refactoring apps that live on the mainframe due to history rather than necessity. **Ideal candidates include applications without security and compliance concerns and those that would cause minimal business disruption** (i.e., web, containerized applications, commerce software and ERP and SFA applications).

Only after you've exhausted each mainframe modernization strategy, as well as attempted an optimization strategy without achieving results, should you consider migrating off of the mainframe entirely.



67% OF BUSINESS LEADERS believe they need to accelerate their pace of becoming a digital business to stay competitive.



93% OF IT LEADERS report combined long-term and new workload strength of mainframe.



90% OF EXECUTIVE AND TECHNICAL PROFESSIONALS see the mainframe as a long-term platform for growth.

Hybrid Infrastructure Future-proofs Your Business

Executing an informed optimization or modernization strategy will address your strategic objectives directly by providing an optimal mix of mainframe and cloud capabilities. But this process doesn't exist in

a vacuum. Rather, it's one part of a holistic hybrid strategy that takes advantage of cloud-native technologies to take your mainframe into the future.