

AI-Led Mainframe Modernization for Faster, Lower-Risk Transformation

Customer challenges

Organizations must modernize mission-critical mainframe applications to reduce complexity, control costs, and accelerate innovation. Traditional approaches are often too slow, risky, and hard to scale.

- **Rising complexity:** Legacy architectures and dependencies increase cost, effort, and risk.
- **High failure rates:** Traditional approaches disrupt operations and often fall short.
- **Limited visibility:** Poor insight into dependencies and risks slows decisions.
- **Shrinking expertise:** A declining talent pool increases risk and limits change.
- **Modernization pressure:** Organizations must transform without disrupting critical workloads.

Solution highlights

Organizations can accelerate mainframe modernization and reduce risk through an AI-led approach powered by Microsoft Azure and Kyndryl expertise. This enables faster, more predictable transformation at scale.

- **AI-led modernization:** AI-powered discovery and dependency analysis, powered by Microsoft Azure AI and data services, identify the optimal modernization path for each application aligned to business priorities.
- **Industrialized delivery at scale:** Factory-based execution, powered by Azure's scalable infrastructure, enables consistent, high-volume modernization across complex environments.
- **Hybrid cloud on Azure:** Microsoft Azure provides a secure, scalable platform with integrated AI, data, and cloud services to support modernization across mainframe and distributed environments.

- **Incremental execution model:** Phased, continuous modernization, enabled by Azure's hybrid capabilities, reduces disruption while maintaining system stability.
- **End-to-end lifecycle:** Combines Azure platform capabilities with Kyndryl expertise across assessment, transformation, and optimization to support continuous innovation.

Customer benefits

Organizations gain faster transformation, lower risk, and greater operational efficiency through an AI-led modernization approach. The result is better visibility, control, and long-term adaptability.

1. **Faster time to value:** AI-powered automation and Azure platform capabilities accelerate analysis and delivery across complex application portfolios.
2. **Reduced operational risk:** Incremental, validated modernization minimizes disruption and maintains stability for mission-critical systems.
3. **Better visibility and decisions:** Azure AI and data services provide insights into application dependencies and risks, enabling more confident, data-driven strategies.
4. **Reduced cost and complexity:** Azure hybrid capabilities help streamline operations and reduce technical debt across environments.
5. **Continuous innovation:** Azure AI and cloud services enable ongoing modernization aligned to evolving business needs.



Providing undisputed leadership



6.1M mainframe
installed MIPS



270K network
devices managed



5,200+ WAN
devices managed



3.5M LAN
ports managed



3.5+ exabytes of customer
data backed up annually



14K+ SAP
instances managed



675K+ VMware
instances managed

29,000+ Microsoft Cloud
certifications

17,000+ Unique Microsoft
certified employees

60+ Countries with Microsoft Cloud
certified employees

Why Kyndryl and Microsoft?

About Kyndryl

Kyndryl is the world's largest provider of IT infrastructure services, serving thousands of enterprise customers in more than 60 countries. As a focused, independent company, we're building on our foundation of excellence by bringing in the right partners, investing in our business, and working side by side with our customers to unlock their potential.

Kyndryl and Microsoft advantage

Kyndryl and Microsoft provide the services and solutions to meet customers wherever they are on their cloud journey: on premises, across multiple clouds, or on the edge. With our joint expertise, we work with customers to manage complexity and modernize their operations for rapid business outcomes. We bring together deep design, delivery, management, and cloud technology expertise, supported by an expansive ecosystem, to unlock our customers' potential for long-term business impact.

Next steps

Learn more at kyndryl.com.

Microsoft Specializations

Azure

- AI Platform on Azure
- Microsoft Azure VMware Solution
- Infrastructure & DB Migration to Azure
- SAP on Microsoft Azure
- Microsoft Azure Virtual Desktop
- Analytics on Microsoft Azure

Business Applications

- Low Code Application Development
- Intelligent Automation

Modern Work

- Copilot

Security

- Identity & Access Management

Other programs

- Private Cloud Solutions Partner
- Member of Microsoft Intelligent Security Association (MISA)

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