Can it pay dividends for the financial services industry?
Introduction

Mainframe technology is deep seated in financial services. Every day, 12.6 billion financial transactions flow through mainframe systems. Each year, mainframes handle 29 billion ATM transactions and $7.7 trillion in credit card payments. These figures should not be surprising, given that 92 of the world’s top 100 banks rely on mainframes to quickly and accurately process high transaction volumes, as well as track the movement of often highly volatile financial accounts.

Yet, mainframes are not without their drawbacks: They are costly to operate, most personnel with mainframe knowledge are reaching retirement age, and many financial institutions are looking for alternative platforms to run manage their diverse workloads.

In most cases [apps] are written in legacy languages such as COBOL, PL/I and Assembler, which, if it isn't already, is likely to become a problem in the not too distant future, as the next generation are not learning these languages.”

The LzLabs & Microsoft Mainframe Modernization Survey 2018

Should I go?

Many financial services companies have begun moving applications off mainframe platforms as non-mainframe solutions become available, maintenance costs increase, and banks find it increasingly difficult to retain and hire mainframe support staff.

Between 2013 and 2018, mainframe-powered organizations lost 23% of their mainframe workforce, and only replaced one of every three experts lost. Clearly, the lack of available mainframe support personnel represents a significant risk to banks that have critical applications running on mainframes that must be supported 24x7.

The growing skill shortage is not the only problem. Mainframe systems are widely considered to be inflexible. According to a 2018 mainframe modernization survey conducted by LzLabs and Microsoft, over 70% of the 500 senior IT leaders they polled said that innovation was being limited by the inflexibility of mainframes.

Mainframes are monolithic by nature, which makes it virtually impossible to selectively modernize parts of an application without making major changes to the entire system. This extra effort is so large that modernization projects are often abandoned before they begin.

In the same survey, 95% of the respondents understood the advantages of abandoning mainframes, mainly driven by the ability to move to on-demand cloud computing and Agile development.

Even if moving to a modern platform is worth the time, effort and cost, it can be extremely risky. Legacy business applications written decades ago have since been modified and patched numerous times to align with changes in the business. These changes were often poorly documented, and as veteran mainframe professionals retire, critical system knowledge is lost.

Far and away, the biggest risks when modernizing mainframes are a loss of business functionality or accidentally implementing incorrect functionality. In the financial services industry, this risk can be catastrophic.

1 https://www.ibm.com/downloads/cas/8MGOLOB7
3 https://resources.compuware.com/hubfs/Collateral/White_Papers/Forrester%20KPI%20Study%203.21.18.pdf?utm_campaign=FY18Q4_AR_Forrester_Study&utm_source=ebook&utm_medium=9steps
“Mainframes have long been viewed as a reliable, available and serviceable platform on which to run core applications and store associated data.”

The LzLabs & Microsoft Mainframe Modernization Survey 2018

Big Iron checks a lot of boxes that IT decision makers at financial institutions consider when envisioning an ideal IT landscape. Mainframes have the processing power that financial institutions require to handle high transaction volumes. They are built for high application availability with almost zero downtime. Due to their monolithic nature, they are also isolated from outside threats and easy to secure. Because data is stored in one location within a protected network, this isolation is also beneficial when it comes to compliance – notably with Payment Card Industry (PCI) Data Security Standards.

So, can banks and financial institutions survive without mainframes? Possibly.

Can they survive without the applications running on their mainframes? Not a chance.

According to the LzLabs and Microsoft survey, 99% of senior IT decision makers considered their organization’s mainframe applications to be important. Nearly 30% said their mainframe applications are “mission critical.”

Moreover, according to a 2018 survey by Forrester Research, mainframes are the “backbone” of digital customer interactions. Of the 160 developers and decision makers they polled, 72% say their customer-facing applications are “completely” or “very reliant” on mainframe processing.

Mainframes provide an essential environment for business-critical applications in many financial organizations today and will continue to play a prominent role in coming decades.

The increasing need for mainframe-as-a-service

Given their critical role in financial services, mainframes are not going away any time soon. However, talent constraints, capital requirements and high maintenance costs are a major concern for the 92 of the top 100 banks still managing mainframe environments. When weighing these factors against the cost, complexity and risk of moving off mainframe, many financial services companies are considering mainframe outsourcing as a third option.

Enter mainframe-as-a-service (MFaaS), which transfers support of the mainframe infrastructure to a capable third party, relieving financial institutions of the concerns discussed earlier.

MFaaS (sometimes called “mainframe cloud”) provides compute and storage capabilities as a cloud service. In this model, banks pay only for their compute, storage and batch time, while the MFaaS provider owns the hardware upgrade and maintenance.

This translates to a dramatic reduction in cost and risk, and enables enterprises to deploy their scarce resources on business functions instead of mainframe infrastructure support.

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About mainframe as a service from Atos
For enterprises committed to mainframes, the Atos Mainframe Hub offers MIPS on demand, consistent mainframe functionality, and when customer demand requires.

Key benefits include:
- Access to up-to-date mainframe hardware, software and support
- Delivery of mainframe functionality where and when customer demand requires

Focus on core business
- Redeploy resources on digital transformation projects
- Access to innovation for optimal use of mainframe platforms

Continuity
- High availability
- Access to specialized mainframe experts
- Improved compliance

Flexibility
- Seamlessly scale up and down
- Convert CapEx spend into OpEx

Lower TCO
- Size matters - leverage economies of scale
- Lower price per MIPS, with "pay as you go" usage-based charges
- Transition and service delivery
- Low risk: excellent record handling migrations without business disruption
- High customer satisfaction

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Why financial institutions outsource mainframes to Atos
Atos’ MFaaS solution allows financial institutions to transform while they perform. The goal is to create an IT portfolio agile and flexible, service-oriented integration. Atos’ MFaaS also provides Atos-owned mainframe platforms with loosely coupled, distributed resources, as well as a suite of IP and accelerators that enable financial institutions to transform while they perform.

Legacy modernization services from Atos enable enterprises to realize the true potential of mainframe platforms with loosely coupled, flexible, service-oriented integration. Atos’ legacy modernization services employ a suite of IP and accelerators that enable financial institutions to transform while they perform. The goal is to create an IT infrastructure agile and robust enough to meet today’s demanding business needs.

Manage, Migrate, Modernize (MIII)

MII provides financial institutions with a fully-managed mainframe infrastructure consisting of hardware and operating system (OS) software, transaction processing, database and time-sharing software.

Atos’ MFaaS offering is a fully leveraged environment, distributed across data centers in Irving, Texas and Charlotte, North Carolina,” said Barry Robinson, a Mainframe Solution Architect at Atos.

The infrastructure components (hardware and software) are kept up-and-running, up to date, and ready-to-use. Atos monitors infrastructure performance, and can change capacity on-the-fly to deliver the processing power required at any moment.

“A financial institution offering is both leveraged and flexible,” said Robinson. “It must be able to demonstrate in an auditable way where regulated data resides, when it was last updated, who updated it and where it exists today.”

With mainframe as a service from Atos, IT decision makers don’t have to worry about regularly certifying personnel to manage compliance in order to meet audit requirements,” he said.

MFaaS allows the mainframe to modernize

As financial service enterprises modernize their IT infrastructure to offer better services to customers in a rapidly changing digital world, how does the mainframe fit into present day modernization efforts?

With modernization as the ultimate goal, Atos continues to provide and develop high-value mainframe services, as well as working on modernization efforts. Atos is currently developing services including Linux on IBM z, Big Data analytics, blockchain, mobile on z and machine learning initiatives.

Atos creates fully-leveraged mainframe data center hubs

Atos’ MFaaS solution provides enterprises with a fully-managed mainframe infrastructure consisting of hardware and operating system (OS) software, transaction processing, database and time-sharing software.

Atos’ MFaaS also provides Atos-owned mainframe hardware, software and technical support 24 hours a day, 365 days a year. It provides remote access for development, training, and loads of additional capacity without additional capital investment.

The infrastructure components (hardware and software) are kept up-and-running, up to date, and ready-to-use. Atos monitors infrastructure performance, and can change capacity on-the-fly to deliver the processing power required at any moment.

"The Atos MFaaS offering is a fully leveraged environment, distributed across data centers in Irving, Texas and Charlotte, North Carolina,” said Barry Robinson, a Mainframe Solution Architect at Atos.

Atos mainframe data center hubs share compute capacity, direct-access storage devices (DASD), and virtual tape storage. The service is offered with resource-based pricing and features an end-to-end failover protection both within the local data center and to a remote data center in case of a disaster event.

The mainframe hub data centers are equipped with the most current mainframe technology and specialty engines to accommodate the latest innovations in areas such as artificial intelligence, blockchain and cloud object storage.

Atos also has compliance capability built into the MFaaS offerings.

"Financial institutions tell us what they need, and we build it for them,” said Robinson. “They must demonstrate in an auditable way where regulated data resides, when it was last updated, who updated it and where it exists today.”

"With mainframe as a service from Atos, IT decision makers don’t have to worry about regularly certifying personnel to manage compliance in order to meet audit requirements,” he said.

Manage
Streamline IT operations with intelligent automation and proactive maintenance for higher availability and lower maintenance costs.

Migrate
Migrate your mainframe applications to Atos Mainframe as a Service (MaaS) solution.

Modernize
Incrementally modernize mainframe applications to a cloud-native, microservices based architecture.
With many legacy and critical business applications still living on the mainframe — and unlikely to move anytime soon — banks shouldn’t write off mainframes just yet.

Instead of spending large chunks of a limited budget to keep aging mainframe computers limping along, moving to MFaaS can be a great option for financial institutions. MFaaS provides the benefits of a mainframe computing platform without the responsibility of keeping the hardware up-to-date or training staff — allowing financial institutions to focus on high-value digital initiatives.

**Life insurer modernizes mainframe policy distribution system**

A leading mutual life insurance company was looking to refresh its archaic policy distribution system. Previously, it took the insurer up to 45 days to deliver a policy, causing significant customer dissatisfaction and churn.

Their policy distribution platform consisted of 800,000+ lines of COBOL code running on a legacy mainframe environment. The application was decades-old, had limited documentation, and very few SMEs understood the application logic locked inside the COBOL programs.

Atos implemented an automated re-architecture solution that extracted the business rules and completely revamped the policy distribution with minimal manual coding. The new system enabled insurance policies to be delivered electronically within one day, which generated a dramatic increase in customer satisfaction and a $15 million increase in revenue within one year of implementation.

**Technology distributor migrates to mainframe as a service**

A global technology distributor was finding it difficult to maintain its over-built and fragmented 7,000 MIPS mainframe environment. Skill shortages, costly maintenance and complex applications were hampering the adoption of new features, which slowed decision making and led to inefficient, redundant processes. In addition, security was not up to par, they had to engage an expensive third-party vendor to manage disaster recovery and managing complicated software licensing agreements was a time-consuming affair.

They knew it was time to make a change, but re-engineering these mission-critical systems would cause too much business disruption.

Atos helped move the distributor’s mainframe environment to its mainframe hub in Irving, Texas, setting up a pay-per-use model that provided an immediate 15% cost savings.

Atos was able to simplify the client’s infrastructure and provide them with a vast improvement in application performance and security. In addition, Atos was able to eliminate the need for third-party disaster recovery services, with a built-in disaster recovery “warm site” at the Atos Mainframe Hub.

**The bottom line in mainframe as a service**

Atos has extensive experience in mainframe services and a market-leading position in Europe and North America. With over 40 years of experience, Atos is strategically positioned to provide flexible solutions to meet the needs of any enterprise and improve total cost of ownership.

Atos MFaaS can offer financial institutions big iron without big headaches. Talk with Atos today, and begin reaping the rewards of mainframe computing delivered as an efficient, modern service.

**Delivery Excellence**

Can it pay dividends for the financial services industry?
About Atos

Atos is a global leader in digital transformation with 110,000 employees in 73 countries and annual revenue of € 12 billion. European number one in Cloud, Cybersecurity and High-Performance Computing, the Group provides end-to-end Orchestration Hybrid Cloud, Big Data, Business Applications and Digital Workplace solutions. The Group is the Worldwide Information Technology Partner for the Olympic & Paralympic Games and operates under the brands Atos, Atos|Syntel, and Unify. Atos is a SE (Societas Europaea), listed on the CAC40 Paris stock index.

The purpose of Atos is to help design the future of the information space. Its expertise and services support the development of knowledge, education and research in a multicultural approach and contribute to the development of scientific and technological excellence. Across the world, the Group enables its customers and employees, and members of societies at large to live, work and develop sustainably, in a safe and secure information space.

Find out more about us
atos.net
atos.net/career

Let's start a discussion together

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