Mainframe Modernization
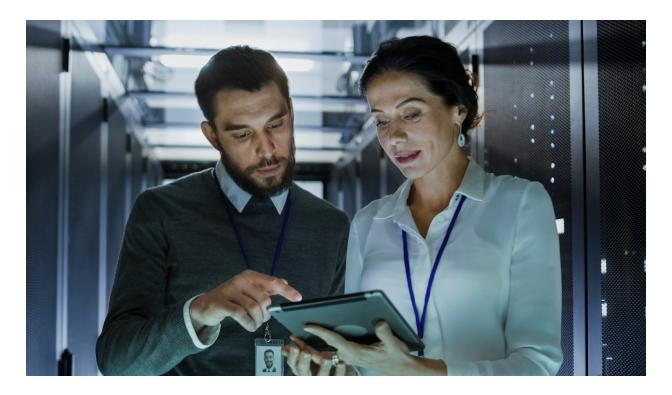## for Insurance & Financial Services

Introduction

Insurance and financial services stalwarts have long relied upon the power and reliability of mainframe computing systems. Over the course of time, though, maintaining mainframe applications has become increasingly challenging. At Astadia, we specialize in modernizing these outdated systems.

We offer a flexible approach to legacy modernization, from cloud migration to on-premise distributed systems, to modernization on the mainframe itself. Our experts will assess your current architecture, streamline your mainframe applications, and transition your data to a platform that's both cost-effective and conducive to digital transformation.

Here are six compelling reasons why modernizing your mainframe applications is essential for your organization.

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#1 Reduce IT Costs by up to 90%

Insurance and financial services companies must manage their IT budgets strategically. Unfortunately, mainframe costs often consume a significant portion of total available funds. In fact, it's not uncommon for organizations to allocate up to half of their budgets to keep their legacy systems going. At the same time, those systems have a negative impact on agility and act as a barrier to digital transformation.

The cost of legacy systems isn't just about hardware, though. While hardware leasing costs are fairly static and predictable, software licensing fees are notoriously erratic. It's likely that at some point, you've been caught off-guard by your monthly licensing bill. These costs can consume up to 30% of your mainframe's operational budget. And that doesn't include the escalating maintenance expenses associated with added CPU capacity and memory.

> By strategically modernizing, your organization could cut IT expenses by as much as 90%.

CASE STUDY

Deutsche Bank

Astadia migrated Deutsche Bank's legacy z/VSE and Adabas & Natural systems to a modern platform using our powerful automation technology. This strategic initiative not only resulted in substantial annual cost savings of over €4 million but also effectively mitigated the inherent mainframe skills risk. Read the case study >

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#2 Reduce Your Dependence on a Limited Talent Pool

According to a Forrester study, "mainframe-power organizations have lost 23 percent of their mainframe workforce and only replaced one of every three experts lost. The new development and operations people hired do not have the mainframe experts' knowledge of the platform's esoteric differences. They don't take well to the waterfall-based culture and processes."

As baby boomers retire — especially those who specialized in COBOL, assembly language code, and a waterfall software development methodology — few younger workers are stepping in to fill their shoes. The new generation of IT developers are focusing on cloud platforms and other modern platforms and tools.

79% of business and IT leaders reported their top mainframe-related challenge is acquiring the right resources and skills. That was before the COVID pandemic, which prompted early retirements across a range of industries, including IT. Today, the problem is getting worse.

A shortage of mainframe-savvy development and operations personnel will put your mainframe data and applications at risk from both a performance and security perspective. Limited COBOL talent has been one of the main drivers of legacy application modernization for many organizations.

Newer generations of developers are not familiar with legacy platforms, their languages, and logic. To attract top talent, it becomes imperative to provide an optimal environment that enables them to perform tasks effectively, empowers them with their preferred tools, and delivers an integrated developer environment that is both attractive and intuitive.

#3 Easily Transform IT and Business Operations

Using a mainframe environment for the modern applications that support your digital transformation initiatives will increase your IT costs as you add CPU and memory capacity. Worse yet, a mainframe's hard-coded business rules make these applications especially difficult to change. Legacy environments simply don't integrate easily with modern technologies and cloud-enabled services such as machine learning, advanced analytics and artificial intelligence. Nor do they lend themselves to agile development methodologies such as DevOps.

With IT modernization, your organization can "gain agility with reduced development cycles via continuous integration and continuous delivery (CI/CD), and virtually unlimited infrastructure resources consumed on demand.

CASE STUDY

Société Générale Luxembourg

When Société Générale Luxembourg sought to increase IT agility and scalability while reducing costs, they turned to Astadia. *"The migration let us preserve our investment in the existing system while adding value by moving it to a scalable, open environment,"* said the company's CIO.

#4 Ensure System and Data Security

In recent years we have seen a number of high-profile regulatory actions against large organizations running mainframe systems. In 2019, credit agency Equifax agreed to a settlement of $700 million after federal regulators found that a data breach in 2017 had compromised the private date of at least 147 million people.

According to a GAO study, many legacy systems "operate with known security vulnerabilities that are either technically difficult or prohibitively expensive to address." Worse yet, many organizations are running operating systems and applications that are no longer supported.

The first rule in maintaining the security of operating systems and applications is to remain current with the software updates that patch security vulnerabilities. That ensures that systems and data are protected from cyber-security attacks, including ransomware. Unfortunately, if your operating system and/or applications are no longer supported, you won't be getting any updates.

CASE STUDY

A major credit card processing company

When one of the largest credit card processing companies in the U.S. wanted to lower costs, they worked with Astadia to migrate the systems they use to manage transaction inquiries. Moving onto a modern platform would enable the company to save money while increasing customer service levels. Learn more >

#5 Simplify Disaster Recovery

The costs of implementing and maintaining an on-premises disaster recovery (DR) strategy in support of your mainframe environment is not only costly, but complicated. For a company that spends $100,000 maintaining their mainframe environment, it will cost another $100,000 to maintain an on-premises, high-availability system.

DR can be difficult and if multiple products are used for recovery, it makes the process more complex. Systems dependencies are difficult to map, DR exercises and testing can be time consuming, and the plethora of DR products make for more complicated training of IT staff — all increasing the risk of failure.

> Unlike commodity servers and the cloud, mainframe operating systems and applications cannot be easily moved to non-mainframe systems. As a result, the backup and DR process can be complicated, requiring you to routinely offload data, create backup tapes to store offsite, replicate data, implement a virtualization strategy, and spread out your mainframe resources across your organization.

- The cloud's storage and computing resources remain offline until they need to be deployed when a data loss or disaster occurs. This eliminates the expense associated with maintaining a private DR system.

- Many cloud service providers offer features that enable DR with just a few clicks, versus the complexity associated with stitching multiple products together to support on-premises DR recovery.

- Cloud DR solutions also embed the industry's best security features and employ security best practices. This helps reduce the risk of cyber-security attacks when compared to developing your own security requirements for an on-premises DR solution.

- Cloud backup and DR is also more secure than an on-premise solution because the cloud reduces the threat vector, that is, the surface area that is exposed to potential threats. An on-premise infrastructure and on-premise DR solution multiples the threat vector, significantly increasing an organization's exposure.

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#6 Avoid Being the Slowest Antelope in the Herd

In insurance and financial services, agile startups are constantly challenging the status quo. Unencumbered by the burdens associated with large-scale legacy systems, these pioneering organizations are leveraging cloud technology, mobile computing, and artificial intelligence to gain a foothold in the market.

At the same time, most of the industry has been slower to roll out such innovations. Monolithic mainframe systems are simply not designed to integrate well with modern cloud-based microservices, relational databases, and analytics platforms. Integration is possible, but it take time and it's hindered by the inherent mismatch between old platforms and new technology.
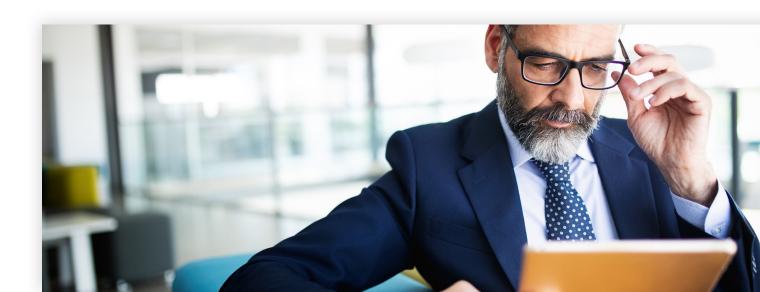
By modernizing legacy systems, insurance and financial services companies can increase their responsiveness, bringing new innovations to market faster, and at a lower cost.

CASE STUDY

Foyer Group

Foyer Group, a leading insurer in Luxembourg, saw their legacy mainframe systems as a barrier to digital transformation. They also wanted to lower their costs and reduce their dependency on scarce mainframe talent. Foyer engaged Astadia to help migrate legacy systems to Linux and Java. Using the Astadia FastTrack migration factory, they designed and tested the new system exhaustively. Confident in the results, they transitioned and went live in a single weekend. Learn more >

#7 Modernization: Opening Up New Possibilities

Mainframe modernization accelerates digital transformation, paving the way for innovation, agility, automation, and higher profitability. Let's look at a few examples of what kind of change is possible following the completion of your mainframe modernization project.

#1: Know Your Customer
Imagine a customer who has two small businesses, a home, and several vehicles. She is married, with several teenage children living at home. The household has five drivers, two homeowners, two businesses, and an array of opportunities to provide banking services and insurance coverage. If you're unable to connect those dots, then how well do you really know your customer? To get a true 360-degree view of your customers, you need to connect a myriad of different data sources, from mobile to clickstream to unstructured data, and tie those together in a way that makes the organization more effective at reaching customers and prospects with the right messages at the right time. Modernization makes that possible.

#2: Leveraging Location
Geospatial data enrichment brings context to virtually any information. In the insurance industry, for example, adding location helps underwriters to more accurately assess and price risk. Location-enriched data offers details such as an insured building's proximity to combustible materials and bodies of water. Knowing the address is a good starting point, but having information about the precise location of buildings on the property and the relative position of potential hazards is even better. Once again, modernization helps you break down the silos.

#3: Smart Claims Management & Fraud Detection
AI & machine learning are helping insurers and other financial services firms detect fraud, manage claims, and assess risk. Modernization paves the way for innovation in these areas as well.

Effective claims management, for example, is often a matter of identifying the cases that are most likely to escalate, then getting ahead of the problem before it becomes a major issue. AI & machine learning can ingest both structured and unstructured data, then rank claims according to legal or medical risk.

#4: New Business Models
Digital transformation is transforming entire industries. At least one major auto insurer, for example, is offering a usage-based pricing model enabled by a mobile phone app that tracks location, time, and driving behavior. It doesn't replace the traditional auto insurance model; but it offers customers a choice that many might find attractive. It also gives the insurer a substantial amount of data that can be used to further refine risk assessment models.

In a legacy environment, this kind of innovation is considerably more difficult than with modern, interconnected cloud-based systems. Yes, you can connect your legacy systems to modern distributed platforms; but the level of integration and the speed at which it can be achieved is considerably greater after a mainframe modernization project has been completed.
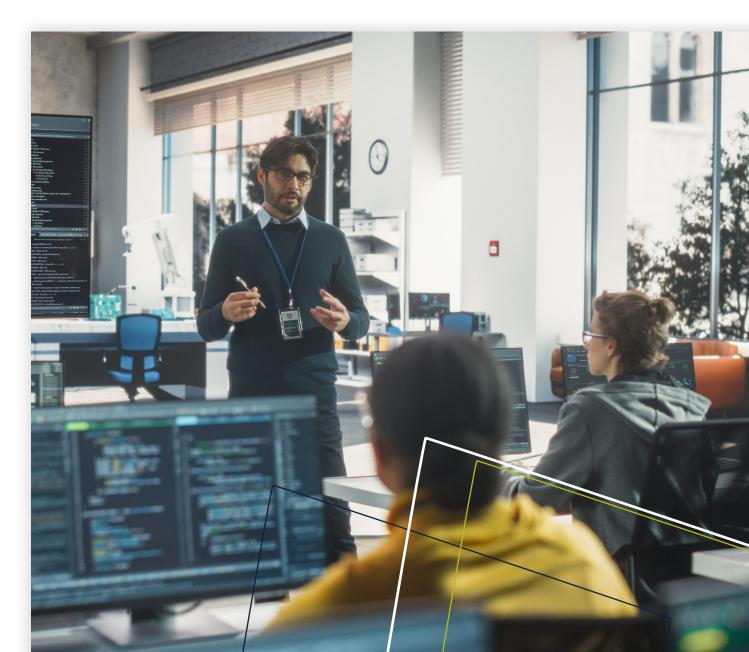
Conclusion

Today, there is no reason NOT to modernize legacy systems. In fact, the risks of staying on the mainframe are mounting.

Experts are increasingly concerned about risk and compliance. The authors of a 2023 audit report from the National Academy of Public Administration (NAPA) noted that a US federal agency faces significant risks as a result of their continued reliance on antiquated mainframe systems. Similar risks apply in the private sector.

IT modernization delivers an impressive return on investment (ROI), in addition to the other key benefits that we have discussed here. In fact, the ROI is better than ever, thanks to game-changing automation and AI technology. Astadia's FastTrack Migration Factory provides a fast, low-risk, cost-effective approach to mainframe modernization.

Legacy modernization is not a trivial undertaking, but if done correctly, the rewards are enormous. Choose an IT modernization partner that has "been there and done that," and has experience working with a spectrum of insurance and financial services organizations.

Ready to talk about your project?

Contact the mainframe modernization experts at Astadia to learn how to get started on the path to modernization.

Get in touch!

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