Releasing the shackles of the Mainframe legacy for Financial Services

Cloud and balance-sheet friendly migration of Mainframe applications to AWS with a class leading service from Fujitsu

The financial services industry more than ever needs to adopt new operating models. The Cloud increasingly offers solutions, but for heritage firms, technical and commercial constraints in application modernization, in particular Mainframe applications, make adoption of Cloud difficult. Fujitsu and AWS offer a commercial and technical solution, which finally makes this last and material stage of Cloud adoption not only possible, but also sensible.

Contents

Introduction

In recent years, the Financial Services market has been undergoing significant transformation, driven by now familiar forces of new market entrants, customer demand and regulation, enabled by new technology, including the power and reach of Cloud services.

COVID-19 has brought severe disruption to traditional operations and with it has served to accelerate digital engagement and remote working, whilst revealing even more how technology can support new operating models and services.

As Financial Services institutions evolve to operate in this new normal, three key asks shape future technology investment:

- Are we channeling resources towards the right platforms? Can we re-prioritize technology resources that will evolve our operations for this new normal?

- Are we able to offer the personalized digital experience our customers expect of us today? Do we have the online channels, features and tools to operate and engage these remote customers securely and effectively?

- As customer engagement operates digitally and internal teams collaborate remotely, are we able to automate processes securely and effectively? Additionally, with governments structuring stimulus packages and supporting payment deferral, how do we manage our risk and regulatory mandates?

All of the three questions above share a key tenet: they all require the institution to re-evaluate their technology investments focused on modernizing the application portfolio along these new normal goals and build for a data landscape that can generate intelligent insights needed for this digital customer. Business and technology leaders will be required to assign capital to value generating technology, instead of core infrastructure. While Cloud adoption has been a top priority for industry leading customers like Goldman Sachs, JPMC, Capital One, Lloyds, Barclays and HSBC, the pandemic has further accelerated the business economics of the Cloud making a Cloud first strategy more relevant than ever.

New FinTechs and challenger banks like Monzo and Revolute that are "born in the Cloud", have been able to accelerate adoption, with even their core line of business applications running in the Cloud. Heritage firms also see the benefits of modern applications running in the Cloud, but are unable to accelerate modernization, as they are still dependent to varying degrees on complex and well developed legacy applications, particularly on Mainframe. These legacy applications, once so fit for purpose, now act as a brake on progress. Not only is change slow to implement but their operating profile can drive up the cost of business in a 24x7 new normal.

The problem though, is that up to now the cost and perceived risk of Cloud adoption still in many cases outweighed the cost and risk of remaining with the status quo, often caused by limited depth of knowledge on cloud. Technical and commercial constraints eroded the business case for change and led decision makers to postpone modernization.

But now the balance is tipping the other way. Just as COVID-19 has driven up the competitive penalty for standing still, a proposition has emerged which makes legacy and Mainframe modernization and Cloud migration not only viable, but also beneficial; with the business case becoming much more compelling.

The proposition is in the form of a service from Fujitsu for modernization of applications to AWS. At its heart is the Fujitsu Mainframe modernization tool, developed, deployed and refined over seventeen years, which can accelerate refactoring and migration of Mainframe applications to AWS. The tool ensures business logic is fully preserved and updated to operate on AWS, all this with minimal impact to other applications and business operations. The toolkit is able to leverage AWS native and open-source managed services making applications cheaper to run, and flexible to support these new normal business operations securely and efficiently.

The Fujitsu-AWS offering is delivered as a service, which tackles the challenge of upfront investment and continually measures total business impact and cost of operation proving impact of change.

There are of course other options such as refactoring tools, but they are sold as licensed products supplied by niche players with no service model. There are no license fees or runtime licenses for PROGRESSION. There are also emulation platforms, which simply shift the legacy application to a new environment. These are expensive to sustain, and do nothing to address the need for innovation, risks on legacy skills, technology and lack of agility.

The combination of the Fujitsu proprietary modernization toolkit, its migration methodology and services and architectures built by AWS for financial services, all delivered as a combined service now make legacy and core business application modernization to the Cloud real.

This paper explores all these issues in more detail and sets out exactly how the service is delivered – and why it's now time to act.

1. Modernization needs for Financial Services

For heritage financial services firms there are a number of factors that drive the need for modernization:

- New market entrants can embrace and adopt Cloud from the offset, without legacy technology holding them back.

- Heritage firms want to move and adopt Cloud, but it's challenging. Typically the oversight of the existing legacy landscape and strategic approach on how to best migrate or transform is lacking.

- Critical dependency on expensive traditional data centers, business processes and Mainframe environments holding back investments in new solutions.

- There is an urgent need to migrate or replace legacy (in-house build) applications, as there are more cost-effective and future-proof solutions available.

- Much of the core business logic is still critically dependent on Mainframe applications, in particular in Financial Services.

- Mainframe solutions were perfect for its time, now it is a brake on progress.

- Batch processing is a challenge for a 24-hour business. Performance and scalability requirements cannot be met.

- Release based change – the need to reduce time to market and release functionality more often cannot typically be met due to traditional lengthy release cycles and processes.

- Legacy skills are getting scarce.

- Traditional processes for developing and maintaining Mainframe applications are not fit for purpose for modern "(DevOps) ways of working".

These factors are based on findings from recent customer engagements and supported by recent McKinsey studies and Gartner publications.

2. Blockers to Mainframe Modernization

2.1. What's needed?

- Ultimately the same business logic needs to be supported in a modern applications environment, able then to be adapted and developed without the previous constraints

- Cost, time and risk of getting there needs to be viable – and cannot critically impact (or take out) the core business as a result of the change

- A modern improved user experience needs to be supported (e.g. moving away from traditional green screens)

- Modern flexible delivery processes need to be in place to reduce time to market.

2.2. Why isn't the opportunity being seized

The benefits are understood, but until now the cost and risk of change continues to be greater than struggling on with the status quo.

Technical

- Full rewrites are complex and time consuming

- Move to modern technology and platforms deemed as high-risk

- Insufficient skills and awareness of modern technology and migration/transformation solutions

Commercial

- Significant cost of migration due to complexity (lengthy processes, resource intensive) forecasting exact investments required is difficult

- Commercial risk – impact of transformation or migration on ongoing (core, critical) business processes can have severe commercial consequences

Perception

- Mainframes – relative to on premise open systems - are perceived to be more reliable, operational stable and secure.

- Mainframe 'MIPS' & I/O are sometime cited as more 'optimized' for business workloads, and so simple cost/performance comparisons are not valid.

2.3. AWS – The Cloud Platform for Mission Critical Workloads

The AWS customer base and innovation leadership have helped AWS to establish and maintain its market segment share leading position.

To maintain our market leading position, AWS operates the broadest global infrastructure and creates the most services in the industry. The AWS Cloud infrastructure consists of 76 Availability Zones within 24 geographic Regions around the world, which enable the highest availability and reliability in the industry.

In security, AWS has more security certifications than any other Cloud provider. Beyond certifications, AWS enables customers to have fine-grained control over access. Customers can define location- and time-based security permissions to configure access to AWS resources.

> **This makes AWS meet or exceed stringent mainframe workloads requirement in every domain:**
>
> **High Security** you benefit from AWS data centers and a network architected to protect your information, identities, applications, and devices. With AWS, you improve your ability to meet core security and compliance requirements, such as data locality, protection, and confidentiality with our comprehensive services and features.
>
> **High Availability** of your applications is made easy with redundancy across availability zones, cross-region replication, Aurora global Database.
>
> **Scalability and Elasticity** for your critical workload is met with both horizontal scalability, dynamic elasticity, and vertical scalability with up to 244 physical CPU cores.
>
> **Cost Optimization** pick the best pricing scheme to optimize your costs (saving plans, reserved Instances, Spot instances…) and monitor your costs with AWS Cost Explorer.
>
> **Agility** benefit from AWS CICD, Infrastructure As Code, and enrich your mainframe applications with modern application framework (Containers, Serverless) and the whole set of existing AWS services. Get insight on your Mainframe data with AWS Big Data and Machine Learning broad set of services.

This makes AWS meet or exceed stringent mainframe workloads requirement in every domain:

The PROGRESSION tool deployment stacks follow the AWS Well-Architected framework. The AWS Well-Architected Framework helps build secure, high-performing, and resilient infrastructures. It is based on five pillars: Operational Excellence, Security, Reliability (Availability, Scalability and Resiliency), Performance Efficiency for Performance and Tuning, and Cost Optimization. It provides a consistent approach to evaluate architectures and implement designs that will scale over time.

On migration projects executed using PROGRESSION we have been able to reduce operating costs by $15M+/year (Virginia Department of Human Resource management), reduce TCO by $1M / year, plus cost avoidance e.g. up to $500K on mainframe upgrades (Washington State department of licensing).

2.4. Modernization Strategies

Application modernization program will follow one of the following transformation strategies:

1. **Rehost**: Sometimes referred to as "lift-and-shift." From a Mainframe perspective, rehosting involves the use of software emulation of the legacy hardware instruction set. Emulation can run the legacy binaries on top of a modern Linux and x86-64 instruction set. Legacy OS and applications are unchanged. Migration to Cloud can be fast, but hardware emulation introduces a performance penalty as on-the-fly instruction translation is used at runtime. This approach also does not address technical-debt, skills rarity or increase business agility.

2. **Re-platform:** When re-platforming, native mainframe application code is ported and recompiled for native x86-64 execution. Software emulates the legacy middleware and operating system APIs used by the application code: e.g. files access, transaction management, legacy screens and protocols support, for temporary storage, and batch support. If a language is not supported, it must first convert to a supported language. Because of the recompilation, there is no on-the-fly instruction translation performed by the emulator, and consequently no related performance impact. Dependencies or utilities not provided by the emulator (scheduler, print, security, etc.) need to be replaced with x86 equivalents with likely corresponding code or configuration adaptations

3. **Repurchase**: Purchase a COTS solution or SaaS services that provides a basis for replacing business services on the Mainframe. Dependent upon the sophistication of the business services, drop-in functional replacements may be provided by the new platform or custom modules may need to be developed. From a commercial perspective, the customer has an ongoing dependency on the 3rd party platform vendors in addition to the Cloud provider.

4. **Refactor / Re-architect**: Involves migrating the business logic to a modern language and re-architecting (i.e. Cloud-native and microservices). This approach directly addresses technical-debt and ongoing engineering and operational skills issues and is the approach that maximizes business agility. While refactoring may be attempted manually, this is not recommended. Rather, to minimize project timeframes, associated costs and transformation risks tooling like PROGRESSION from Fujitsu are strongly recommended.
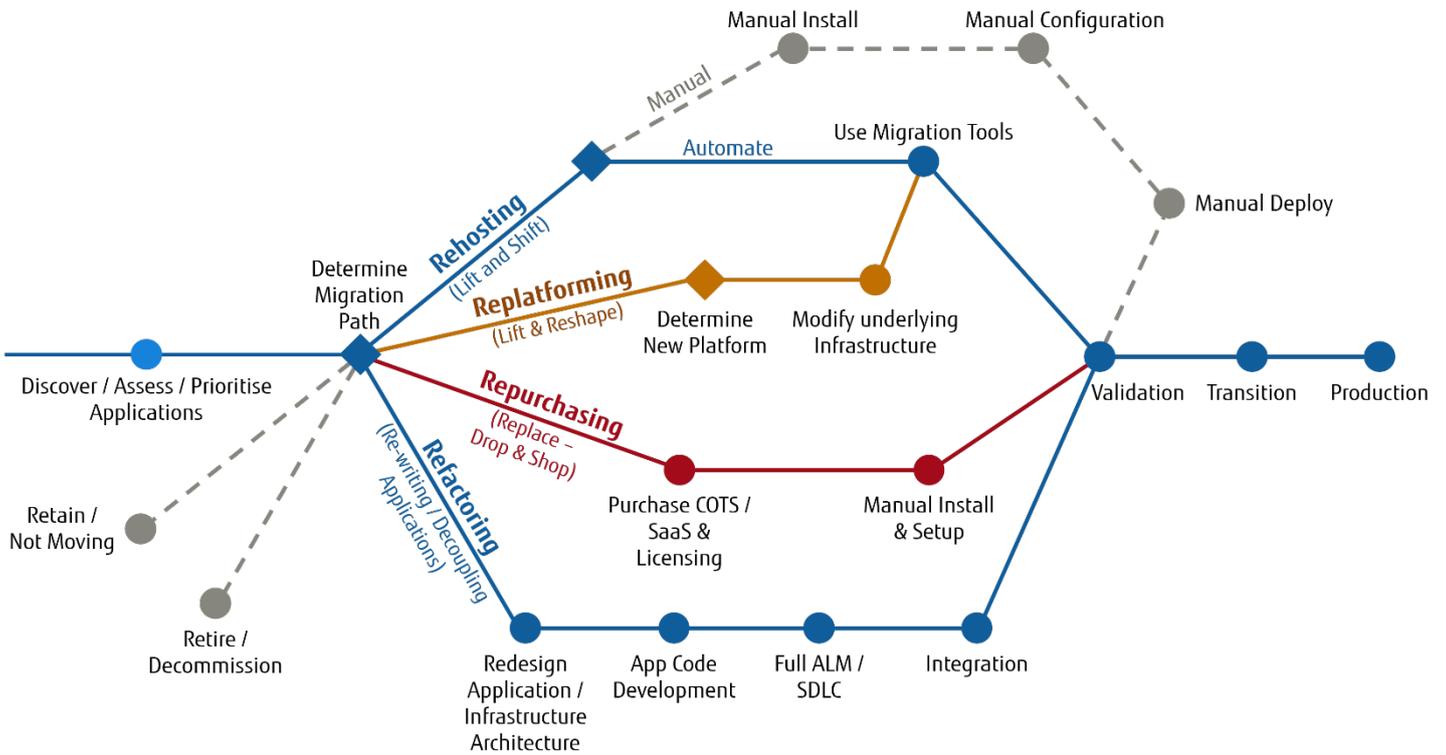
Figure 1 - Application Evolution

Completing the application strategies: an application if already running in a VMware virtual machine may be simply **relocated** to AWS; it may be **retired** if no longer required by the business; or left as it until a later date **revisited.** These options are not relevant if the decision migrate from / modernize the business workloads has been taken.

3. Mainframe Migration to Cloud – A well-trod and increasingly necessary Journey

In an increasingly stressed global economy, challenging business conditions and the COVID pandemic, Mainframe migration projects to the Cloud are accelerating. AWS ProServ has directly delivered 33 mainframe migrations with an additional 19 currently in progress. AWS partners have led the delivery of many more. In the Financial Services industry notable AWS completed Mainframe migrations include HSBC, Vanguard, DBS & Allianz Insurance & CapitalOne; with increasingly large migrations in progress including Global Payments.

Fujitsu mainframe migration projects include: Minnesota Department of Education (MDE), Retraite Quebec, Virginia Department of Human Resource Management, County of San Diego, The Department of Justice and Public Safety, Motor Vehicle Branch, of New Brunswick.

Fujitsu Mainframe Migration Projects include:

[Minnesota Department of Education (MDE) »](#)

[New Brunswick Department of Public Safety »](#)

[Virginia Department of Human Resource Management) »](#)

4. The Migration Process

The specifics of each Mainframe migration journey to the AWS are determined by the customer business objectives and operational and financial constraints: i.e. Amazon's principle of Working Backwards.

- A process starts with 'Discovery'. Tools are used to map the existing mainframe codebases, data structures, workloads, interactive sessions and functional test harness: this provides a measure of the size and complexity of the migration.

- In parallel Business, Financial and Operation priorities and constraints are reviewed.

- Based on these inputs, a tailored strategy is agreed.

- Scope of an initial PoC is agreed, and this business functionality is migrated and then functionally tested. Lessons learnt from the PoC are reviewed and a second workload selected and migrated.

- The migration processes at increased pace until a fully functional Cloud-native business environment is provided at which point the Mainframes are retired.

Throughout this process, customer training is provided in-line with the agreed strategic objectives.

5. Fujitsu Modernization Service

Fujitsu addresses both the technical and commercial challenges for Financial Services

- PROGRESSION from Fujitsu is an automated suite of migration tools based on Fujitsu knowledge of legacy platforms (over 17 years); allowing customers to move off core legacy applications developed on a Mainframe/Midrange
- Deployed in AWS, taking advantage of native tools and capabilities
- Delivered as a service

Two critical elements to consider when migrating from a Mainframe to AWS are risk and price. Any change or transformation will include a cost of change, which can be significant. The hope that this will be offset by a reduction in support costs and the new, more flexible applications allowing for a more efficient route to market, and the revenue growth that comes with it. For a number of industries additional CAPEX even with a solid business case is even more of a challenge to justify.

With the backing of both Fujitsu and AWS, there are a number of commercial options available to you that will alleviate this difficulty.

One of these options is for operations to be supported by Fujitsu at the beginning of the transition, leveraging our long-term expertise in this area. Fujitsu would take on the support of the current estate As-Is, gaining an understanding of how the current Mainframe works and how it is integrated into the business. This increases the safety of any transitional change, as Fujitsu, working as your trusted partner, would have an in-depth understanding of your needs.

Fujitsu would subsequently use source code analysis tooling to get a deeper understanding of the code base and it's (architectural) structure. After the code analysis, PROGRESSION will be used to convert application legacy code existing on the Mainframe into modernized code that can be deployed and hosted on AWS Cloud. Beyond this, working with Fujitsu and AWS, we jointly would create the ideal landing platform for the new modernized applications.

This complete service can be achieved without the need for additional CAPEX. This cost of change is covered by Fujitsu and AWS during the transitional period and is then recovered from the offset reduced OPEX costs.

This is only one option to help you unlock the potential of your applications while removing the pains of change.

6. PROGRESSION – Technical Solution

6.1. How it works

The PROGRESSION tool suite is an automated migration solution that provides highly configurable options using parameters and templates; allowing implementing all coding techniques, standards and packaging. The use of the automated tool makes sure that there is a very high level of efficiency and consistency in the resulting application, while minimizing the risk of introducing human error.
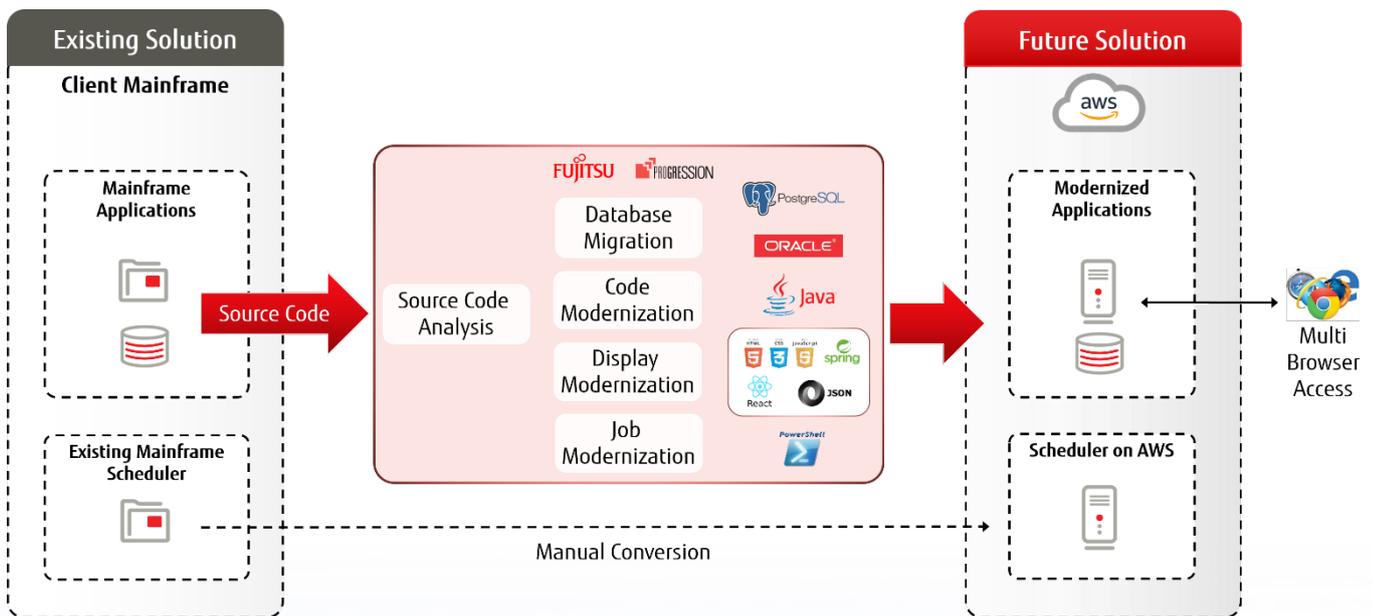

Figure 2 - PROGRESSION Modernization Process

Steps to Modernization include:

- An initial Source Code Analysis of the existing Mainframe code
- Automated code conversion of legacy code using PROGRESSION, including;
    - Application code to Java or C#
    - Display screens to Web forms using HTML5, React.js, Spring MVC & JSON
    - Jobs modernization to PowerShell
- General code logic follows recommended coding standards
- Database migration – schemas and data converted and moved to the new database in the Cloud. Databases include SQL Server, PostgreSQL & Oracle
- Conversion of the scheduler in the Cloud
- Deploy to AWS – Fully scalable, and stability through full load balancing support

The presentation layer migrates all user interface (screens) and related screen handling and validations into a Java or C# ASP.NET Web Form application. Everywhere possible, common functionalities are implemented using shared common components. Although the new business logic is fully object-oriented, it retains the integrity of all existing business rules and behaviors.

The modern 3-tier decoupled design of Fujitsu converted components, ensures a complete and independent implementation of the presentation, business and data layer.
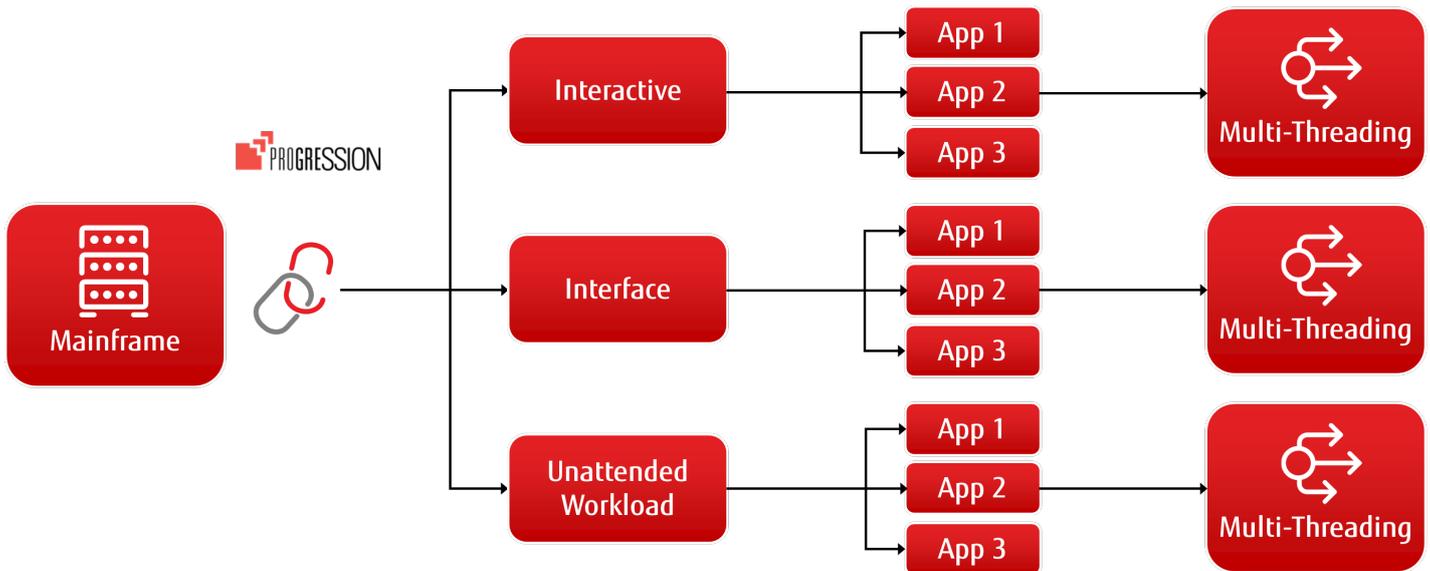

Figure 3 - PROGRESSION decoupled application architecture

The data layer is implemented through database objects and a shared Data Access Component that ensures the possibility of redesigning the new relational database without impacting the data access logic of the current system. This approach provides flexibility for future maintenance and enhancement of the application. This shared component is automatically generated based on the design of the old and new database.

Batch components such as JCL for an IBM Mainframe z/OS are also migrated and deployed on a batch application server. Reports are redesigned using the new database and can be implemented using SQL Server reporting services or other existing reporting toolsets.

Our approach relies on extensive configuration and version management. At every step, a specific version of all components is retained making it easy to identify all changes that have been applied. In conjunction with the automated conversion suite, it is very easy to integrate ongoing maintenance releases into the test cycle by using change management tools that allow comparison and the merging of converted components.

6.2. Benefits and how PROGRESSION deals with the Historic Challenges

There are numerous benefits of application modernization that will tackle traditional challenges and address some key Cloud economic factors.

Cost Saving + **Staff Productivity** + **Operational Resilience** + **Business Agility**

Figure 4 - Cloud economics addressed

Below are some of the top benefits customers have realized in the past who have engaged Fujitsu as their trusted Modernization partner:

- **Improve Cost Efficiencies (Cost Savings)**
  Legacy Mainframe systems hardware and software are considered to be very expensive with non-competitive pricing systems prevailing due to a lack of vendors or existence on a single vendor. Moving Mainframe workloads to commodity-based hardware platform, Cloud computing and software eco-system drastically reduces the TCO.
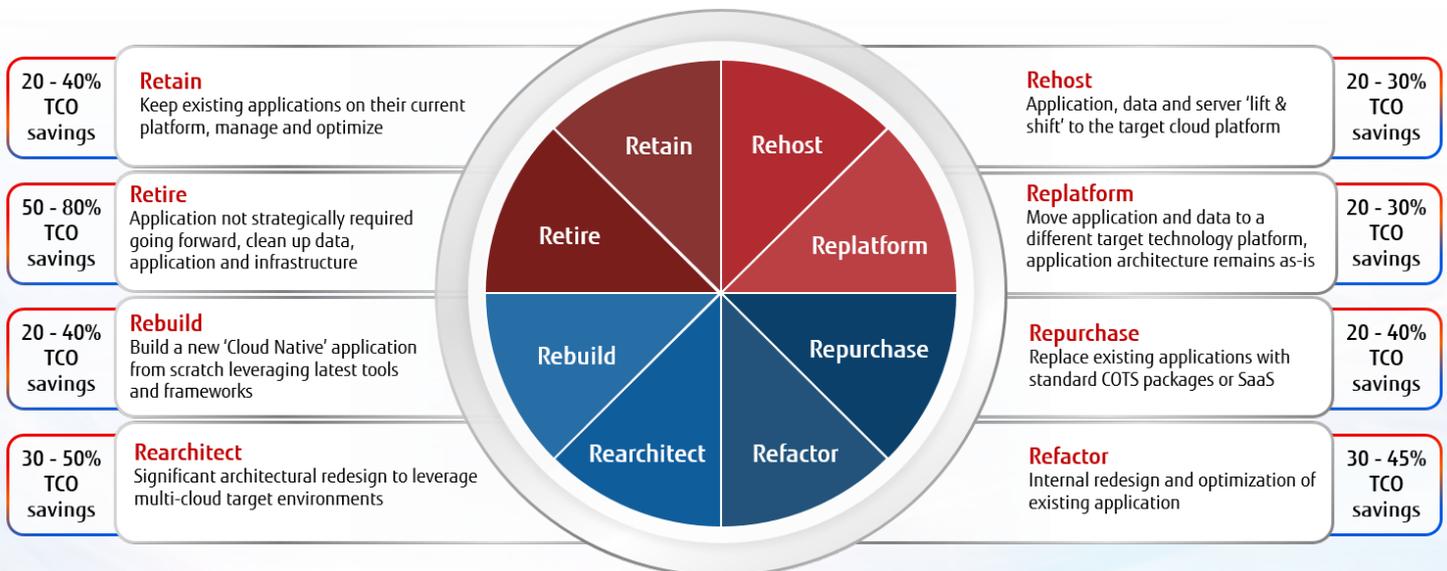
20 - 40% TCO savings	**Retain** Keep existing applications on their current platform, manage and optimize		**Rehost** Application, data and server 'lift & shift' to the target cloud platform	20 - 30% TCO savings
50 - 80% TCO savings	**Retire** Application not strategically required going forward, clean up data, application and infrastructure		**Replatform** Move application and data to a different target technology platform, application architecture remains as-is	20 - 30% TCO savings
20 - 40% TCO savings	**Rebuild** Build a new 'Cloud Native' application from scratch leveraging latest tools and frameworks		**Repurchase** Replace existing applications with standard COTS packages or SaaS	20 - 40% TCO savings
30 - 50% TCO savings	**Rearchitect** Significant architectural redesign to leverage multi-cloud target environments		**Refactor** Internal redesign and optimization of existing application	30 - 45% TCO savings

Figure 5 - Indicative cost savings

Application Modernization represents an approach that either reduces the costs stated in the business case, or in some cases, completely eliminates them. There are no Fujitsu software upkeep maintenance fees, the customer retaining ownership of all code. Because the organization owns the IP, licensing costs are minimal if not removed. Cloud and Contemporary platforms have ample vendor choices in software and hardware with a competitive pricing model, which never results in vendor locking.

- **Staff Productivity – Shortens Go-to Market**
  Lack of frameworks, productive and advanced IDE's, debugging tools; test automation makes development activity a tedious and cumbersome process in legacy Mainframe systems. Therefore, legacy systems will have high time-to-market to respond to new business needs, amendment in regulations, challenges from competitors etc. After migrating to modern technologies with highly productive integrated development environments (IDE's) like Visual Studio or Eclipse, development cycles are extremely productive and short time framed. Such a modernized flexible IT environment is moving a step closer on aligning IT systems to dynamic business needs. Mobility can be used for increasing productivity by equipping employees to do their jobs better "on the go" and be an alternative channel to grow revenue.

- **Operational Resilience – Mitigated Risk**
  Application Modernization represents an approach that addresses much of that risk through the reduction of change. By simply moving to newer technologies while preserving the core functionality, business processes and how the end user community leverages the application changes very little, if at all. With Application Modernization "less is more", from a change perspective, and as a result, risk is significantly reduced.

- **Business Agility – Enables applications for new paradigm**
  With the PROGRESSION automated tool suite and the Application Modernization approach of Fujitsu, modernized applications are enabled to embrace the new nexus of forces of Cloud, Mobility, Containers, Analytics and Social. Cloud deployment reduces IT costs (shift from CAPEX to OPEX) and increases enterprise agility with a scalable and elastic infrastructure.

Other benefits include:

- Not having to find, hire and overspend on skilled legacy code resources, who are high in demand and rare to find.
- Analytics can enable enterprises to better understand their businesses and make informed decisions. Embracing social networks can help enterprises with evolved product design, improved customer engagement and solicit feedback.

6.3. Deployment on AWS

The Fujitsu delivery methodology and PROGRESSION solution is source controlled with platform agnostic Continuous Integration.

Fujitsu has been leveraging DevOps technique and automated processes for many years as part of its current Solution and successfully leveraged to deliver Mainframe Modernization projects.
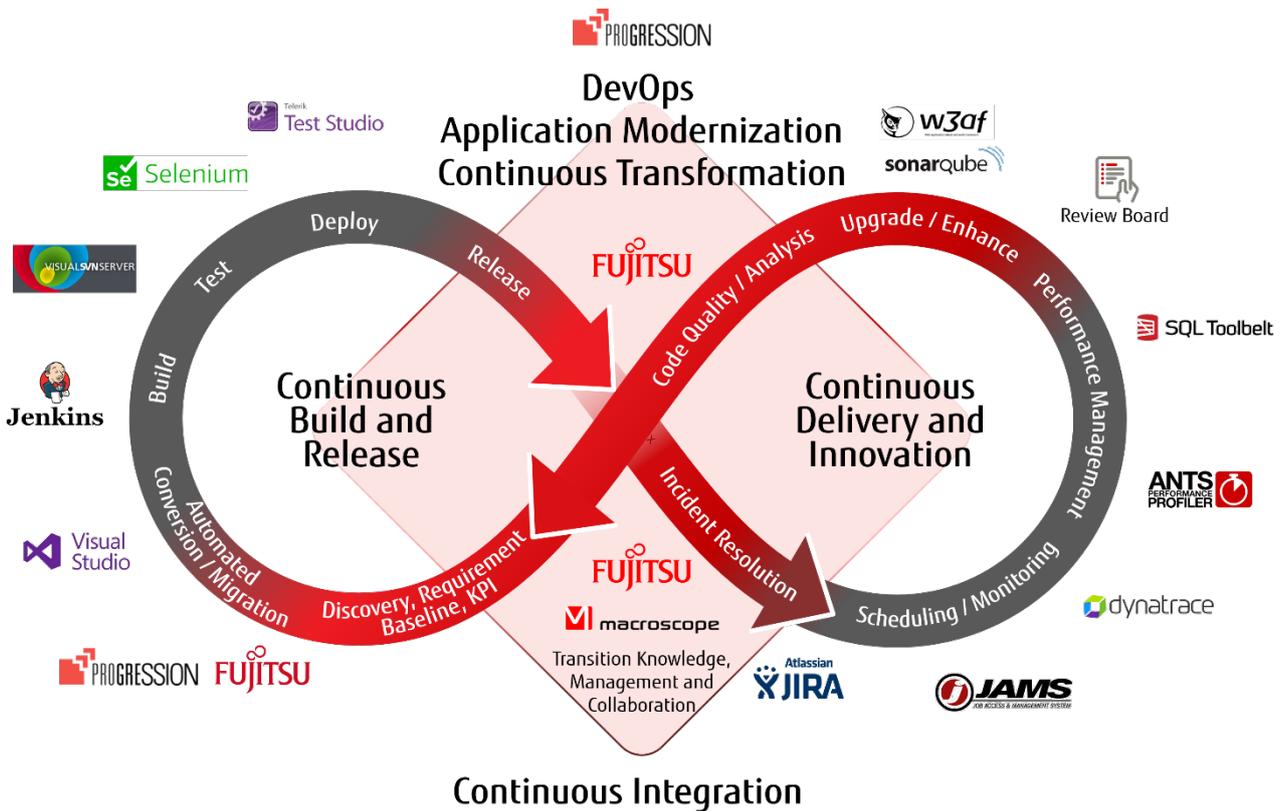

Figure 6 - PROGRESSION DevOps Toolchain

Figure 6 represents the overall Fujitsu PROGRESSION DevOps implementation, supporting the Continuous Transformation and Continuous Integration processes that could be leveraged during a typical Modernization effort and thru all project phases to migrate and modernize customer's application and all its subsystems from Mainframe to the target platform.

The "Code" step of the typical DevOps cycle is replaced almost entirely by the output of the automated code migration process using the PROGRESSION tool suite.

For AWS deployments Fujitsu would use the native DevOps processes and tools as provided by the AWS platform:

- AWS CodeCommit – Fully managed source control service
- AWS CodePipeline – Fully managed Continuous Delivery (CD) service automating release pipelines
- AWS CodeBuild – Fully managed Continuous Integration (CI) compiling source code, running tests, and producing software packages ready to deploy
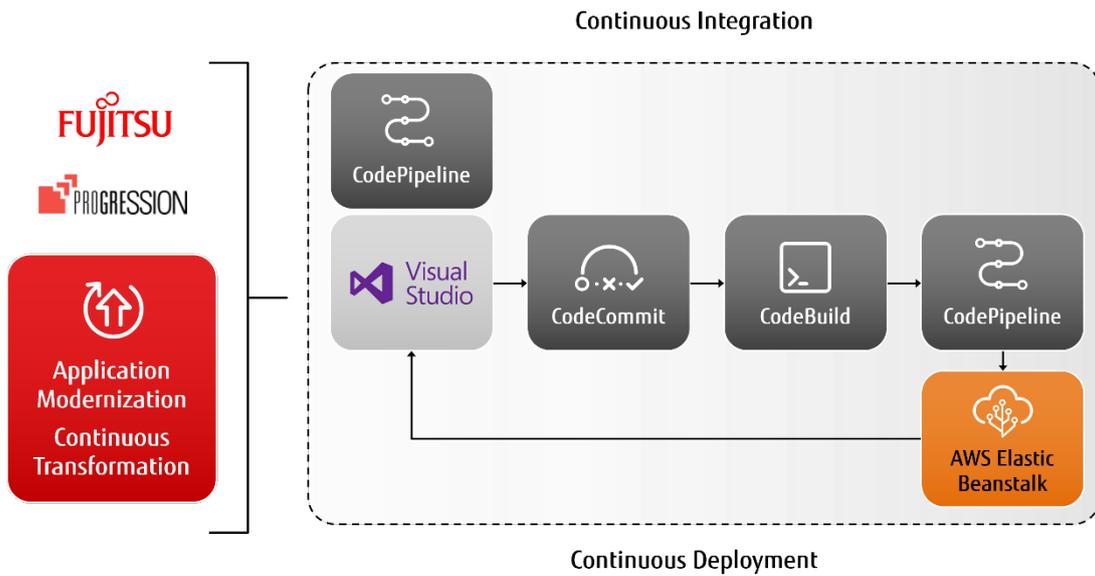- AWS CodeDeploy – Automates code deployments to any instance

Figure 7 - AWS DevOps and CI/CD processes

Careful transformation planning and the utilization of CI/CD pipelines coupled with automation allows us to negate disruption and downtime and incorporate code changes from change and support during the project, further negating disruption.
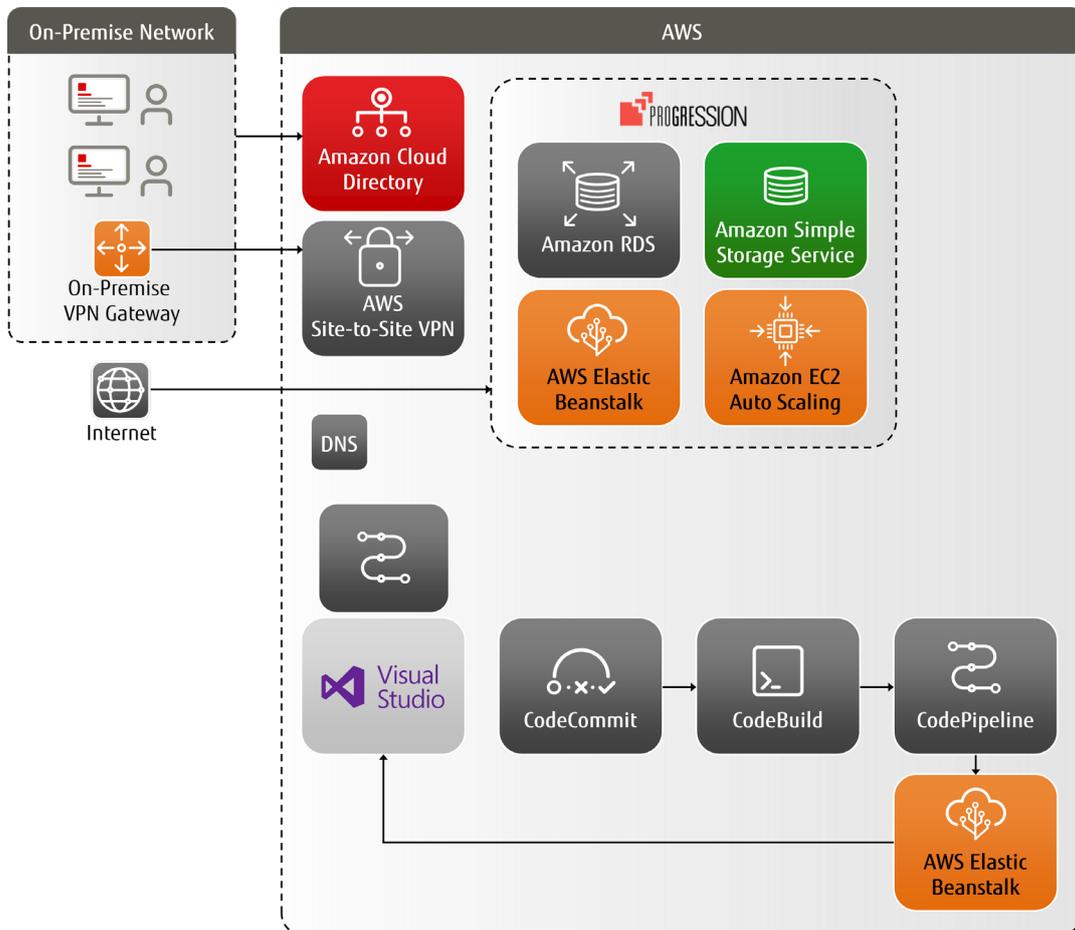

Figure 8 - AWS Deployment solution stack

6.4. Roadmap

The PROGRESSION tool suite is constantly being extended with new features to support additional legacy technology and (niche legacy) coding languages. Experiences and challenges from actual customer transformation projects are incorporated into the product's roadmap, making sure the tool suite is up-to-date with the latest developments, Cloud technology and DevOps tools and the agile ways of working currently in use.
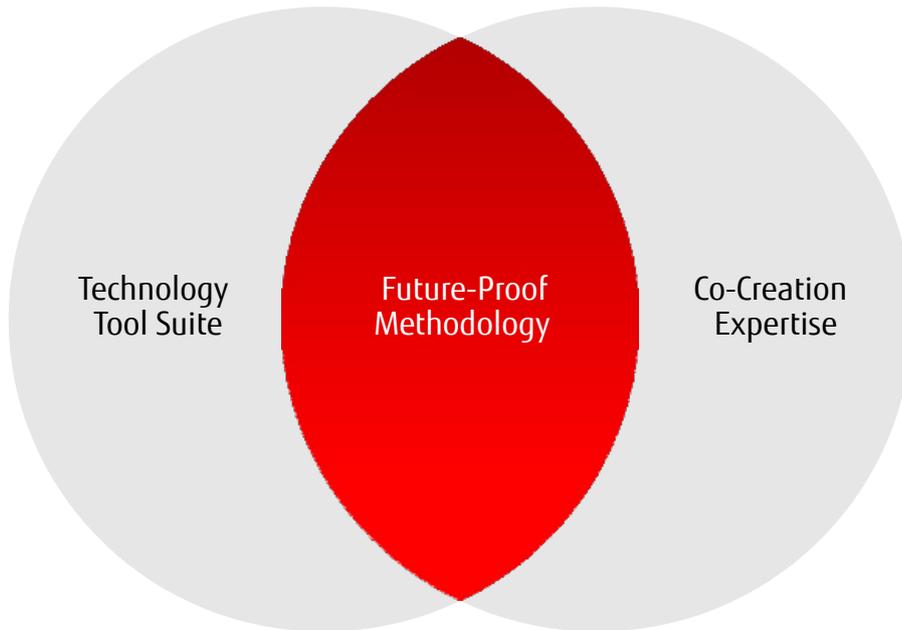
7. Application Modernization Service

Mainframe Modernization presents a unique set of challenges. The migration of these systems could carry huge impact if business logic is left behind or the business user's workflow is disrupted by the change.

The crucial nature of the business process running on Mainframe does not lend itself to anything but a seamless migration of these systems.

Even when the approach can be proven to address the business and technical risks, and there is a business case with great total return on investment; the scale of the CAPEX and length of return can lead us to make tackling this opportunity "tomorrow's problem".

7.1. Our Overall Offer

Fujitsu expertise in managing as well as modernizing Mainframe, married to AWS's inherent flexibility versus Mainframe infrastructure, opens up commercial and service options to address a variety of business cases and planning horizons.

Fujitsu PROGRESSION preserves your business logic, and therefore your competitive differentiators. With minimal, on the surface, change for the business user, allowing them to operate "business as usual".
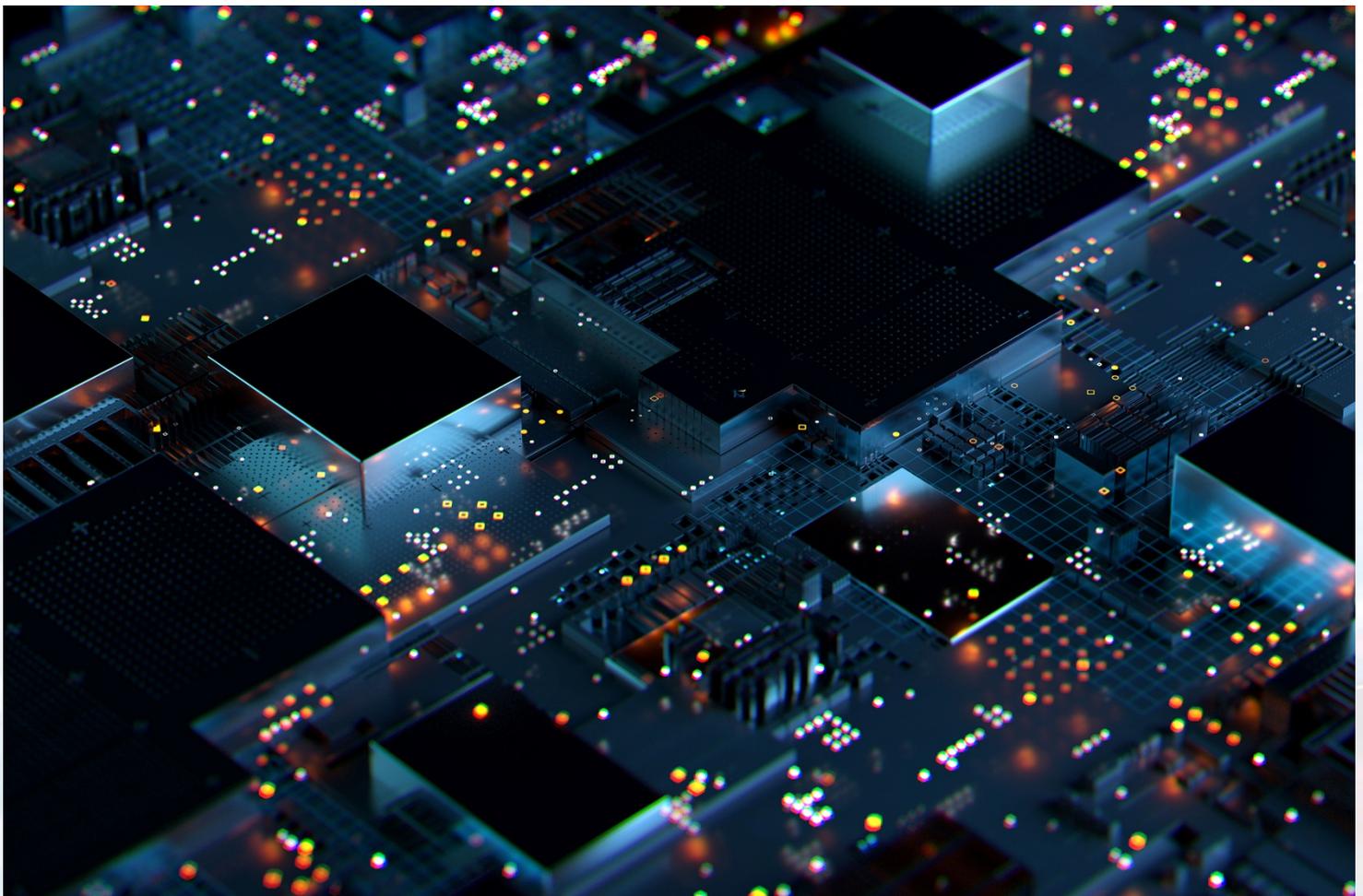
7.2. Our Approach

Fujitsu is addressing Mainframe modernization via a 4-step process.
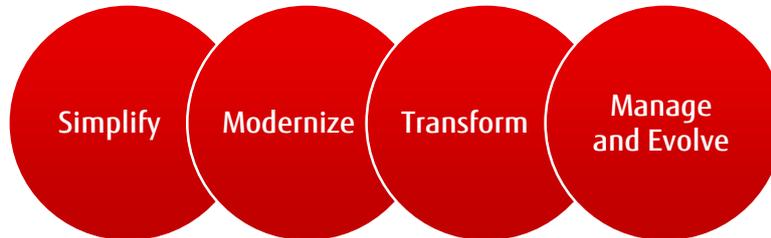
Step 1: Simplify

Insight provides the right foundation for success:

- Application Transformation Assessment – Fujitsu perform an assessment of the current landscape and define a target architecture transformation. This brings together the business, strategic and technical landscapes to inform strategy, prioritize and build the right business cases for the businesses entire application portfolio as required.
- Legacy systems, can contain badly documented and poorly remembered code, integrations and business logic. Deep dive source code analysis tools, assist in bridging those gaps.
- Extensive discovery allows us to rationalize the existing landscape to determine the optimum migration plan.

Step 2: Modernize

Execution of the migration plan:

- Fujitsu provide the right skills end-to-end, such as consultancy, automated modernization, testing, infrastructure, delivery and ongoing services.
- DevOps application lifecycle and toolchain is implemented.
- Convert and migrate legacy Mainframe applications to a modern 3 tier design on AWS. Complete and independent implementation of the presentation, business and data layer.

Step 3: Transform

Fujitsu continually help to innovate with Cloud-enabled applications:

- Exploiting the possibilities of AWS platform and Fujitsu co-creation capability to identify and support ongoing Digital Transformation initiatives. E.g. re-imagining of business process and the application of DevOps, advanced analytics, artificial intelligence and machine learning.

Step 4: Manage and Evolve

Fit for the future business:

- Modernizing the Mainframe makes it fit for today and tomorrows business. Through the Fujitsu application maintenance offer, Application Evolution Services, Fujitsu provide support and development requirements to the modernized application and continue to evolve the application into the future landscape.

8. Conclusion

Until now, the benefits of Cloud adoption for business processes delivered in the Mainframe have been outweighed by the technical and commercial risks, challenges and costs.

However, the recent COVID-19 crisis has accelerated the transformation of the market and shone a lens on the importance of applications and Mainframe modernization for heritage Financial Services firms.

At the same time, the modernization is now a practical and cost-effective option, made possible by Fujitsu combining 17 years development of Mainframe refactoring as a service with the innovation, resilience, security and cost advantages enabled by AWS.

The end-to-end approach by Fujitsu can help financial services address their challenges in a cost-effective manner, realizing the required future-proof scalability, agility and extensibility of their core legacy systems.

9. Fujitsu and AWS Partnership

Partnering with clients to co-create a win-win is what Fujitsu does. Our breadth of capability allows us to deliver what our customer's desire from a partner that brings operational and business value and shares in the accountability and ownership of the outcome. Fujitsu offer its customers a single vendor (no need for a sub-contractor for any other tool and solution) that can provide expertise and solutions to cover all areas of the Modernization project:

- Automated conversion Tool (PROGRESSION owner) – allow the flexibility of solution and tool customization
- Process and Methodology
- Infrastructure / Hardware
- Large System Integrator (Management, Maintenance, Pool of Resources)

In essence, Fujitsu is the partner that:

- Is open and transparent
- Cares about your challenges and successes
- Is pro-active and collaborates to eliminate surprises
- Is accountable and results-oriented
- Is customer-centric and easy to do business with

Together, the Fujitsu team enjoys all the credentials and capabilities required to address the Modernization of the legacy Mainframe systems. Fujitsu is introducing a unique automated approach to Application Modernization that has been developed and refined through the combination of many projects executed over the last 17 years. In other words, we have done this before and have the references to prove our success.

Come join Fujitsu and AWS for a hands-on Agile Banking Future Workshop where you will learn more about Fujitsu migration technology, along with their methodology that includes uncovering existing Mainframe workloads, assessing and prioritizing those workloads, and then determining the best migration path to create the case for change.

For more information about scheduling an Agile Banking Future Workshop, please contact us via AskFujitsu.us@fujitsu.com

FUJITSU

Address: 1250 East Arques Avenue
Sunnyvale, CA 94085-3470, U.S.A.

Tel: 800 831 3183 or 408 746 6000

Email: AskFujitsu.us@fujitsu.com

www.fujitsu.com/us/services/application-services/application-transformation/application-modernization/