



# DevOps for Mainframes

Mainframe systems pose unique challenges when it comes to CI/CD and DevOps. Sandhata has many years of proven experience in accelerating software delivery in complex legacy systems. Now we are delivering ground-breaking solutions to our customers and transforming their mainframes to be lean and responsive.

## Why are we passionate about implementing DevOps for Mainframe?

Mainframe still offers the greatest resilience in the Finance Sector processing the vast majority of payment transactions. However it has lagged behind when it comes to DevOps transformation and requires modernisation with respect to mindset, process and tooling. An organisation cannot be truly agile and responsive to markets unless the heritage mainframe systems are in unison with digital technologies .

While testing is typically seen as the biggest bottleneck in a delivery cycle, overly complex governance and a culture of siloed teams is also a significant contributing factor to lengthy delivery cycles.

We are engaged with our mainframe customers to identify opportunities to accelerate and deliver the capabilities to optimise their mainframe platform. We advise on the strategy, toolsets, processes and cultural alignment.

## How do we help our Mainframe Customers?

**Our Advisory services** help organisations:

- Transform mainframe teams to adopt Agile and DevOps culture
- Work with governance board to promote Continuous Compliance in mainframe
- Determine the co-location and vendor engagement strategies

**Mainframe Infrastructure optimisation** is a key enabler covering:

- Mainframe virtualisation
- Environment provisioning and utilisation
- Test data management

## What are the barriers to DevOps for Mainframe?

- Traditional mainframe **governance** is heavy-weight and doesn't align to agile and lean principles.
- Infrastructure and **environments** are expensive, complex and the speed of provisioning often constrains the time to market.
- The **automation** in mainframes lags behind the digital world, mostly limited by scarce expertise and lack of off-the-shelf tooling.
- The **cultural** silos, division of duties and ownership, and disconnect between the mainframe teams and the rest of the organisation causes huge inefficiencies

**Continuous Testing** for mainframes is challenging and Sandhata has been successful in

- Delivering automated testing solutions which are lean and fully aligned to CI/CD
- Driving the testing strategy to continuously assess the business risk
- Enabling cost-effective testing whilst improving quality and speed

**Continuous Deployment and Release Automation** is gaining momentum in mainframes . We help teams to

- Understand their release value stream
- Model release orchestration templates
- Optimise DevOps tool chain for Release and Deploy



# Mainframes Batch System - Change Accelerators

## Why are mainframes batch systems less responsive to business change?

- Most financial services organisations will have thousands of mainframes batch processes, many of which lack the appropriate detailed specification.
- Testing of batch systems is predominantly manual - typically testing cycles last for a number of weeks even for the most simple changes.
- The current speed of testing often limits the ability of the teams to deliver timely change. The lack of test automation, test environments contention and unavailability of test data are the primary contributing factors.
- Testing is often a disconnected function, planned at the end of the SDLC, generally waterfall and resource intensive.

## Our approach to accelerating mainframes batch changes

- A fully automated solution with no manual interventions, including test environment setup, batch execution, validations and tear down process
- Independent, environment agnostic tests - build once and execute in all environments (virtualised and fully integrated)
- A solution that is easily integrated with the CI/CD pipeline, quick to automate, easy to adopt and improves collaboration

### Typical Savings

- 80% - 90% reduction in test cycle time
- 40% - 70% reduction in test prep time
- ROI in 3 - 4 test cycles

## Mainframes Batch Test Automation - example implementation

