Leveraging continuous testing to enable continuous delivery.

Remove bottlenecks and reduce risks in Delivering Business Value.

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Innovate2013
The IBM Technical Summit

Agenda

- Explain Software bottlenecks
- Traditional Testing Versus Continuous Testing
- Role of Service Virtualization in CI
- Introduction to CI
- Use Case Introduction
- Testing Landscape
- Sandhata SWIFT Plugin
- Demo Overview
- Demo

Bottlenecks in Software Delivery

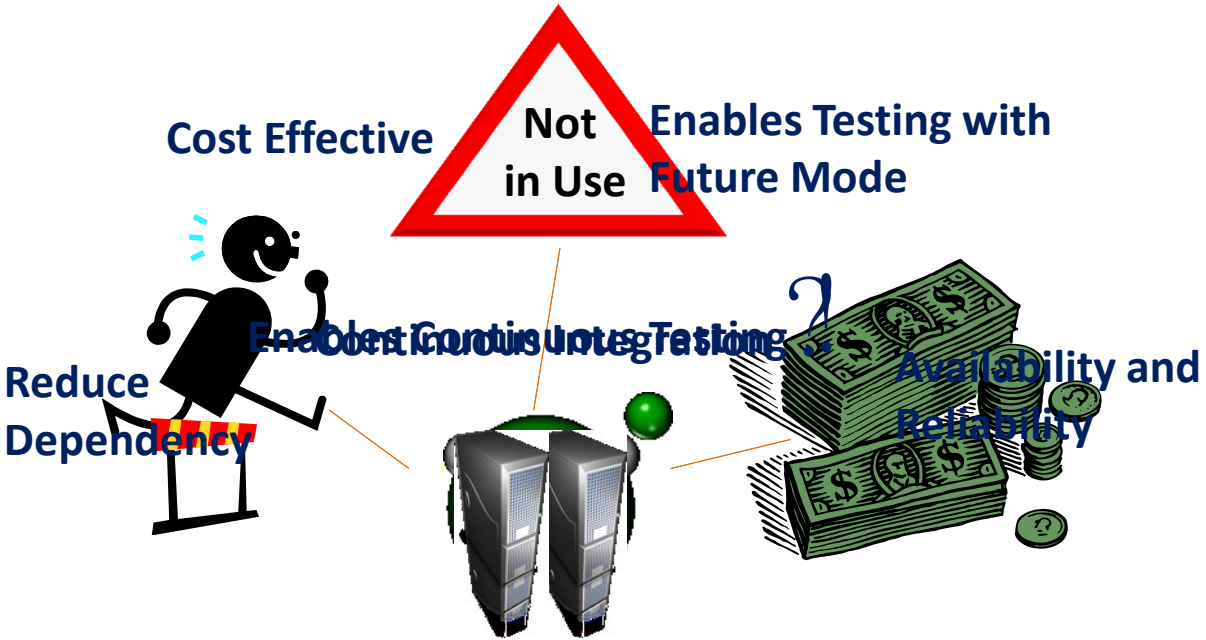
Traditional testing versus continuous testing

- Manual Testing
- Test Automated but isolated
- Test Framework not fit for CI
- Dependency on E2E env
- Focused on Business Requirements Only
- Weak Regression testing Strategy

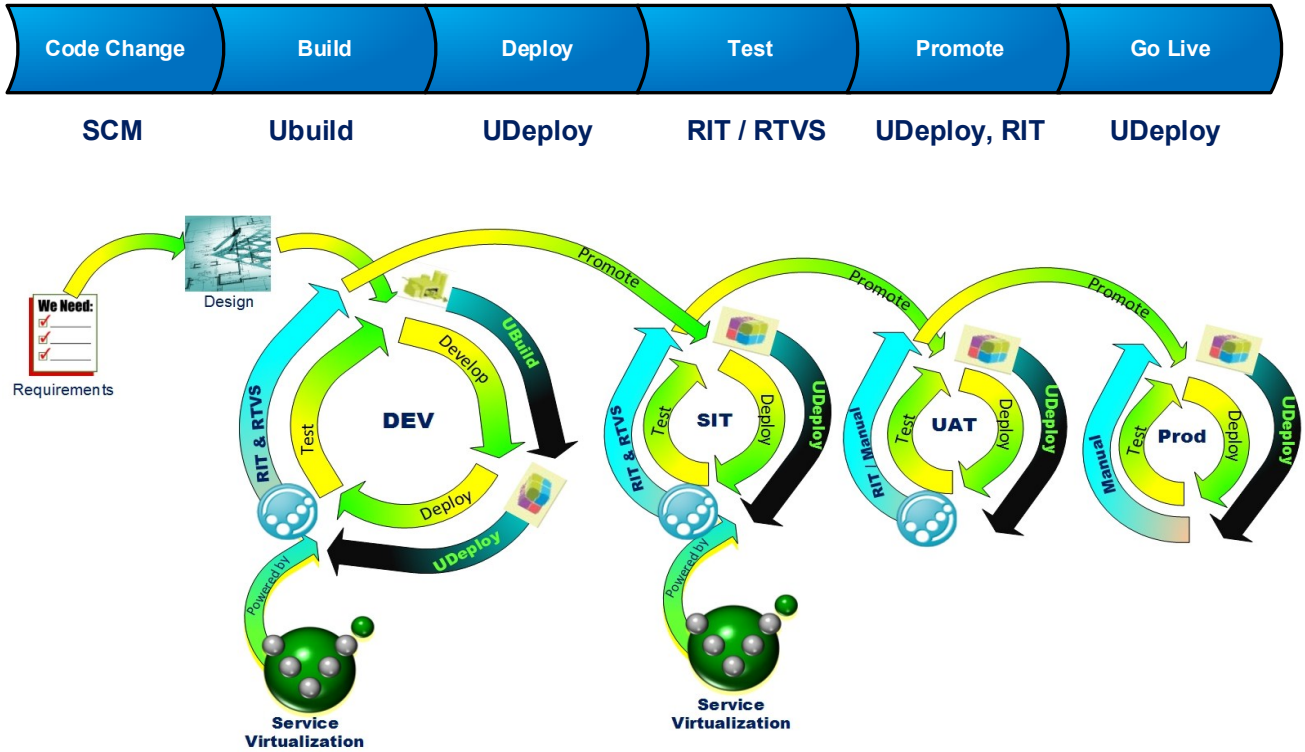
- Automated Testing
- Testing faster and often
- Testing Strategy designed to accelerate all phases of SDLC
- Test Framework defined is suitable for CI
- Testing has been aligned at different levels to accelerate delivery and increase Quality.

Continuous Testing is a practice which enables testing to accelerate and guarantee the Quality of all functions of the Software delivery

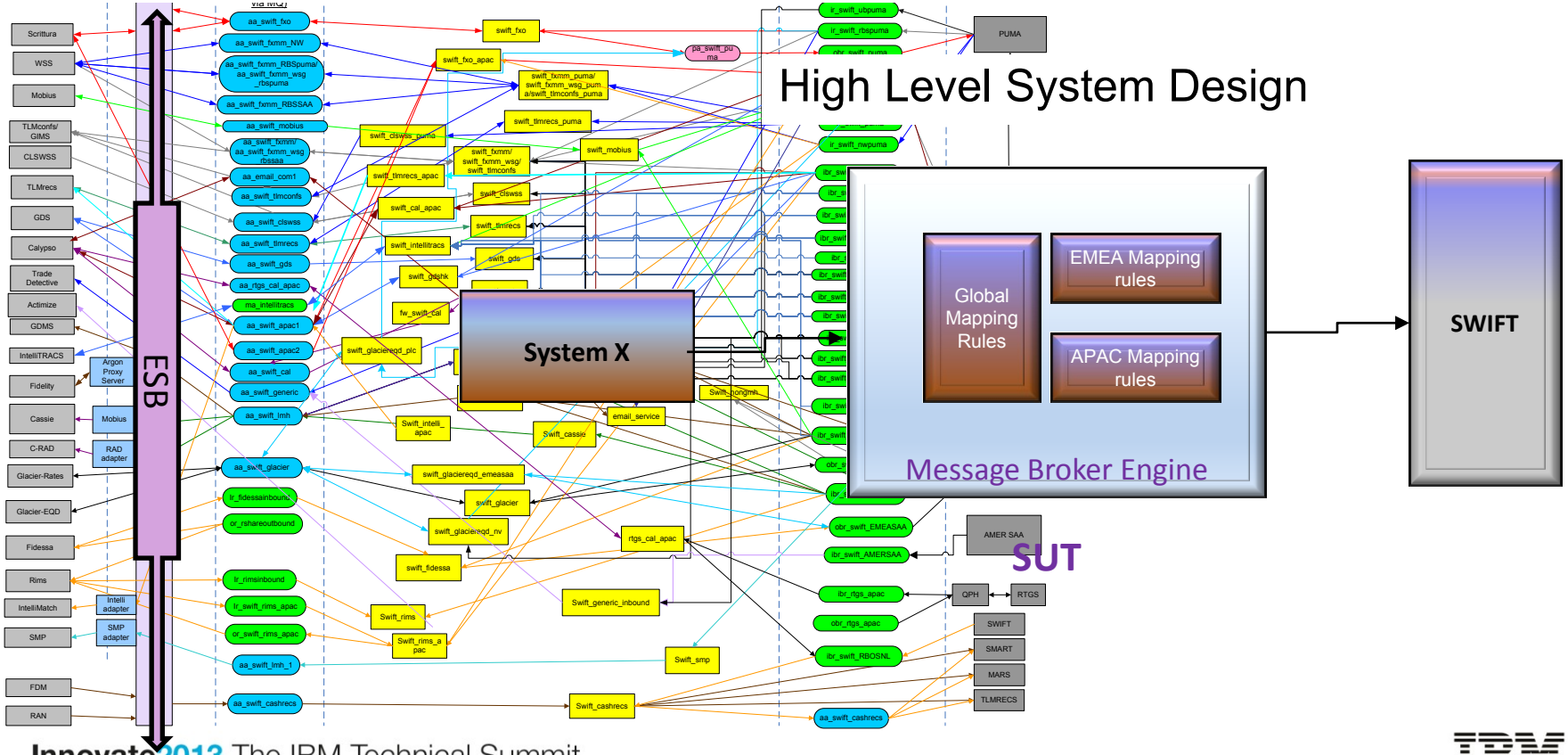
External / Legacy Systems Dependencies



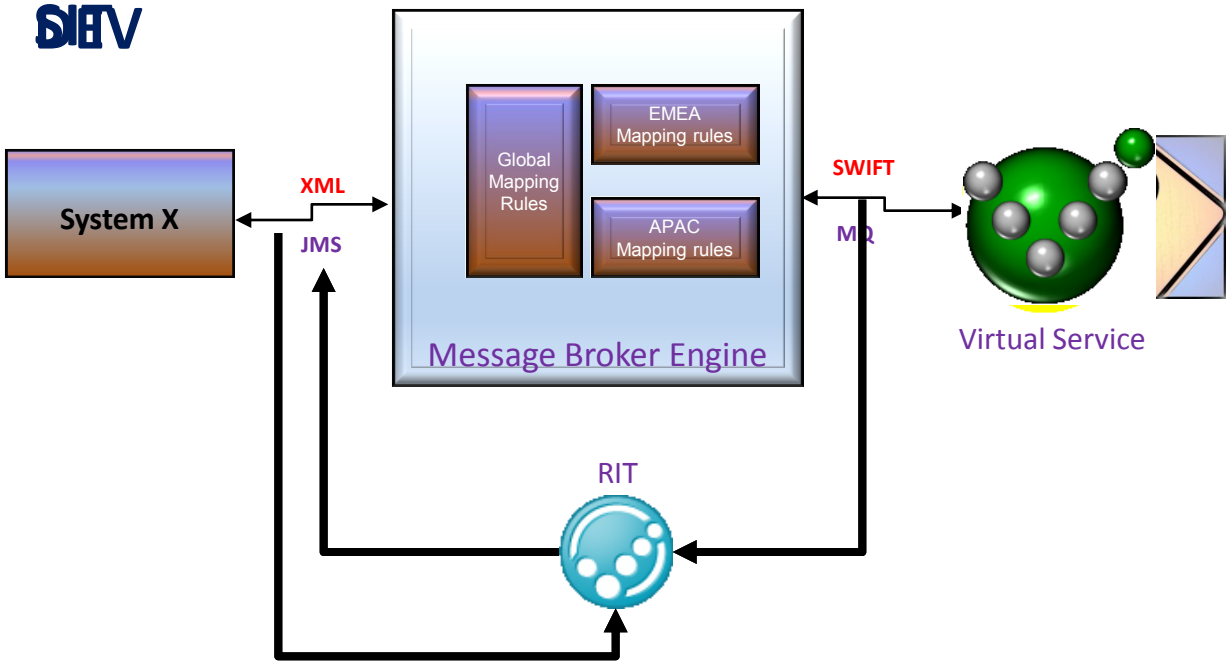
Continuous Integration



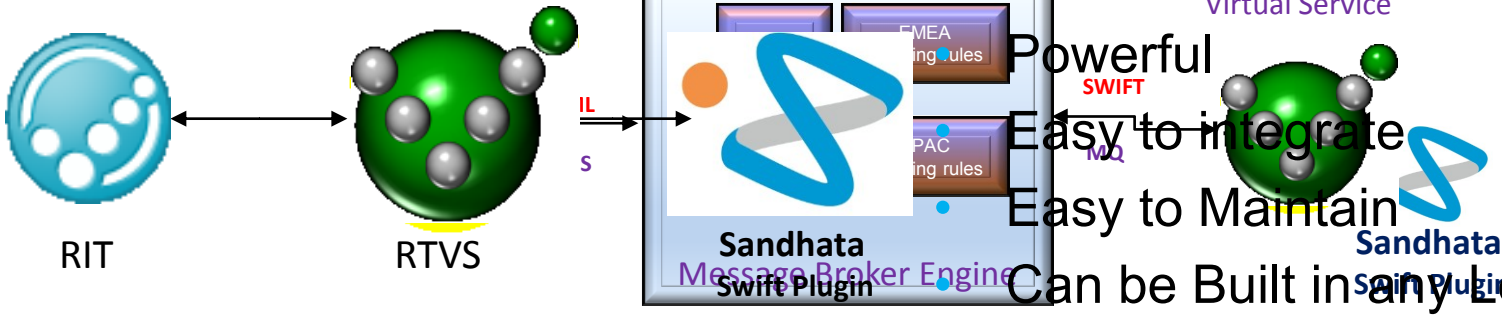
Introducing the Use Case



Testing Landscape



Sandhata SWIFT Plugin



- Uses third party swift validation libraries
- Powerful
- Easy to integrate
- Easy to Maintain
- Can be Built in any Level of Complexity

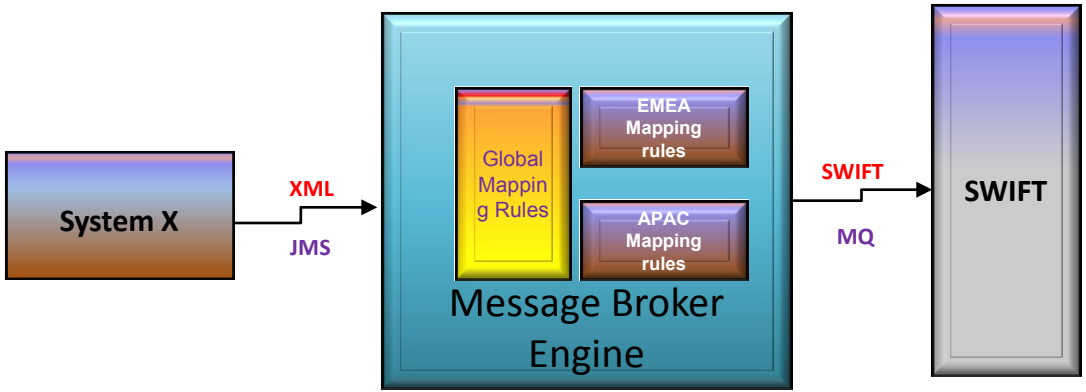
Introduce the demo scenarios

Scenario	Objective of the Demo
The APAC Business has requested for a Change in to prefix “APAC” in the Regulatory Reporting field	1. Demonstrate the **automated build and deployment** 2. Demonstrate the power of **automated testing** in component Level before Integration
The EMEA Business has requested for a Change to apply the Exchange Rate	1. Demonstrate the power of **Service Virtualization** and automaton testing using RIT to enable **earlier defect detection**. 2. Demonstrate the use of **Sandhata Swift Plugin** for Virtual Service
The Middleware team making a code change to address a technical debt	1. Demonstrate the power of **regression testing using RIT** 2. Enables delivering Technical Change with **minimum business involvement and low risk**

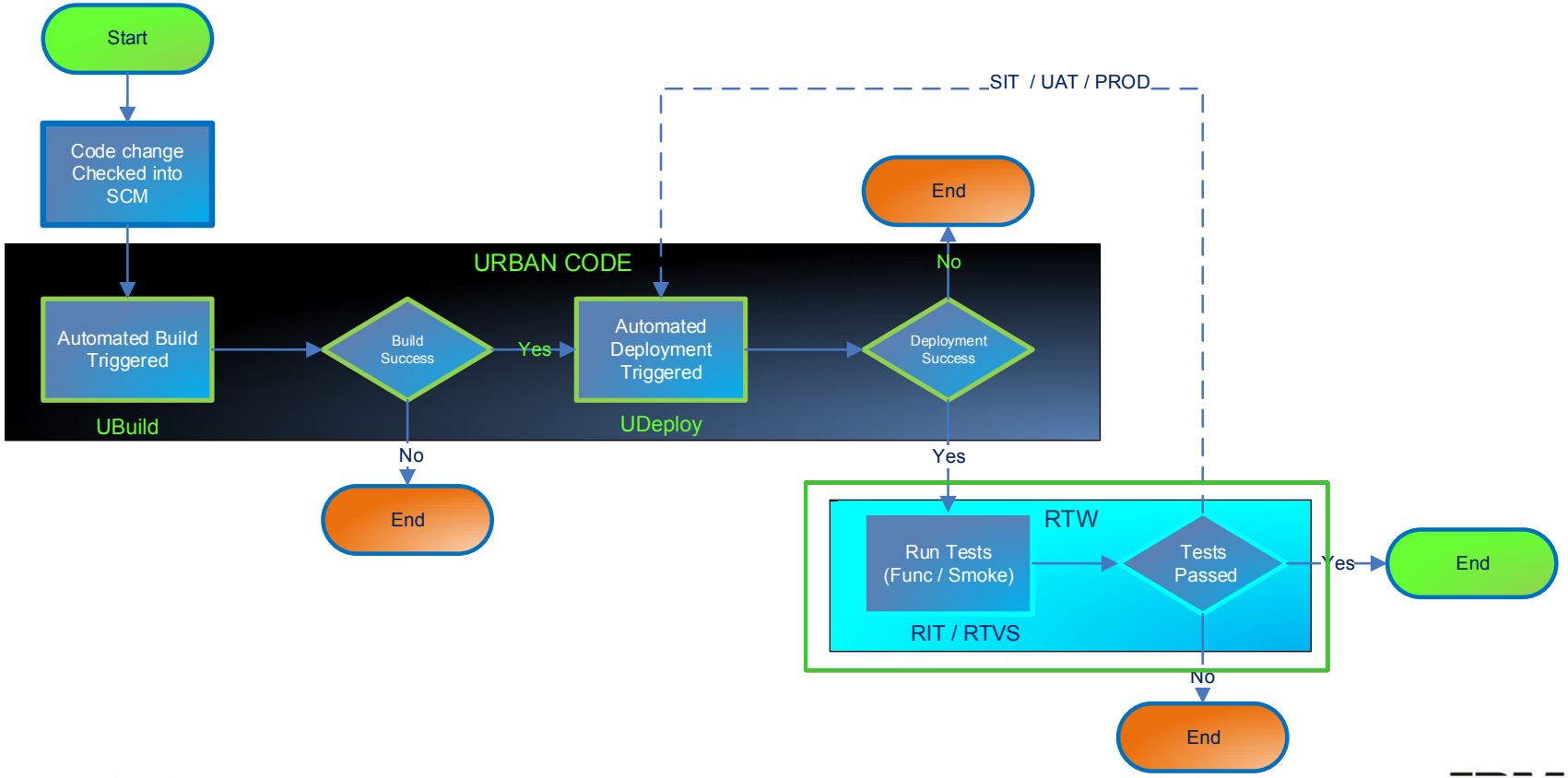
Demo Scenario 1

The APAC Business has requested for a Change in to prefix “**APAC**” in the **Regulatory Reporting** field

- The developer changes the mapping rules within Global logic to fulfil the business requirement
- Functional test passes, but EMEA mapping rules regressed



Continuous Integration – Work Flow

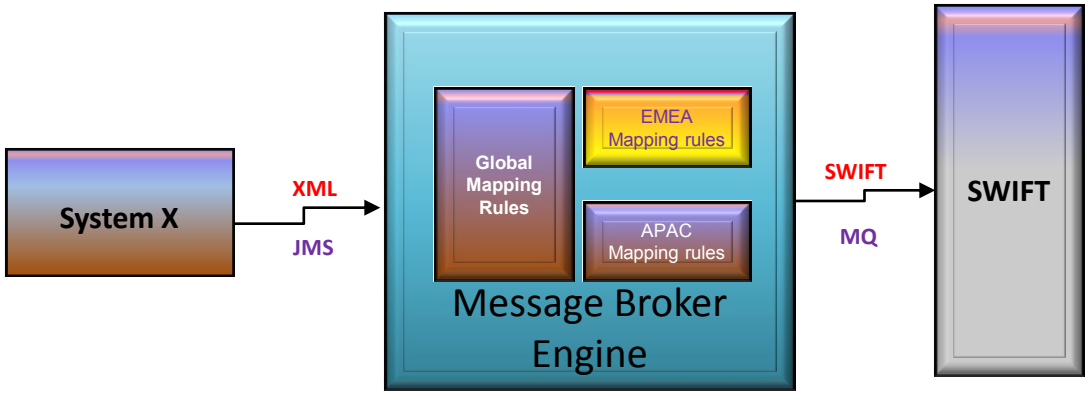


Demo Scenario 2

- The EMEA Business has requested for a Change to apply the

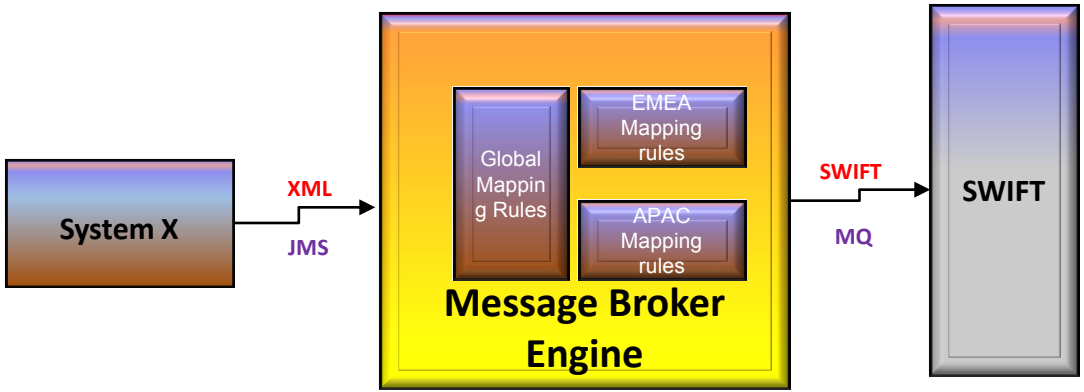
  Exchange Rate

- The developer changes the mapping rules within EMEA specific logic
- Functional and Regression tests passes in DEV buts Fails in SWIFT Validation when Integrated



Demo Scenario 3

- The Middleware team making a code change to address a technical debt
- The developer changes the way the message id is being generated.
- Functional test passes and regression test passes.



Summary

Deliver changes quickly and frequently

From Months to hours

Reduce incidents and Defect cost reduces over time

By 80 to 90%

Deliver High Volume of Changes at Low Cost with Quality !

UAT/pre prod is minimised and even skipped

No Fear for Technical Changes

Increase in Test Efficiency (Coverage / Time Taken)

From 50% Func Cov in 3 weeks to 100% Func cov in 3 hours

To enable Business to meet the Demands in this Competitive World

Q&A

Thank You

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