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

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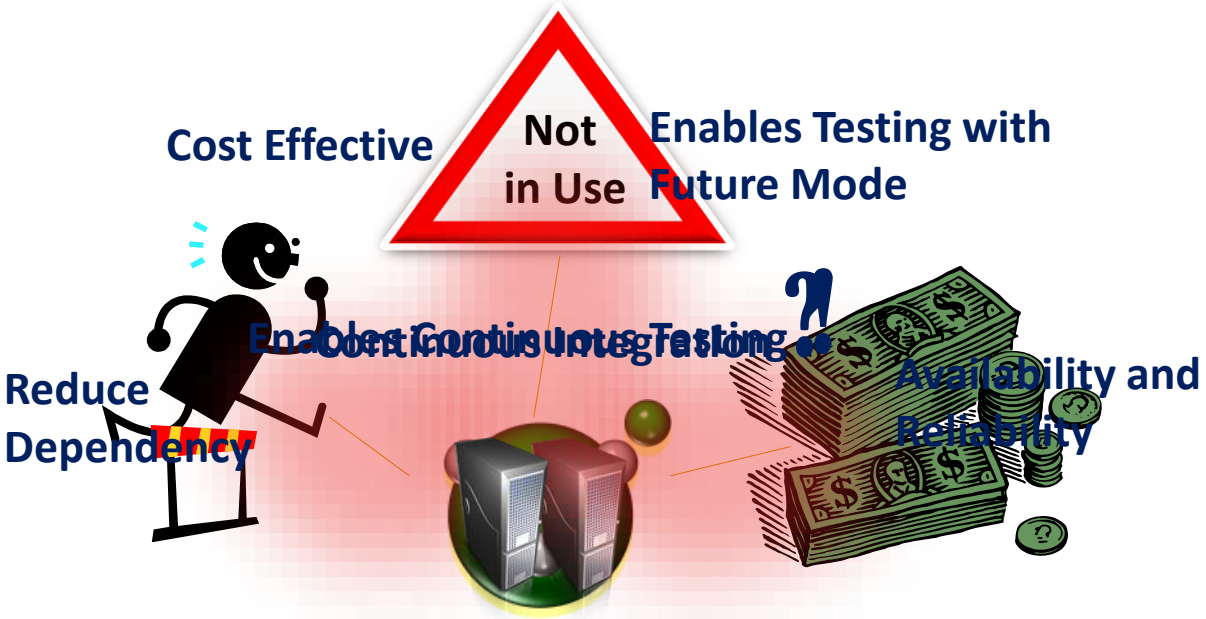
Traditional testing versus continuous testing

- Manual Testing
- Test Automation is isolated
- Test Framework not fit for CI
- Dependency on E2E env
- Focused on Business Requirements only
- Weak Regression Testing strategy

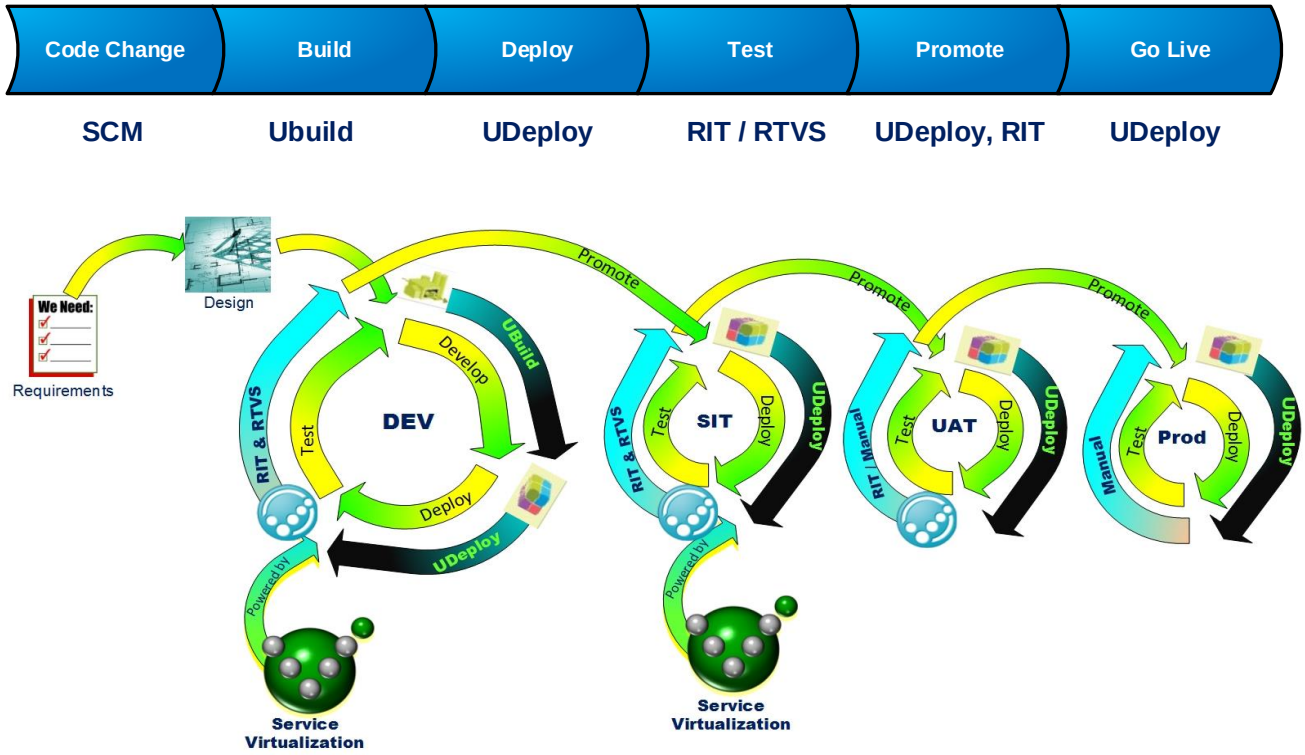
- Automated Testing
- Testing Faster Adoption
- Testing Strategy designed to accelerate all phases of SDLC
- Test Framework defined is suitable for CI
- Testing has been aligned at different levels to accelerate delivery and increase quality.

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

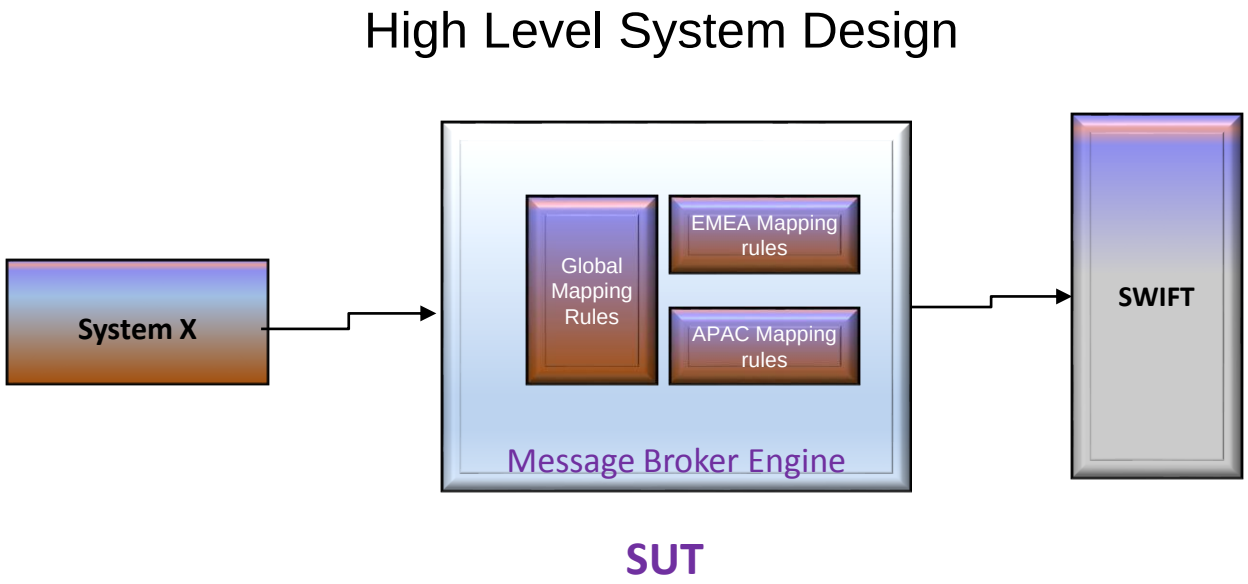
External / Legacy Systems Dependencies



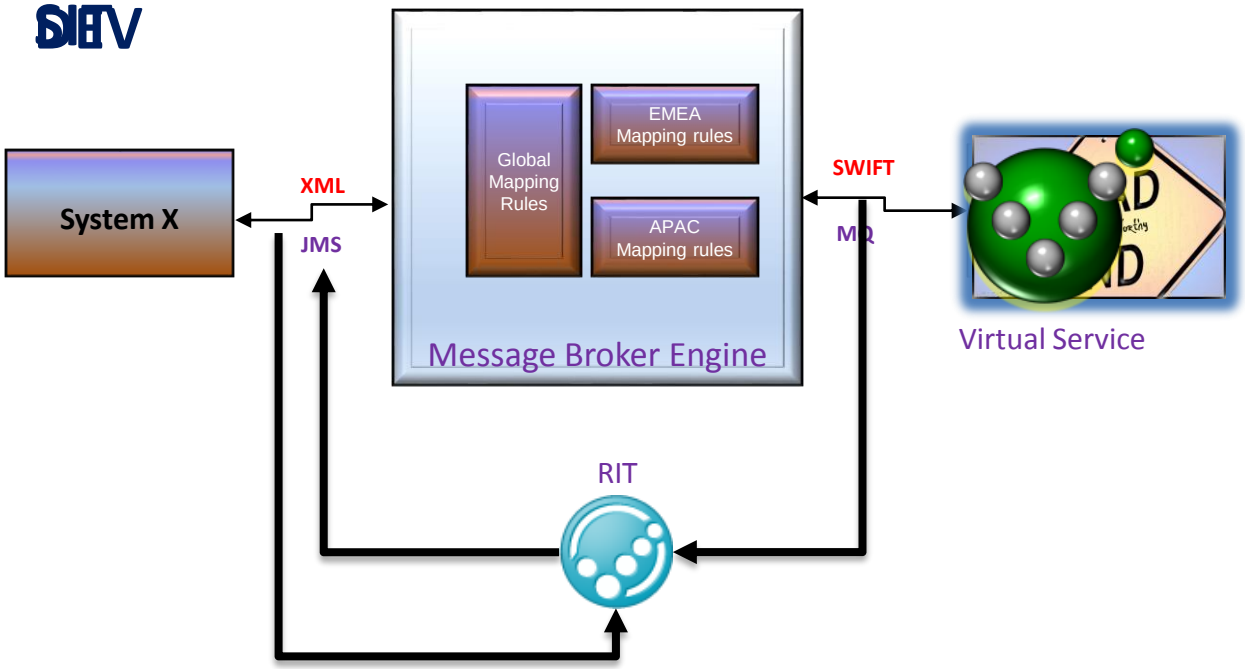
Continuous Integration



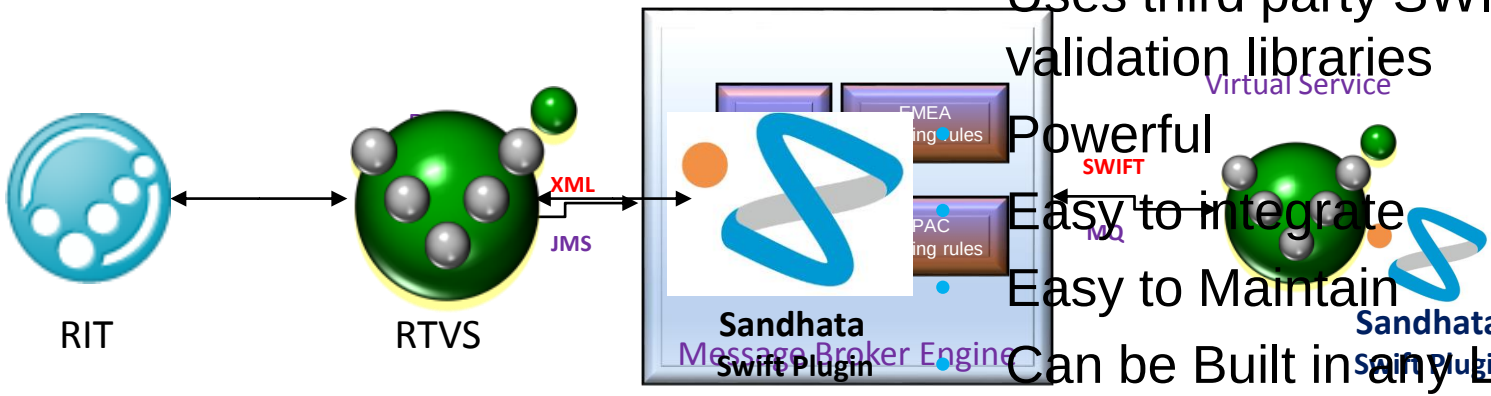
Introducing the Use Case



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

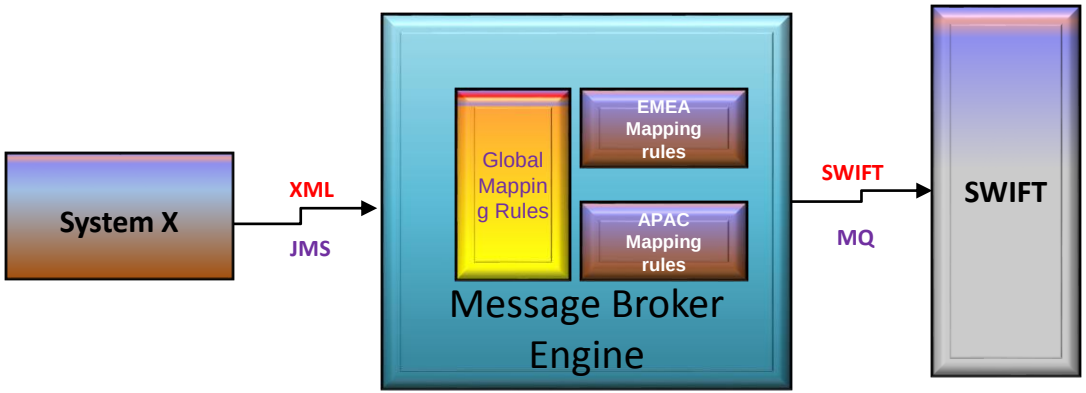
Introduce the demo scenarios

Scenario	Objective of the Demo
The APAC Business has requested a Change to prefix “APAC” in the Regulatory Reporting field	1. Demonstrate **automated build and deployment** 2. Demonstrate the power of **automated testing** at Component Level before Integration
The EMEA Business has requested a Change to the Exchange Rate	1. Demonstrate the power of **Service Virtualization** and automation testing using RIT to enable **earlier defect detection**. 2. Demonstrate the use of **Sandhata SWIFT Plugin** for Virtual Services
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**

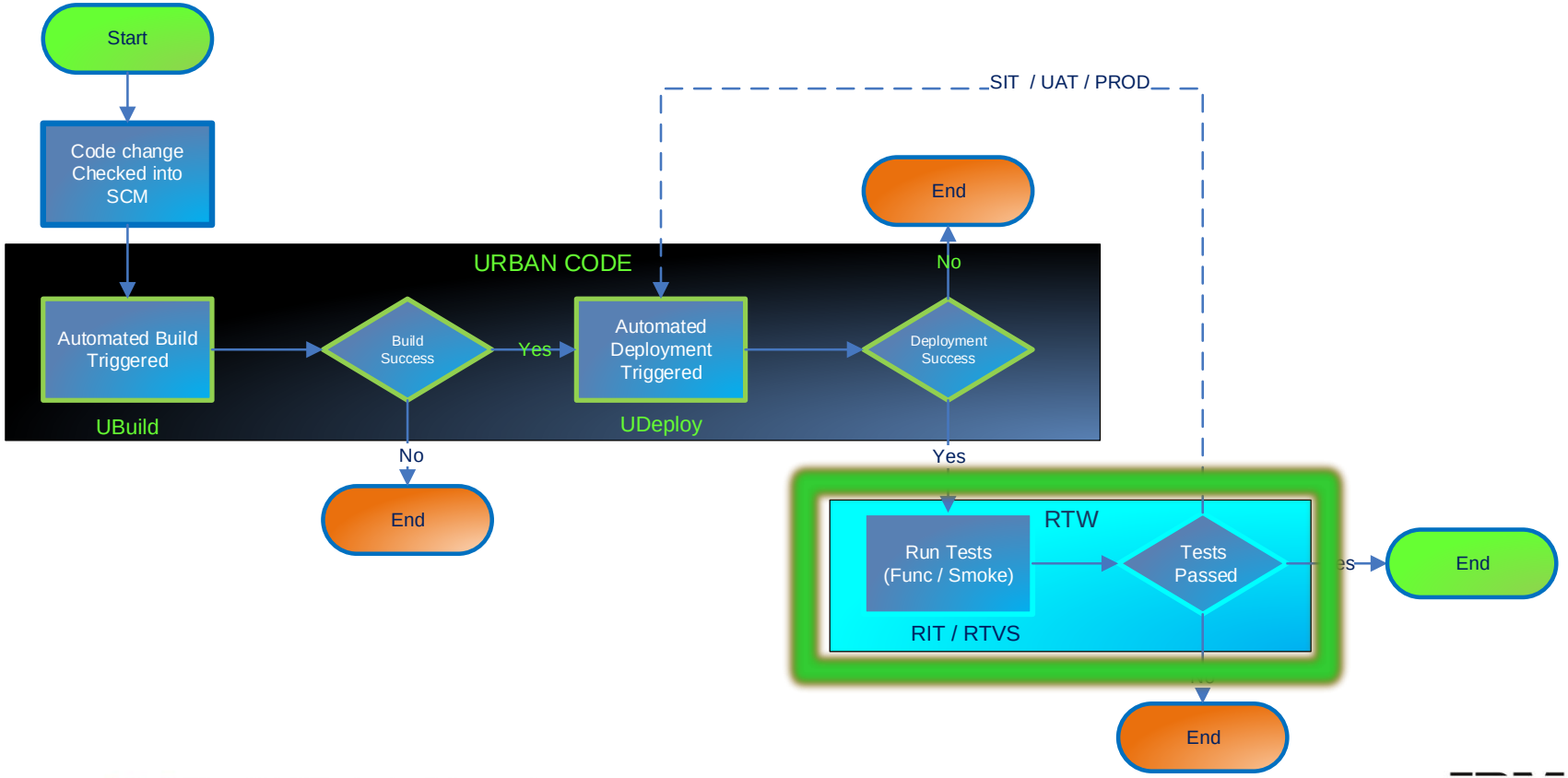
Demo Scenario 1

The APAC Business has requested for a Change 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



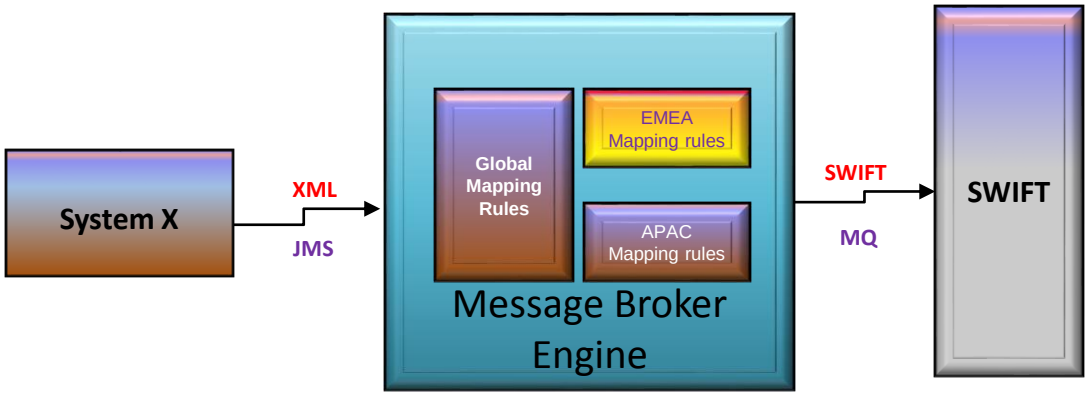
Continuous Integration – Work Flow



Demo Scenario 2

The EMEA Business has requested a Change to apply the **Exchange Rate**

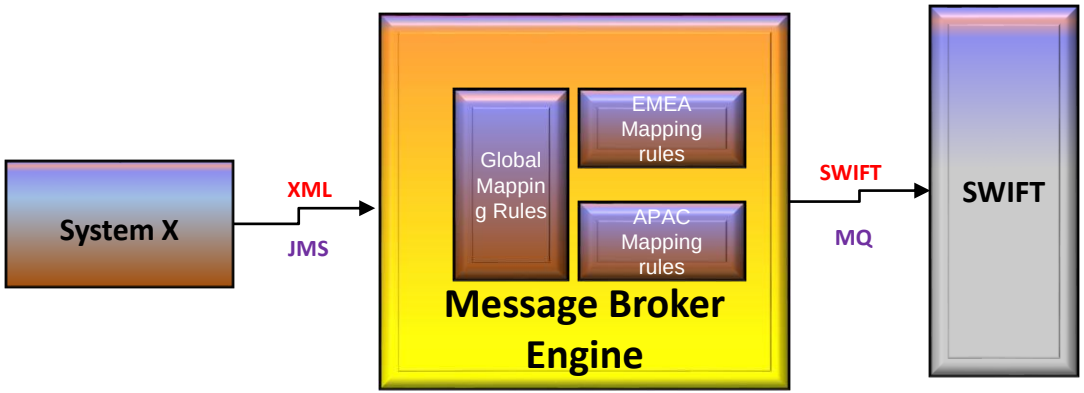
- The developer changes the mapping rules within EMEA specific logic
- Functional and Regression tests passes in DEV buts fails in SWIFT Validation when Integrated



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

Deliver High Volume of Changes at Low Cost with Quality !

By 80 to 90%

UAT/pre prod is minimised and even skipped

To enable Business to meet the Demands in this Competitive World

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

Q&A

Thank You

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