

Continuous Quality Improvement

Plan

Do

Check

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**Faster Time to
Market**

Reduce Risk

**Software
production ready at all times**

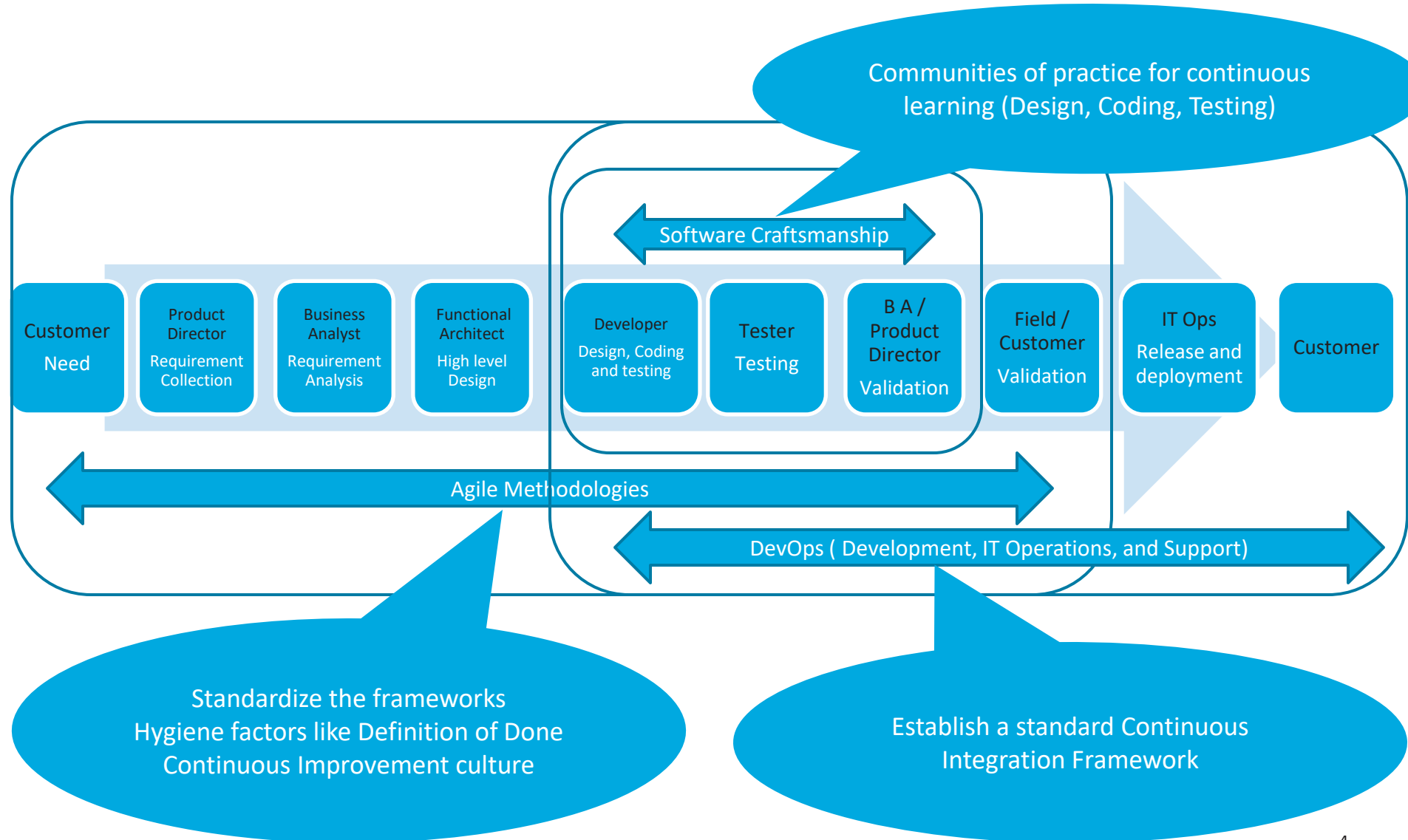
**Built-in Software
Quality**

**Fast feedback,
visibility and
control**

- > The process for releasing/deploying software must be repeatable and reliable.
- > Build quality in!
- > Automate everything!
- > Done means “potentially shippable”.
 - Complete PSR
- > Everybody has responsibility for quality.
- > Improve continuously.

Continuous Quality Improvement

People, Process & Systems



Agile Methodologies

Focus on People & Process

> Standardize the frameworks (Scrum, Kanban and Scrumban)

- Bring in common understanding of Agile
- Informal learning opportunities

> Hygiene practices

- Constructive partnership with customer
 - Product vision and Requirement clarity
- Definition of Done
 - User Story, Sprint and Release
- Quality Gates
 - Design reviews, Code reviews

> Continuous improvement culture

- Coaching & mentoring
 - Development Services, Assortment, WLM, Direct Commerce
- Share the successes and standardize best practices

How do we get there?



Activity	Impact	Coverage	Owner	Timeline (Quarter)	Measure of success
Trainings on Agile Frameworks	Team should choose the framework	All Associates	Ebin John	Q1 – Q4	
Definition of Done (DoD)	All teams should Follow DoD	All Associates	Project Manager	Q2 – Q4	
Work with PMG to enable customer collaboration	Better customer feedback and satisfaction	PMG	Project Director	Q2 – Q4	
Identify Agile teams and share the success	Amplify the learning	All Associates	Project Manager	Q2 –Q4	
Coaching Prioritized projects	Development Services, Assortment, WLM	Selected teams	Ebin John	Q2 - Q4	
Coaching on Demand	Direct Commerce	Needed Teams	Ebin John		
Agile Book club	Informal Learning	All Associates	Ebin John	Q2 – Q4	

- > Create awareness on Software Craftsmanship
 - Share the successes and standardize best practices
- > Communities of practices for continuous and informal learning
 - Design
 - Flexible architecture, Design Reviews
 - Coding
 - Clean code (SOLID principles)
 - Coding Standards
 - Testing
 - Proactive testing (Automation, BDD, ATDD)
- > Extreme Programming practices (Vision)
 - TDD, Pair Programming, Refactoring, Specification by Example

How do we get there?

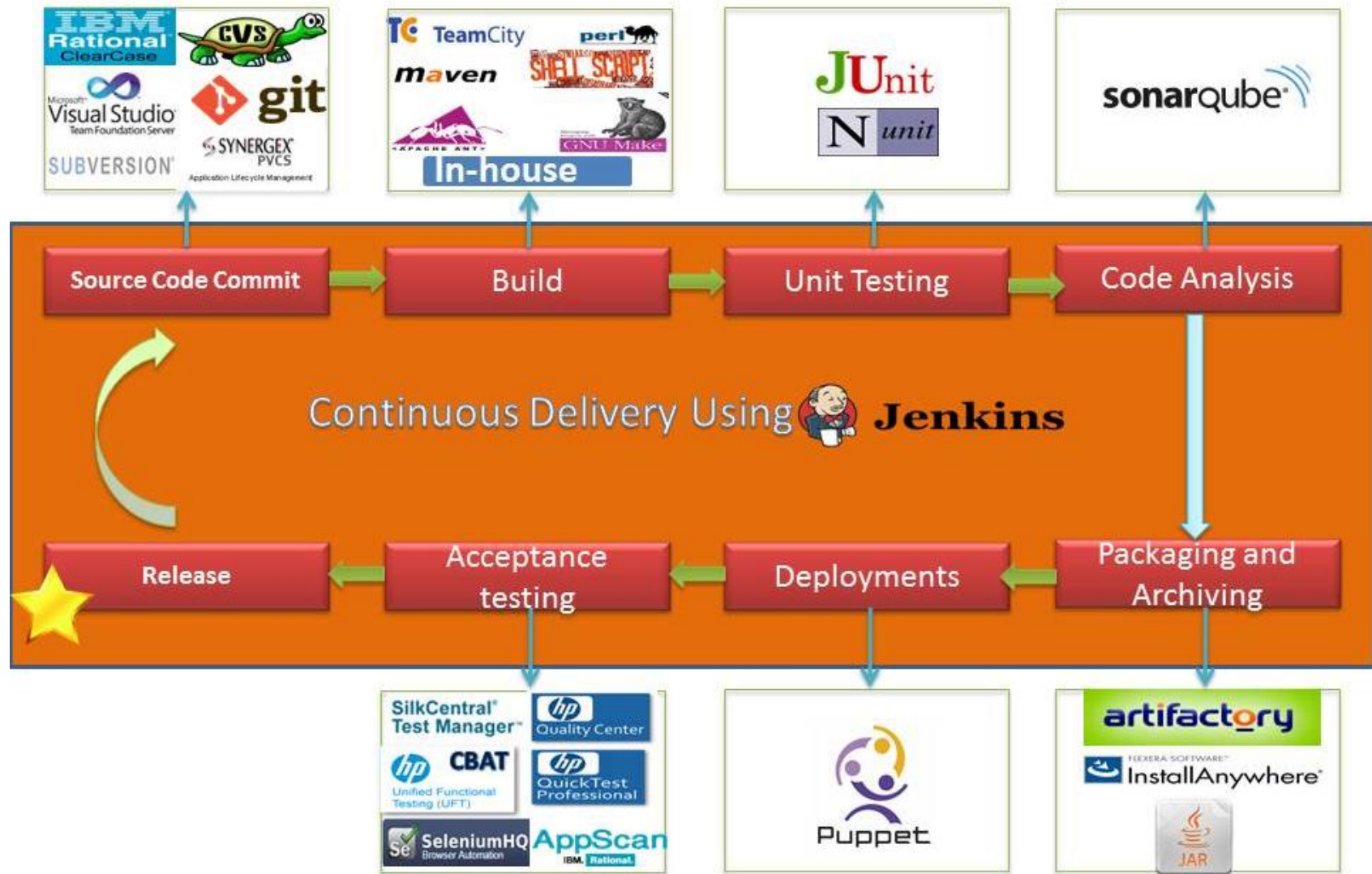


Activity	Impact	Coverage	Owner	Timeline (Quarter)	Measure of success
Trainings on Clean Code	Awareness on Clean Code practices	All Associates	Ebin John	Q2 – Q4	
Hands-on training on Engineering practices	Experiential learning	Selected Teams	Architect	Q2 – Q4	
Communities of practice <ul style="list-style-type: none">• Design• Development• Testing	Focused Learning (Self sufficient)	All Associates	Architect Scrum Master	Q3 – Q4	
Identify Agile teams and share the success	Amplify the learning	All Associates	Project Manager	Q2 –Q4	
Training on Automation	High quality, Fast releases	Selected Teams	Architect	Q2 – Q4	

DevOps Systems

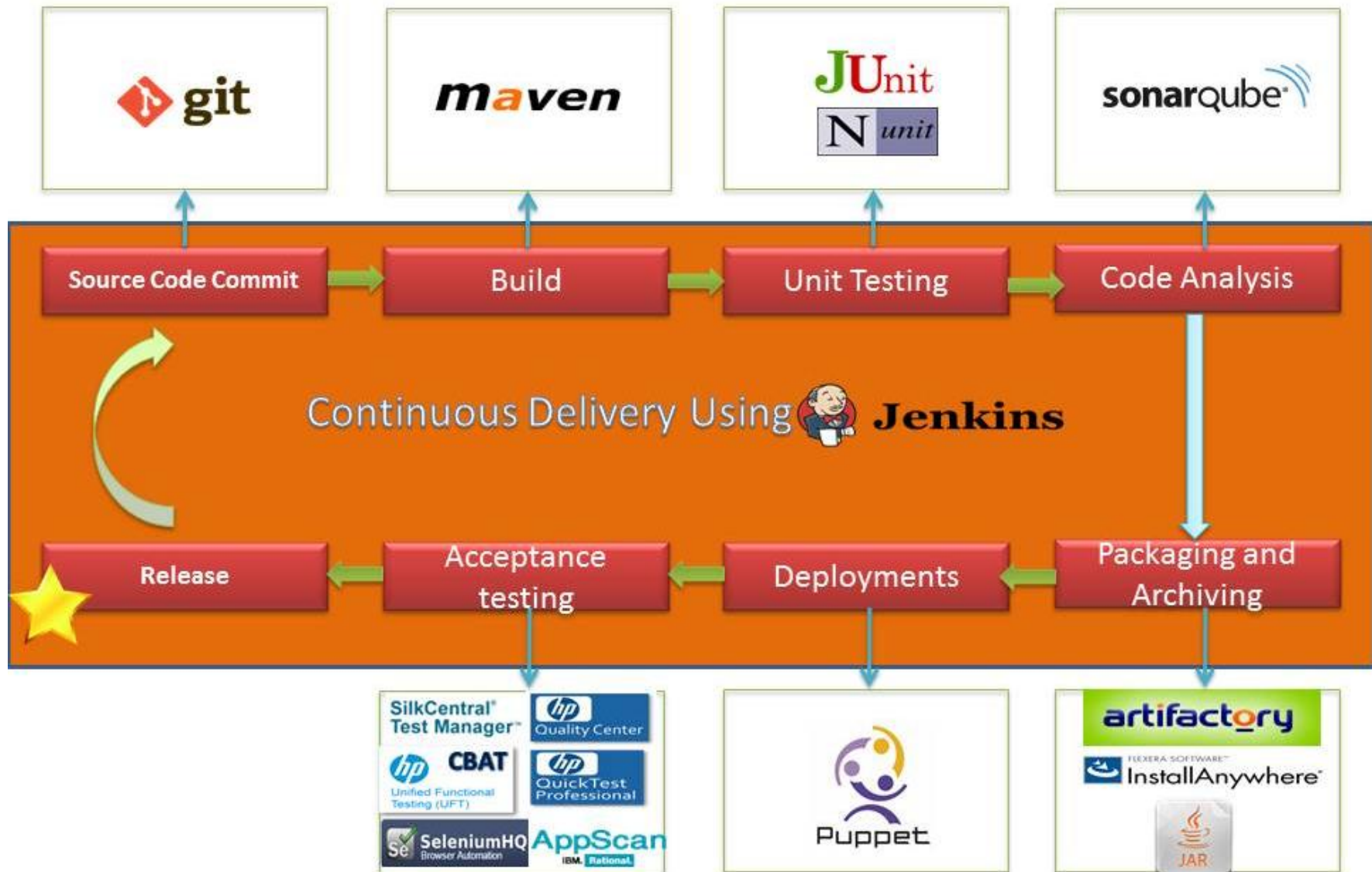
Proposed CI/CD Flow in JDA

jda.



Preferred tools – going forward

jda.



How do we get there?



Activity	Impact	Coverage	Timeline (Quarter)	Measure of success
Identify tools for CI/CD	Standardization	All Products	Q1	Publish tool list
Fulfillment - CI/CD flow	POC for SCPO products	Fulfillment	Q2	Reduce Turnaround Time, Faster Feedback
WMS - CI/CD flow	POC for execution products	WMS	Q3	Reduce Turnaround Time, Faster Feedback
Platform – CI/CD flow	POC for platform	Platform	Q3	Reduce Turnaround Time, Faster Feedback
Implementing static code analysis for all strategic products (Sonar Qube)	Improve code Quality	All Products	Q2	Availability of code analysis report for all products
Rollout Test code coverage tool integration framework	Development Services, Assortment, WLM	Selected teams	Q2	Availability of Test code coverage report for all products

Tools used for CI/CD

Activity	WMS	Platform	FulFillment
Version Control Tool	GIT	ClearCase	CVS
Build Tool	Ant	Ant	Maven
Continuous Integration	Jenkins	Jenkins	Jenkins
Code Analysis	SonarQube	SonarQube	SonarQube
Configuration Management	Puppet	Puppet	Puppet
Test Coverage	Jacoco	Jacoco	Jacoco
QA Tools	Selenium & Fitness	QTP, SilkCentral, Load runner	QTP, SilkCentral, Load runner
Security Analysis	AppScan	AppScan	AppScan
Issue Tracking, Peer Code Review, Agile	Jira	Jira	Jira
OS	Windows	Windows	Windows & Linux

