

2018 | 中国·北京站
DevOps 落地，从这里开始

DevOps 国际峰会

暨 DevOps 金融峰会

指导单位： 云计算开源产业联盟
Open Source Cloud Alliance for Industry (OSCAI)

主办单位： DevOps时代

 高效运维社区
GreatOPS Community

2018年6月29日-30日

地址：北京悠唐皇冠假日酒店

The Challenge and Key to Implement DevOps in Large Banks

Jihai Zhou, DevOps Champion

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Introduction

- Graduated from Imperial College London as a PhD
- Started to work on DevOps in banking since 2012
- Worked/Working in below banks



➤ Royal Bank of Scotland (RBS)



➤ Union Bank of Switzerland (UBS)



➤ Barclays Bank



➤ HSBC



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The Special Culture for IT in Banking



- IT department does not produce revenue in banking
- IT senior management more focus on business requirement delivery, less interest in IT improvement
- Long, complex and inefficient change management process
- Poor engagement between business and IT departments
- Technology upgrade slowly



Legacy and Vendor Applications

- Legacy applications in banking (20/30+years old)
 - Many existing users – not easy to change
 - Legacy technologies – only supported by few DevOps technologies/tools
 - AS/400
 - RPG
 - VB6
 - Maintenance – inefficient and cost a lot of resource
- Vendor applications in banking
 - Black box and difficult to change
 - Need to coordinate with vendors, which is more complex and out of control



Mindset is not easy to be changed

- Waterfall process dominate
- Development process invisible
- Do not care code quality
- Manual process
- Mindset is not build up well
- Teams work individually
- Get used on existing technologies, few interest in novel technologies

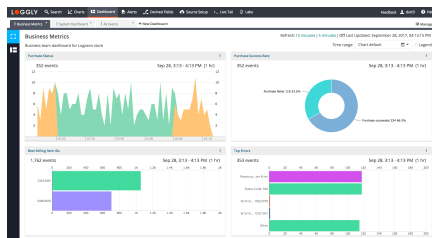


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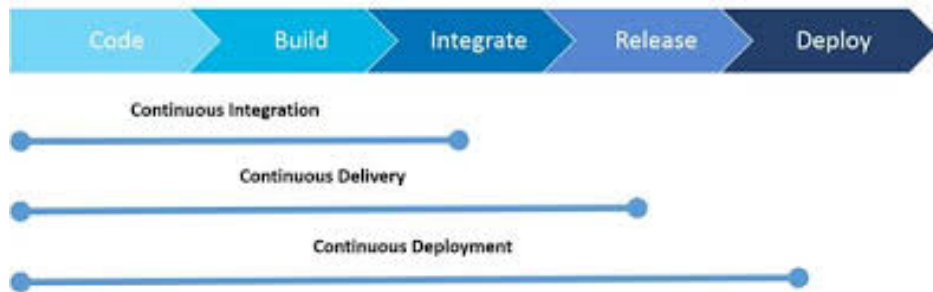
DevOps Focus

- Automation
- Metrics and Feedback
- Mindset and Culture
- Sharing



Automation - CICD

- The development process automation is the foundation to implement DevOps
- CICD
 - Continuous Integration
 - Continuous Delivery
 - Continuous Deployment

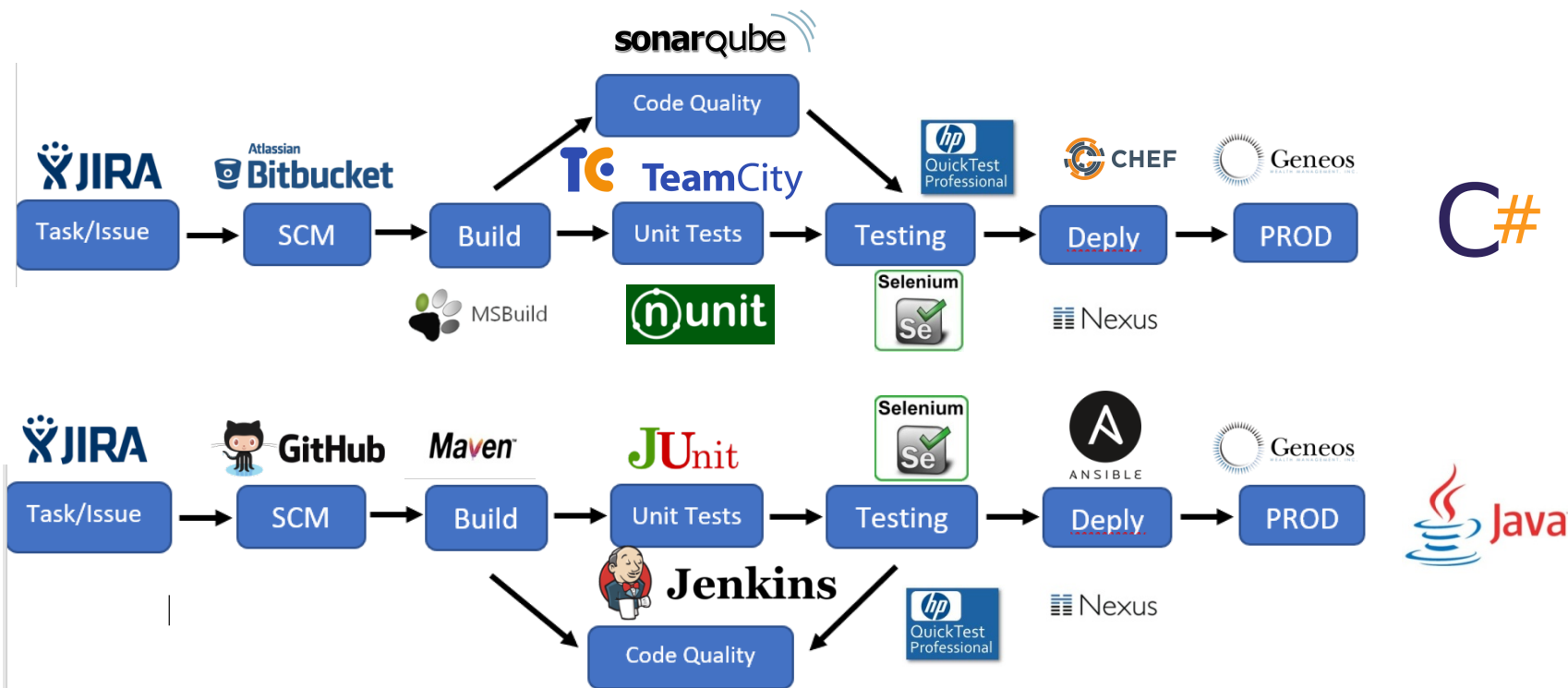


DevOps Tooling Stack



- **Task and Issue Management Tools:** Jira
- **SCM Tools:** Github, Bitbucket, Gitlab, SVN, Perforce, Clearcase
- **Static Code Quality Analysis Tools:** Sonarqube, Findbug, PMD, Resharper, FXCop, Cppcheck
- **Continuous Integration Tools:** Jenkins, TeamCity, Bamboo
- **Build Tools:** Maven, Gradle, Ants, MSBuild, Nants
- **Unit Test Tools:** Junit, Nunit
- **Artifact Management Tools:** Nexus, Artifactory
- **Testing Tools:** Selenium, QTP
- **Auto Configuration and Deployment Tools:** Ansible, Puppet, Chef
- **Monitoring Tools:** Geneos, Grafana, Sense

DevOps Development Process Pipeline DOIS



Why we need Feedback from Data

- The data across development process need to be
 - Visible
 - Measured
 - Analyzed
 - Monitored
 - Feedbacked

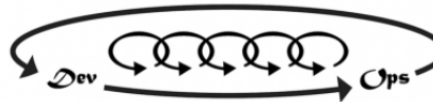
The First Way:
Systems Thinking



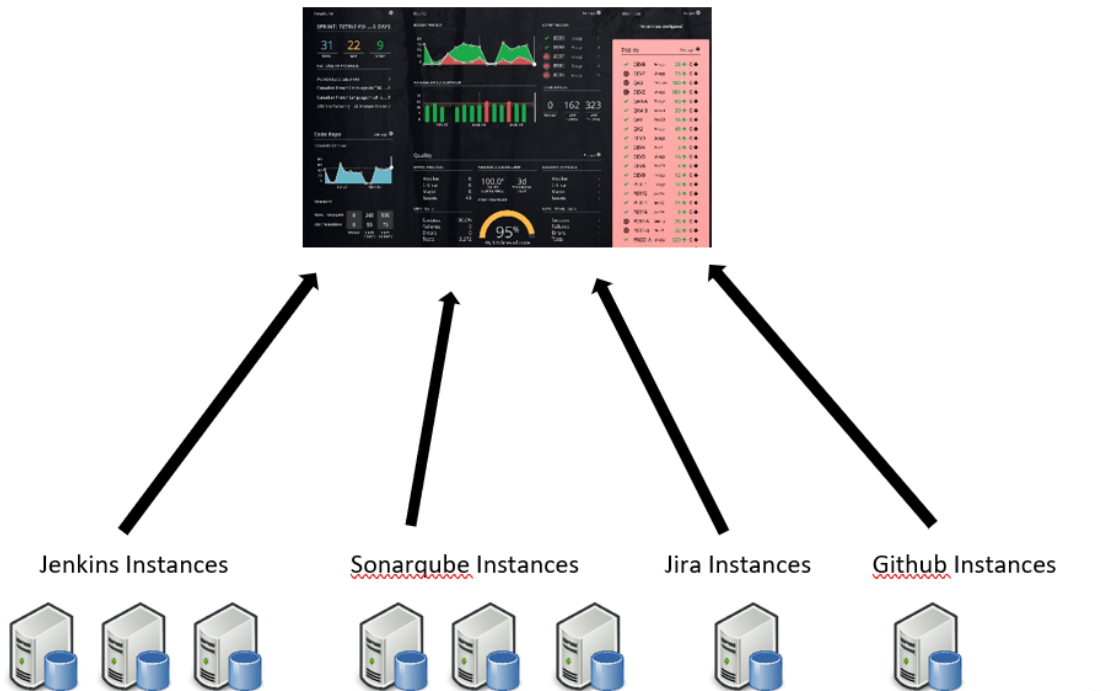
The Second Way:
Amplify Feedback Loops



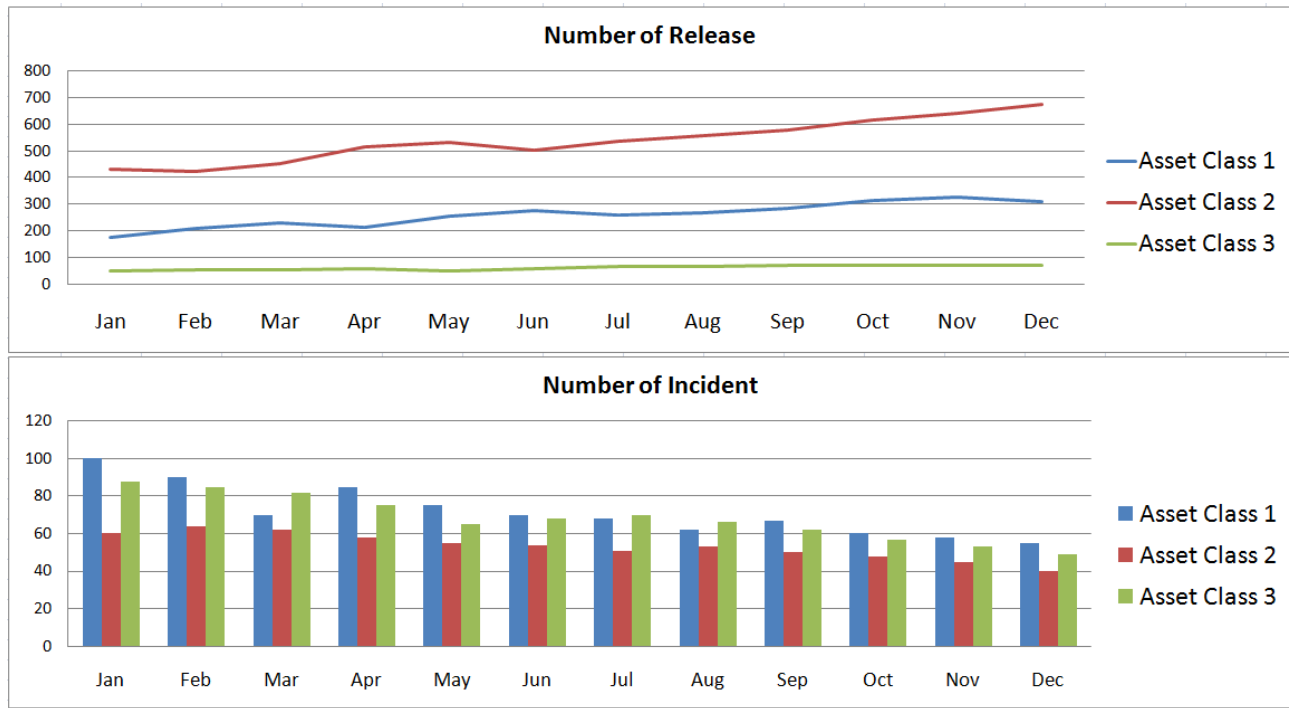
The Third Way:
Culture Of Continual Experimentation And
Learning



Centralize the Development Process Data



DevOps Performance Assessment



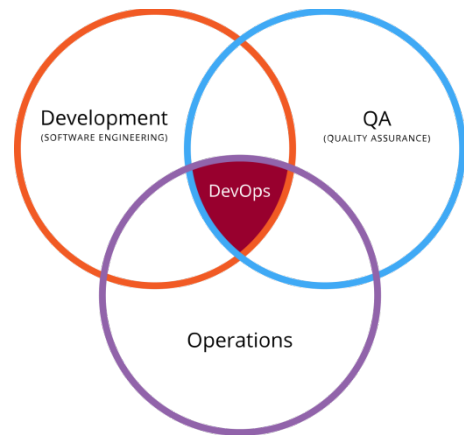
**Be a good sales man to
convince business to buy it**

- In banking DevOps is not only about IT
- Business is the key



Agile Pod Structure

- Agile pods are cross-functional and small custom agile teams, ranging from 4 to 10 people to cover
 - DEV
 - QA
 - Ops (Support)
- Members in a pod-based team need to have knowledge transferred each other, work close and operate in an agile way



DOIS

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DevOps Coaching and Training

- Educating teams as to how DevOps practices and thinking can reduce these inefficiencies and service shortcomings
- Working with application teams to identify necessary initiatives to bring efficiencies and quality improvements
- Driving teams to identify blockers to faster, smaller, better performance and associated KPIs and setting current and future targets against these initiatives
- Ongoing feedback within teams on performance and drive to get teams to continuously reflect on performance and drive out better ways of working



DevOps Community and Sharing

- Objective
 - Sharing the experience and knowledge
 - Summarize the best practice
 - Help each other
- DevOps Communities
 - CICD
 - Innovation
 - Process



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Q&A

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Thanks

DevOps 时代社区 荣誉出品

想第一时间看到高效运维社区
的新动态吗？

