

DevOps and Continuous Delivery Reference Architectures

Derek E. Weeks
VP and DevOps Advocate
Sonatype

Common Elements of the Software Supply Chain

 sonarqube

 Nexus

maven

 Jenkins

 JIRA

 git

 puppet
labs

 RUNDECK

 CHEF™

 docker

 SUBVERSION

 Apache
Tomcat

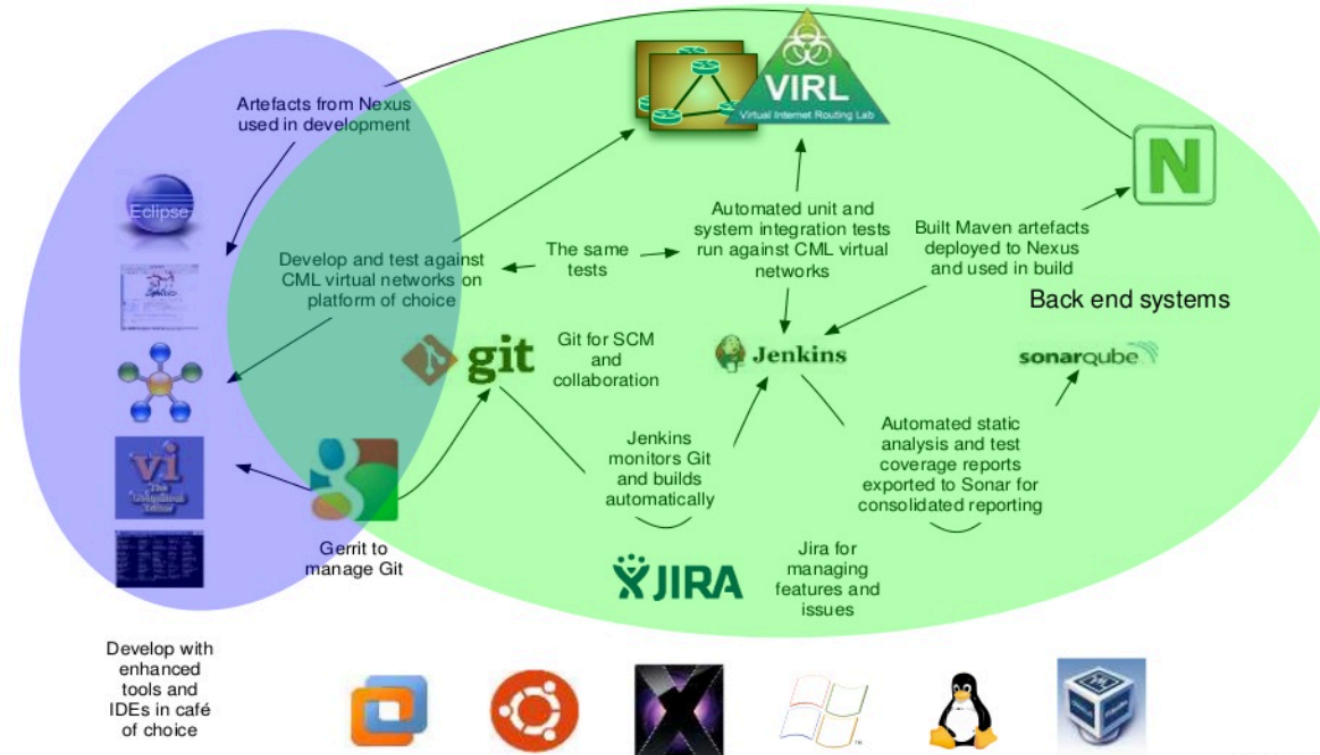
 VAGRANT

 GitLab

A N S I B L E

 Sonatype

According to Cisco



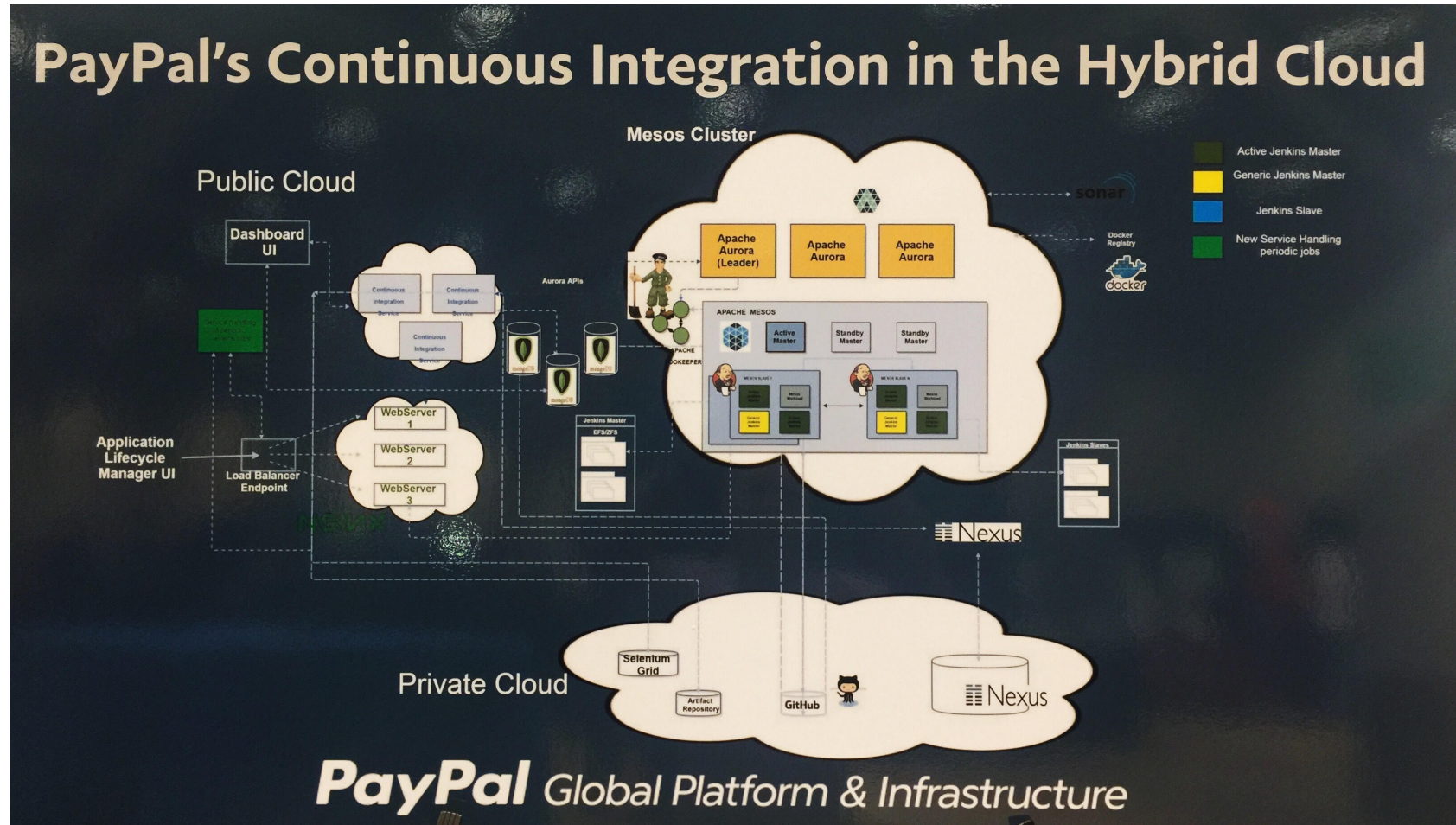
Develop with enhanced tools and IDEs in café of choice



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Cisco live!

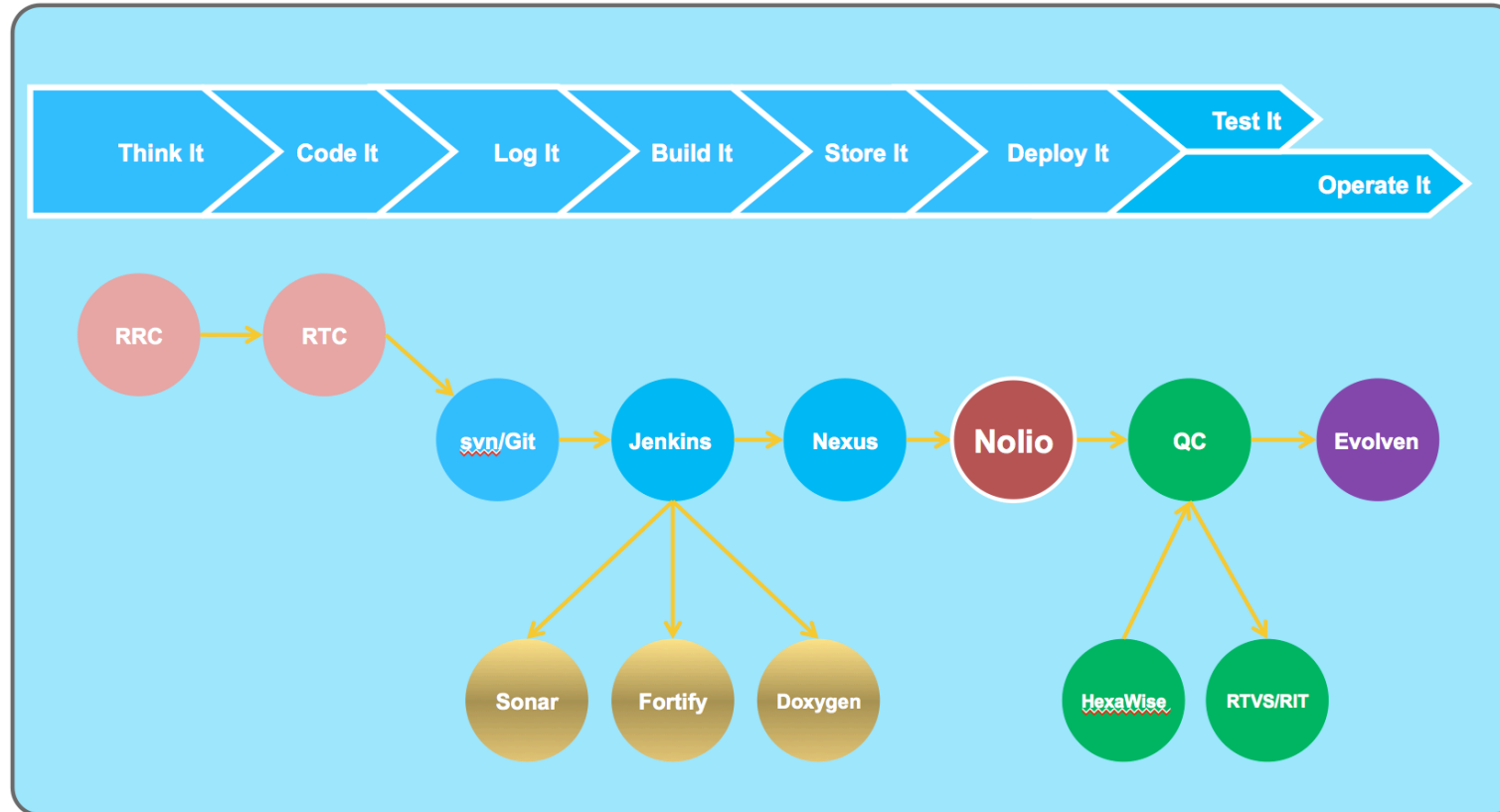
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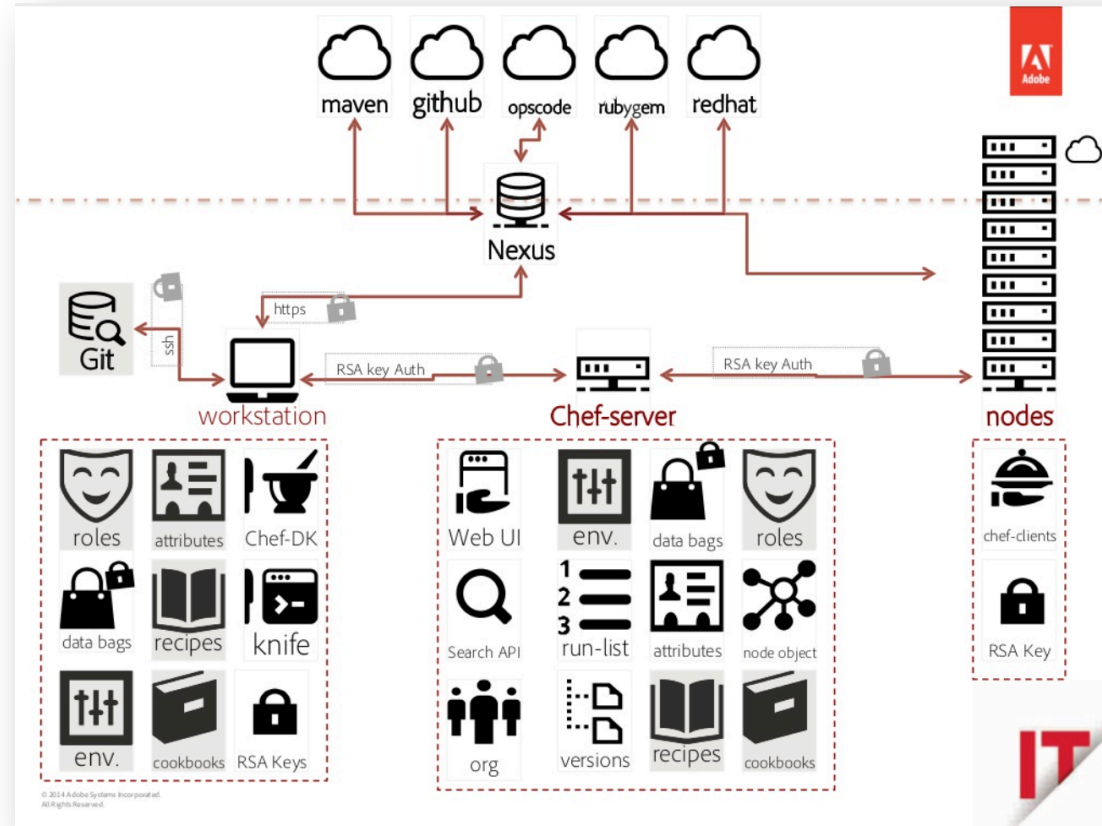
According to BARCLAYS



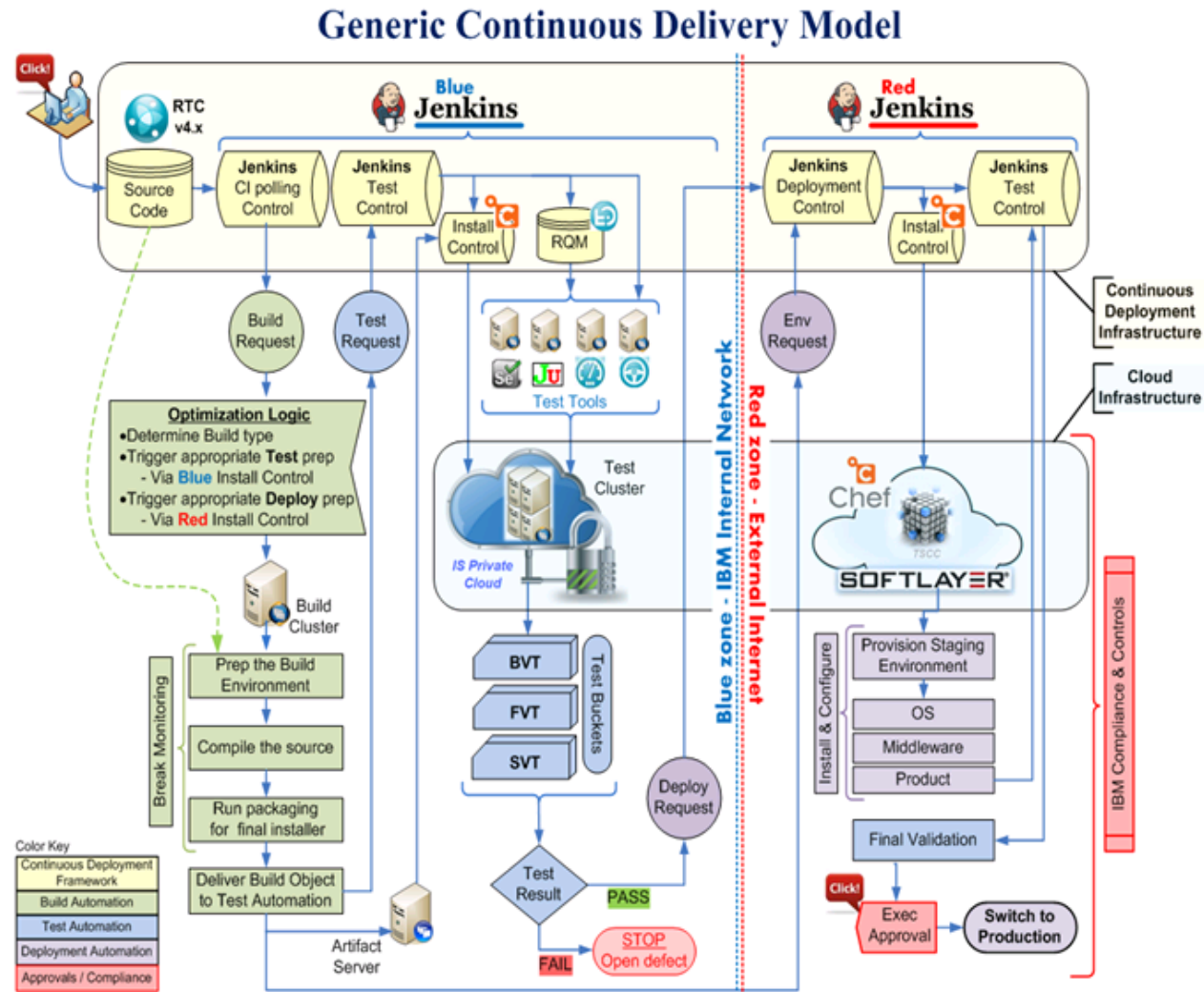
Quantum – Automated Deployment



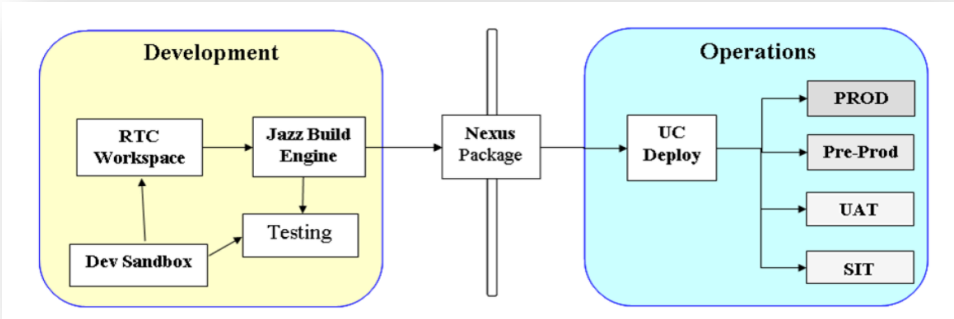
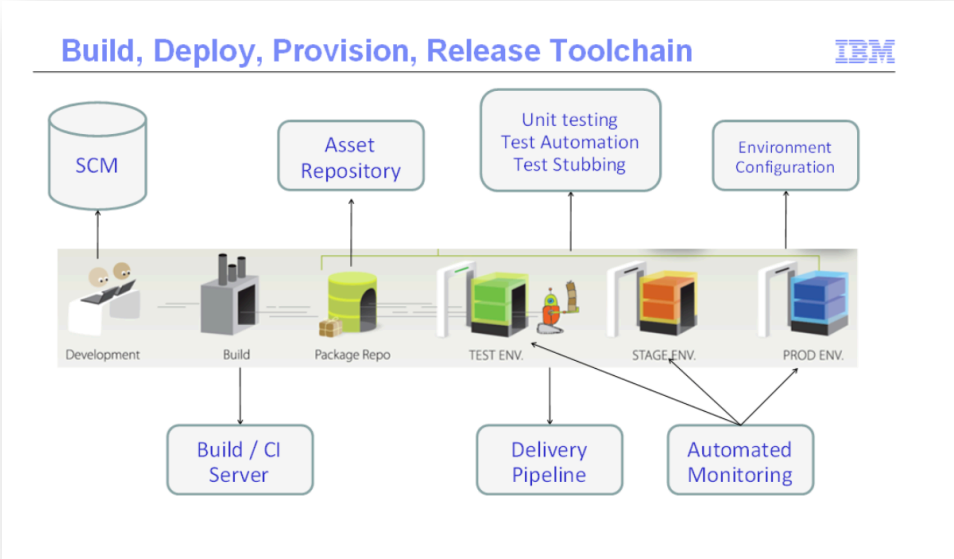
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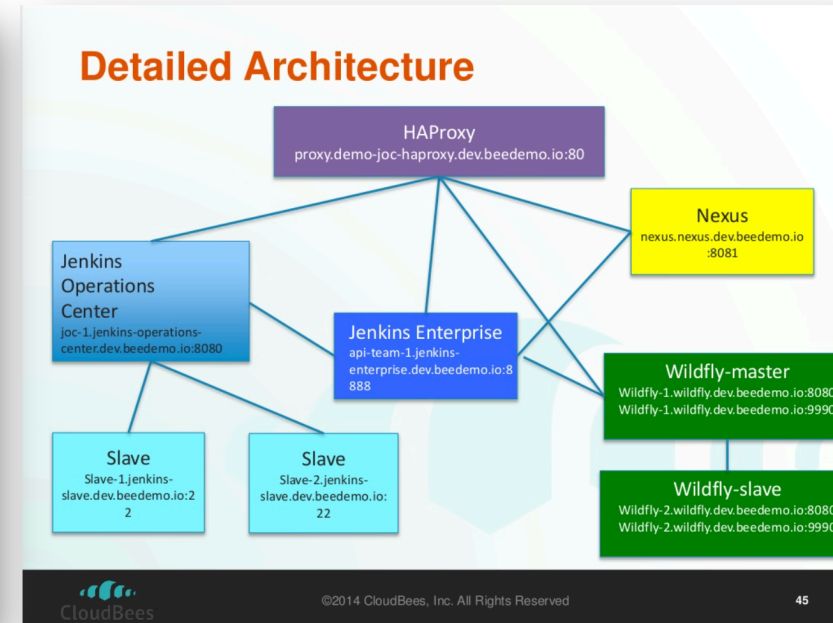
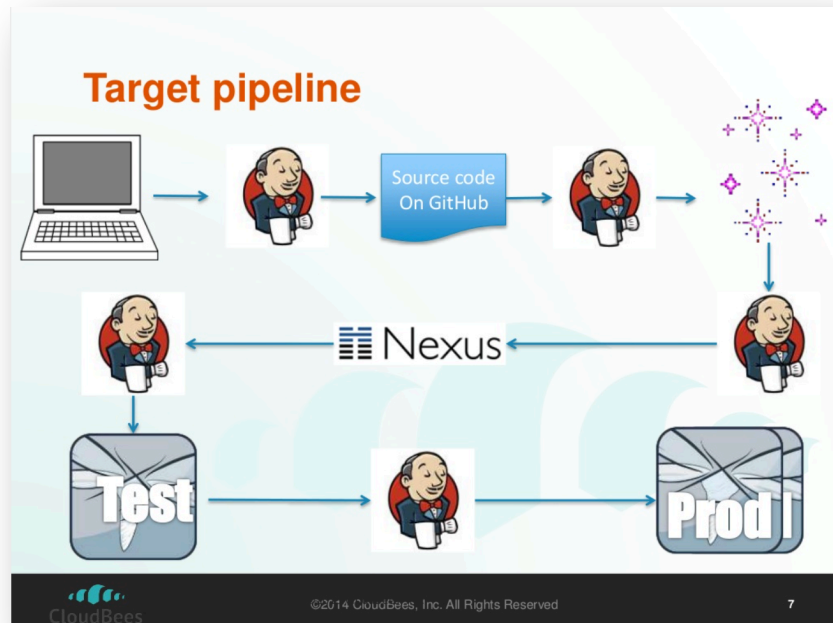
According to IBM



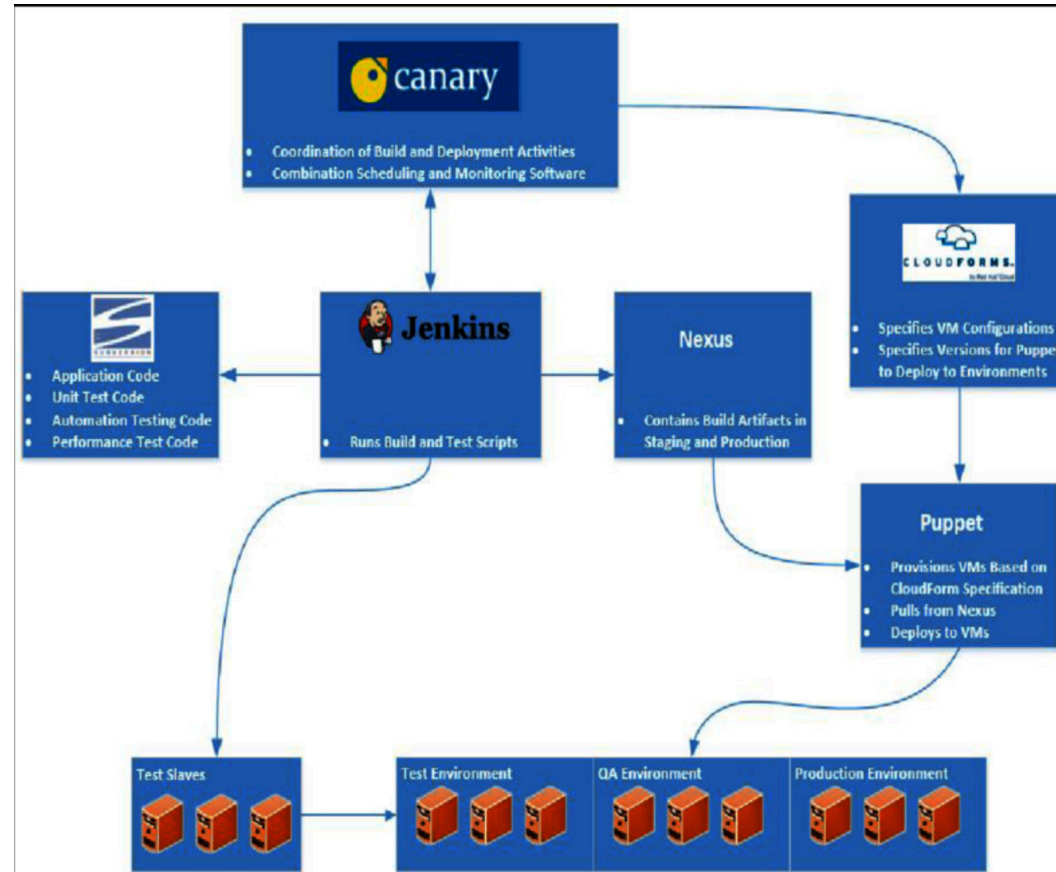
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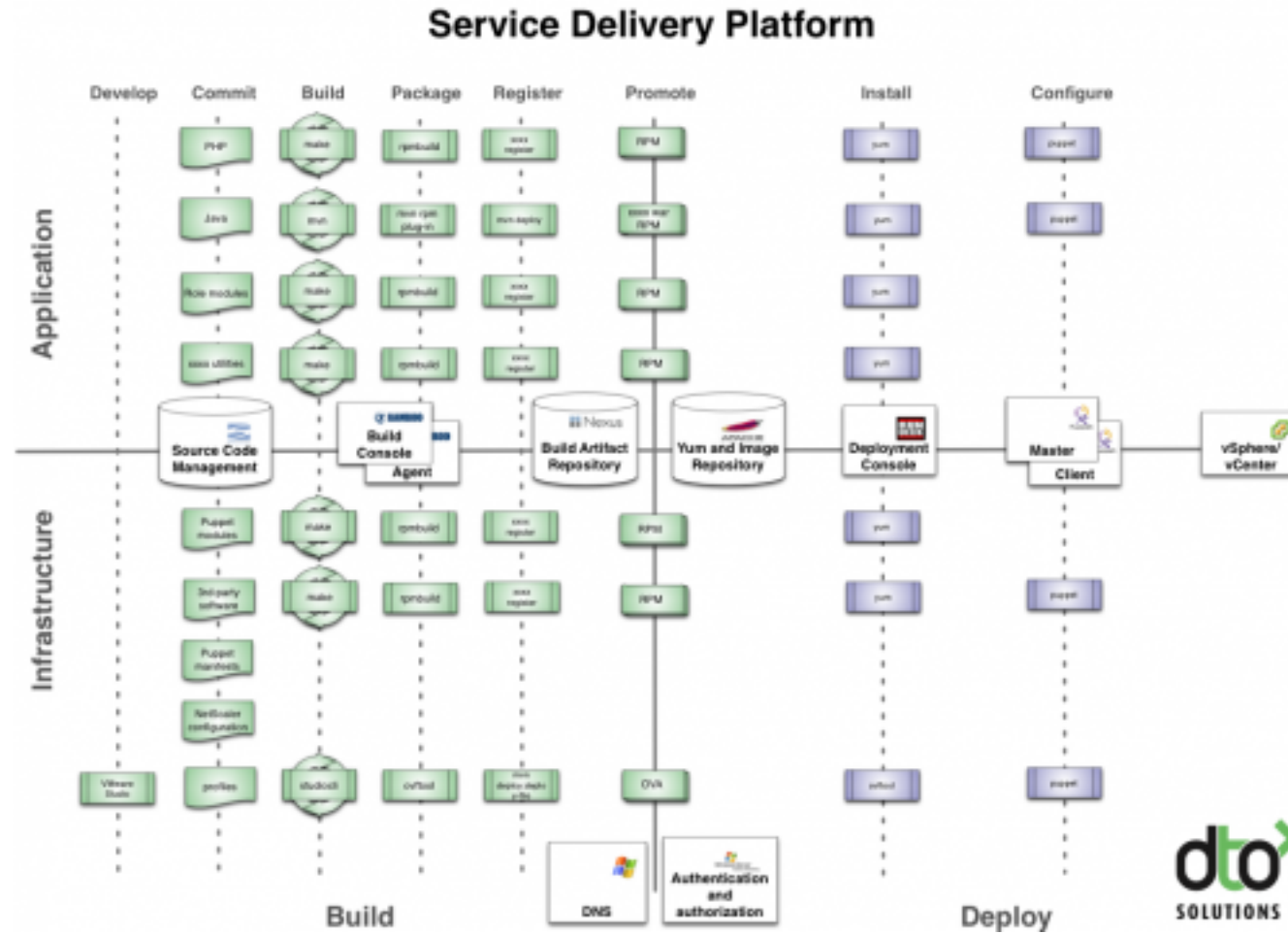
According to Cloudbees



According to US Patent & Trade Office (USPTO)



According to Rundeck



A stylized world map with green continents and blue oceans, serving as the background for the entire graphic.

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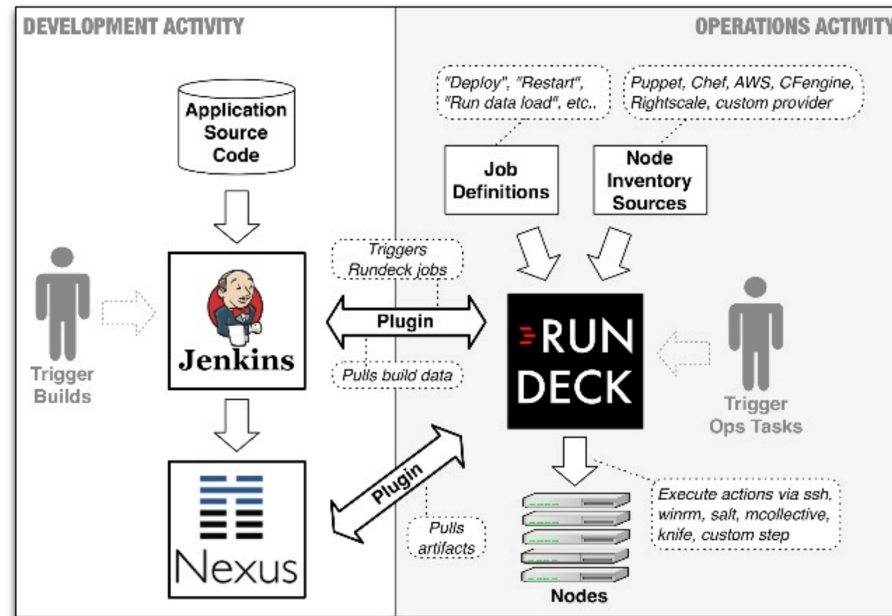
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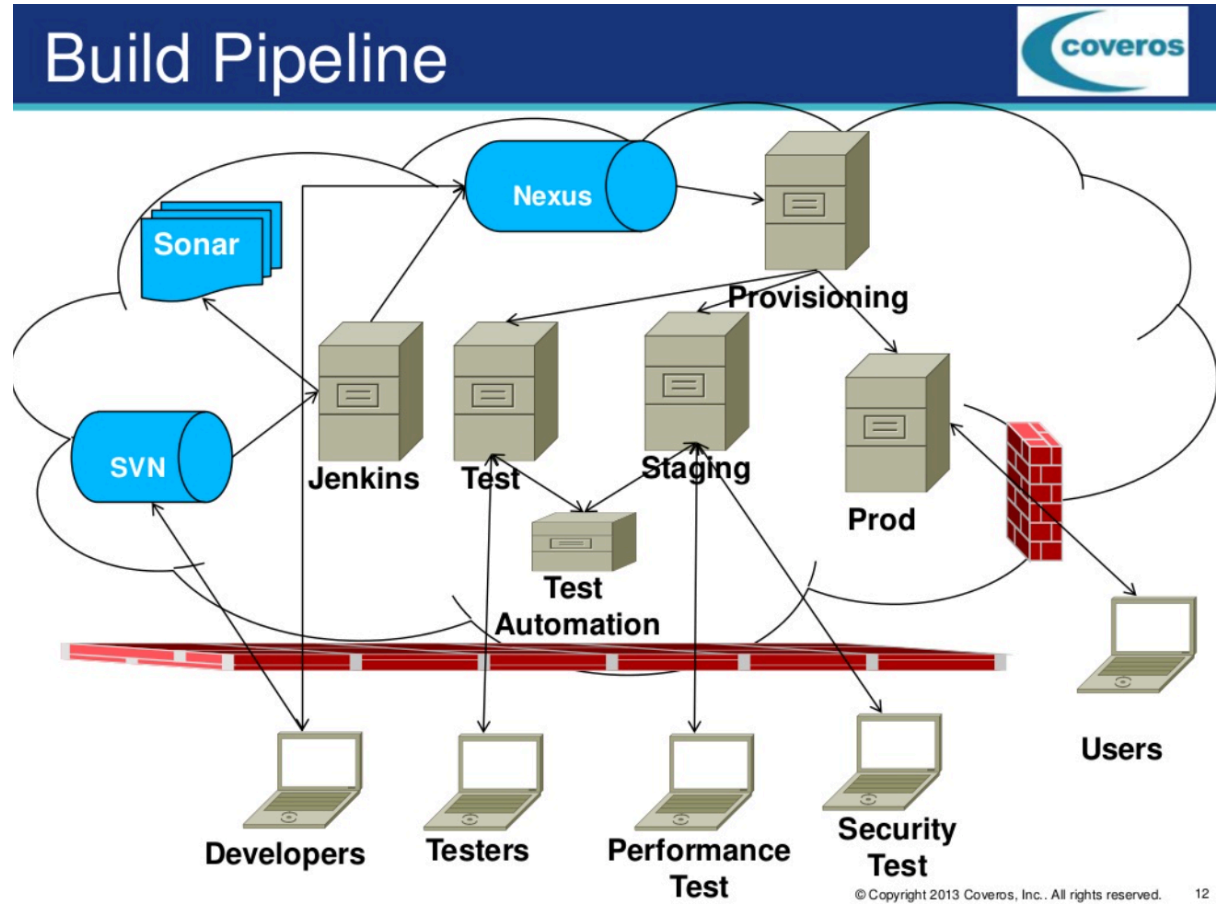
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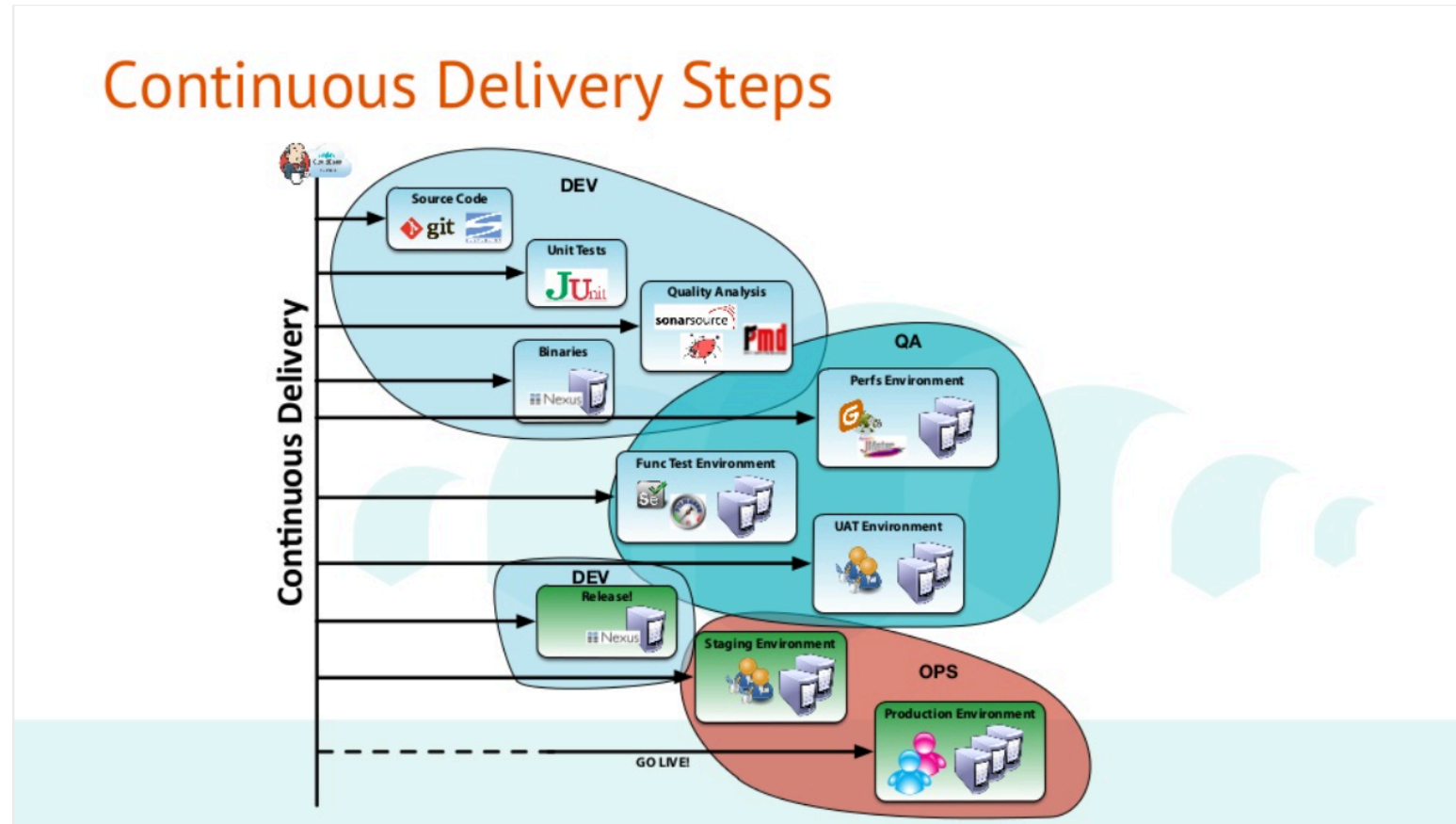
Popular Trio: Jenkins + Nexus + Rundeck



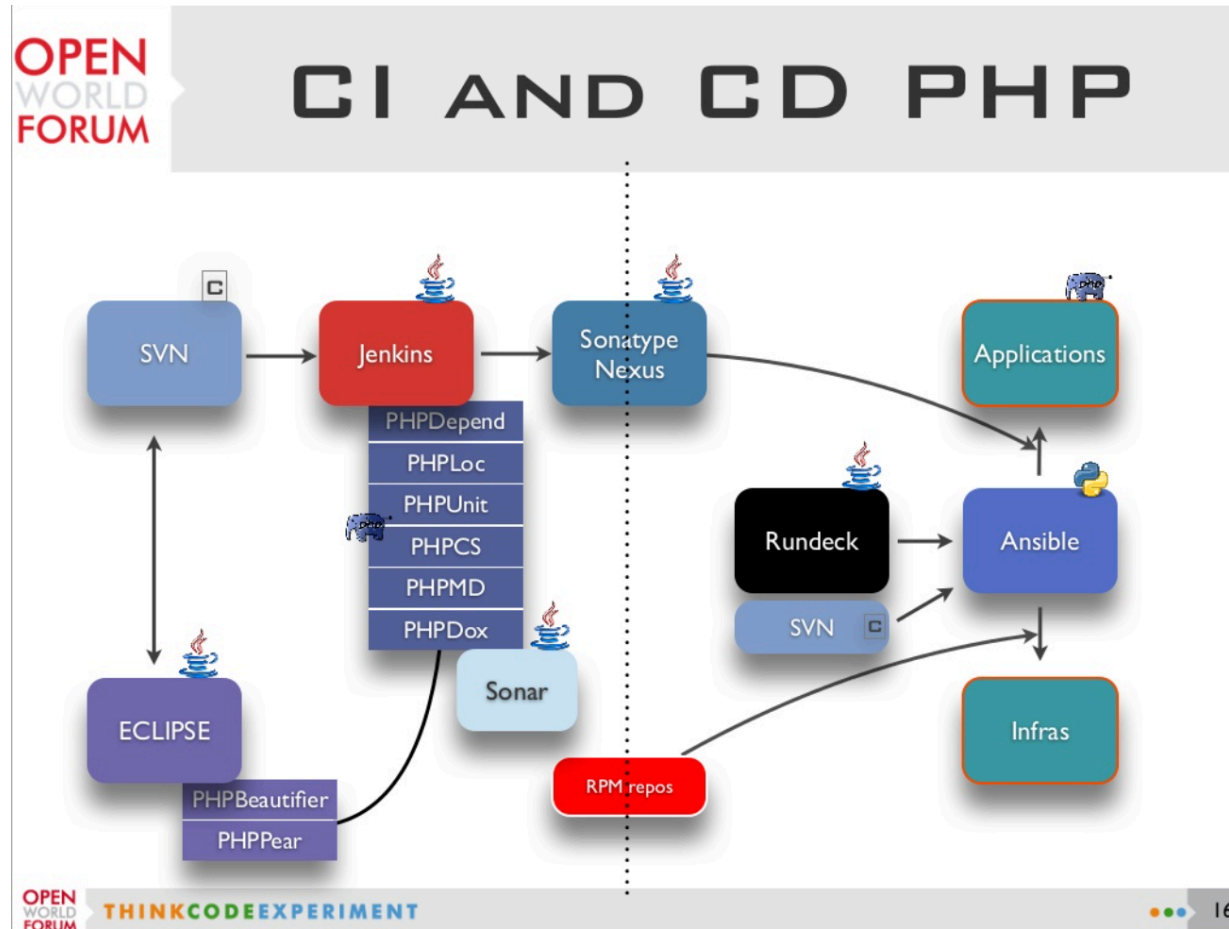
According to Coveros



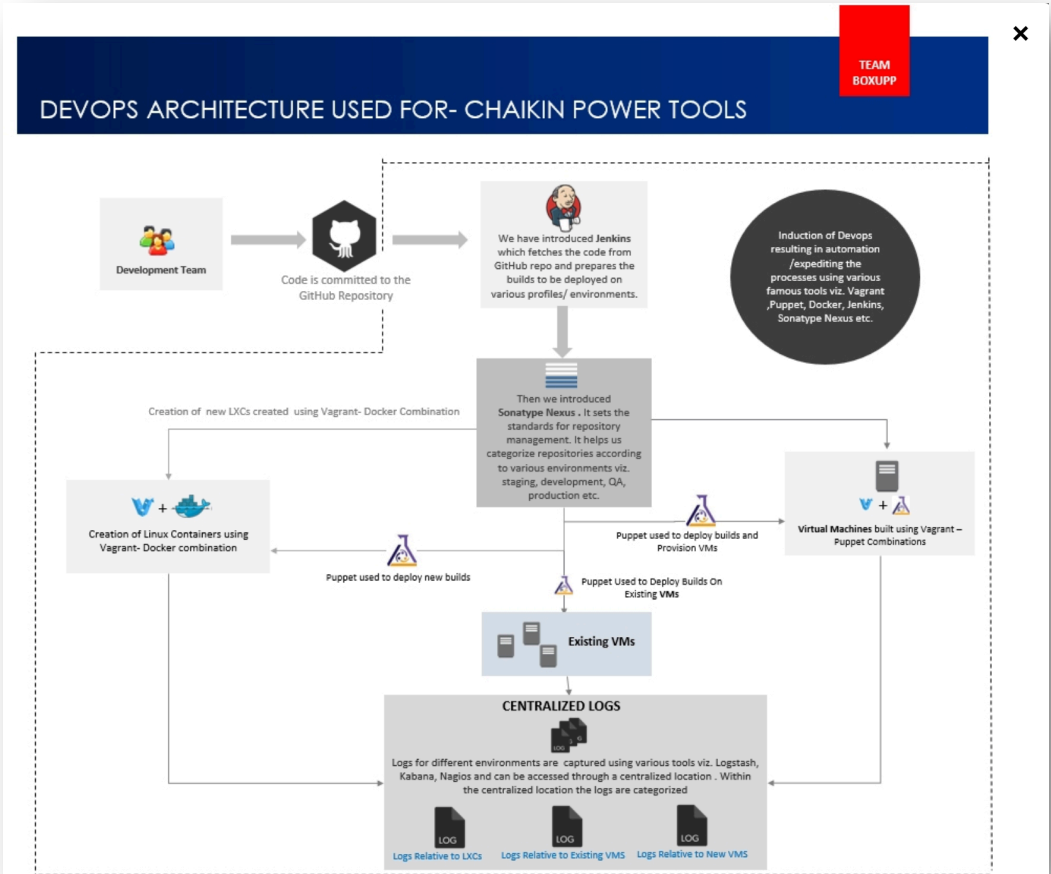
According to Xebia



Nexus at Alter Way



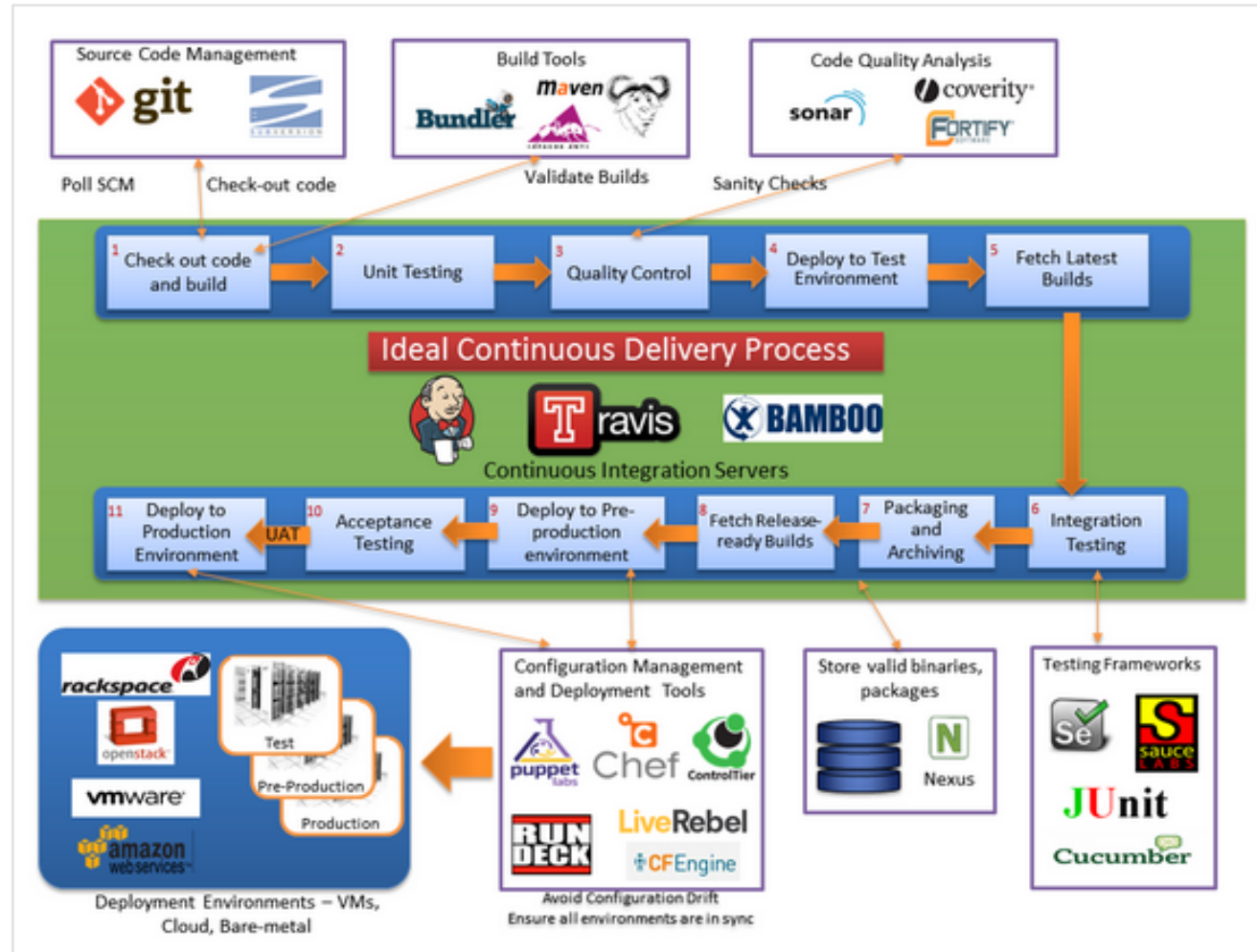
According to Boxupp



Link to Blog: A DevOps Perspective

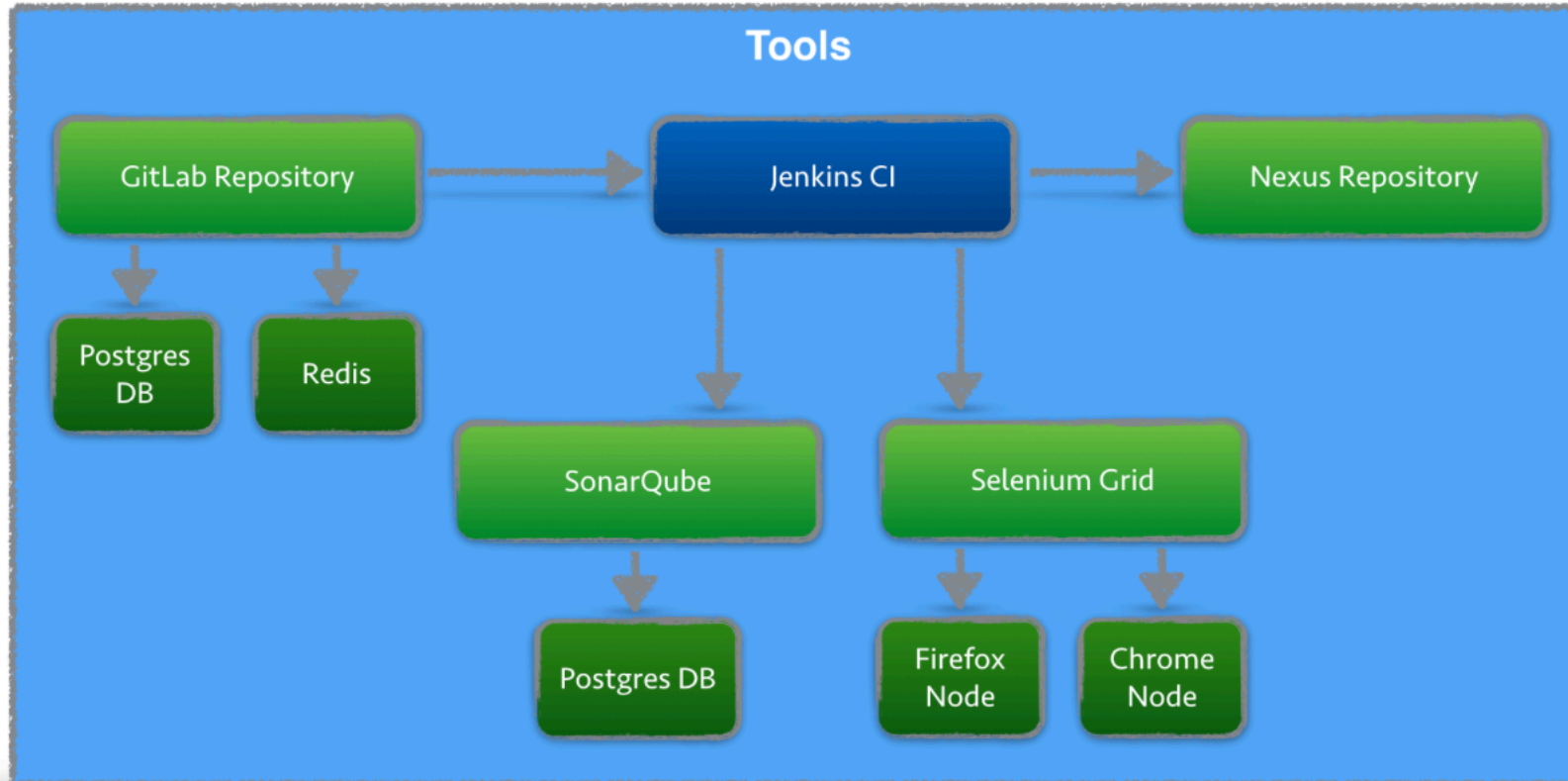
<http://bit.ly/27QQBxM>

According to bogotobogo



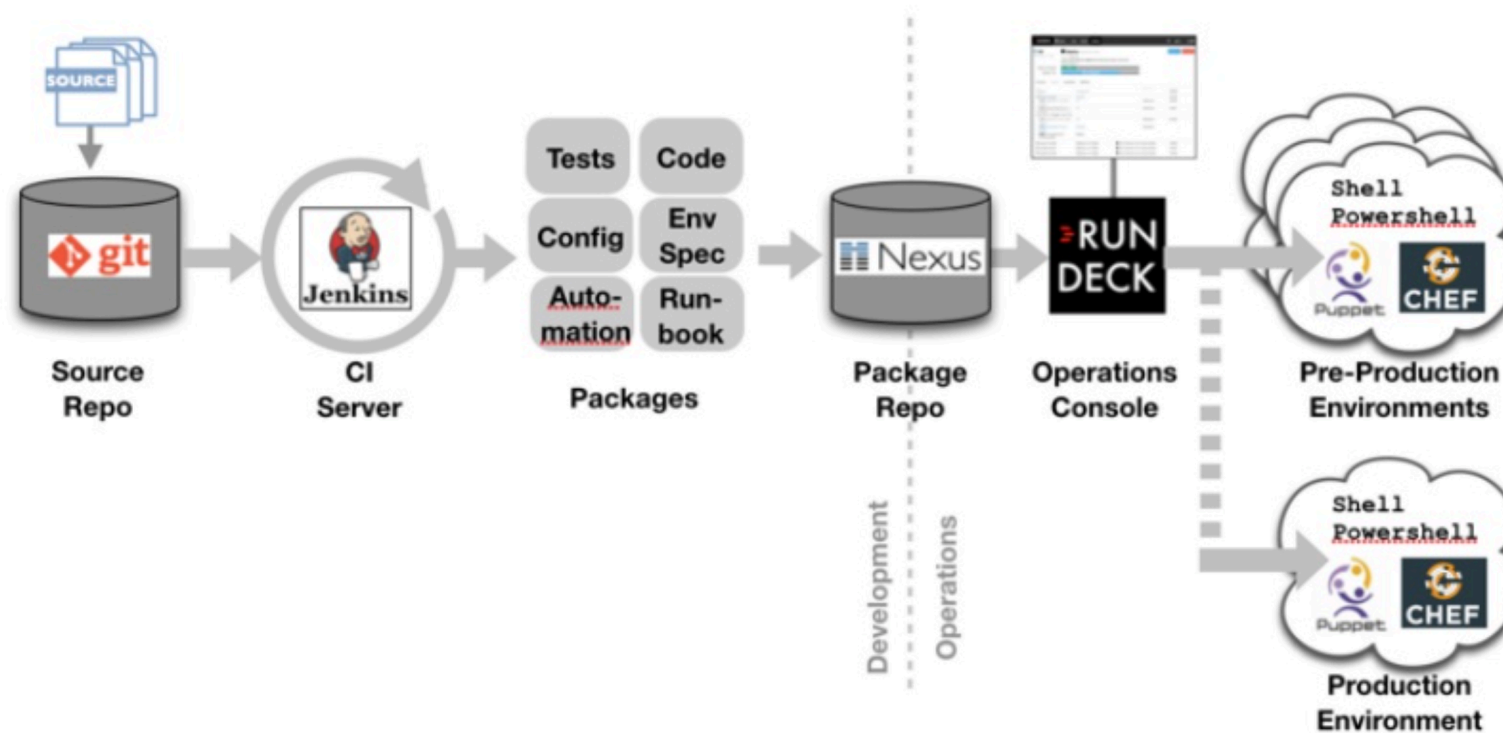
According to codecentric

Continuous Integration Platform Using Docker Containers: Jenkins, SonarQube, Nexus, GitLab



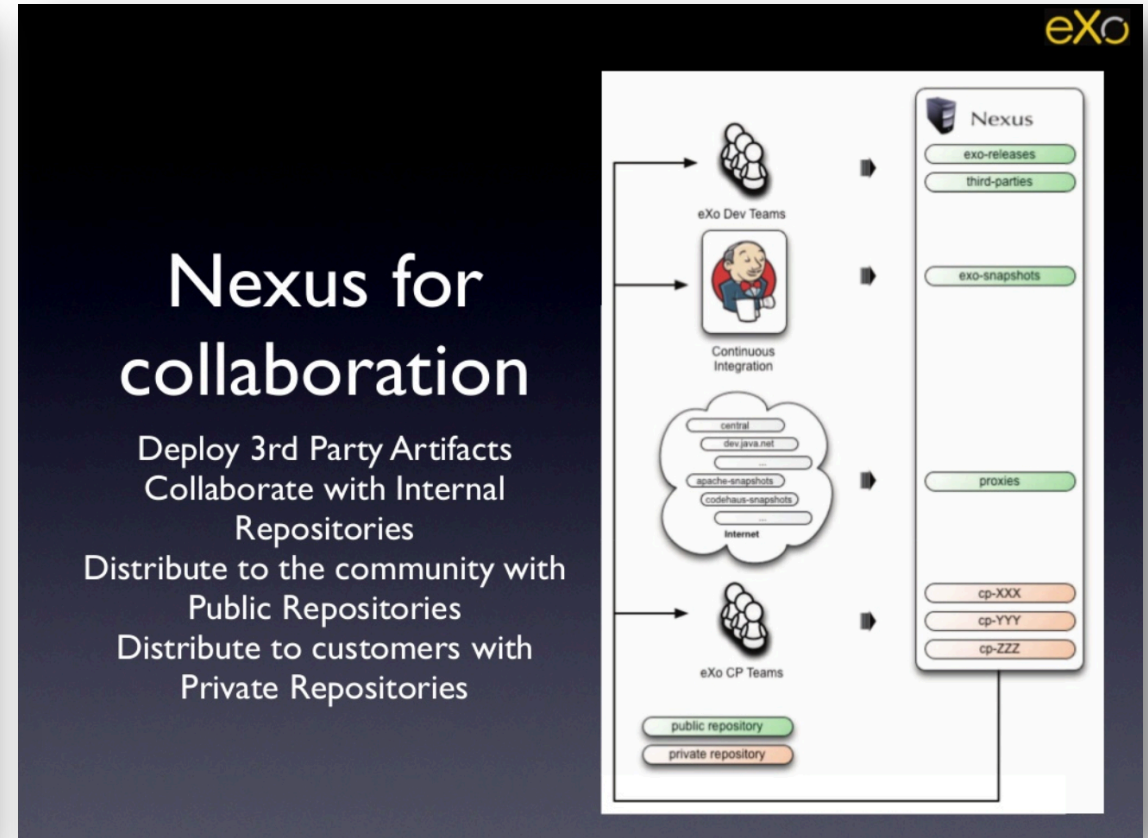
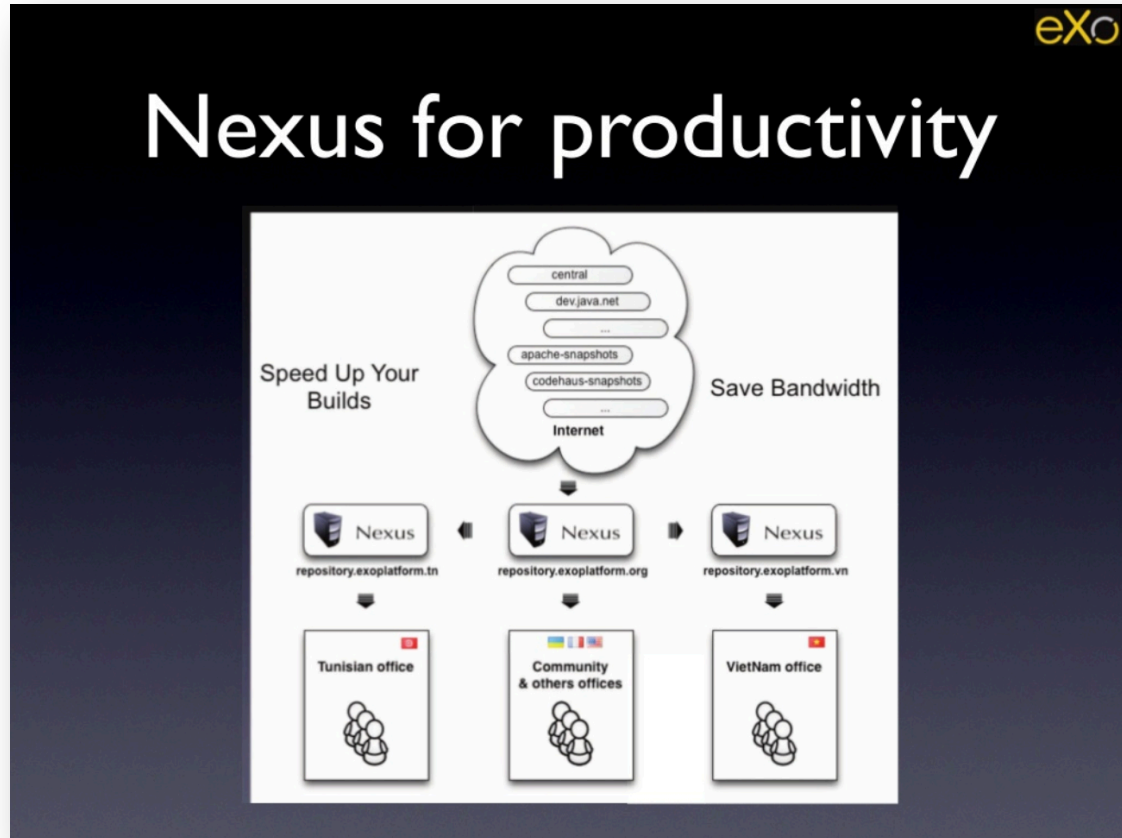
According to SimplifyOps

#SimplifyOps

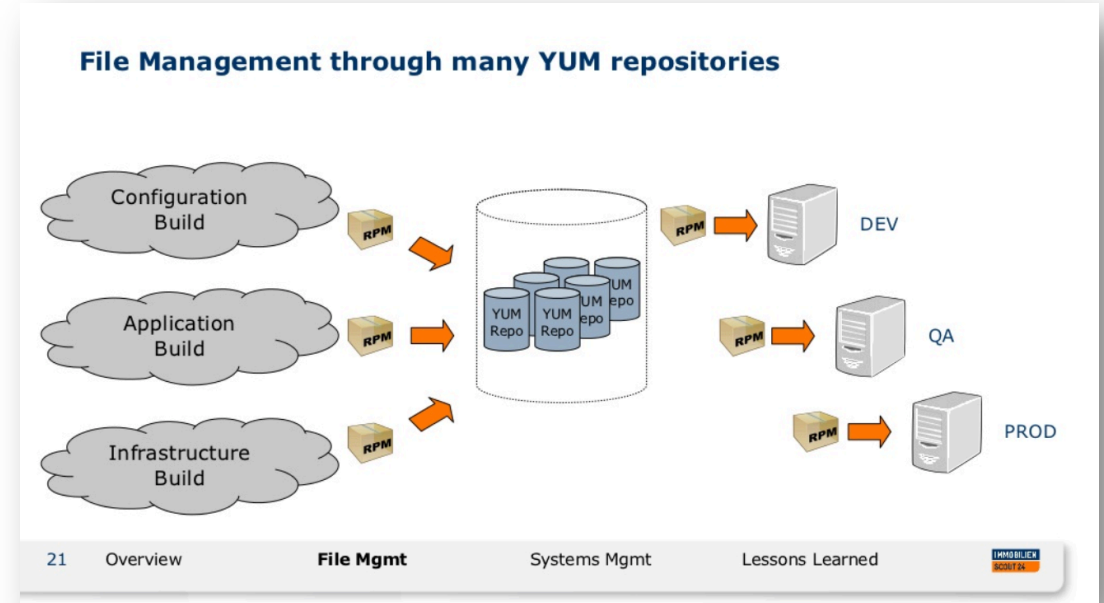
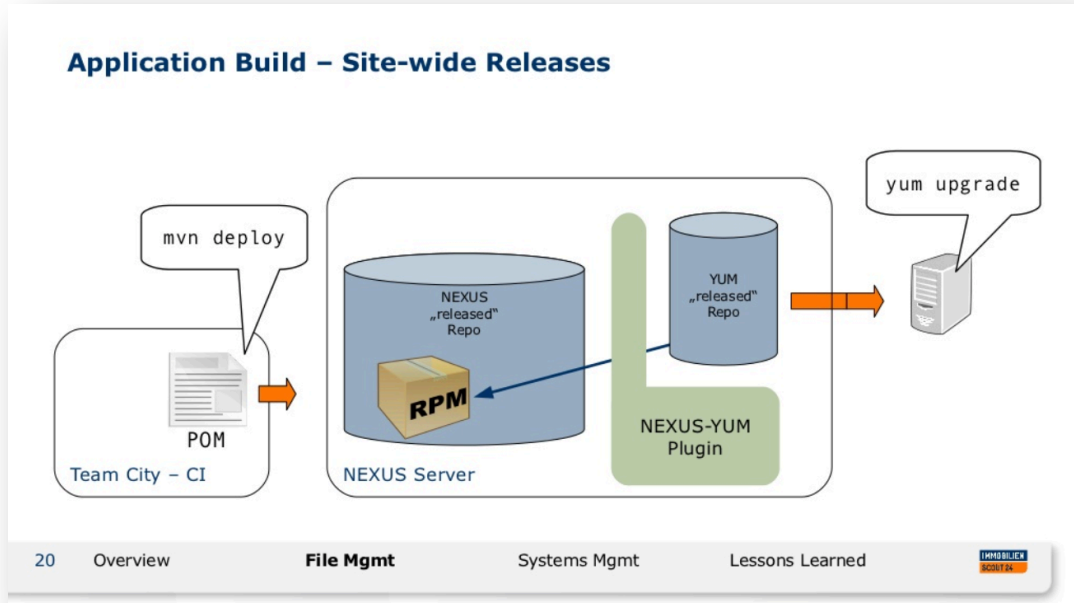


#SimplifyOps

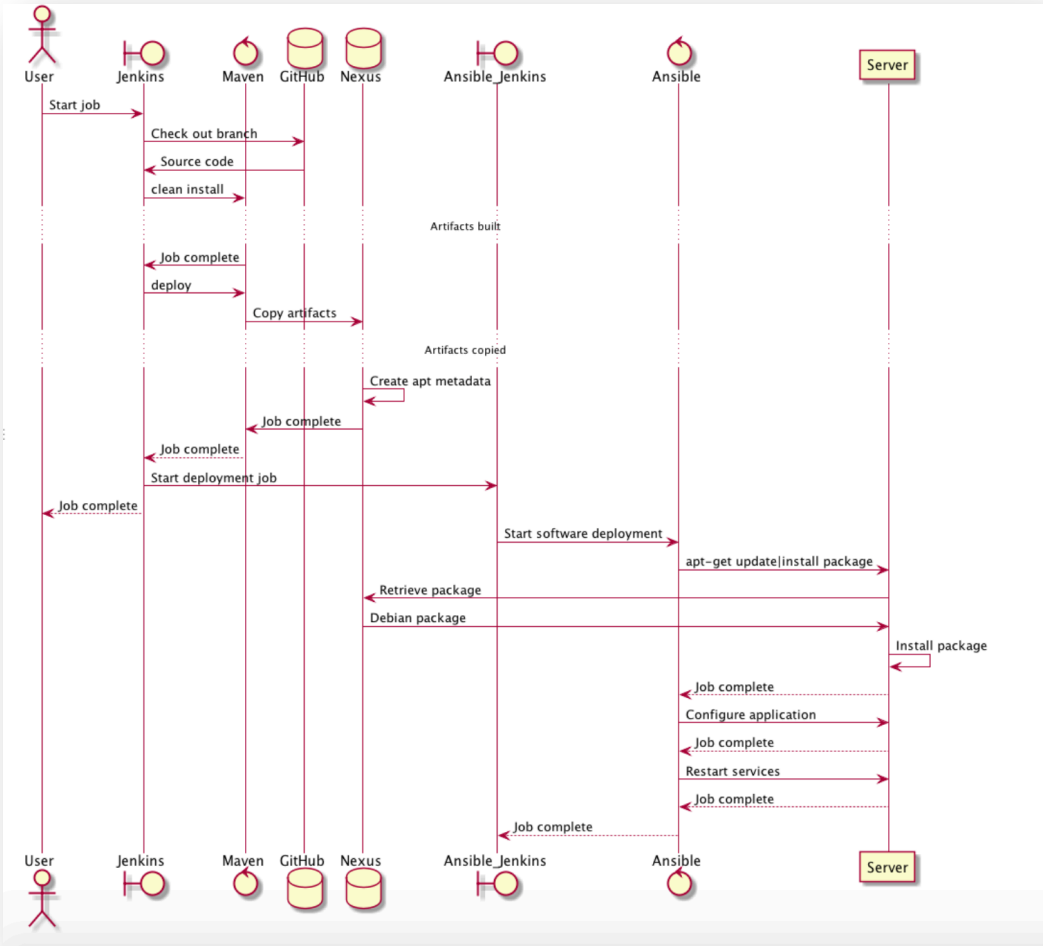
According to eXo Software



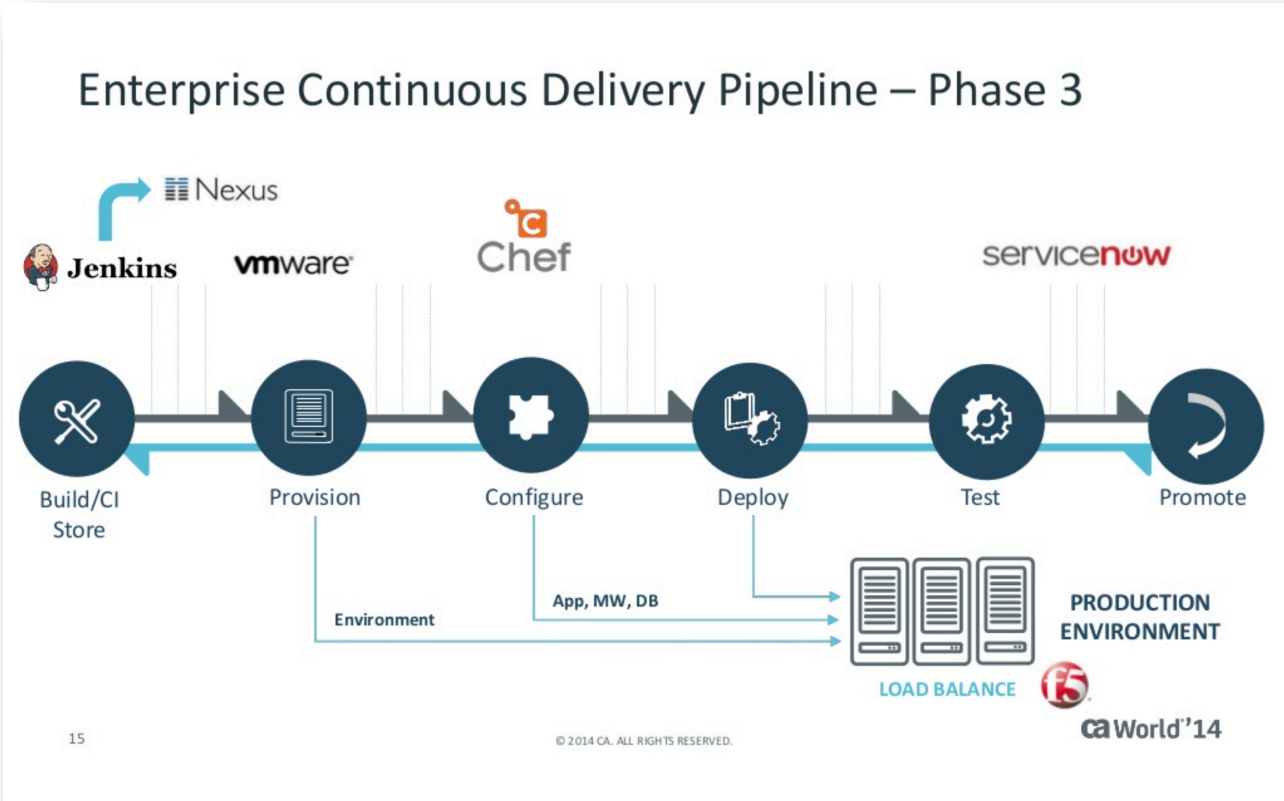
According to ImmobilienScout24



According to IHTSDO



According to CA Technologies



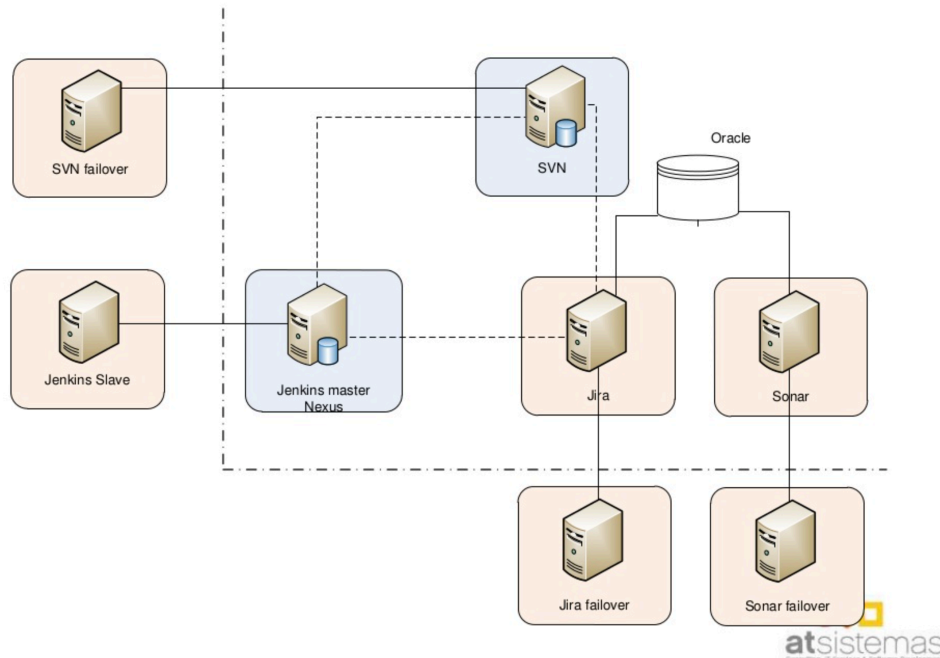
Link to: What are the Cool Kids Doing

<http://bit.ly/27QQFxb>

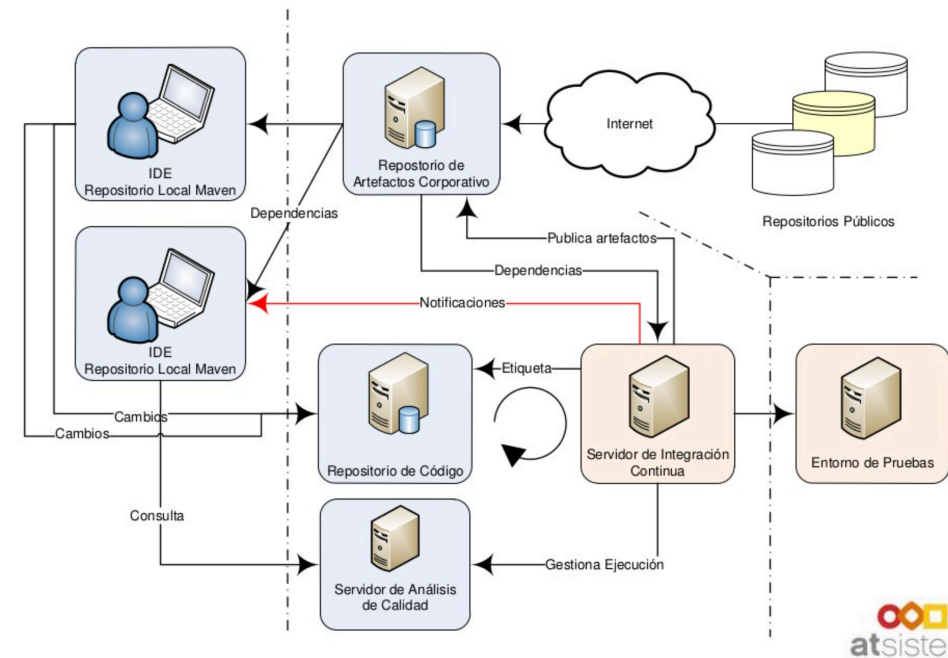
According to atSistemas



3. Caso práctico – Diagrama de sistemas



3. Caso práctico - Desarrollo



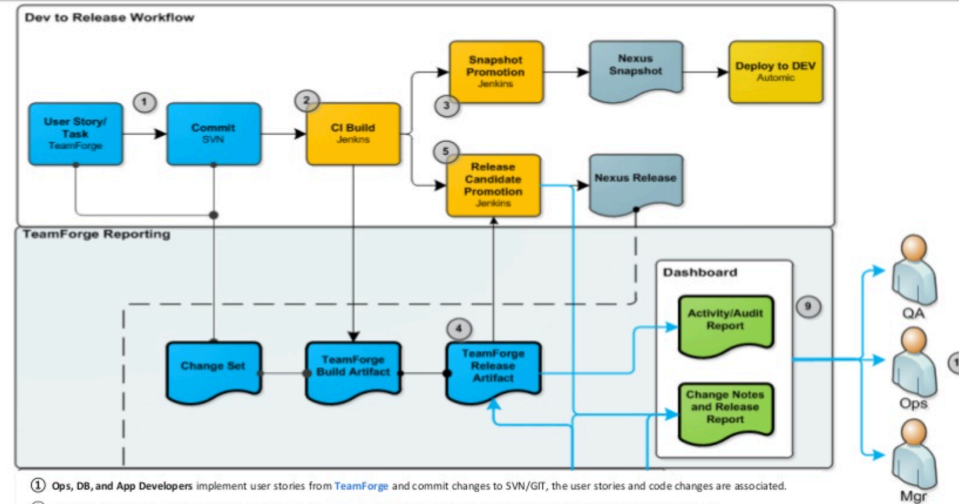
Link to Presentation: Presentación Integración

<http://bit.ly/20rGS1r>

According to CollabNet

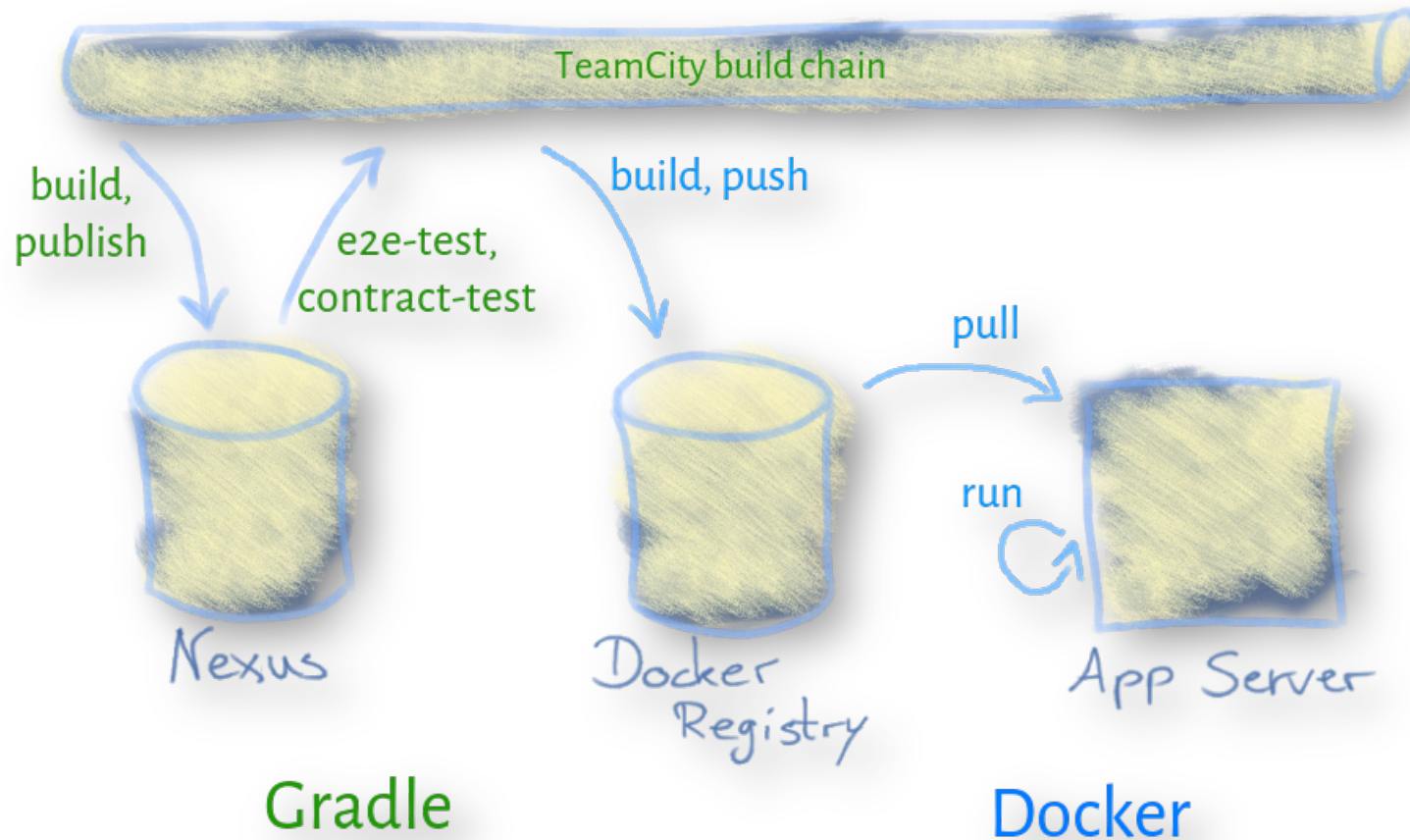


Connect Agile Upstream to Downstream: Example



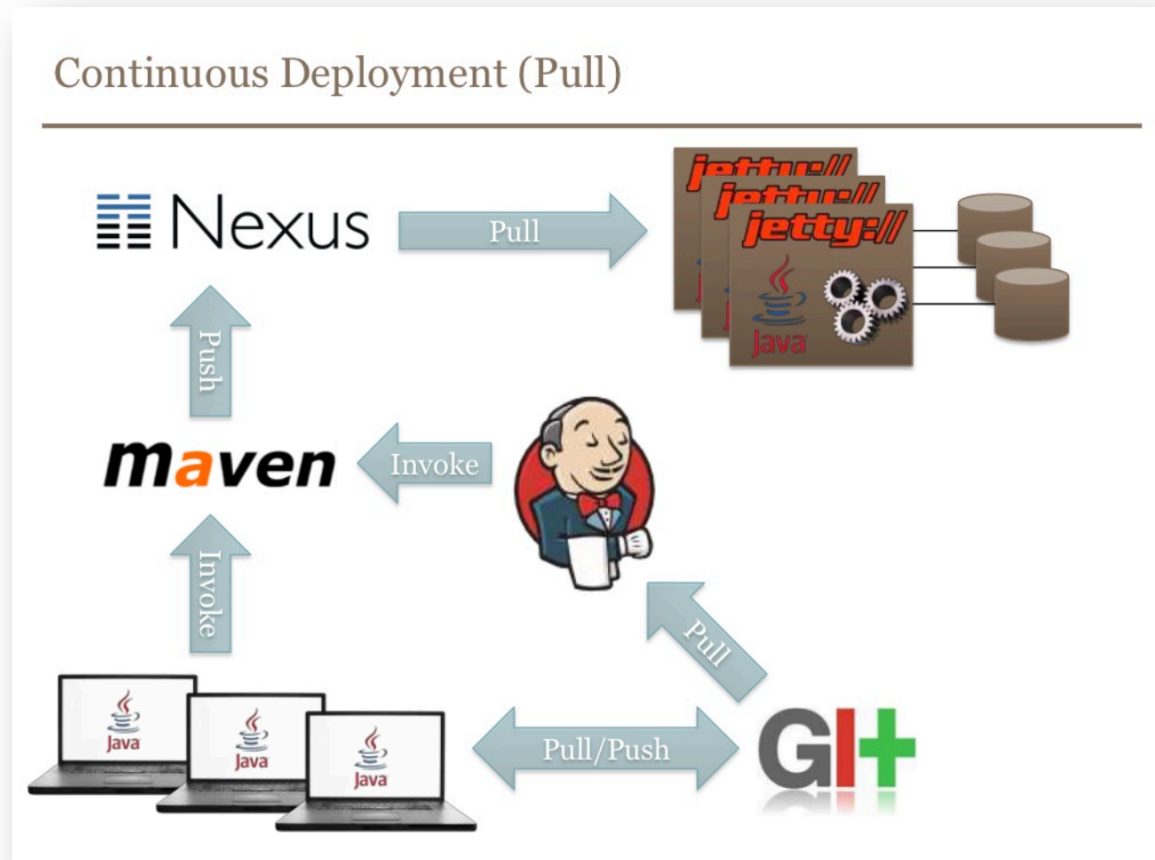
- 1 Ops, DB, and App Developers implement user stories from TeamForge and commit changes to SVN/GIT, the user stories and code changes are associated.
- 2 A CI build job runs, executing unit tests, code analysis, etc, a TeamForge Build Artifact is created, change notes are generated and associated.
- 3 Every 15 minutes or on-demand a snapshot build is published to the Nexus Repository. The snapshot build is deployed to the Development servers by Automic.
- 4 The Project Manager reviews the Change Notes and Release Folder in TeamForge and using the data decides to promote a build as a Release Candidate, she creates a Release Manager Artifact (RMA) and set it to "Ready to Release."
- 5 A Jenkins Release Candidate Promotion job runs executing the application builds, publishing the artifacts to Nexus and populating Automic with the release meta-data.
- 6 An Automic package references the Nexus release holding the release candidate to be deployed.
- 7 Operations, QA and/or Change Management promote and deploy the release candidate using Automic Workflows.
- 8 At each promotion and deployment step the TeamForge Release Artifact is updated from Automic and team members receive email notifications.
- 9 The Release Dashboard in TeamForge provides up-to-date pipeline Activity Reports and Release Notes.
- 10 Dev, QA, Ops and Management can view the Release Dashboard in TeamForge to track activity and make informed decisions.

According to Hypoport AG

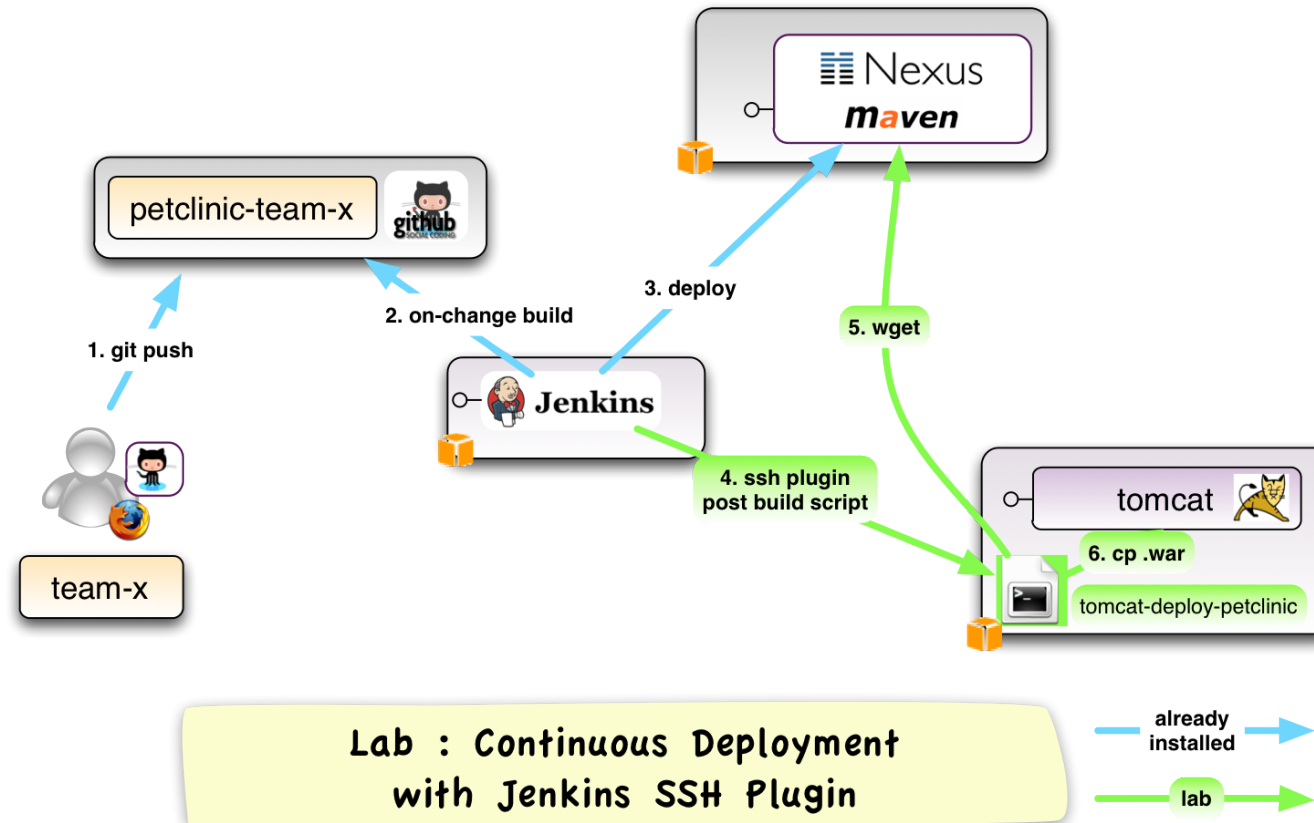


According to BEKK

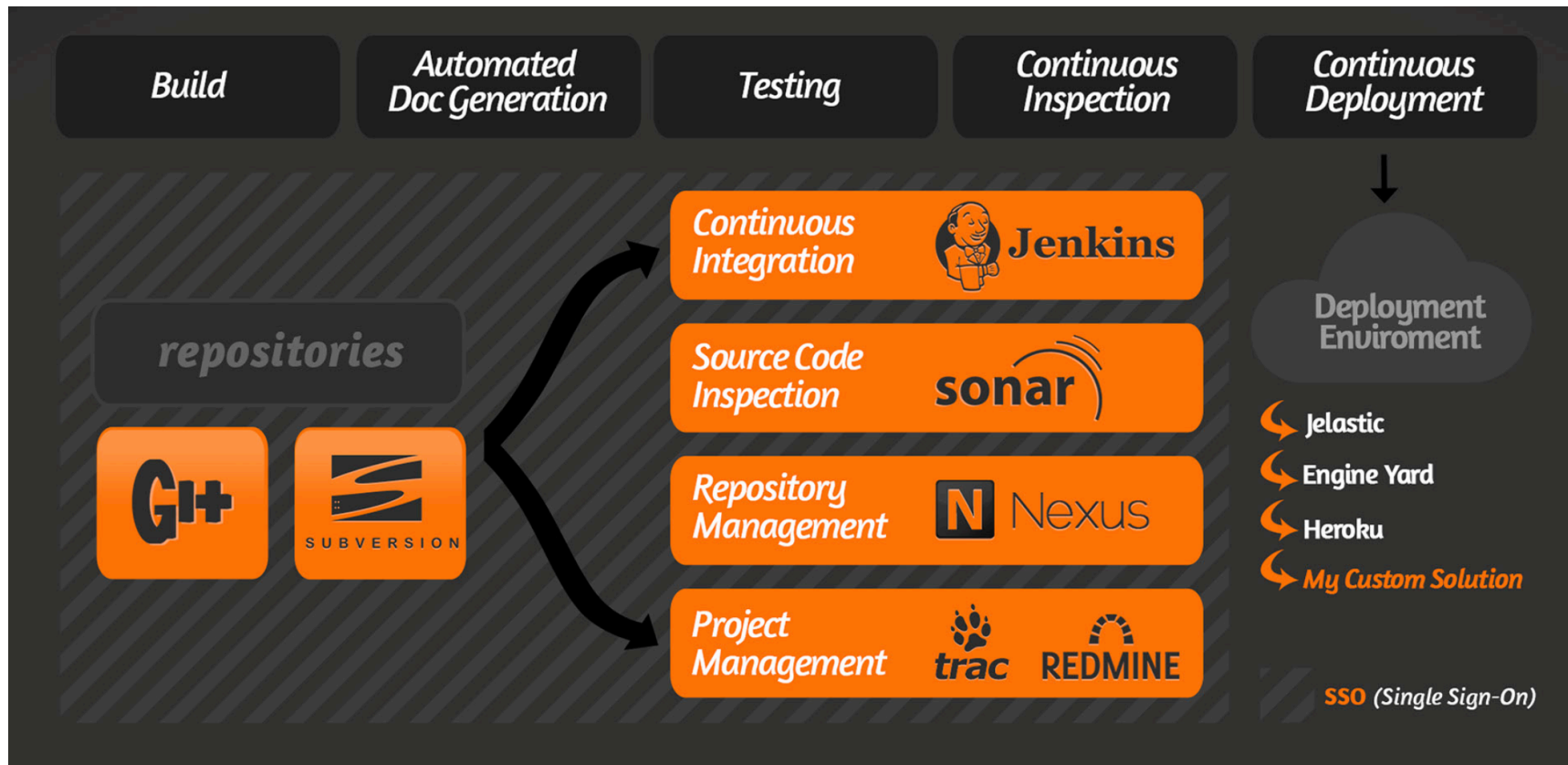
BEKK



According to Xebia

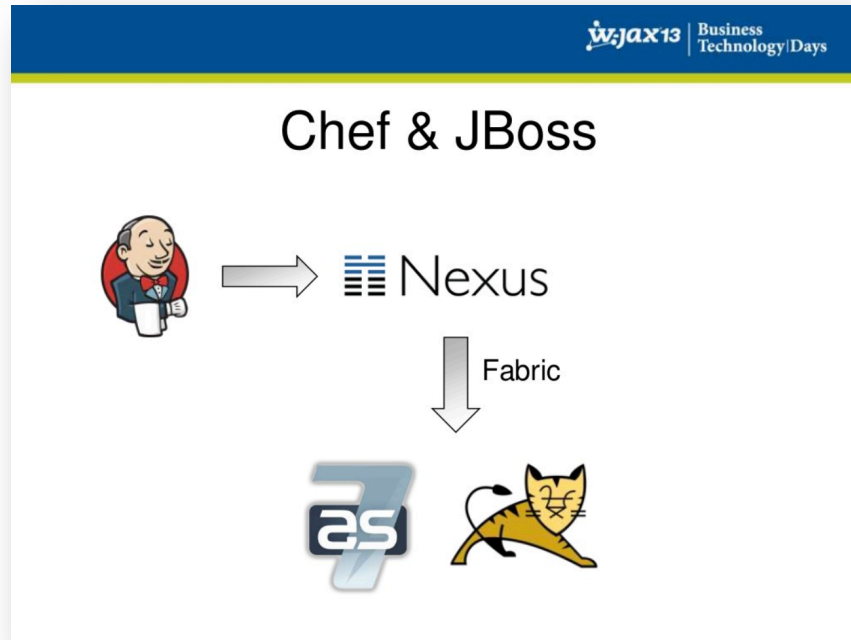


According to ClunkerHQ



According to Zanox

zanox.

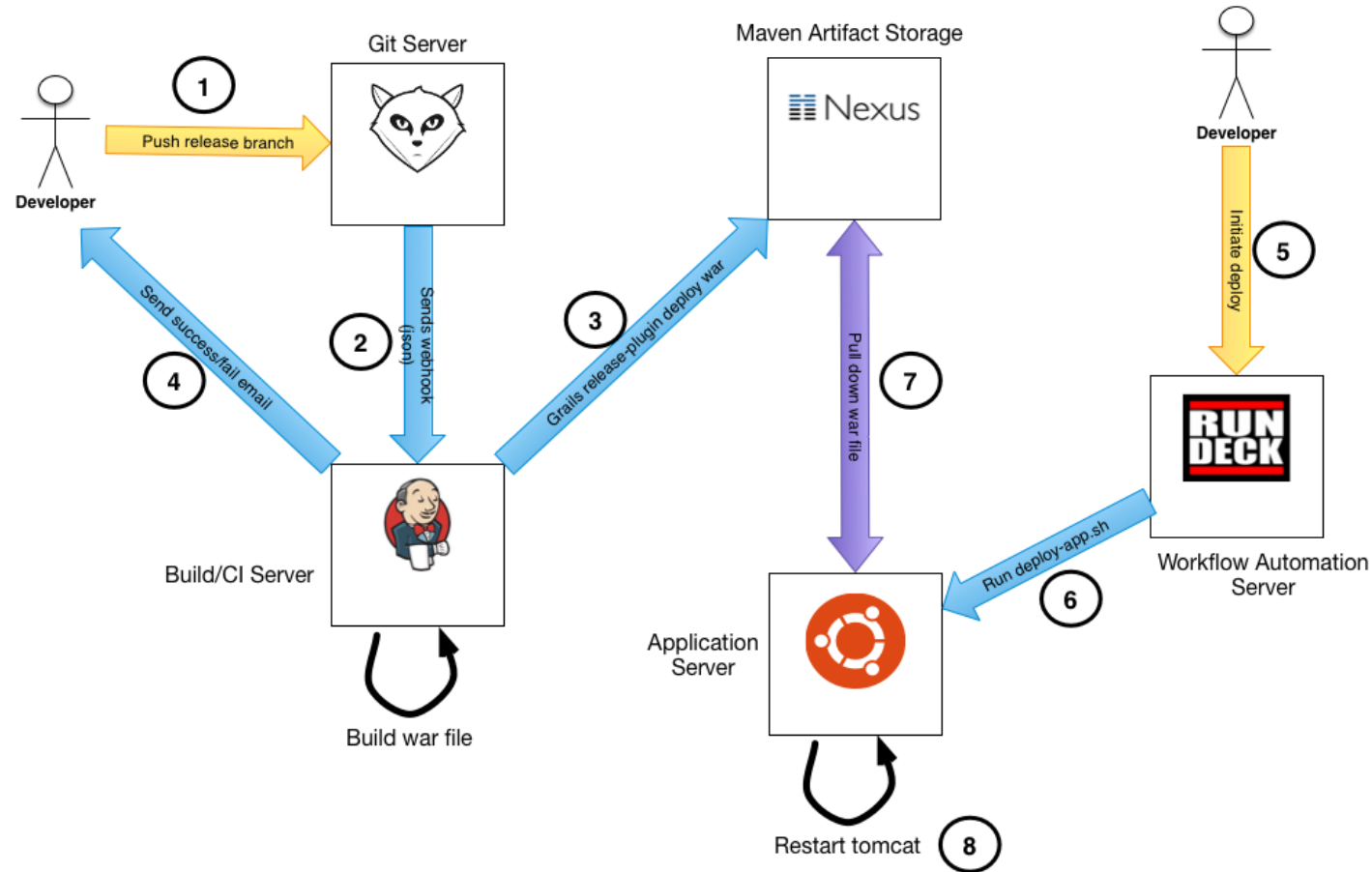




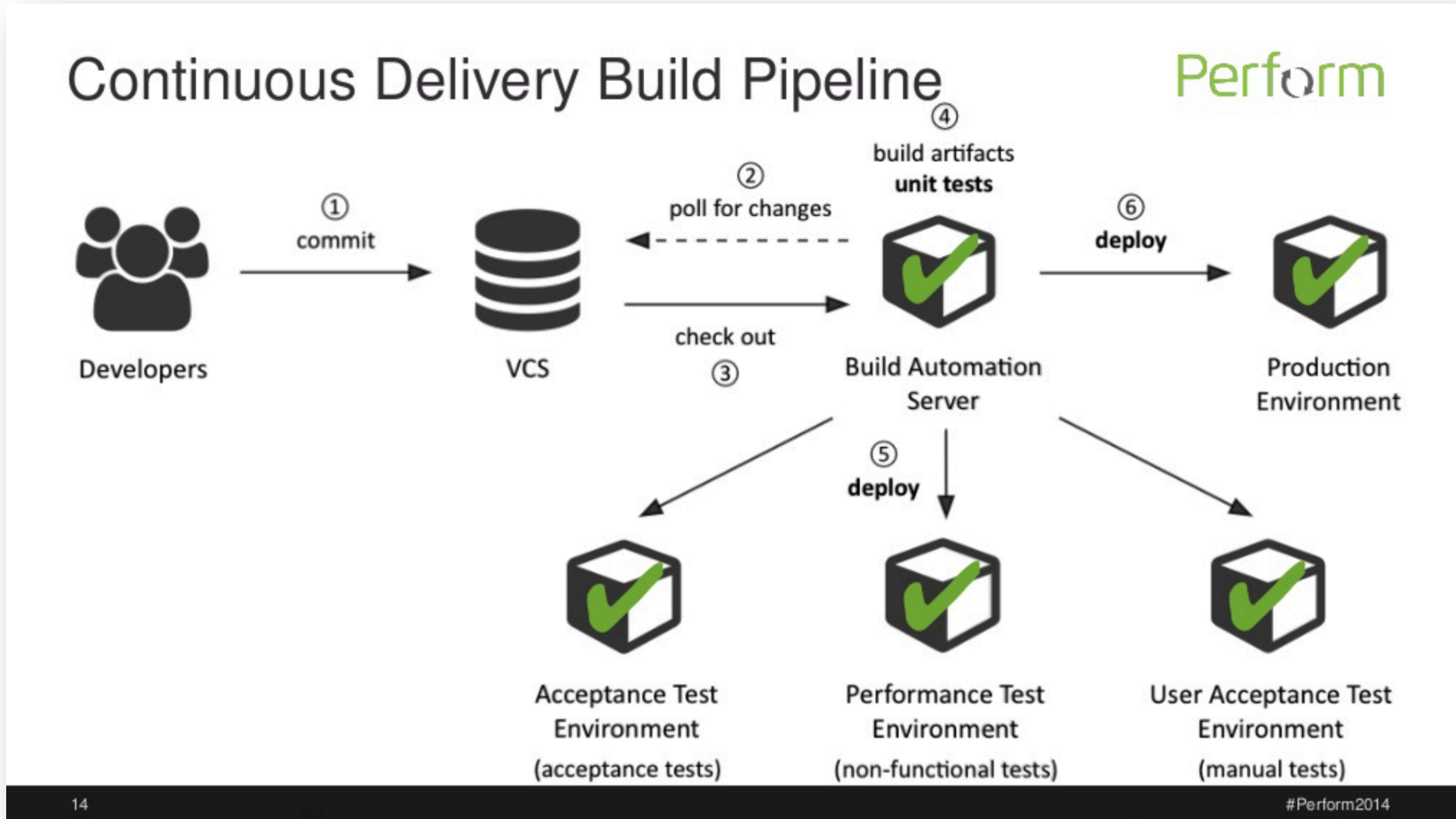
Chef & JBoss

- Fabric
 - Python library and command-line tool
 - Streamlining the use of SSH
 - Application deployment
 - Used to deploy apps from Nexus
 - <https://github.com/fabric/fabric> 

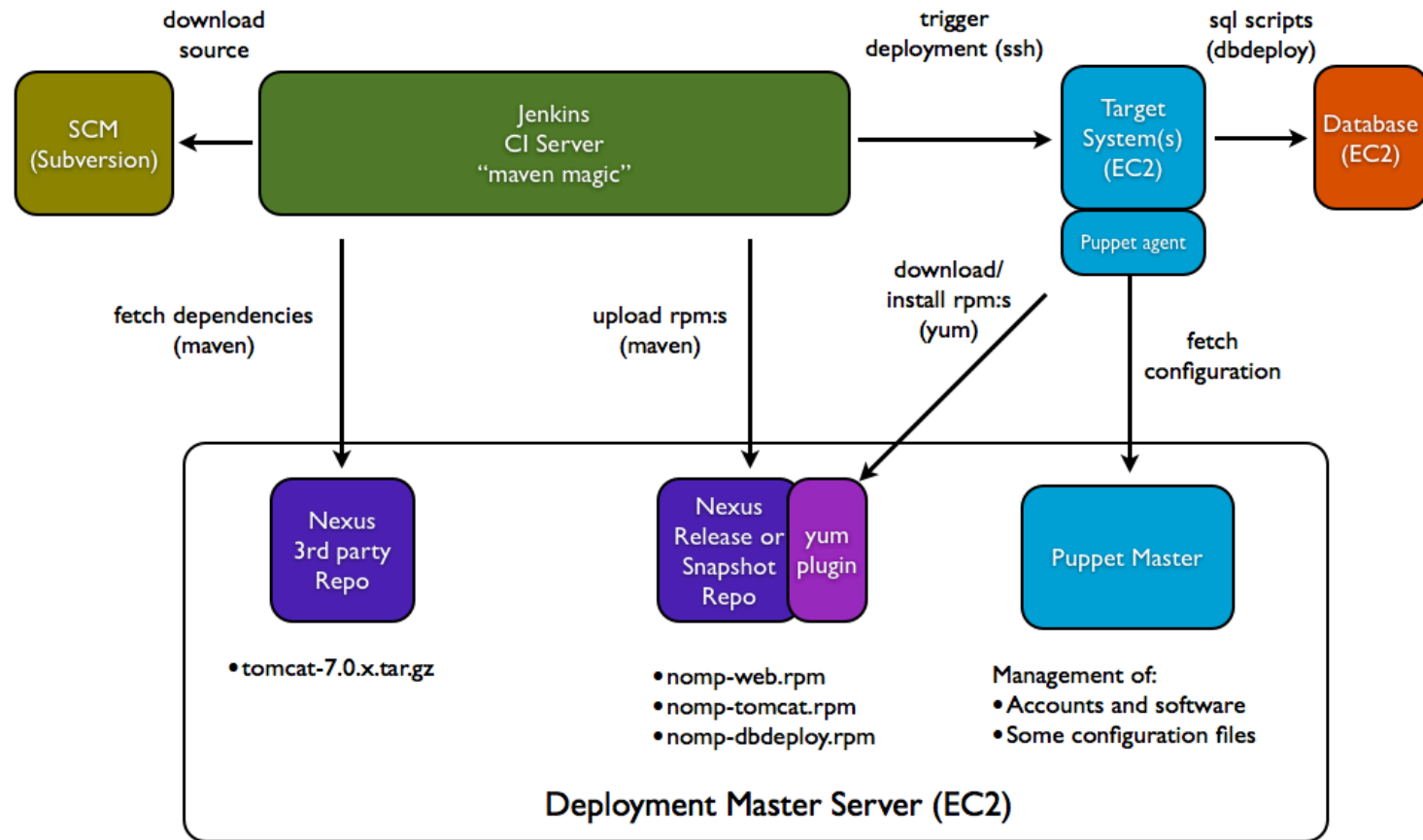
According to Riverside I/O



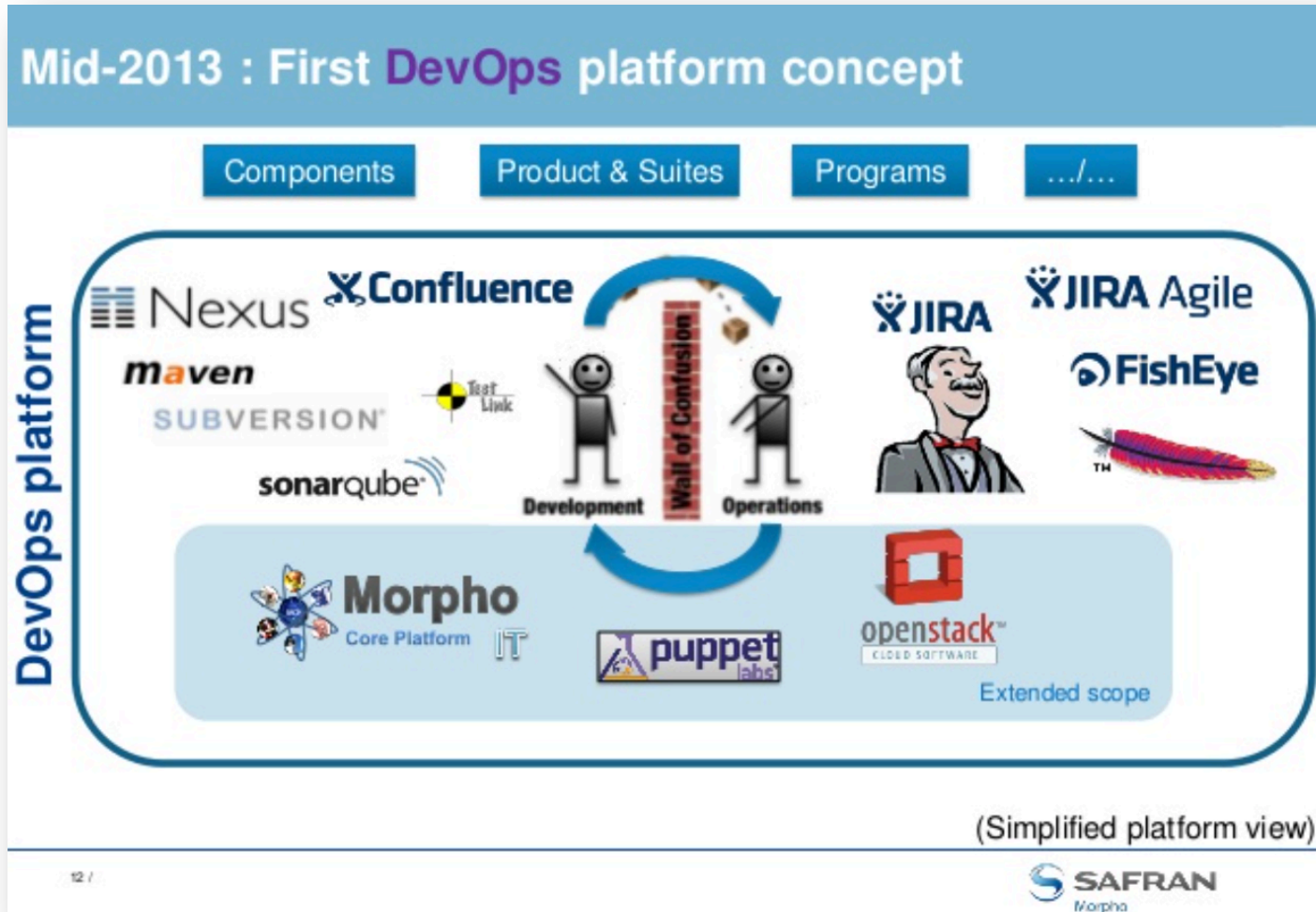
According to Dynatrace



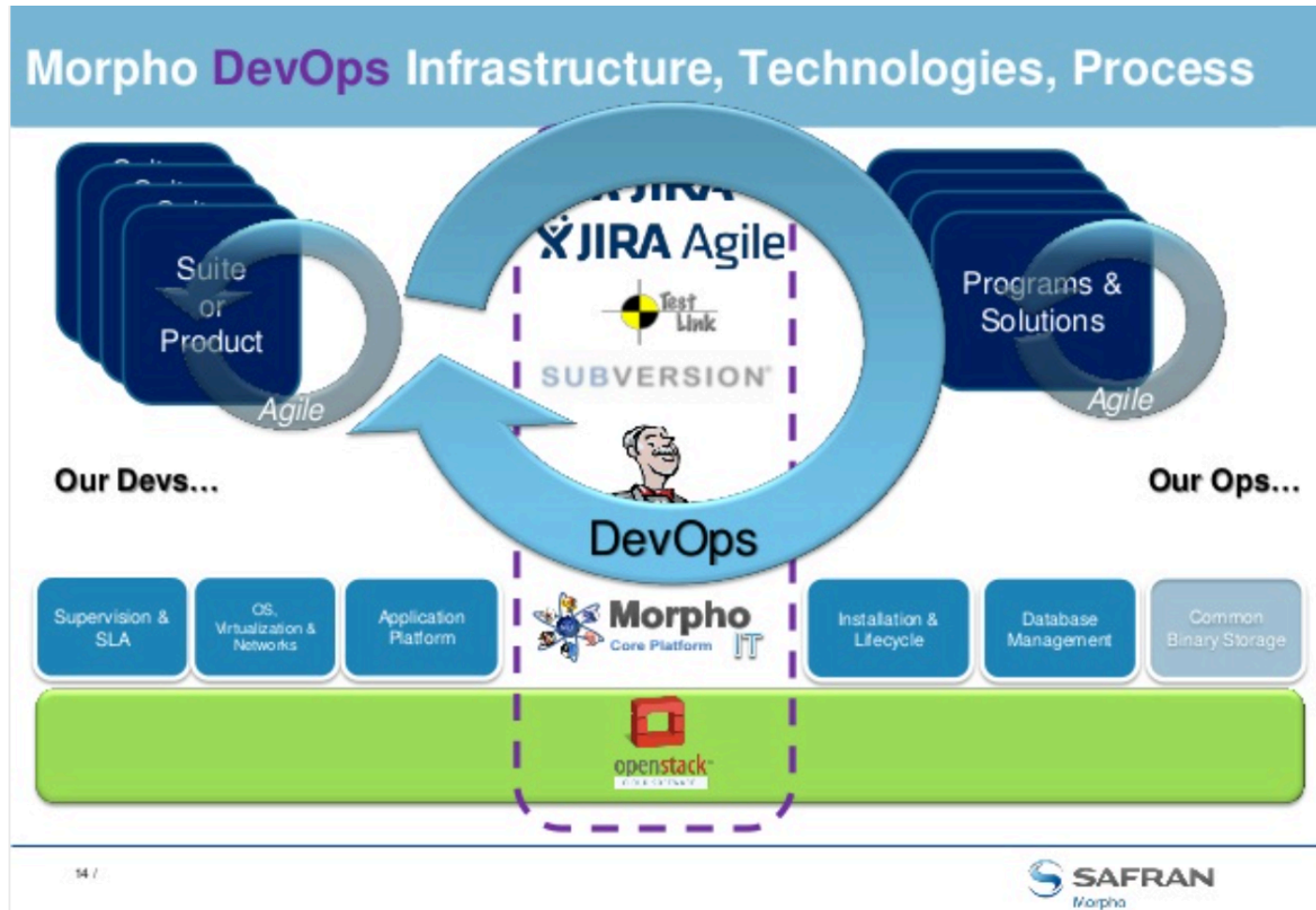
According to Stefan Norberg



Nexus at Morpho



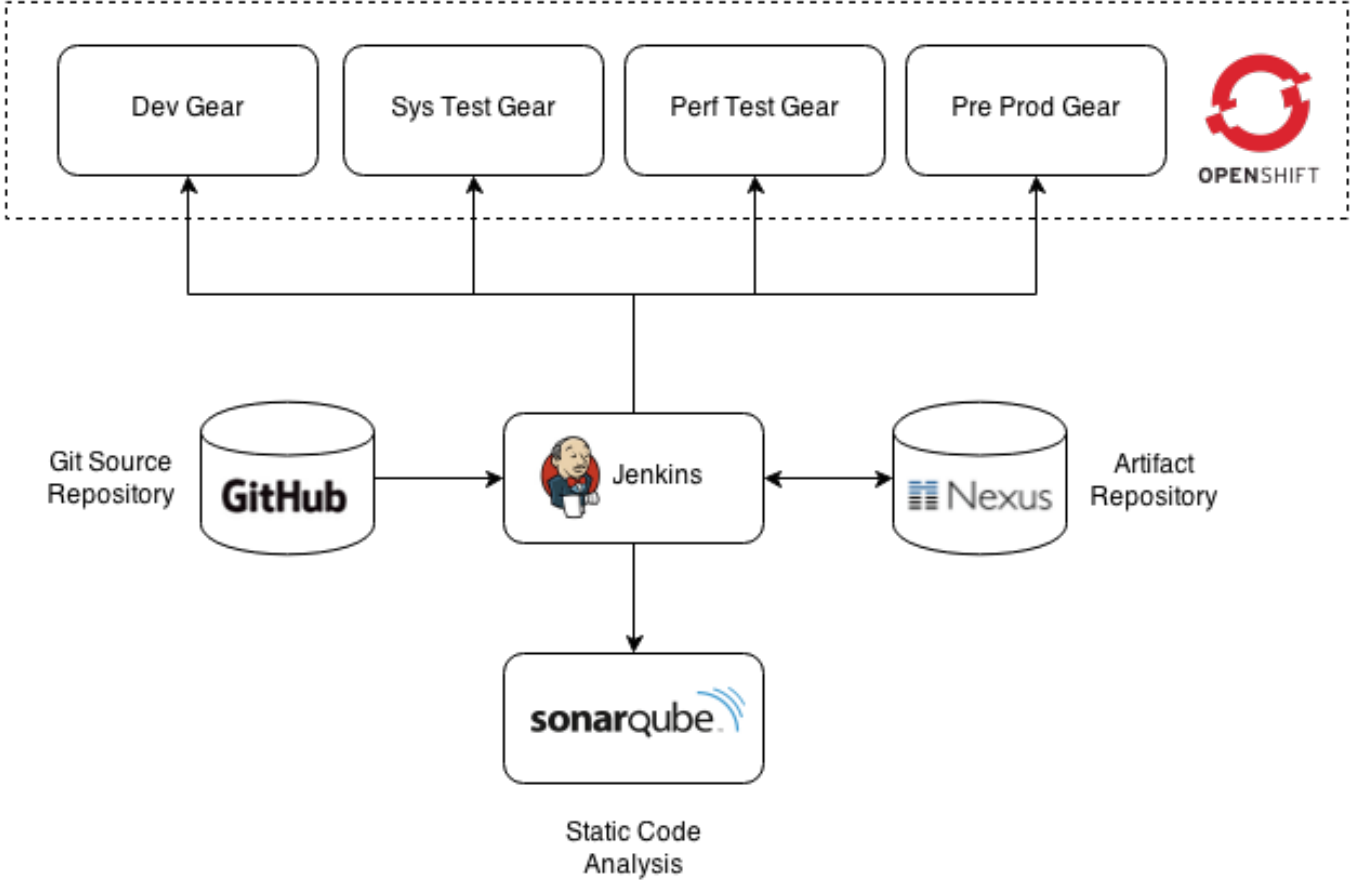
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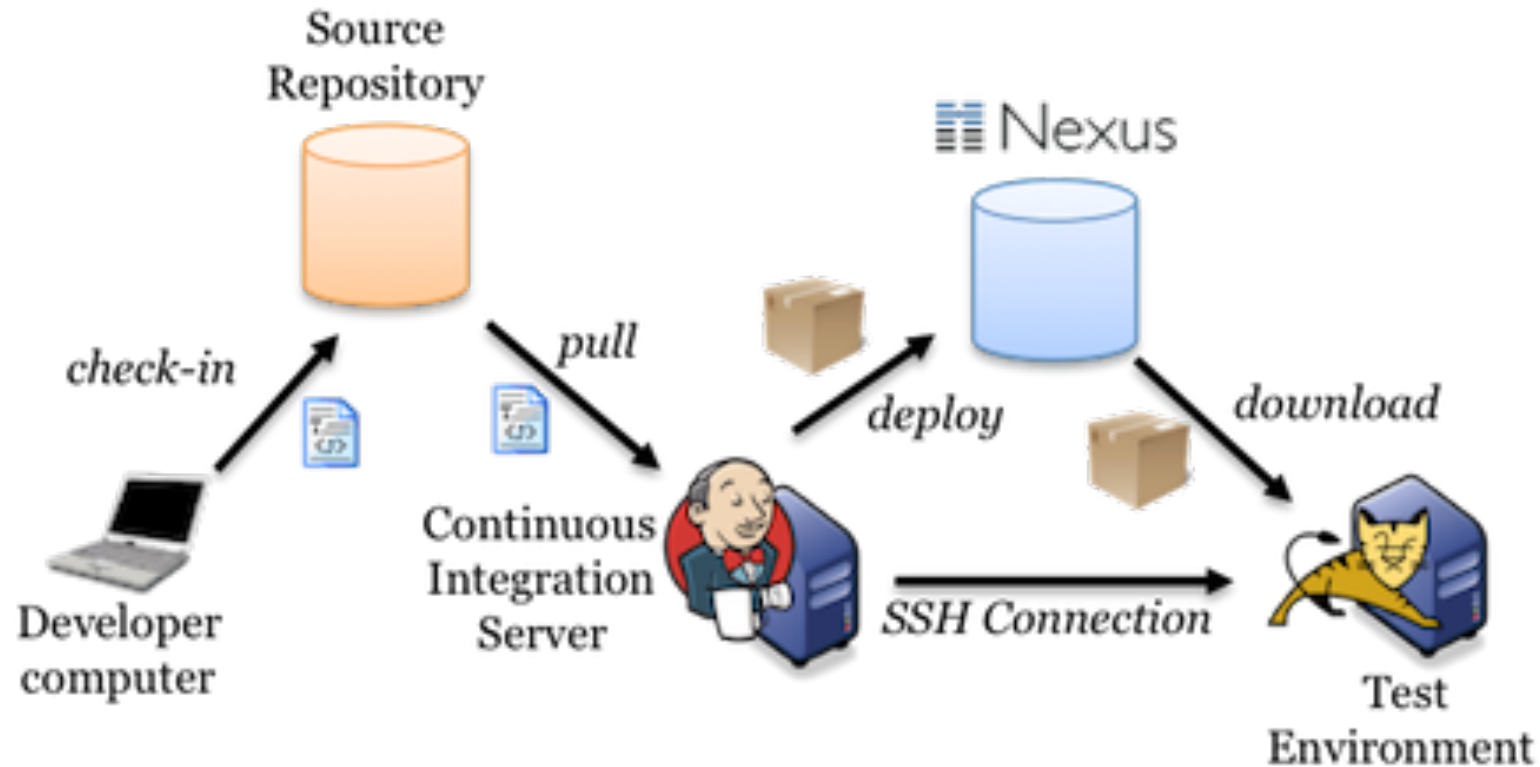
According to OPENS SHIFT



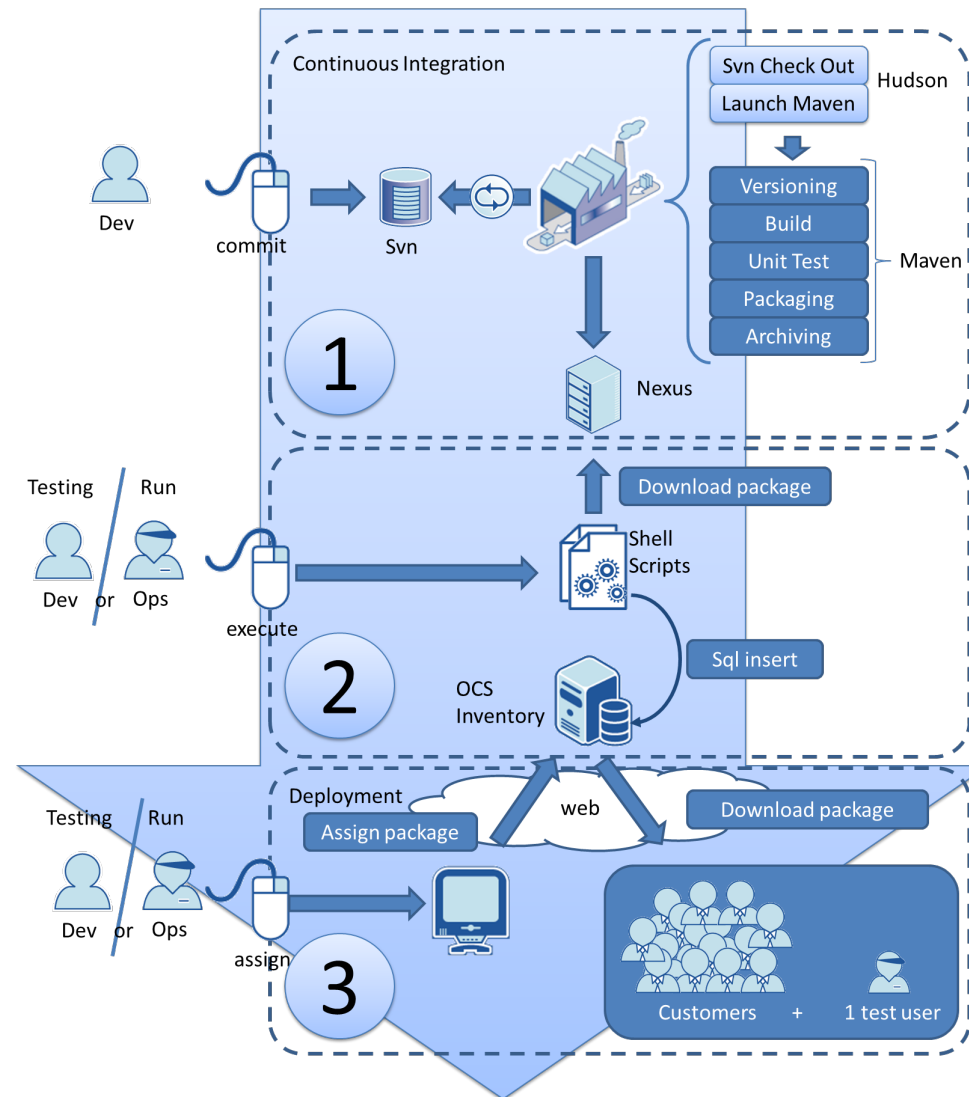
OPENS SHIFT



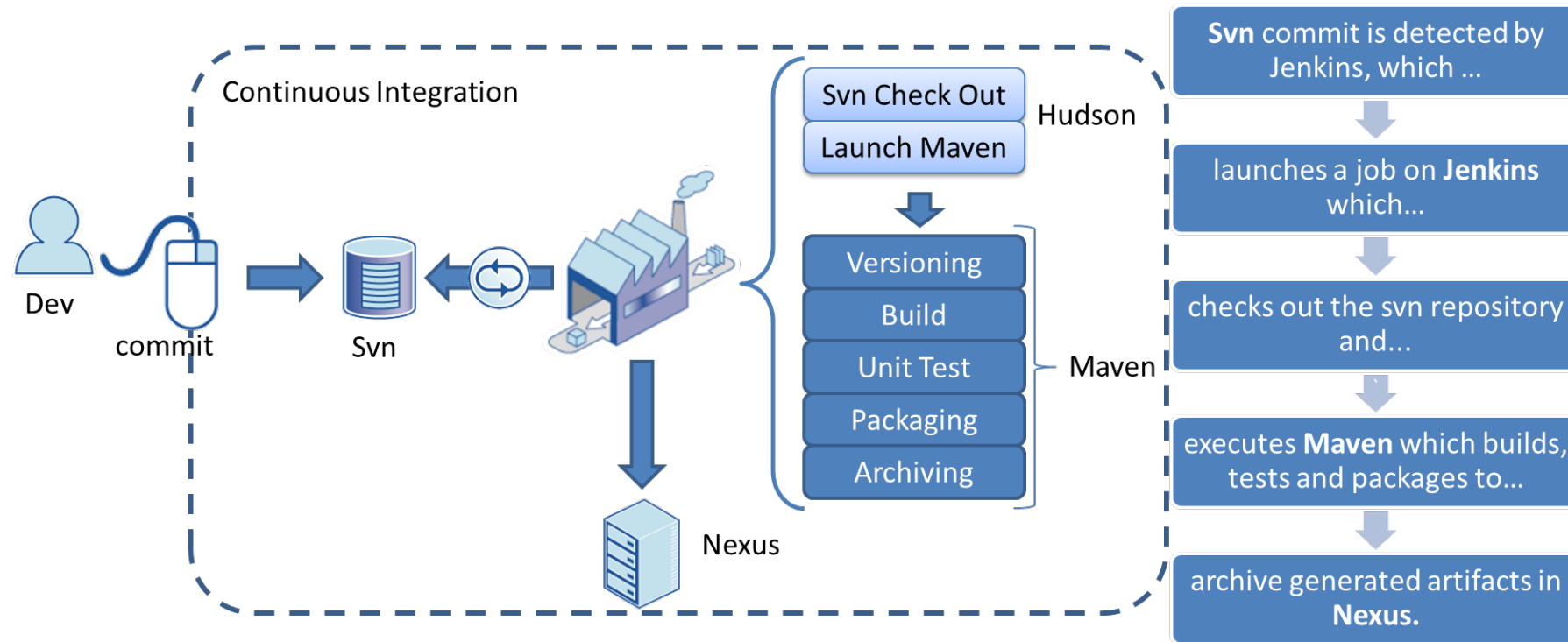
According to akquinet



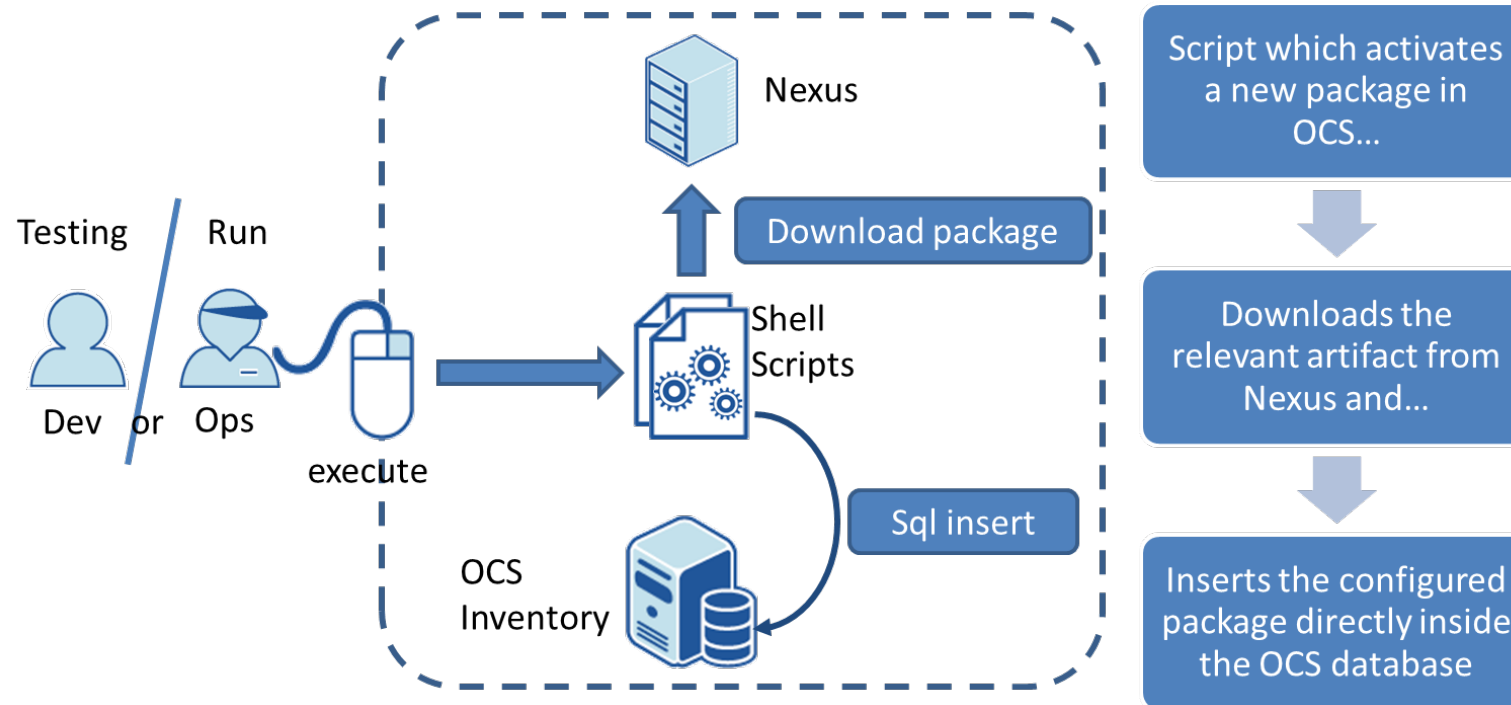
According to OCTO



According to OCTO



According to OCTO

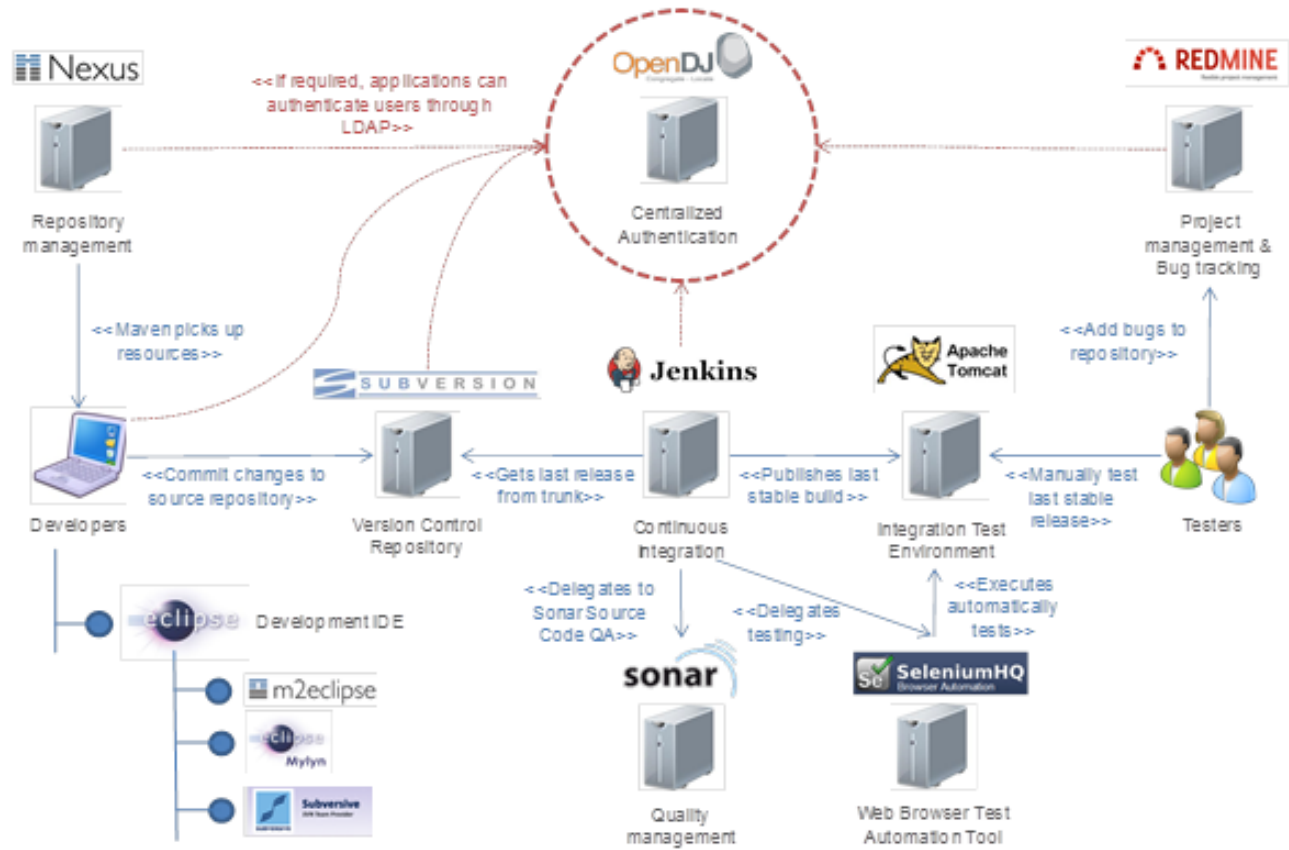


According to Jordi Cuenca-Aubets

Free continuous integration platform @Glance

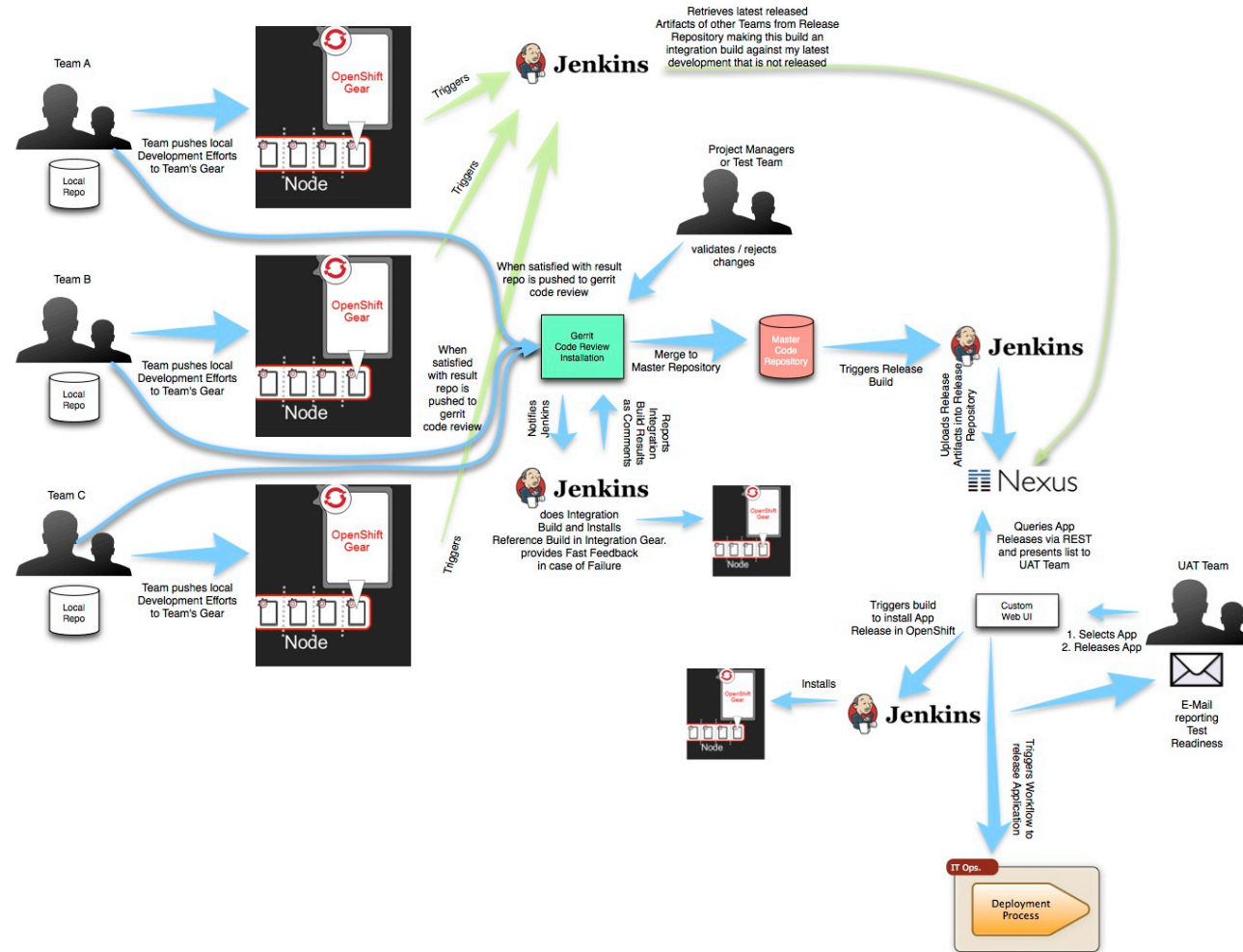
Who Am I?
Jordi Cuenca Aubets (LinkedIn)
@jordicuau (Twitter)

Runtime architecture

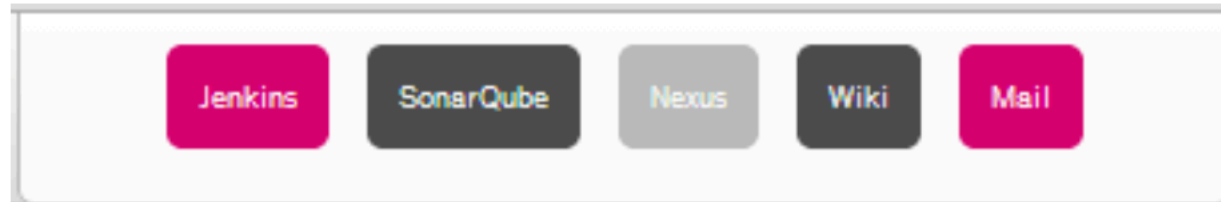


According to Open Sourcerers

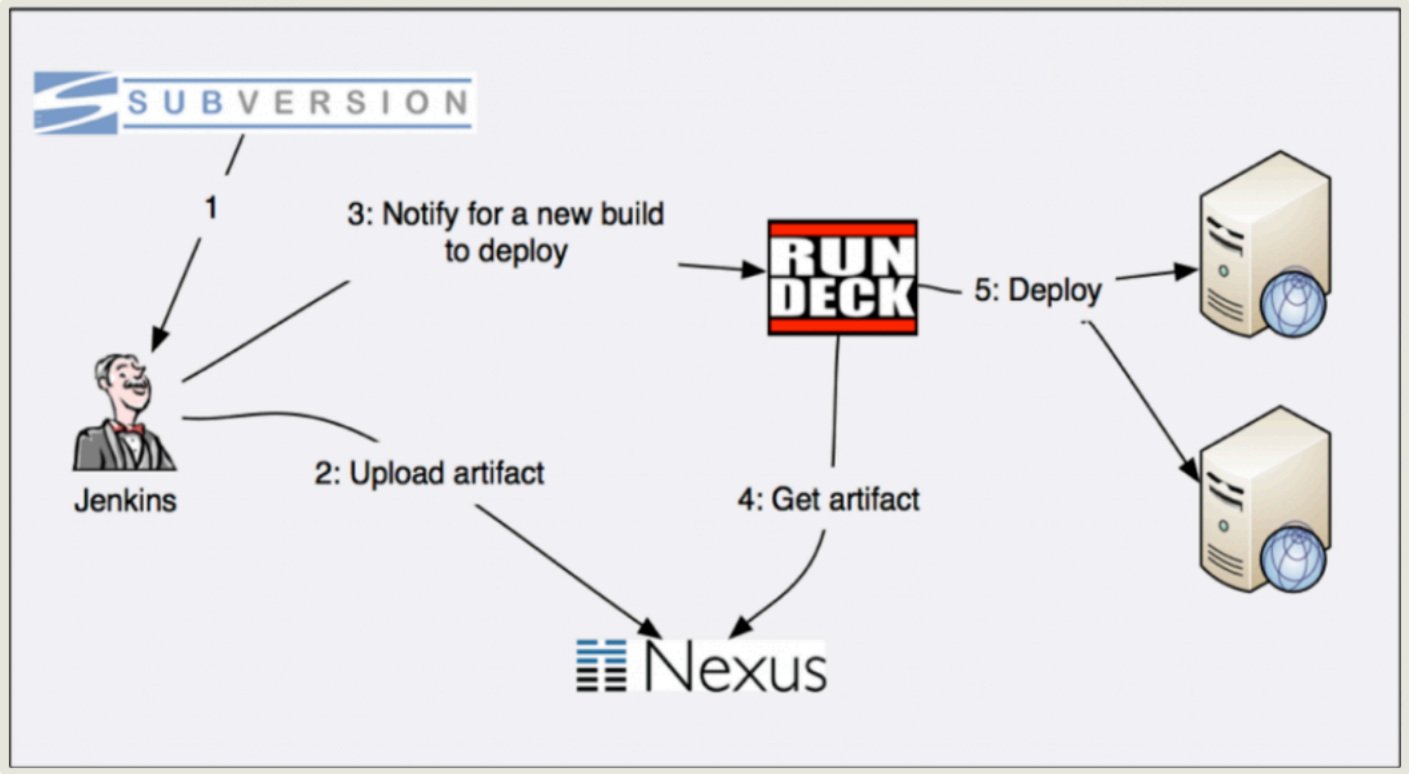
OPEN SOURCERERS



According to Michael Rumpf



According to Cardlife



According to Paolo Antinori, RedHat

Let's start describing the component of our **sample Continuous Integration setup**:

1) JBoss Fuse 6.1

It's the **runtime** we are going to deploy onto. It lives in a dedicated box. It interacts with *Nexus* as the source of the artifacts we produce and publish.

2) Nexus

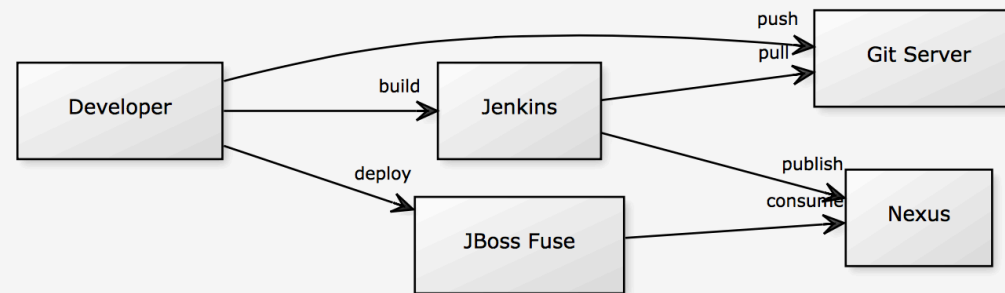
It's the software we use to **store the binaries** we produce from our code base. It is accessed by *JBoss Fuse*, that downloads artifacts from it but it is also accessed from *Jenkins*, that publishes binaries on it, as the last step of a successful build job.

3) Jenkins

It's our **build jobs invoker**. It publishes its outputs to *Nexus* and it builds its output if the code it checked out with *Git* builds successfully.

4) Git Server

It's the **remote code repository** holder. It's accessed by *Jenkins* to download the most recent version of the code we want to build and it's populated by all the *developers* when they share their code and when they want to build on the Continuous Integration server. **In our case, git server is just a filesystem accessed via ssh.**



<http://yum1.me/edit/7e75fab5>

According to Atlassian

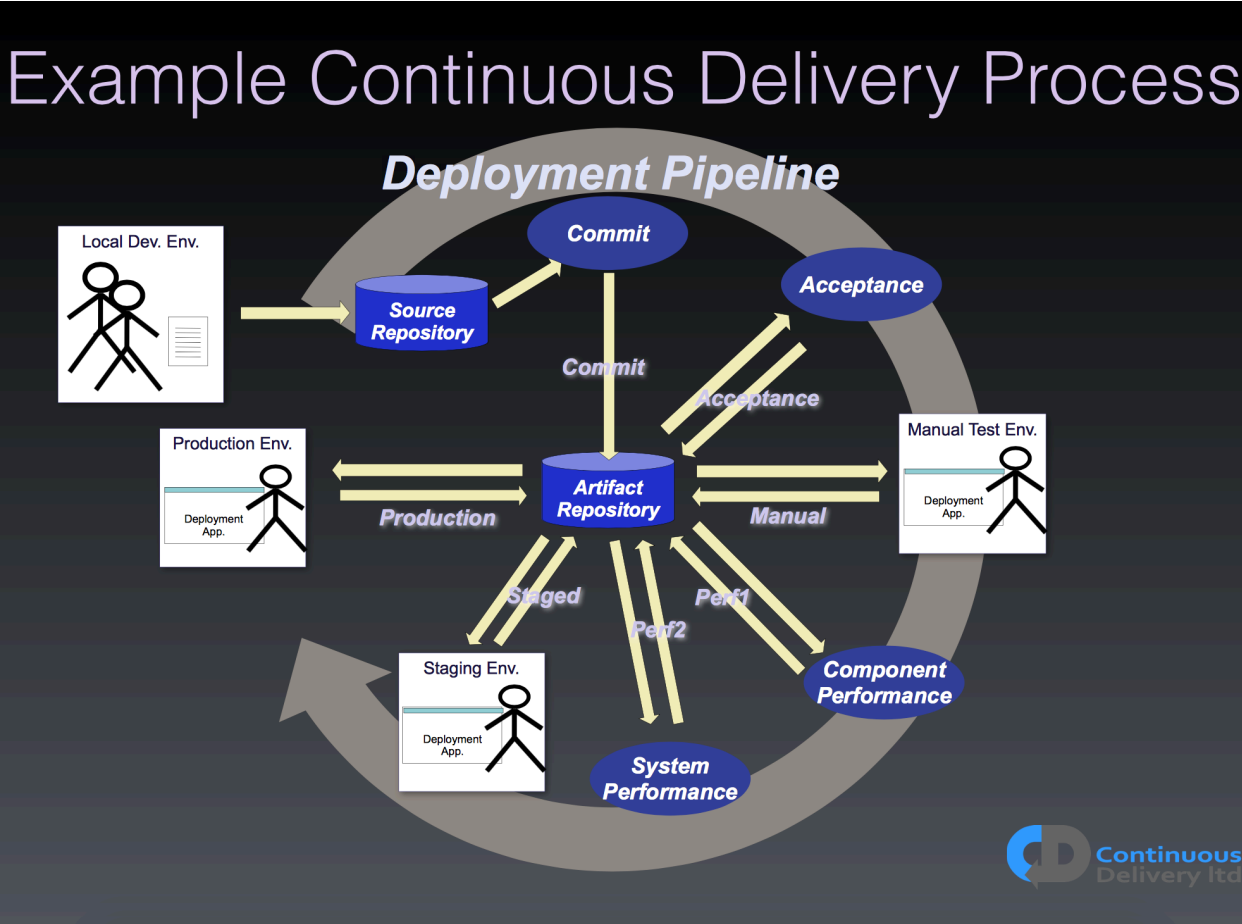


Build Engineering today @ Atlassian

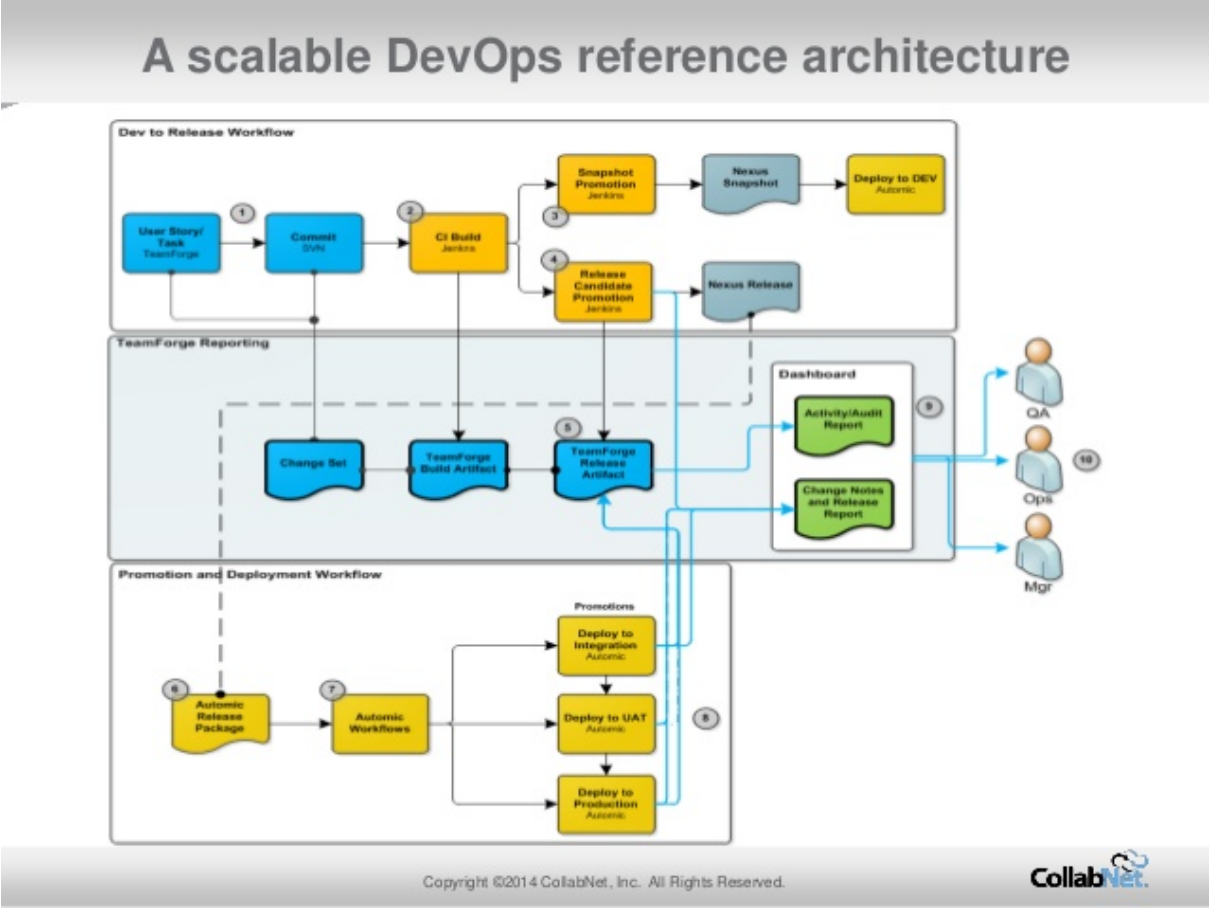


- 600 build agents (own hardware + EC2 instances)
 - include SCM clients, JDKs, JVM build tools, databases, headless browser testing, python builds, NodeJS, installers & more
- Maintain 20 AMIs of various build configurations
- 6 Bamboo Servers
- maven.atlassian.com / 6 Nexus instances
- Monitoring - opsview / graphite / statsd

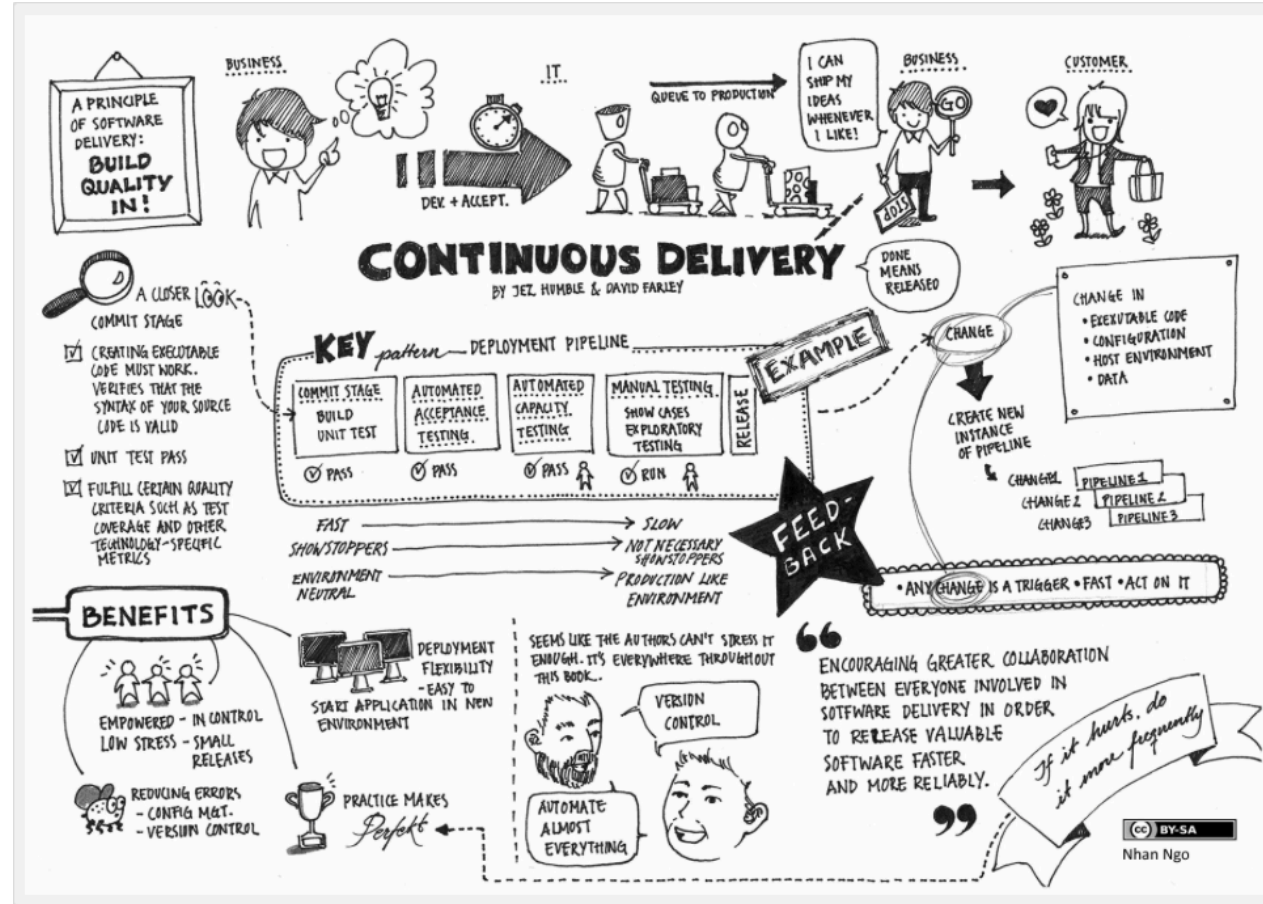
According to Continuous Delivery Ltd



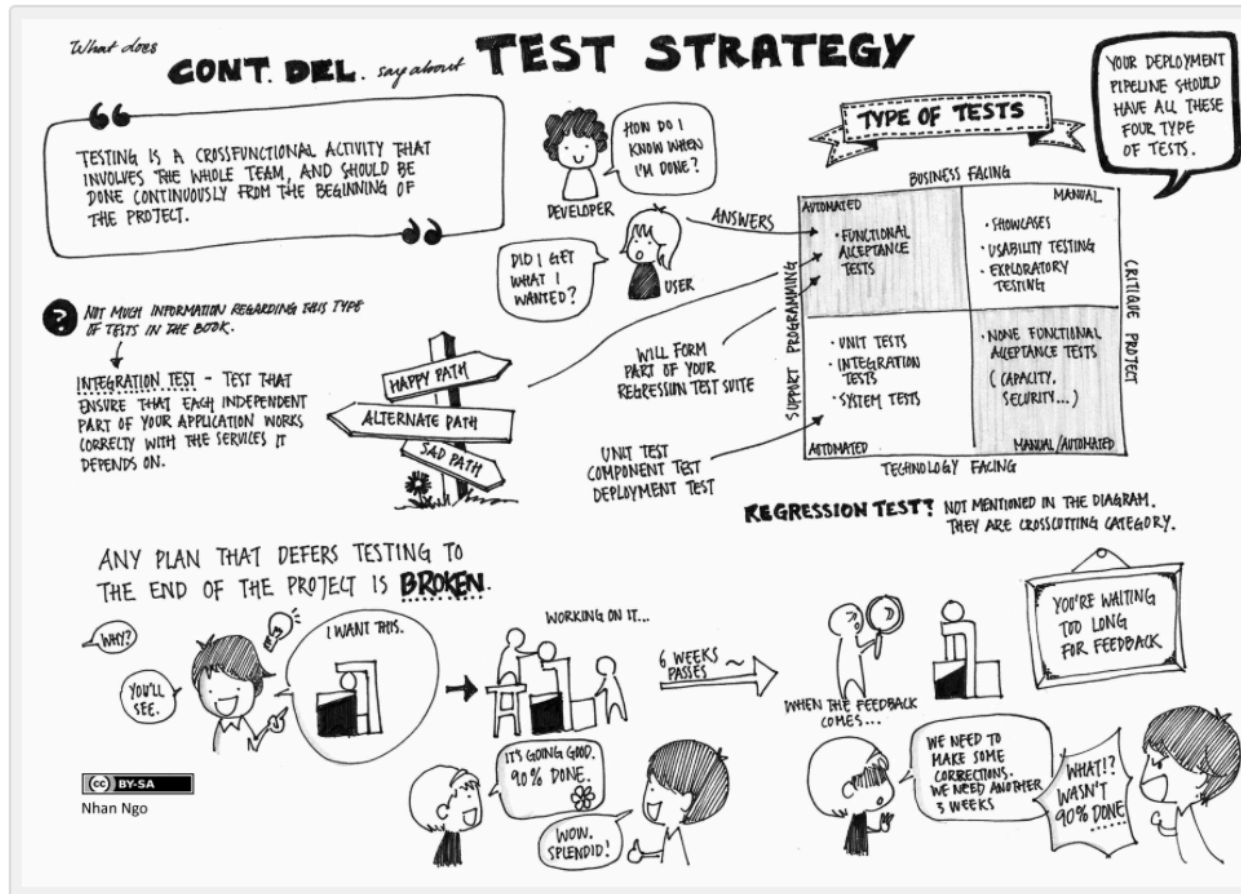
According to CollabNet



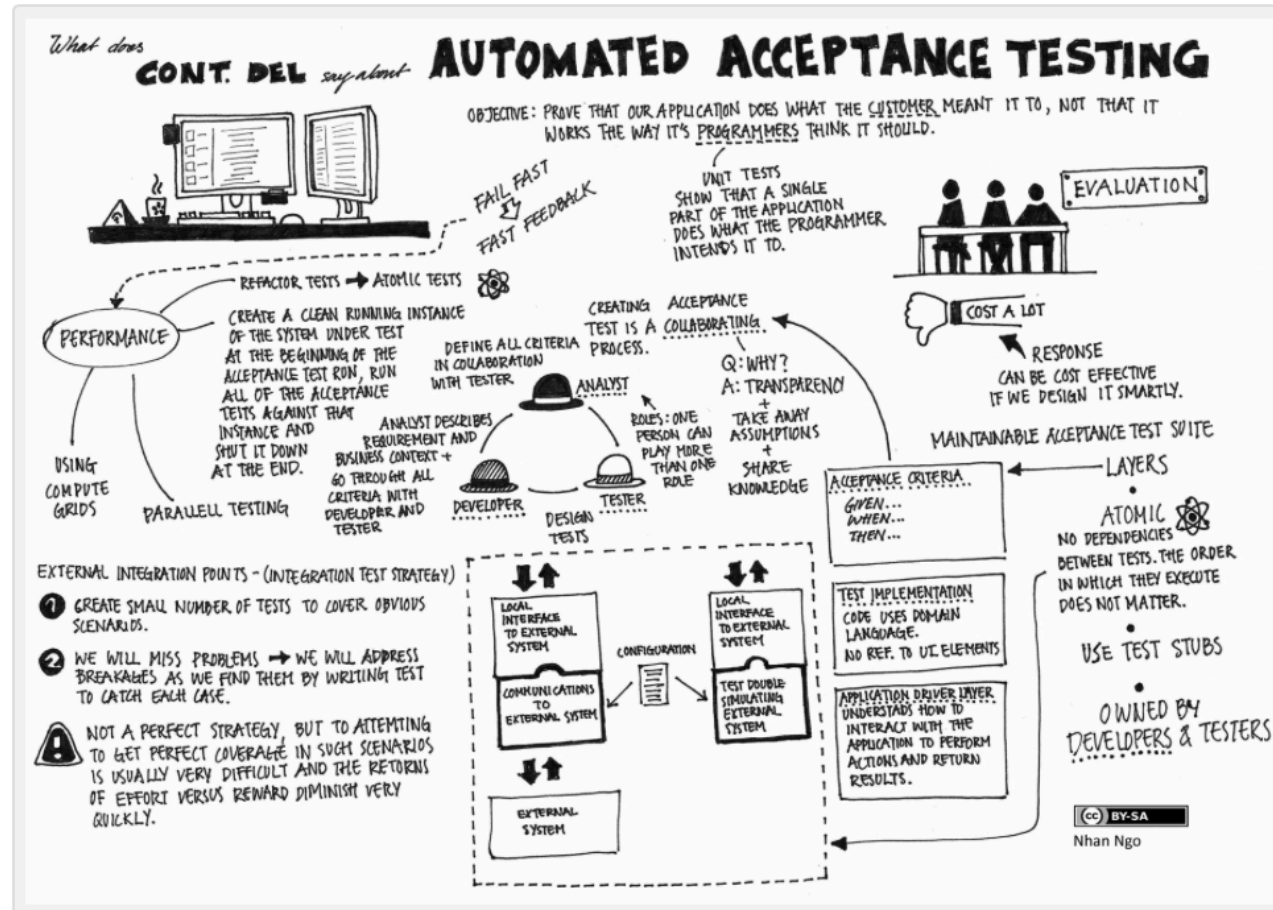
According to Nhan Ngo



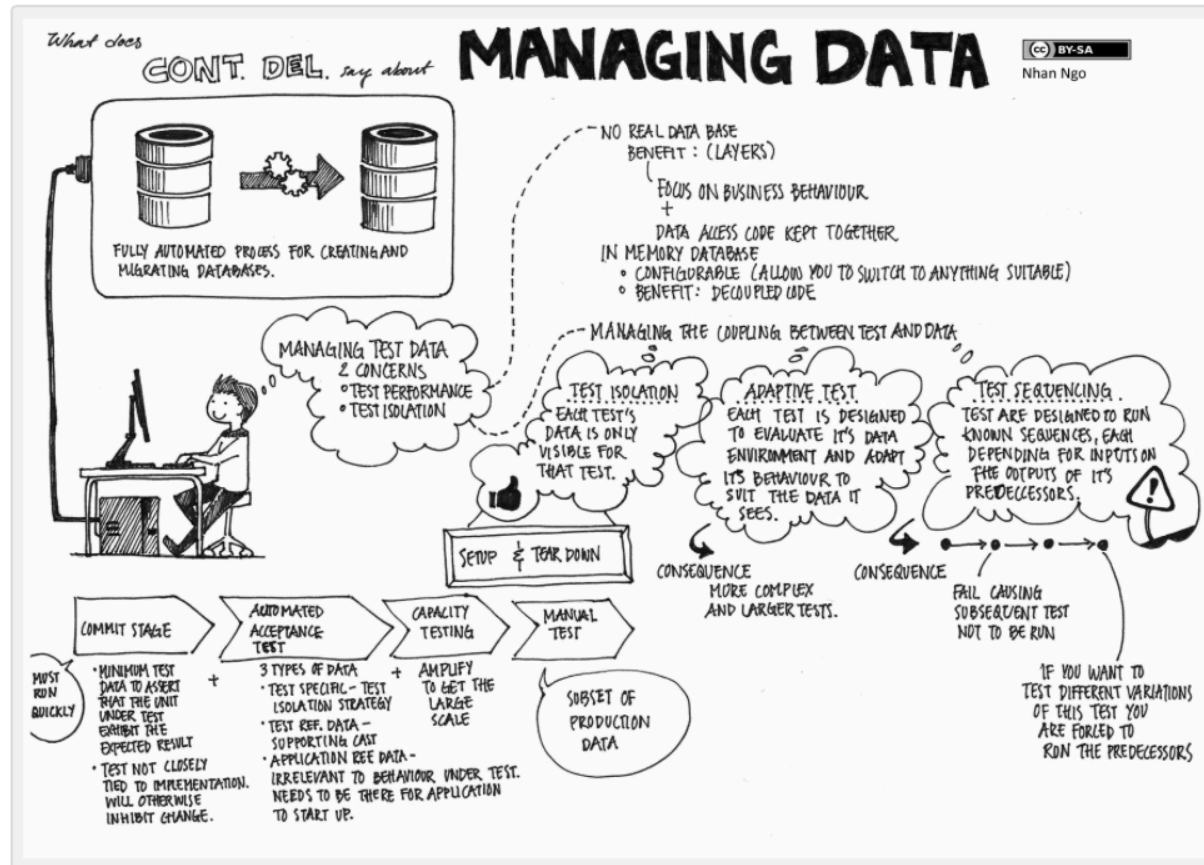
According to Nhan Ngo



According to Nhan Ngo



According to Nhan Ngo



According to WSO2



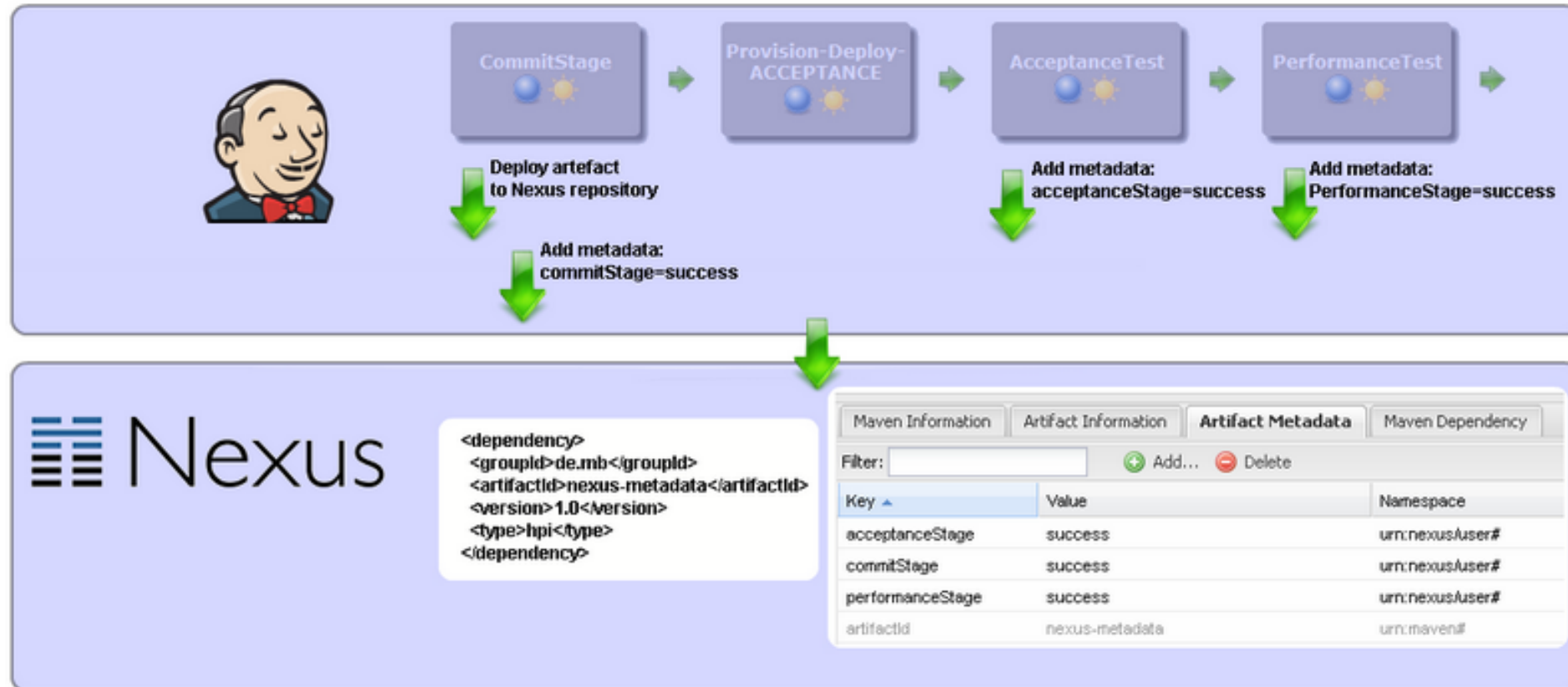
A Reference Architecture DevOps both dev and ops perspective



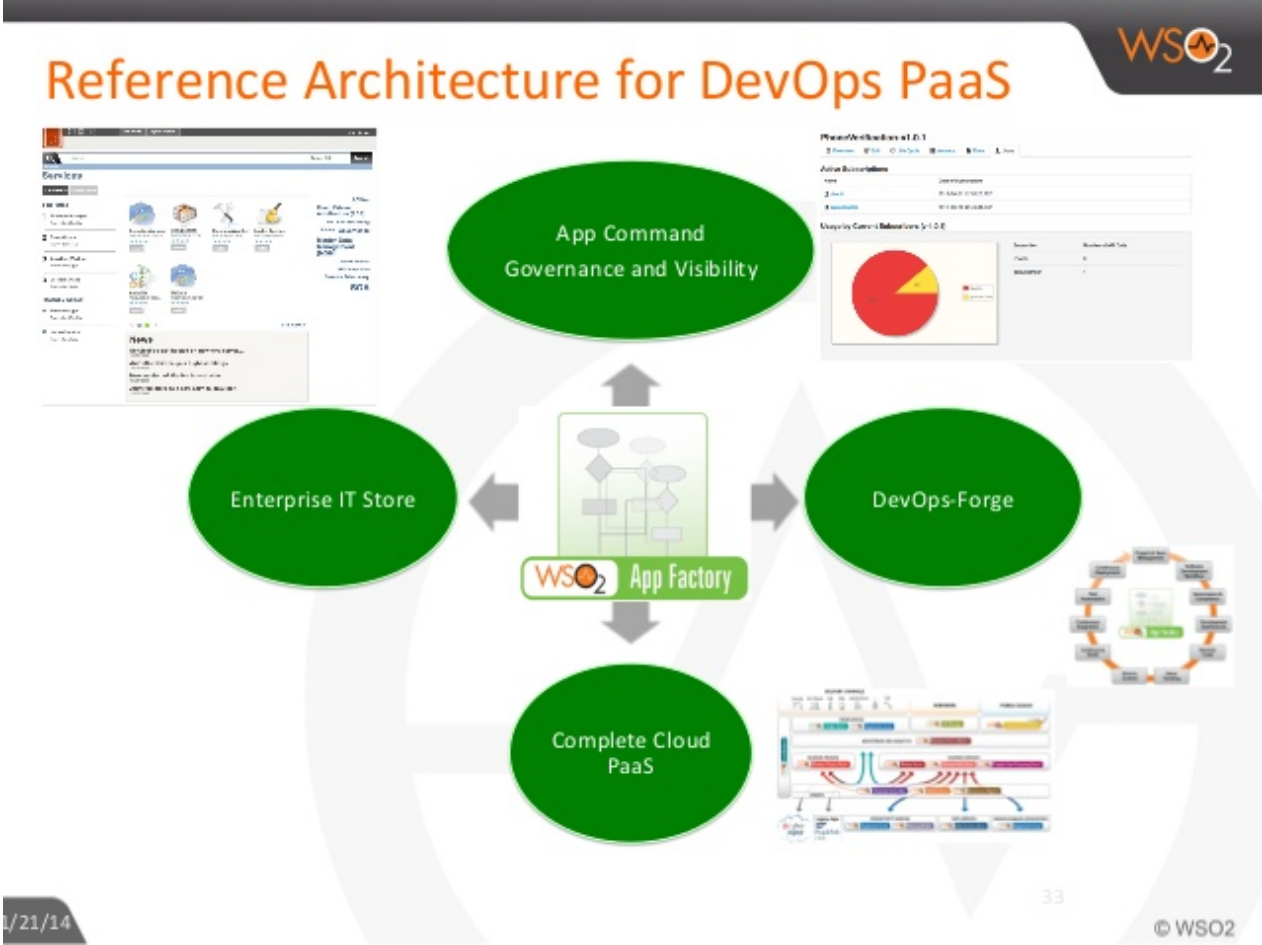
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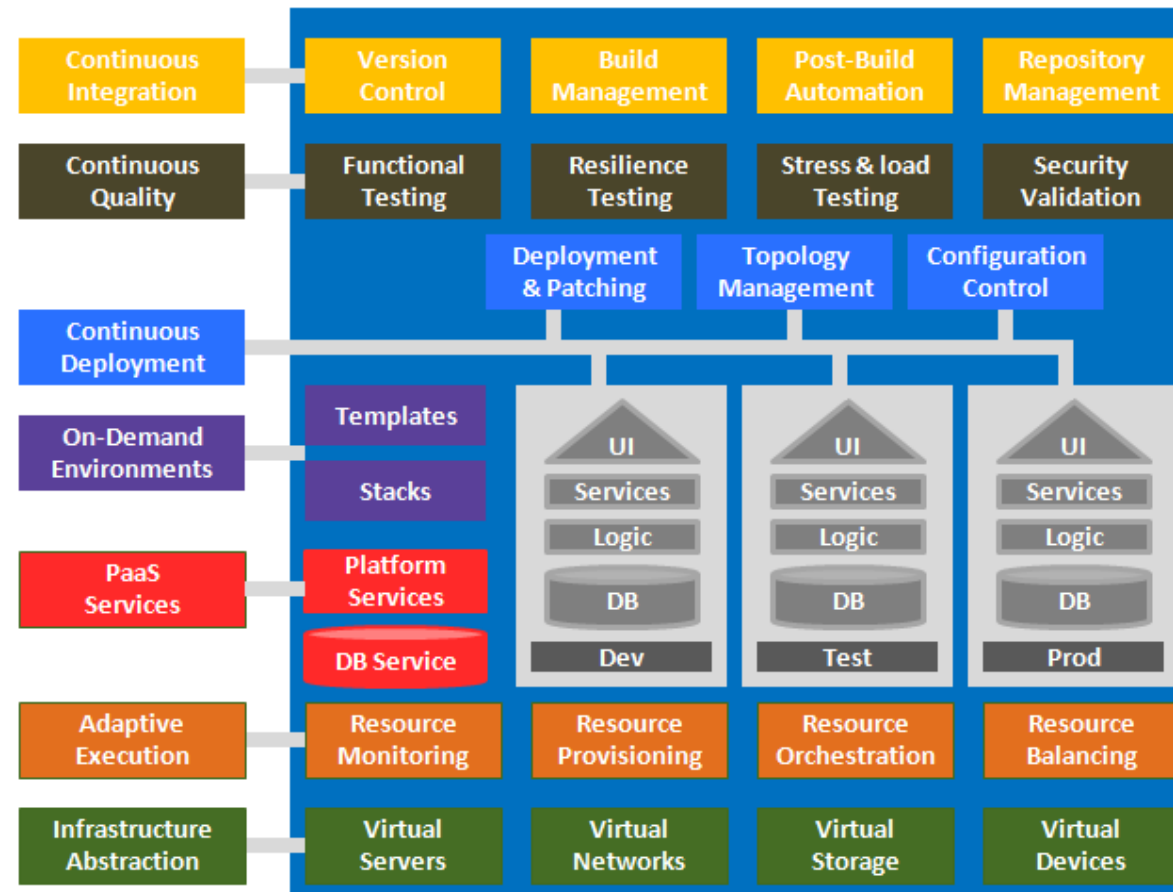
According to CodeCentric



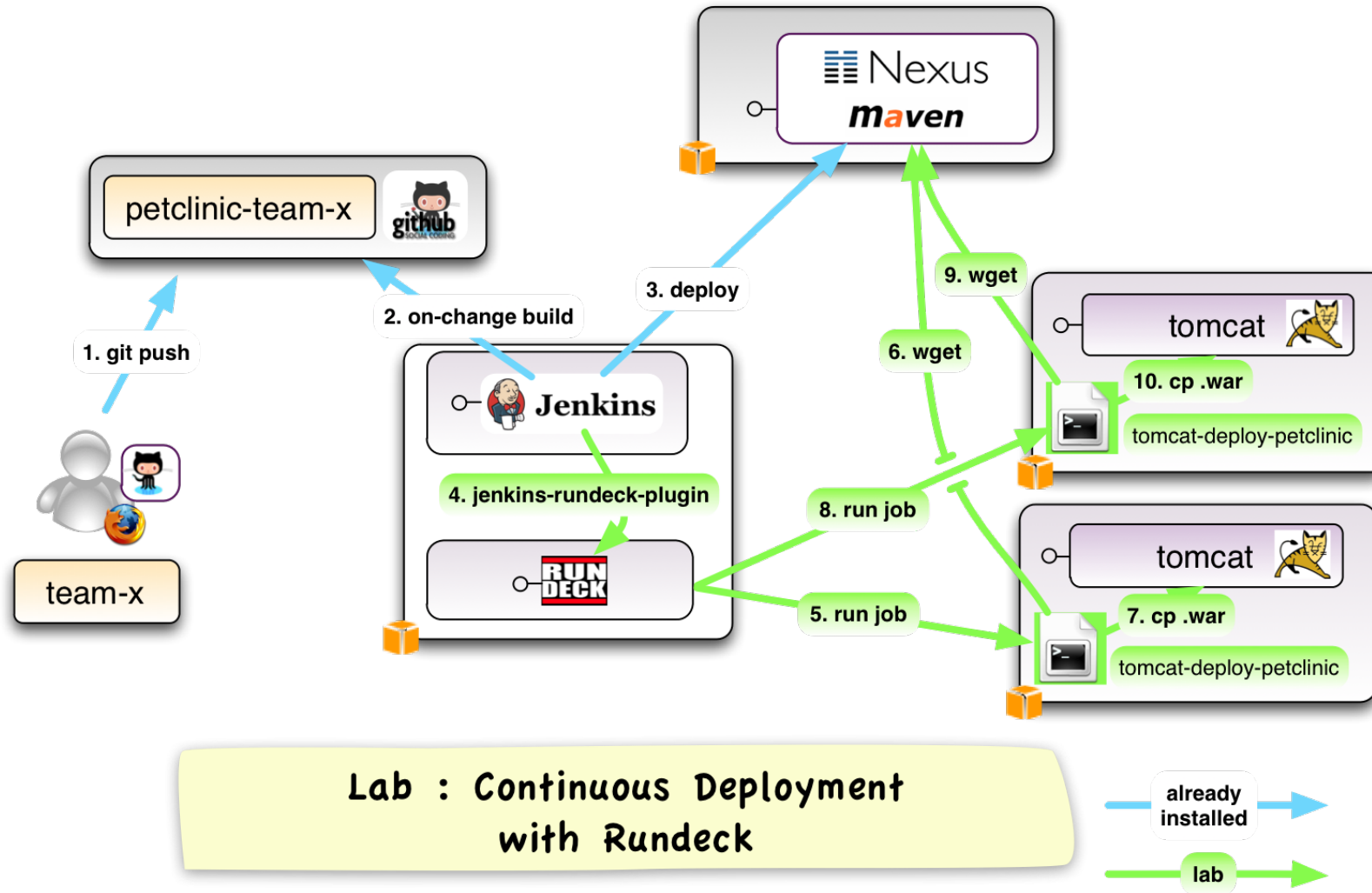
According to WS02



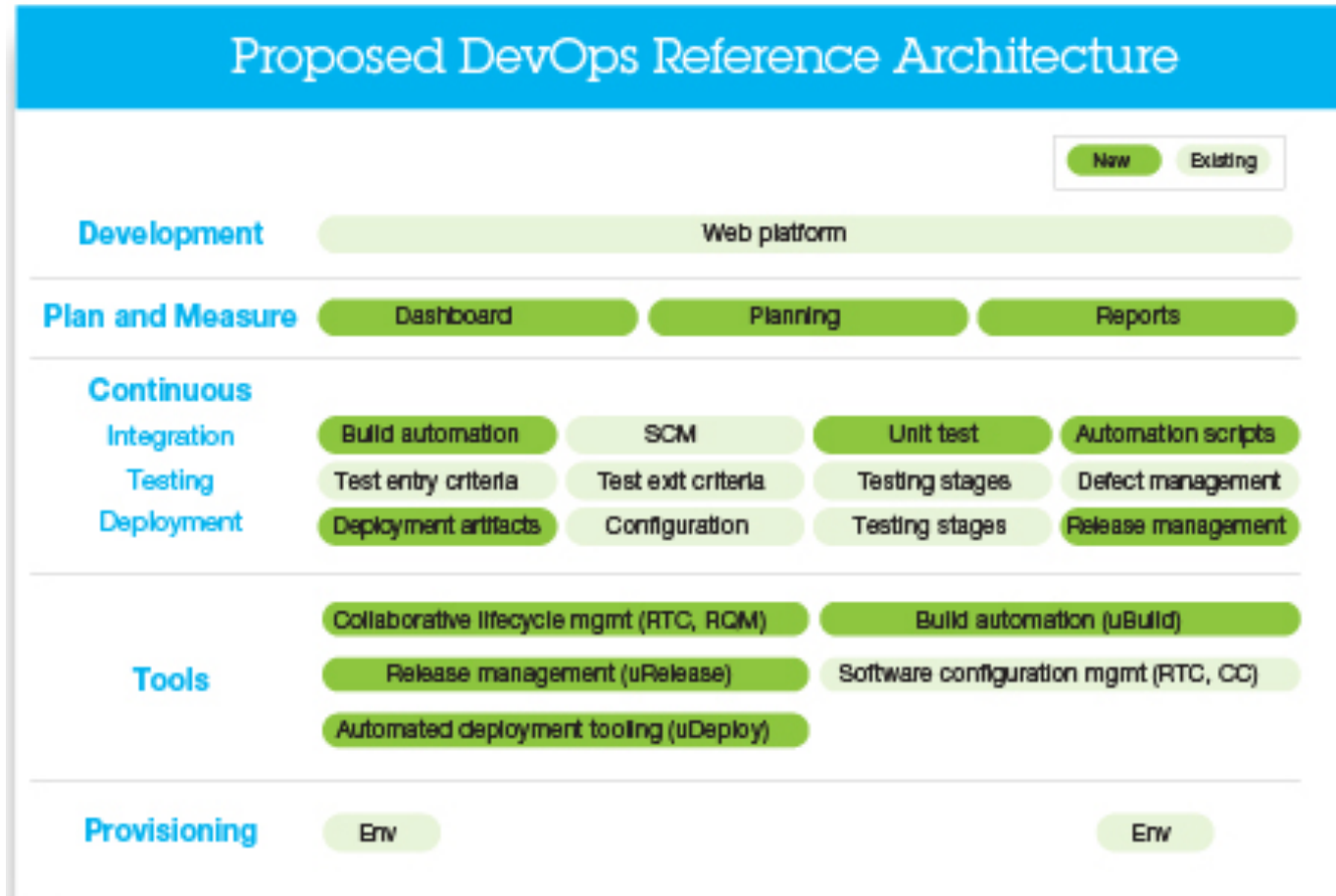
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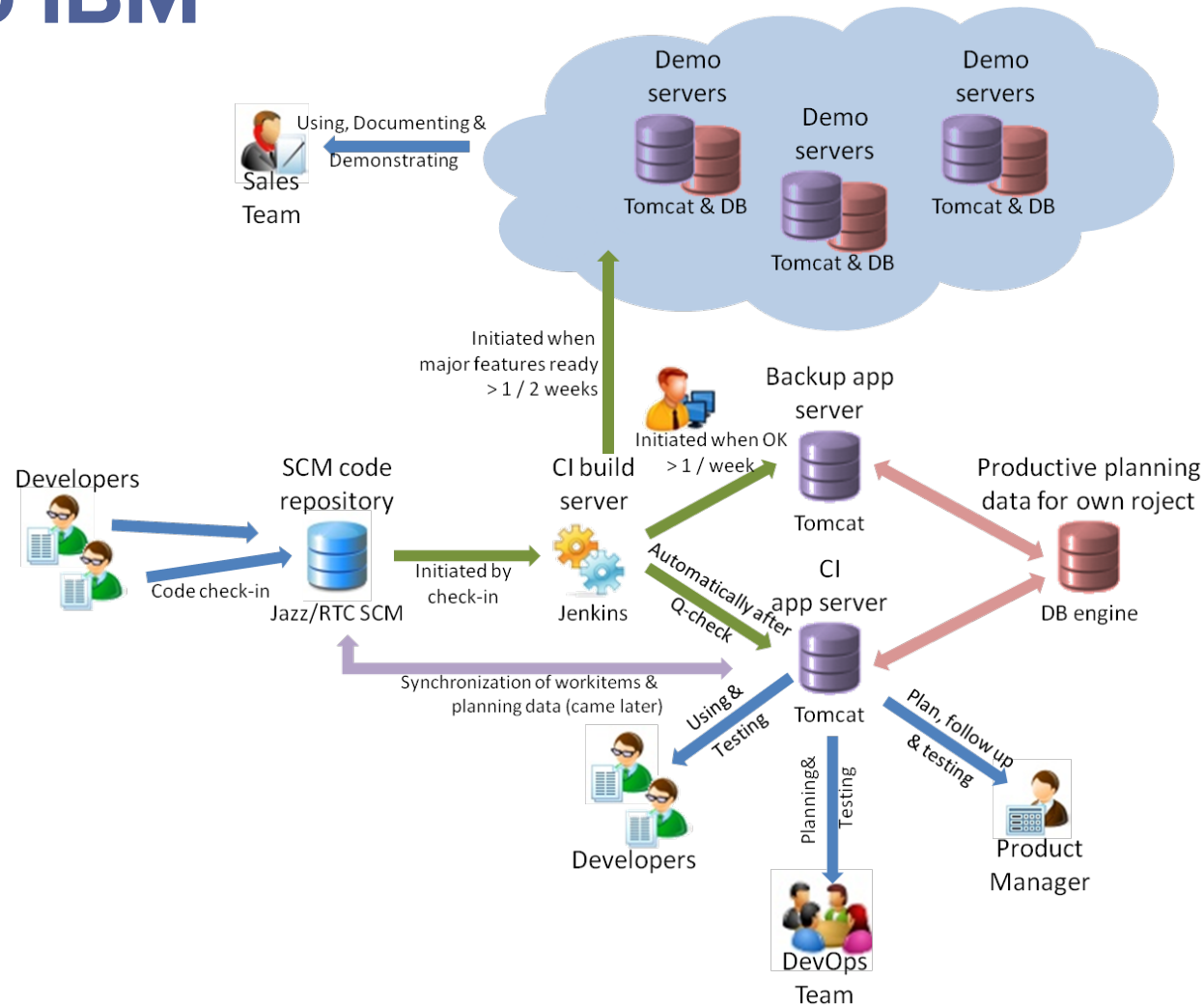
According to Goobbe



According to IBM



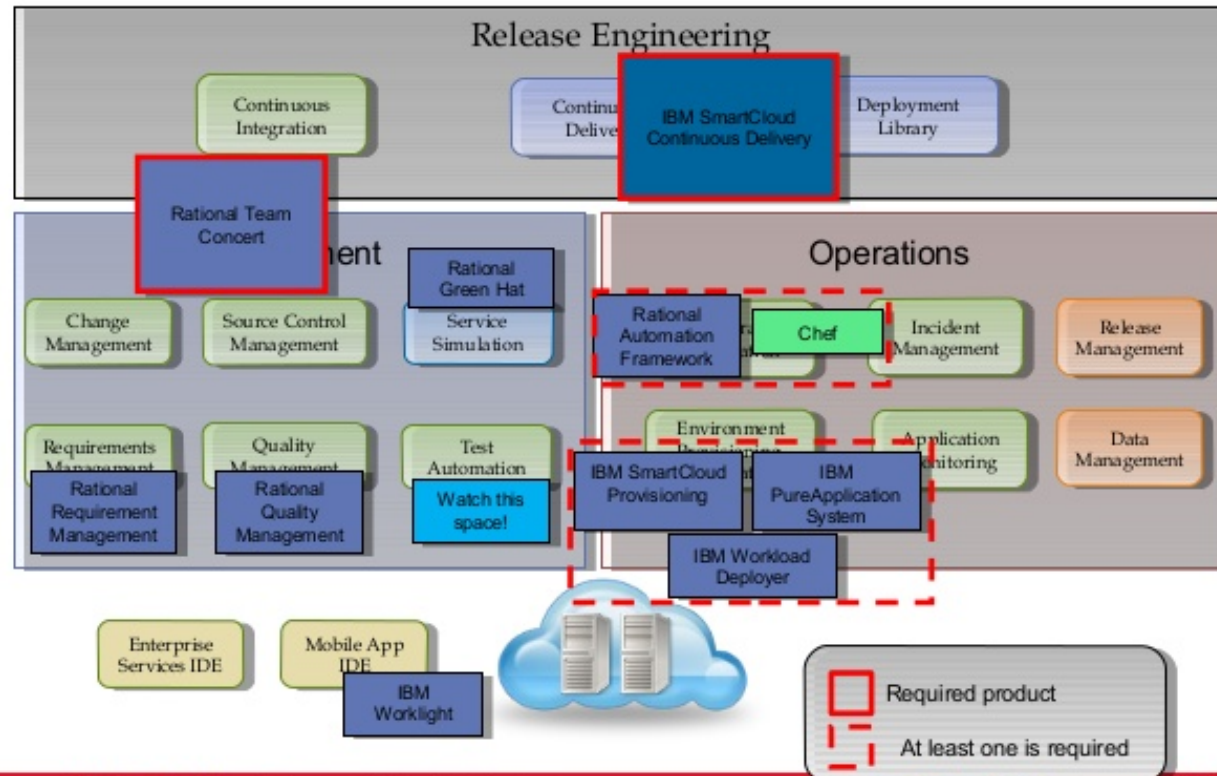
According to IBM



According to IBM



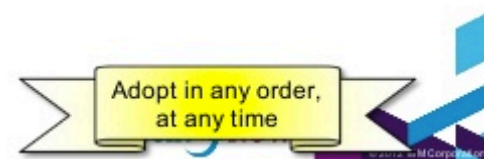
Reference Architecture: Product Implementations



According to IBM

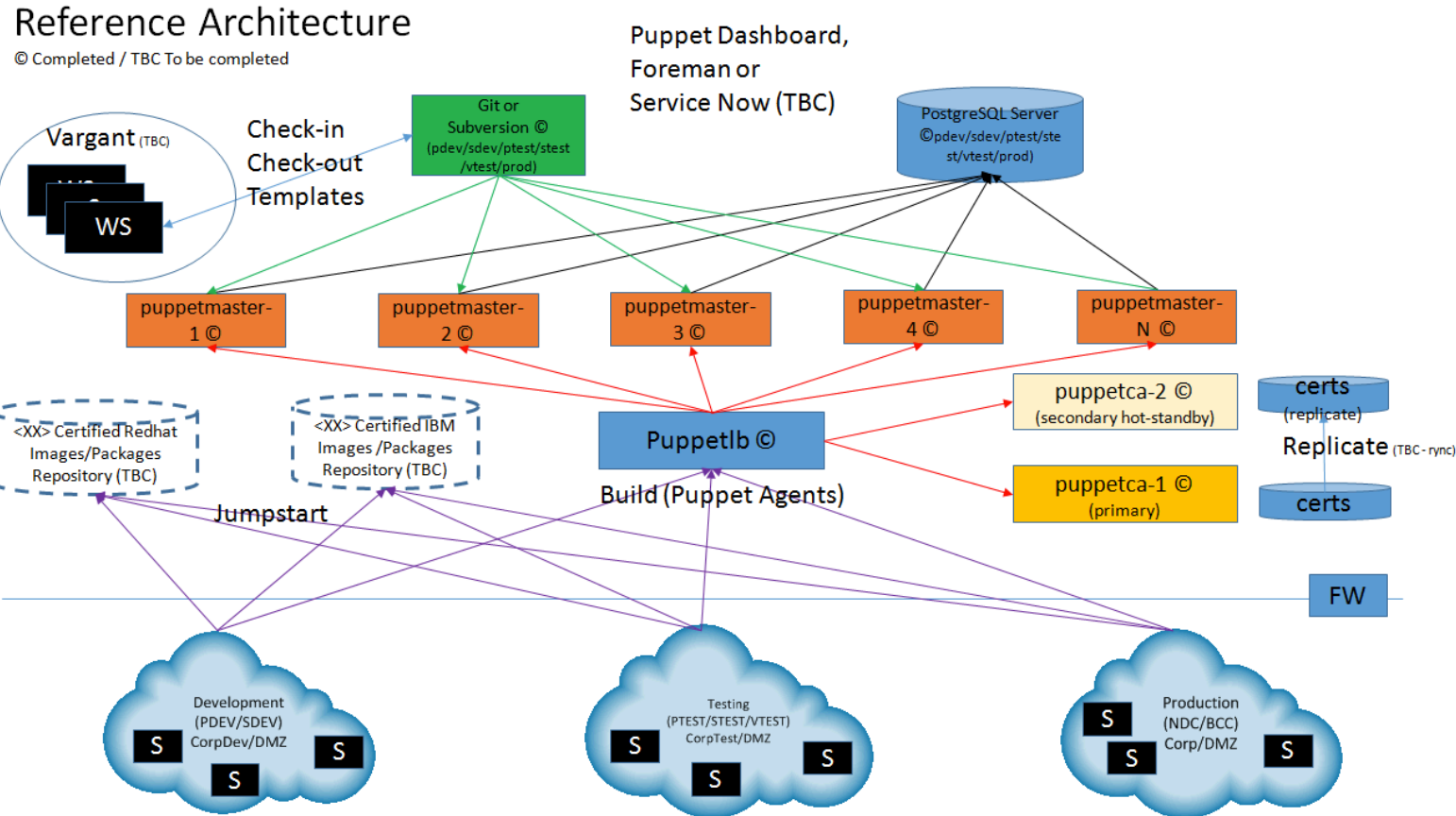


Lifecycle Management Reference Architecture

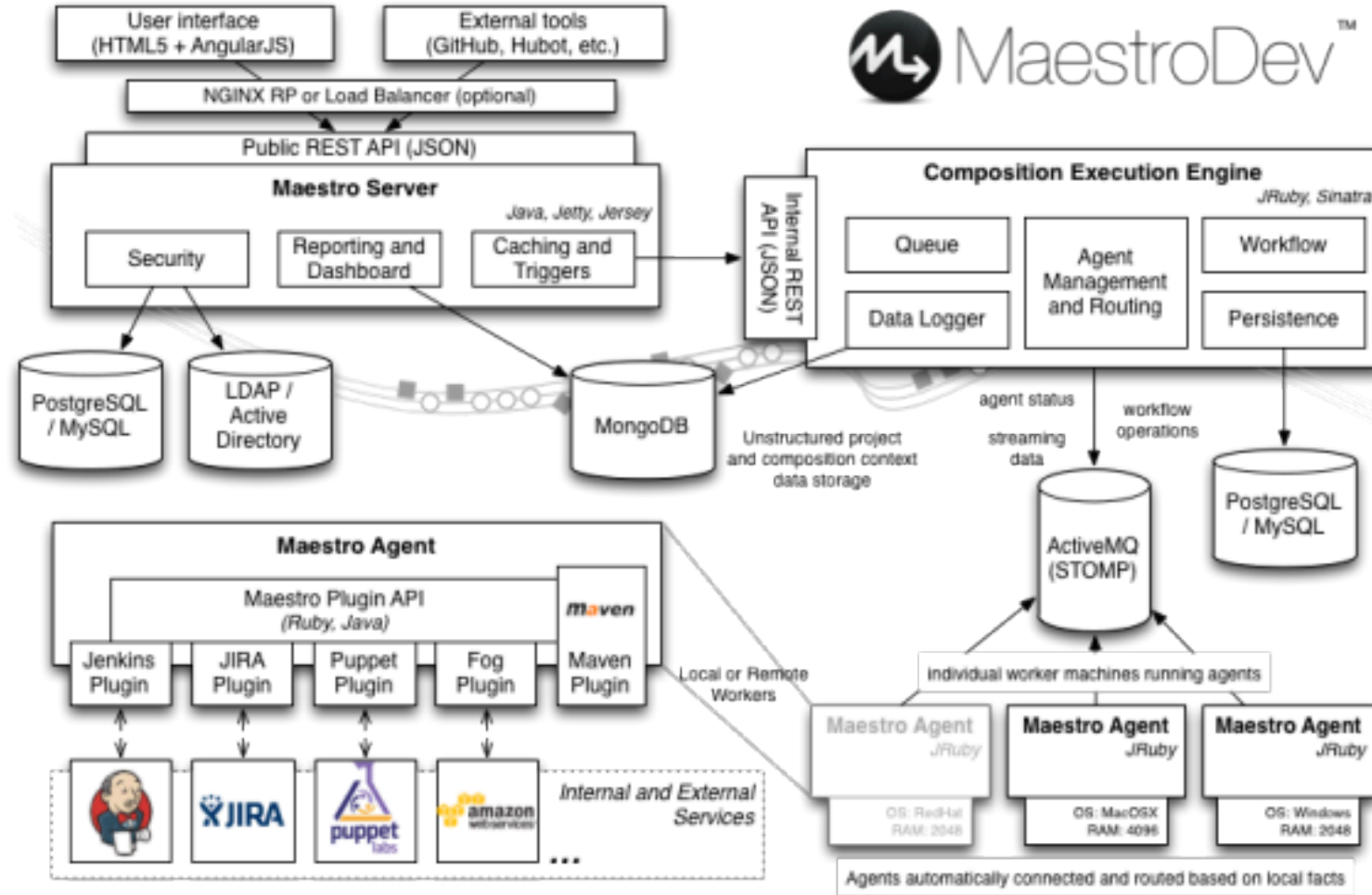


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According to OZsofts

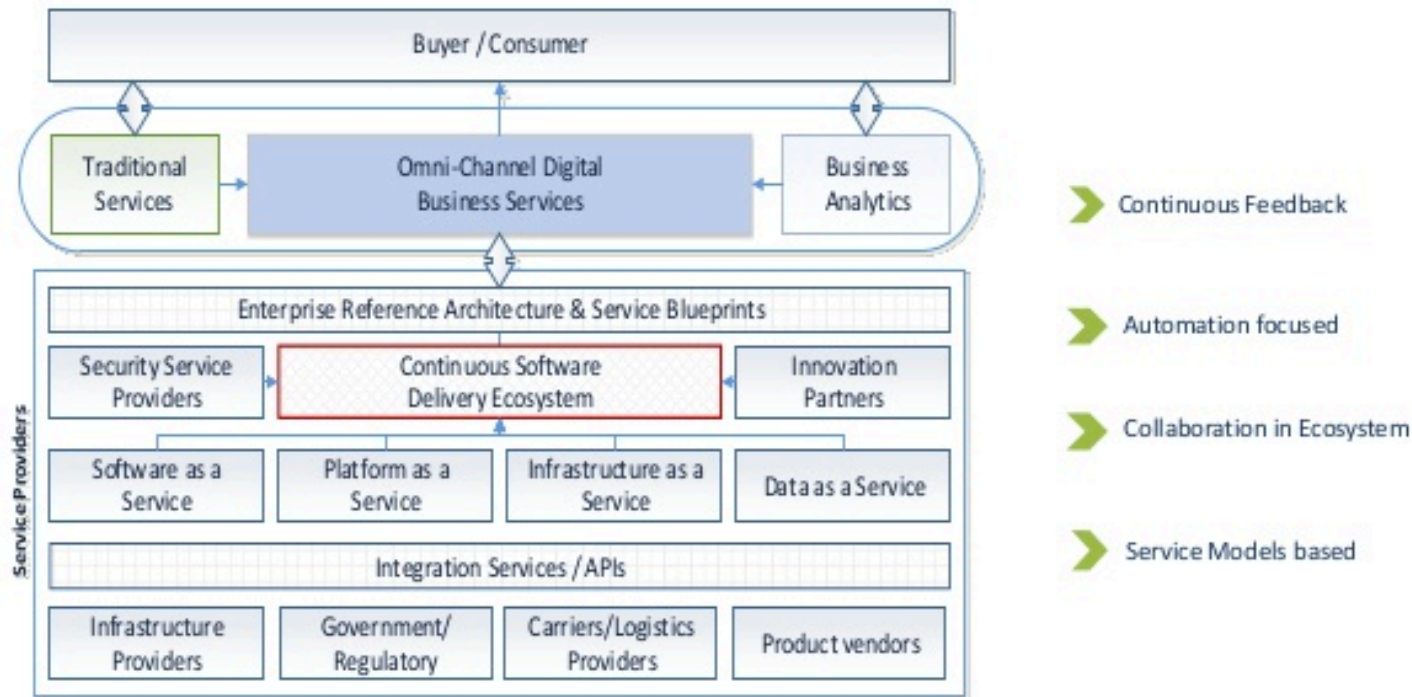


According to MaestroDev

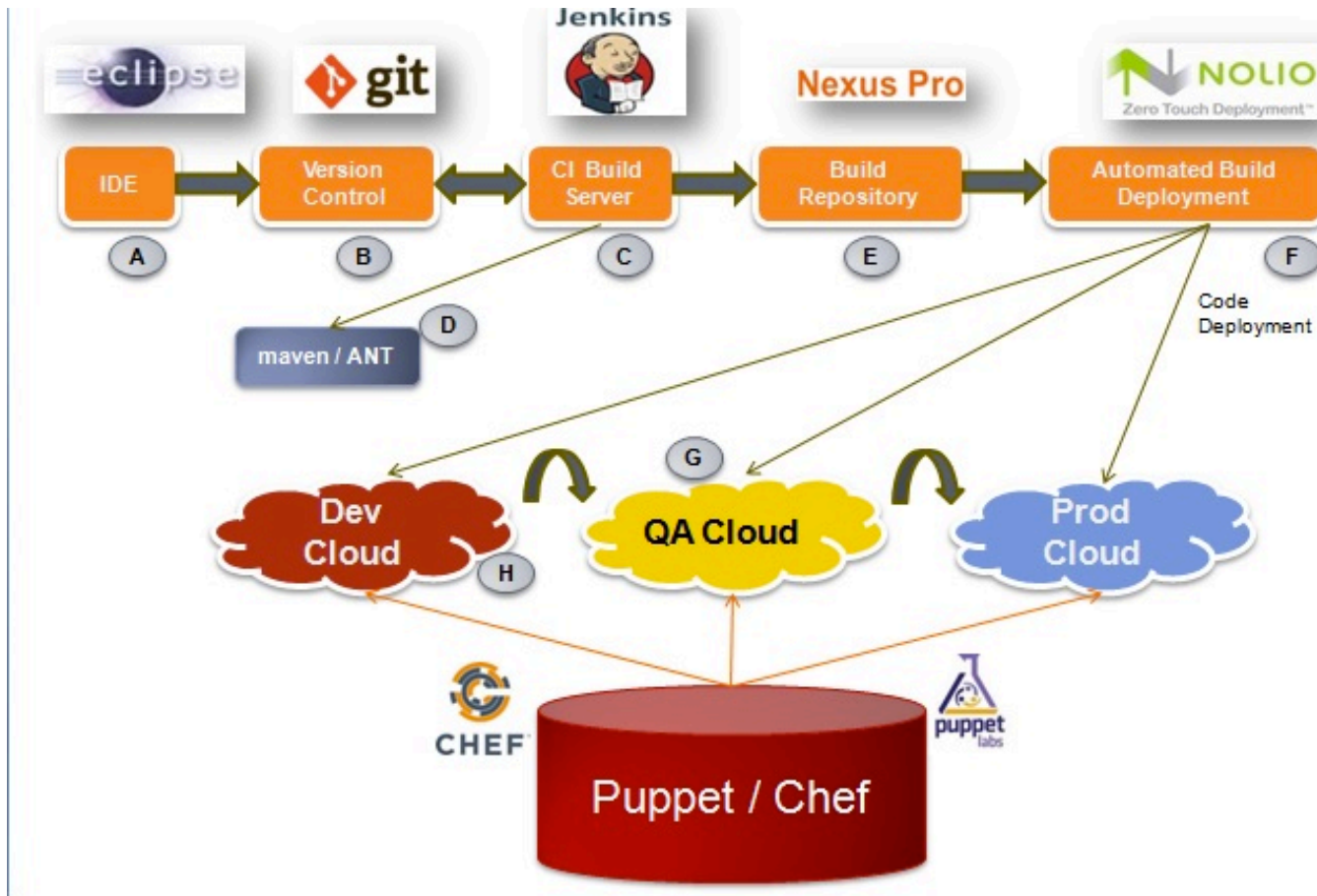


According to The Open Group

DevOps – A paradigm shift in IT to deliver Digitalization

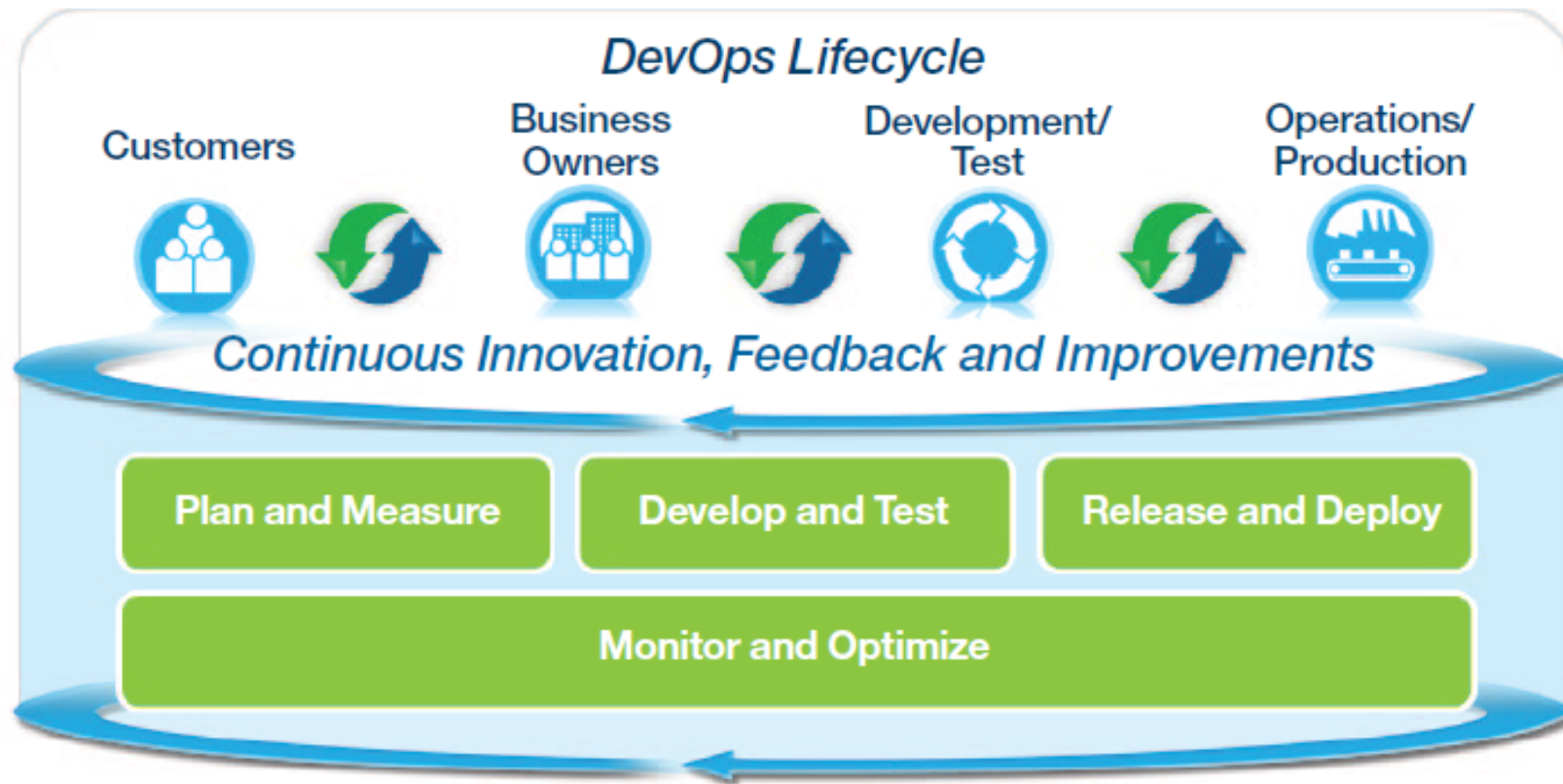


According to AgileTrick

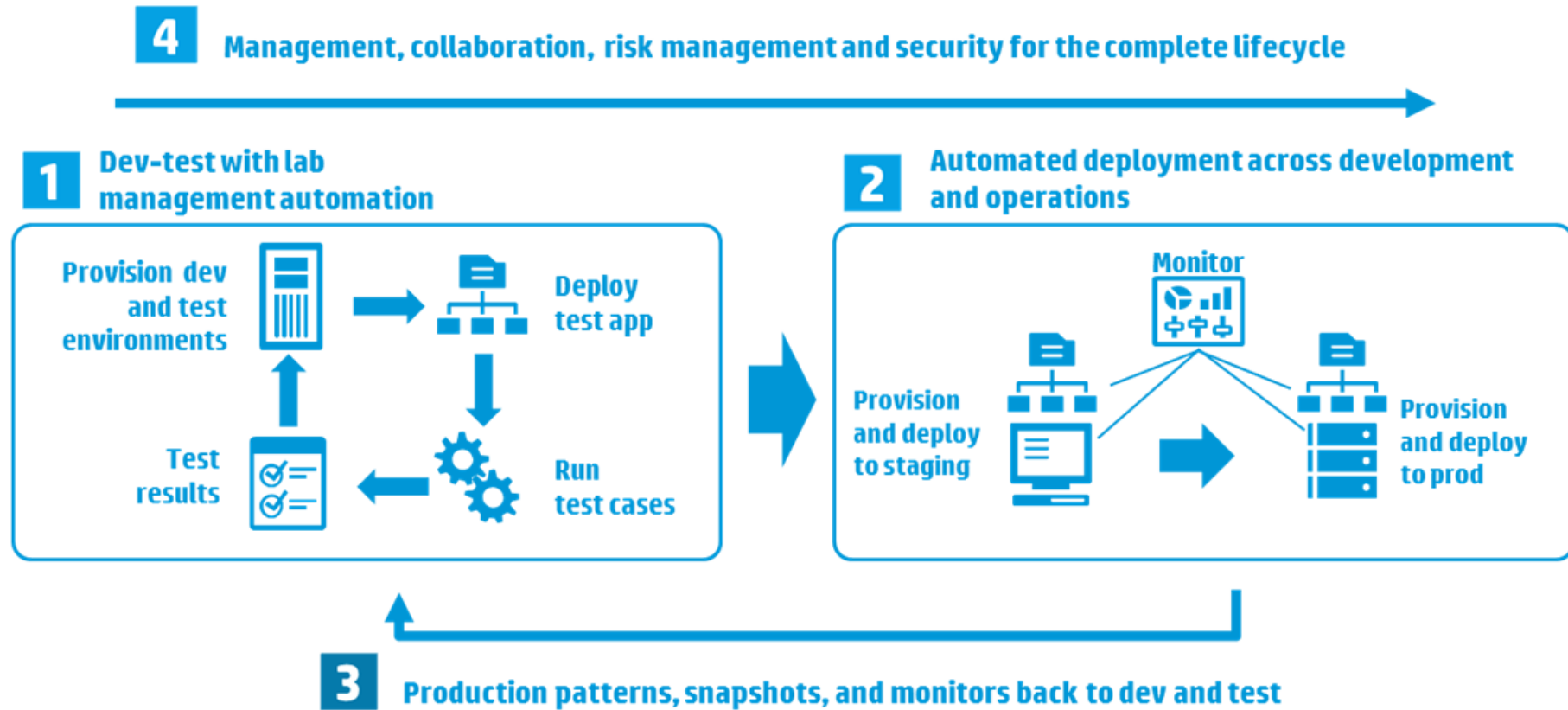


According to DevOps by Design

DEVOPS BY DESIGN

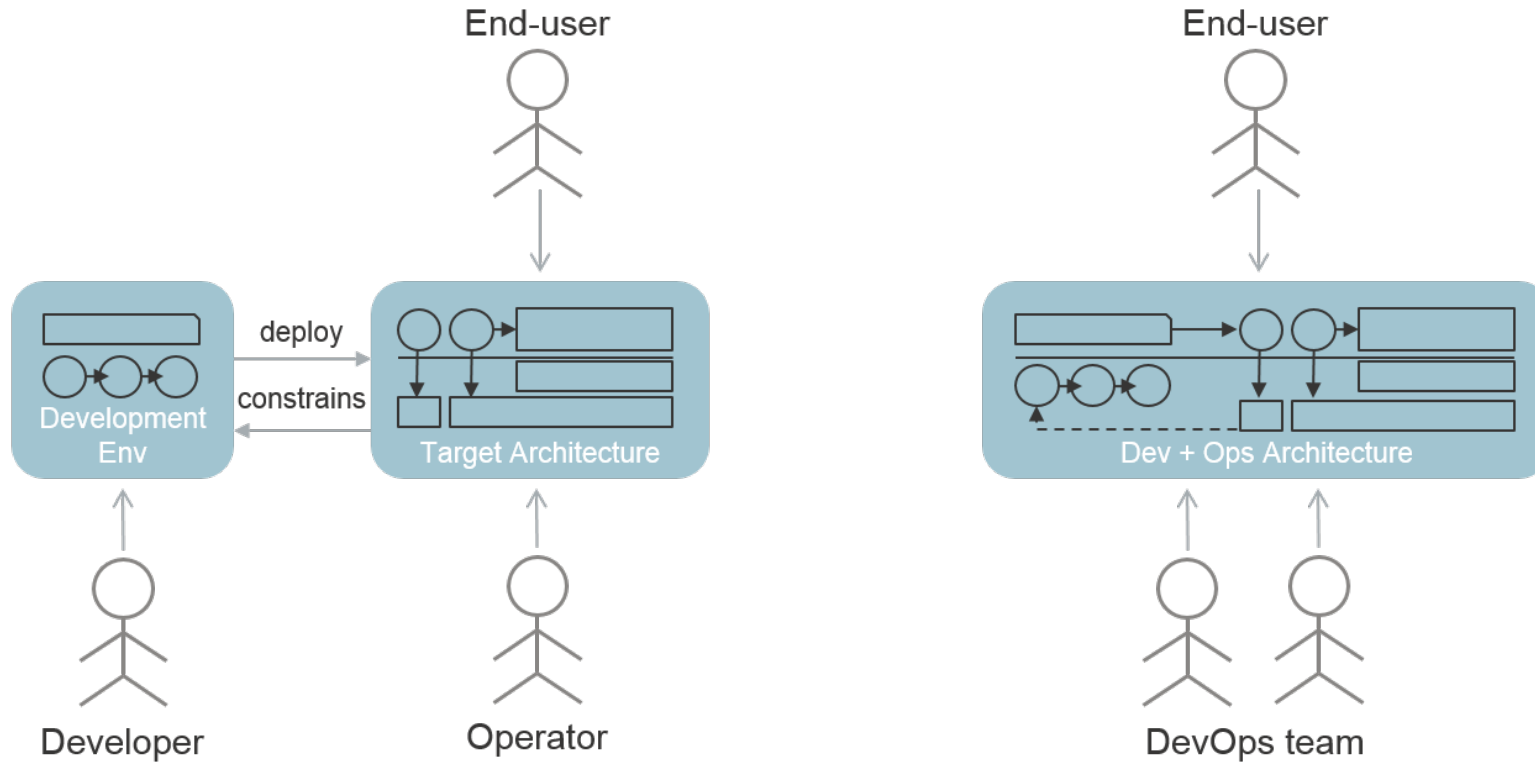


According to HP

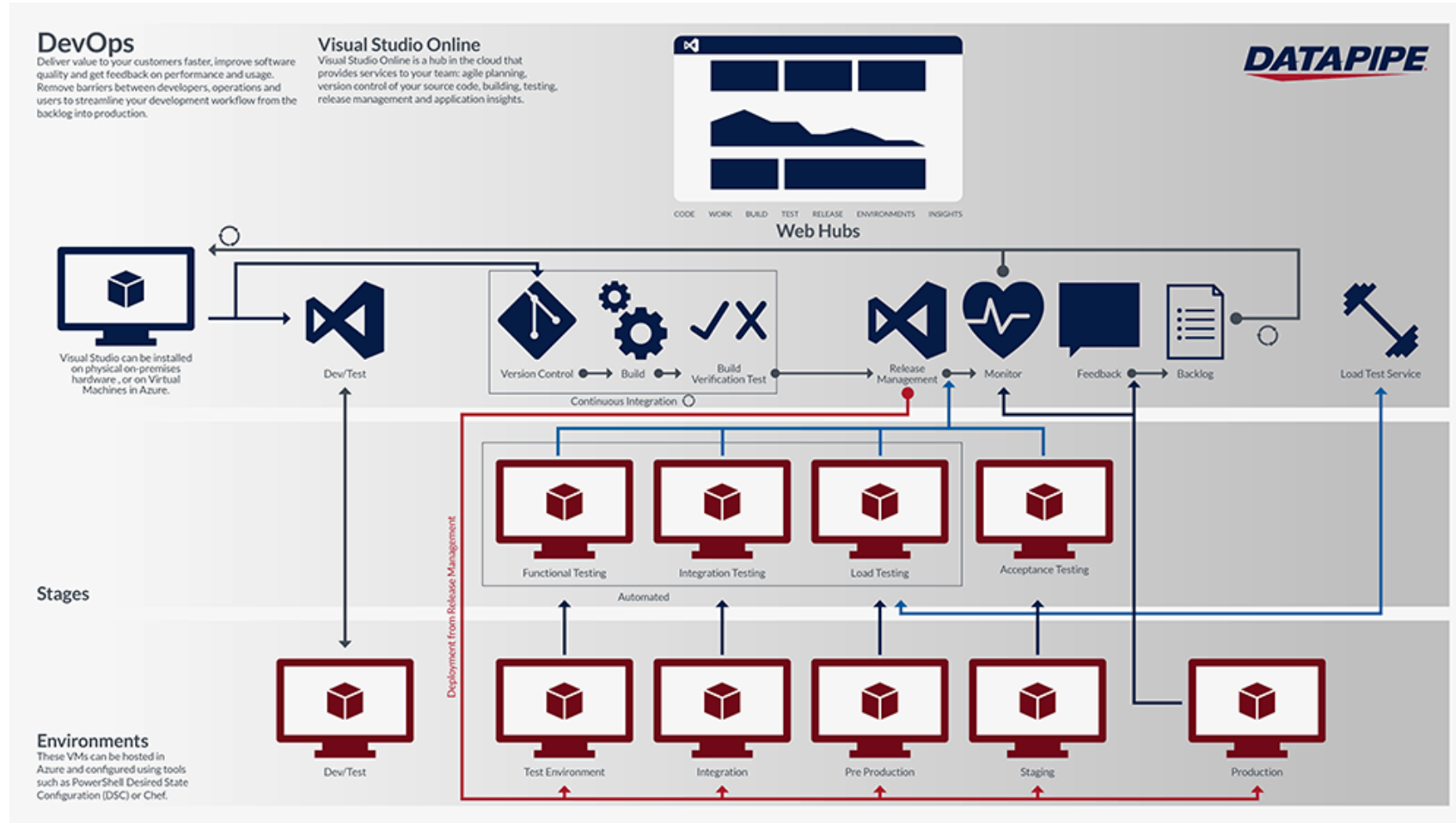


According to Eljto

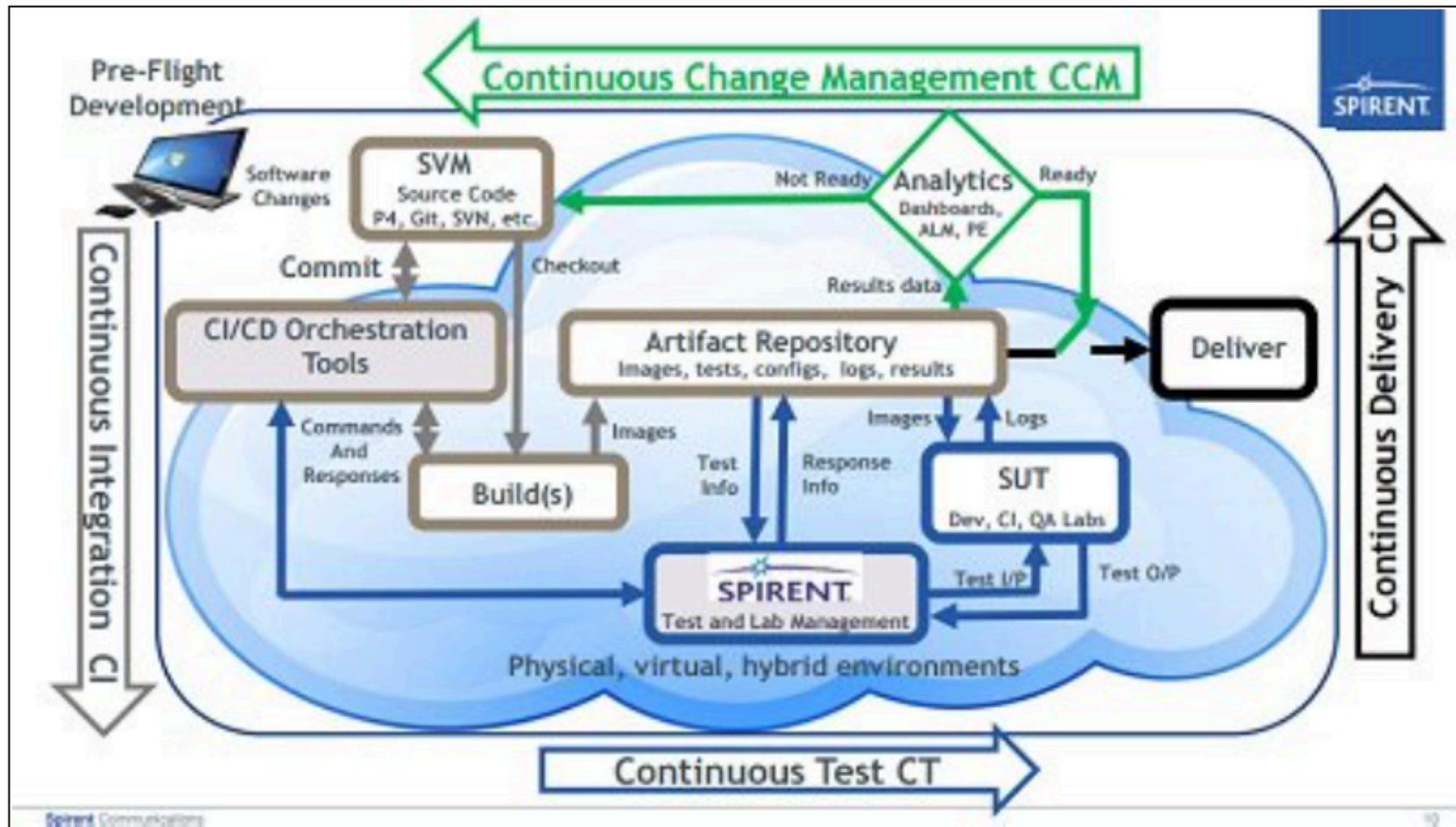
Architecture separated from Dev → Consolidated DevOps architecture



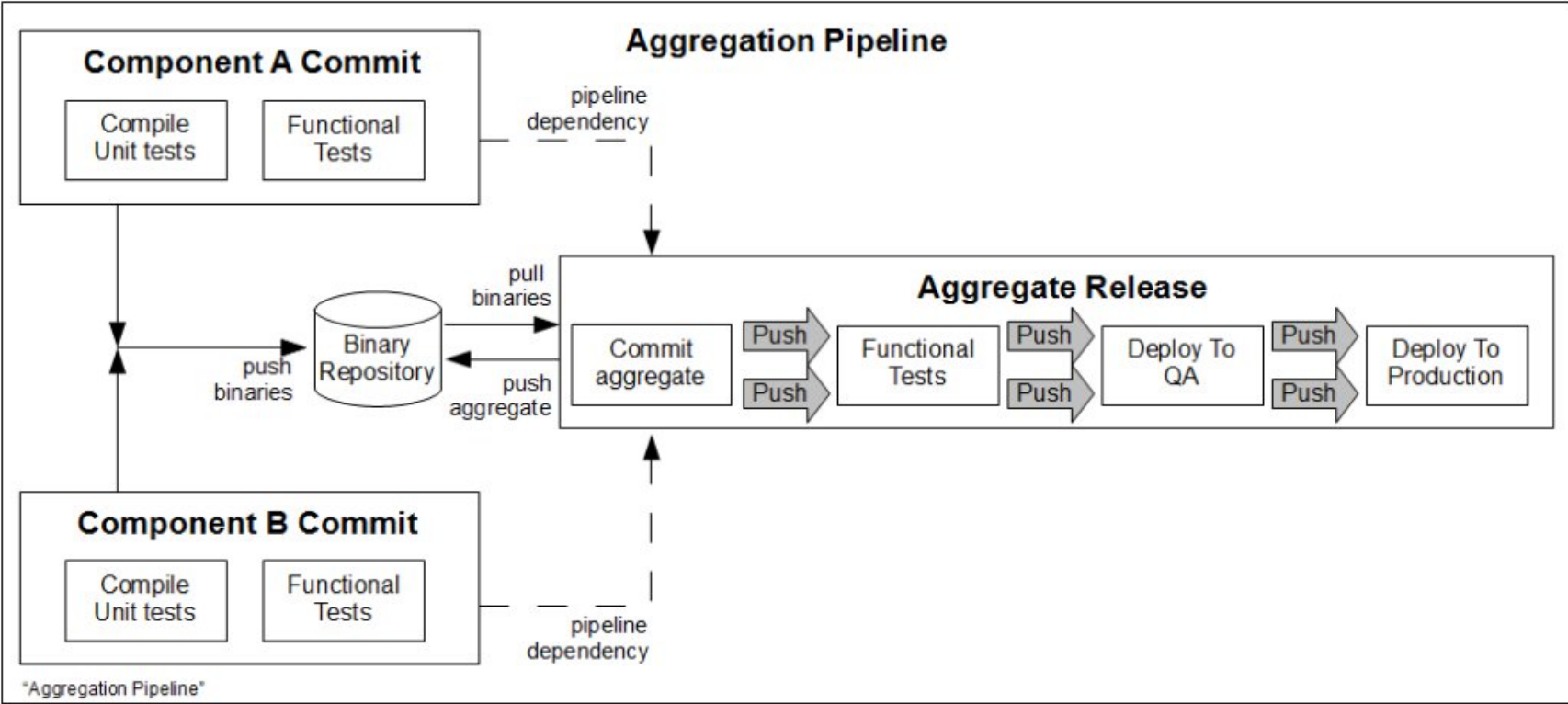
According to DATAPIPE



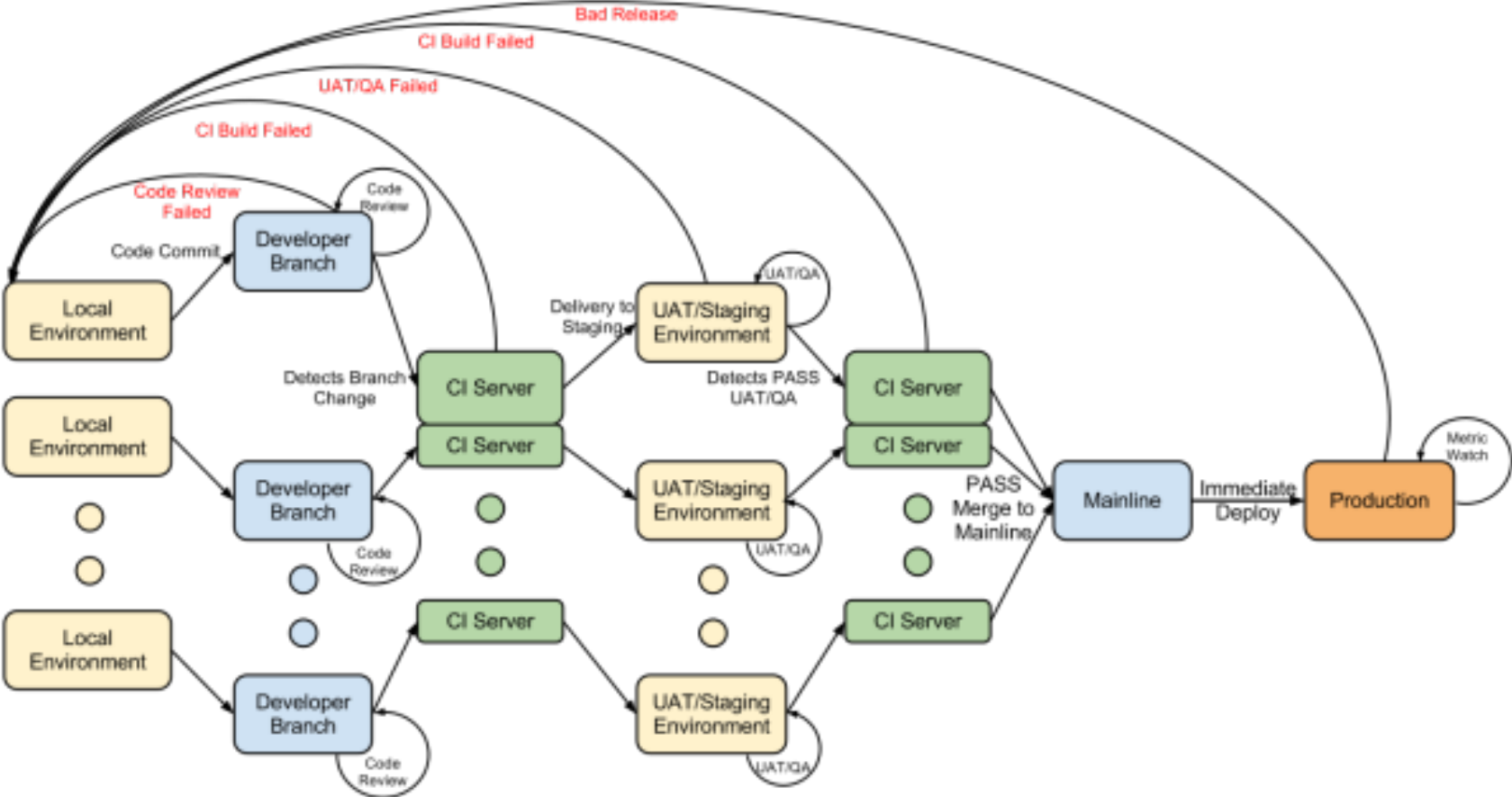
According to Spirent



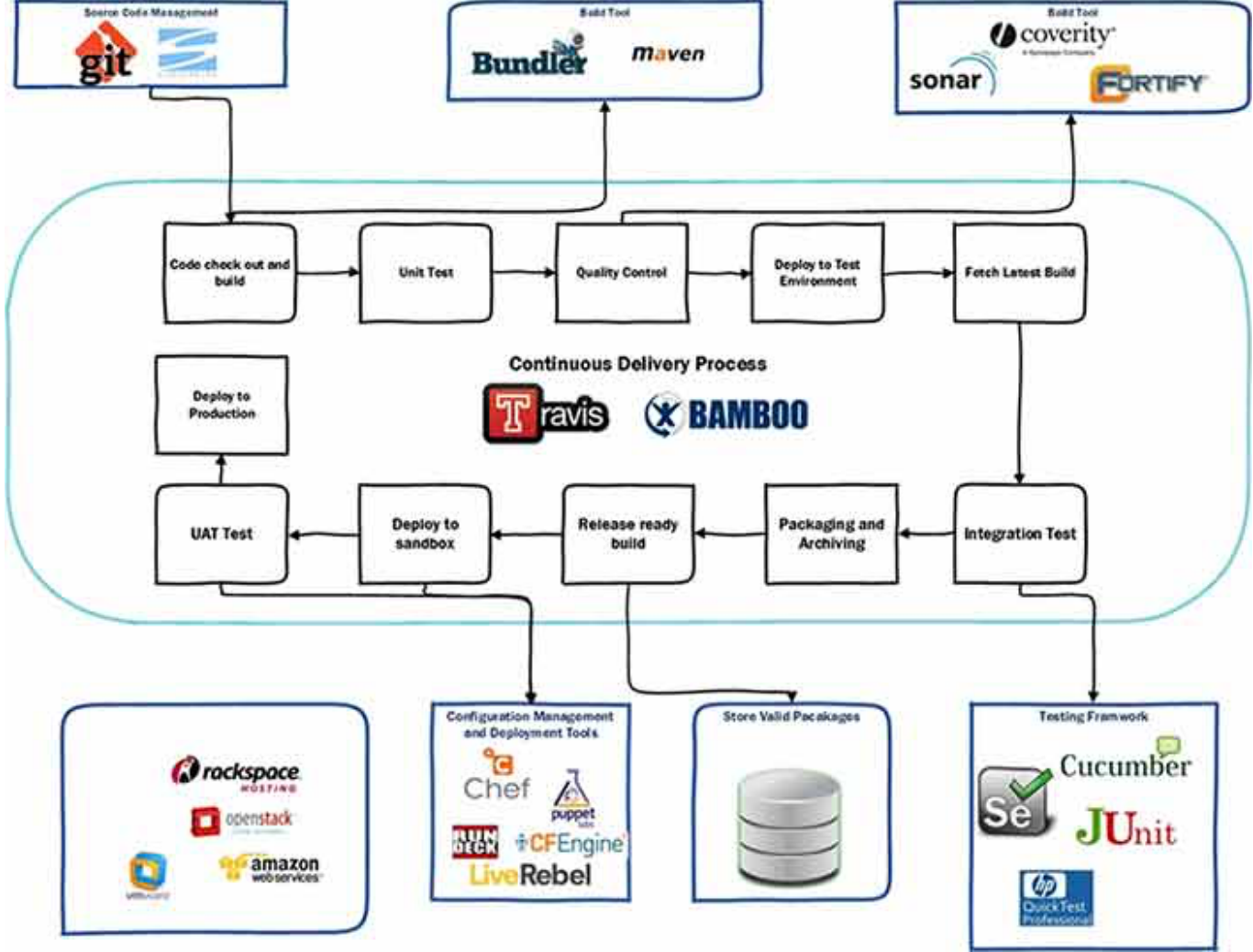
According to Always Agile



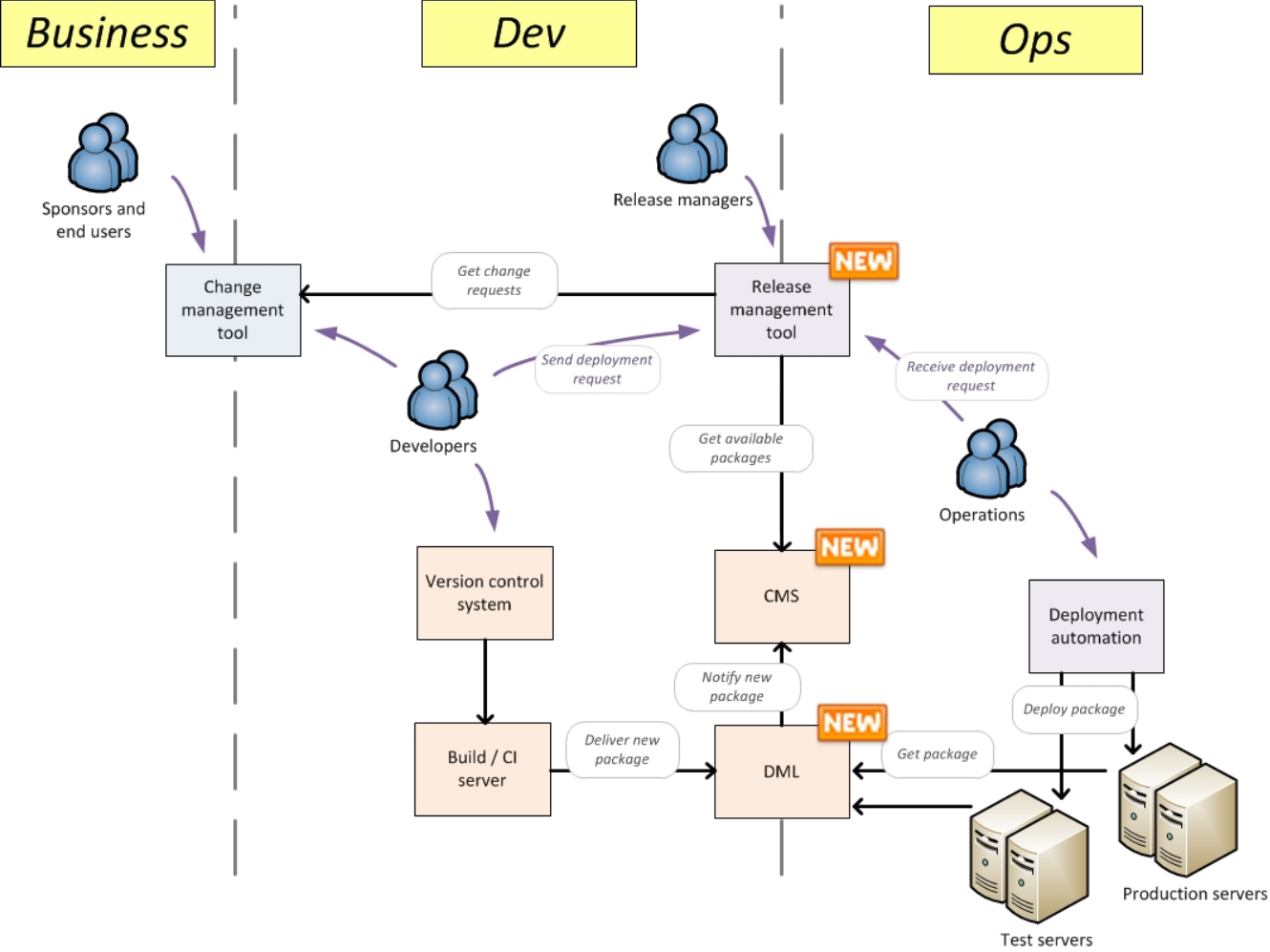
According to Assembla



According to Girikon



According to Bartholomeus



A world map with green landmasses and blue oceans, serving as the background for the event announcement.

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