



DevOps and Continuous Delivery Reference Architectures

Derek E. Weeks
VP and DevOps Advocate
Sonatype

Common Elements of the Software Supply Chain



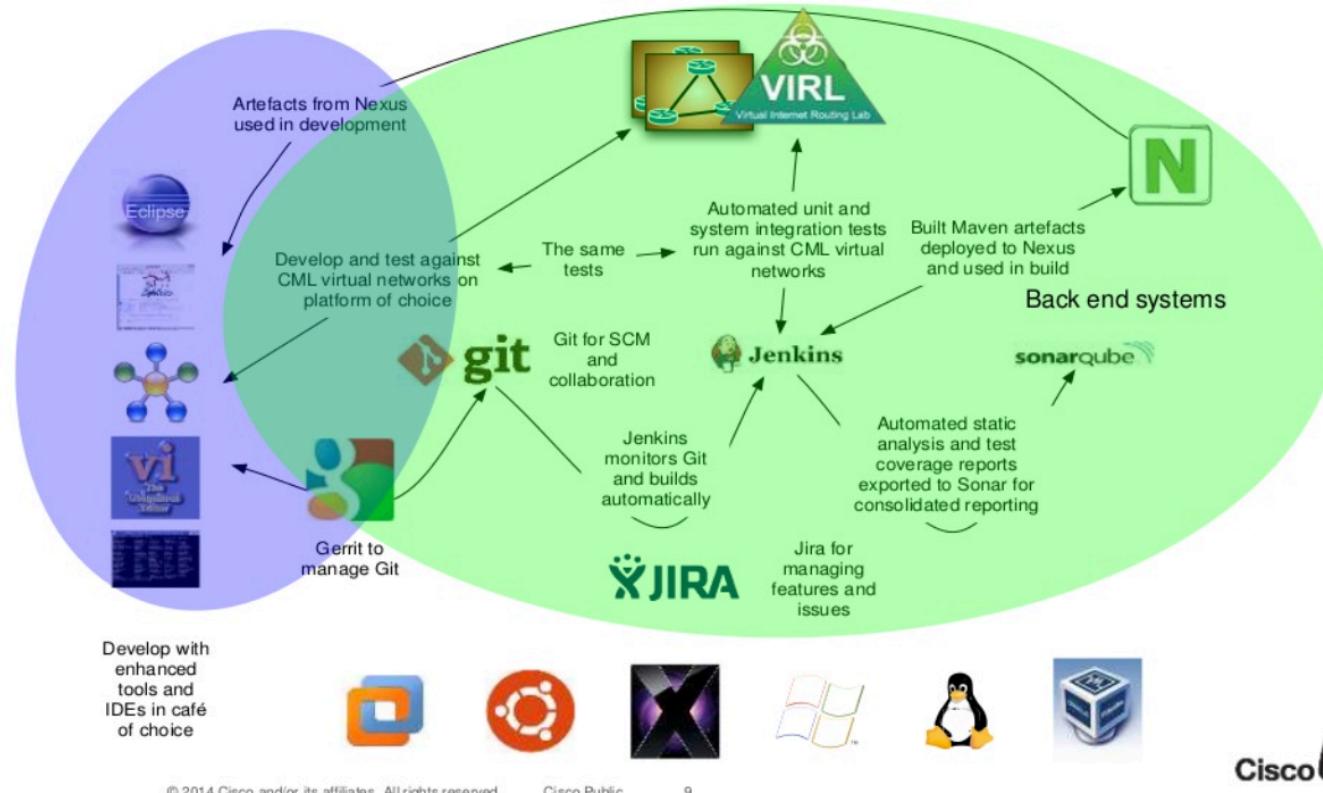
Jenkins



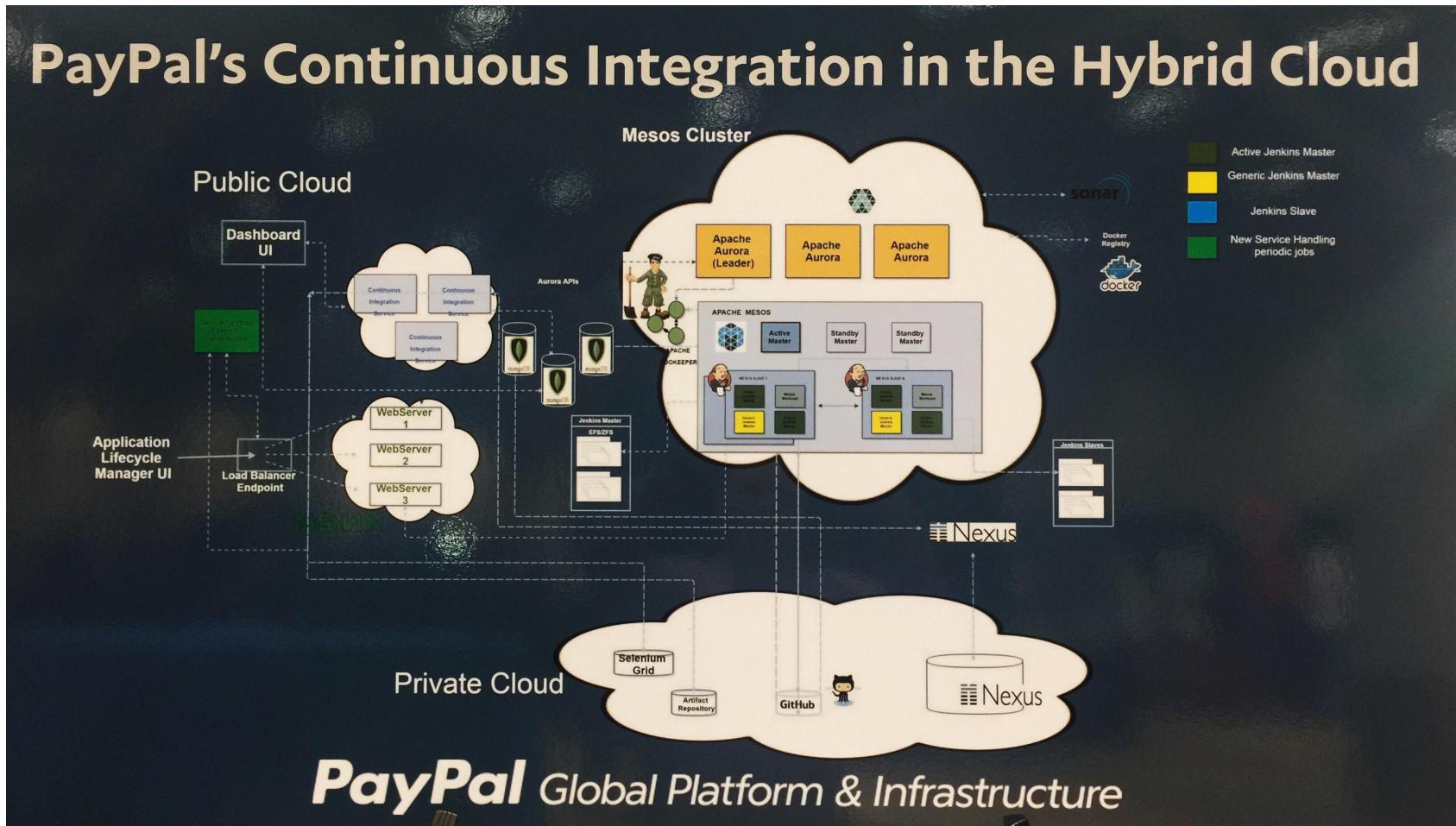
A N S I B L E



According to Cisco



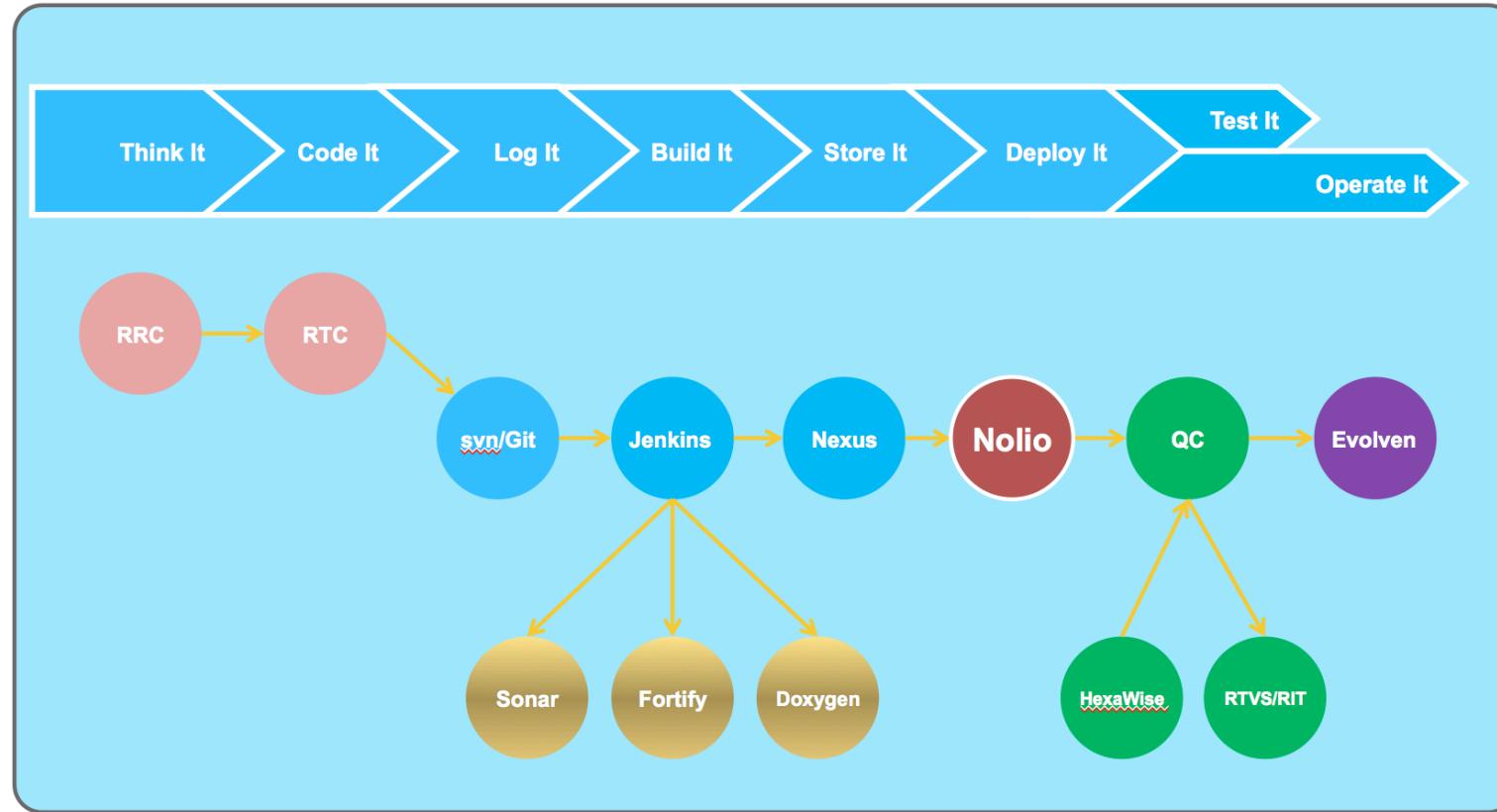
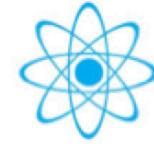
According to PayPal



According to BARCLAYS

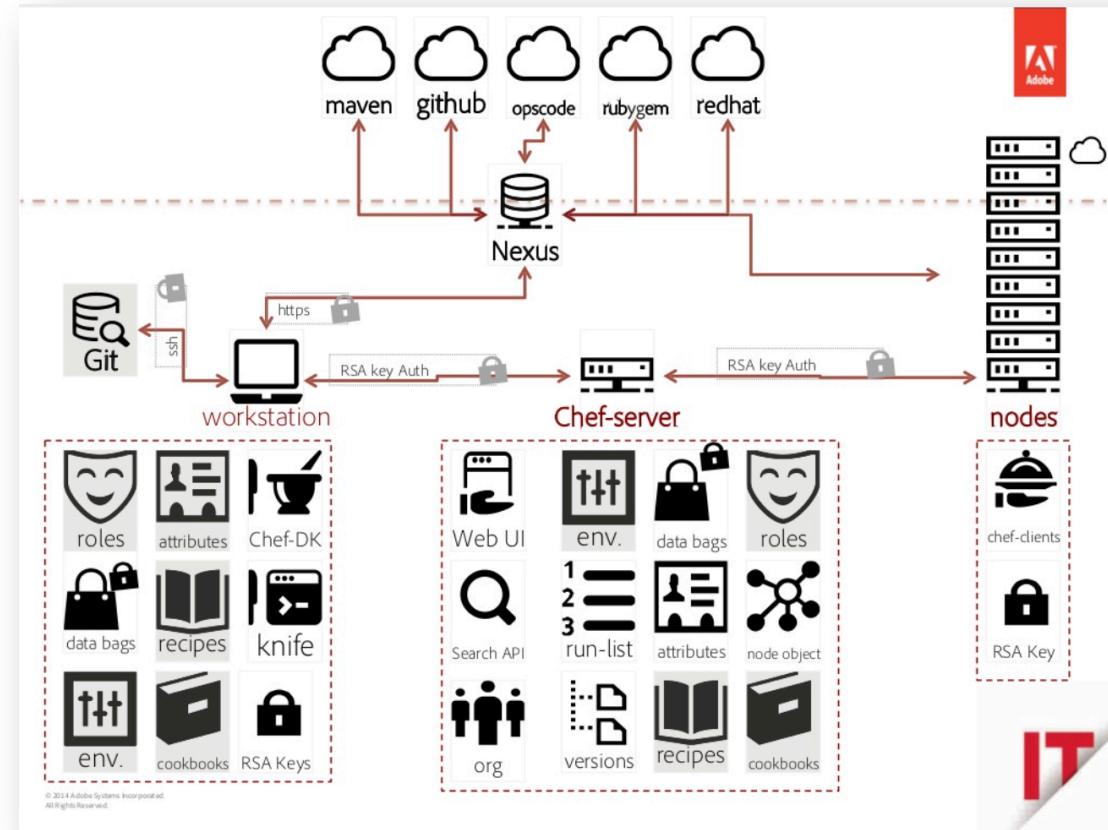


Quantum – Automated Deployment



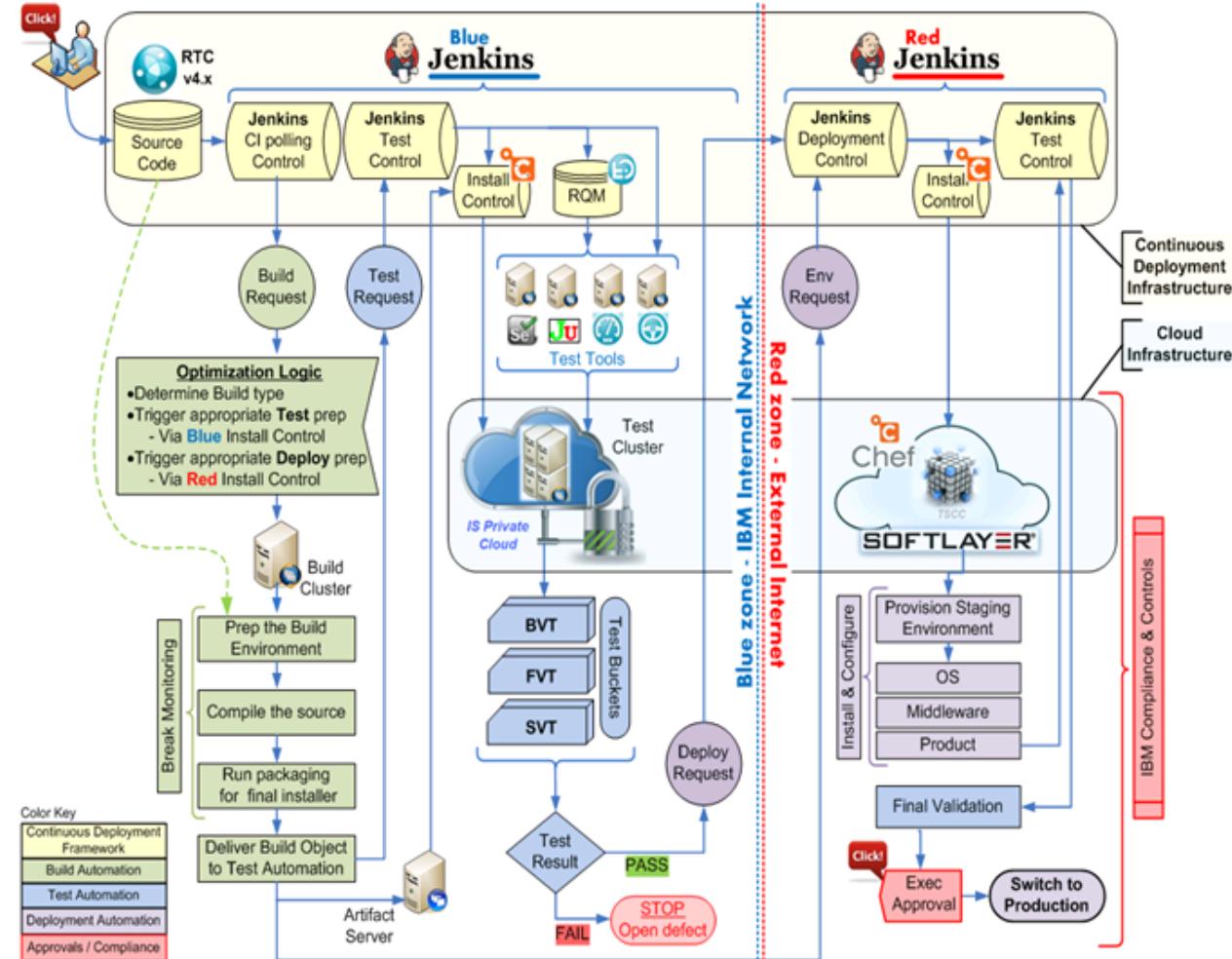


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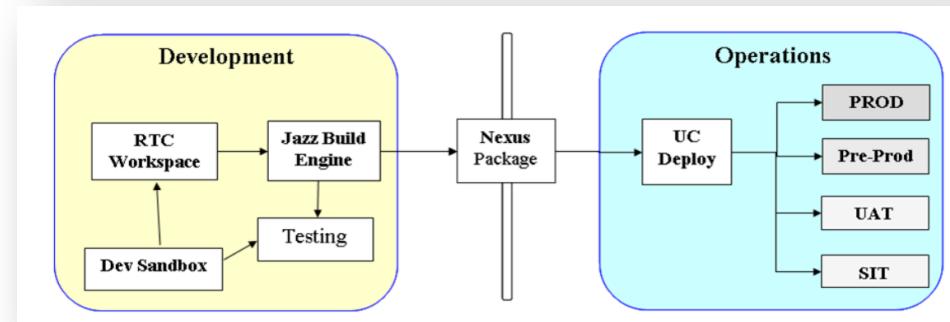
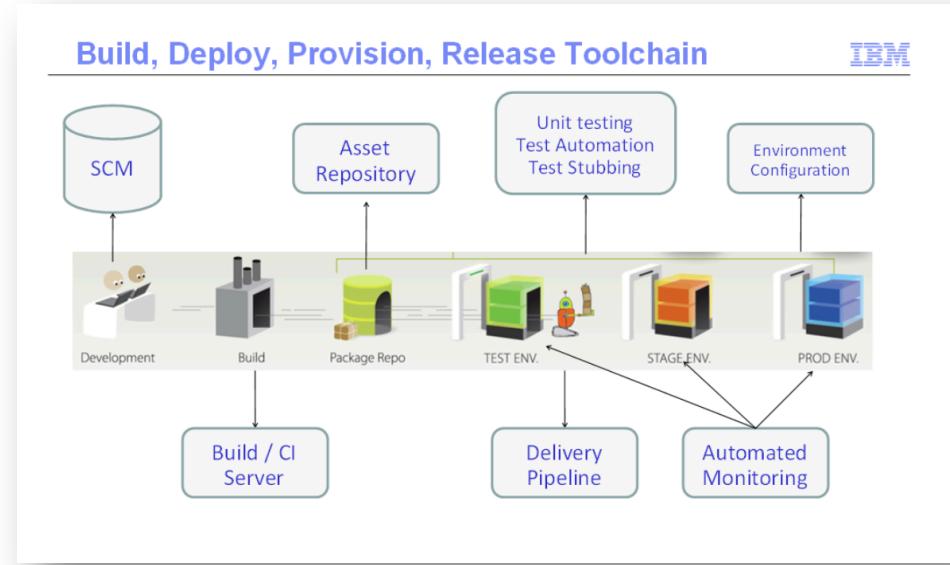
According to IBM

Generic Continuous Delivery Model

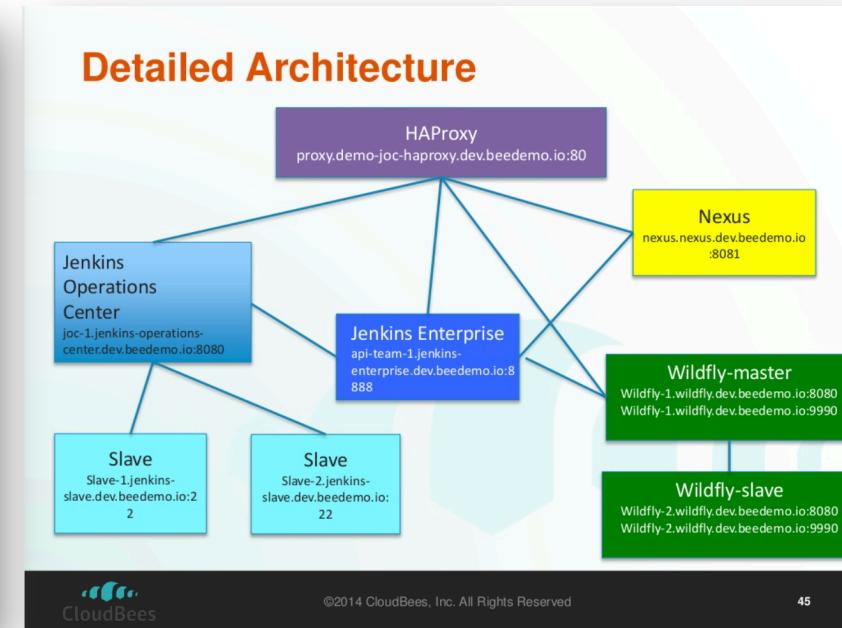
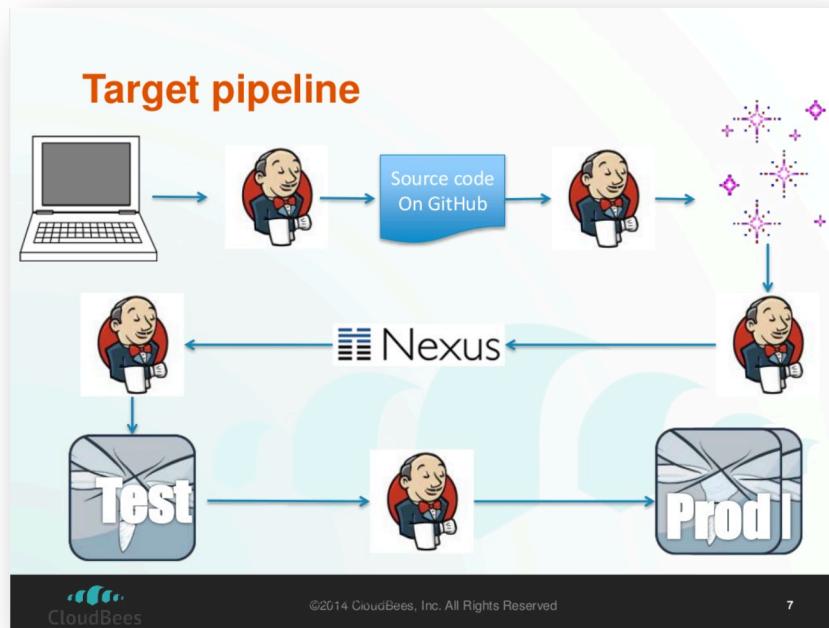




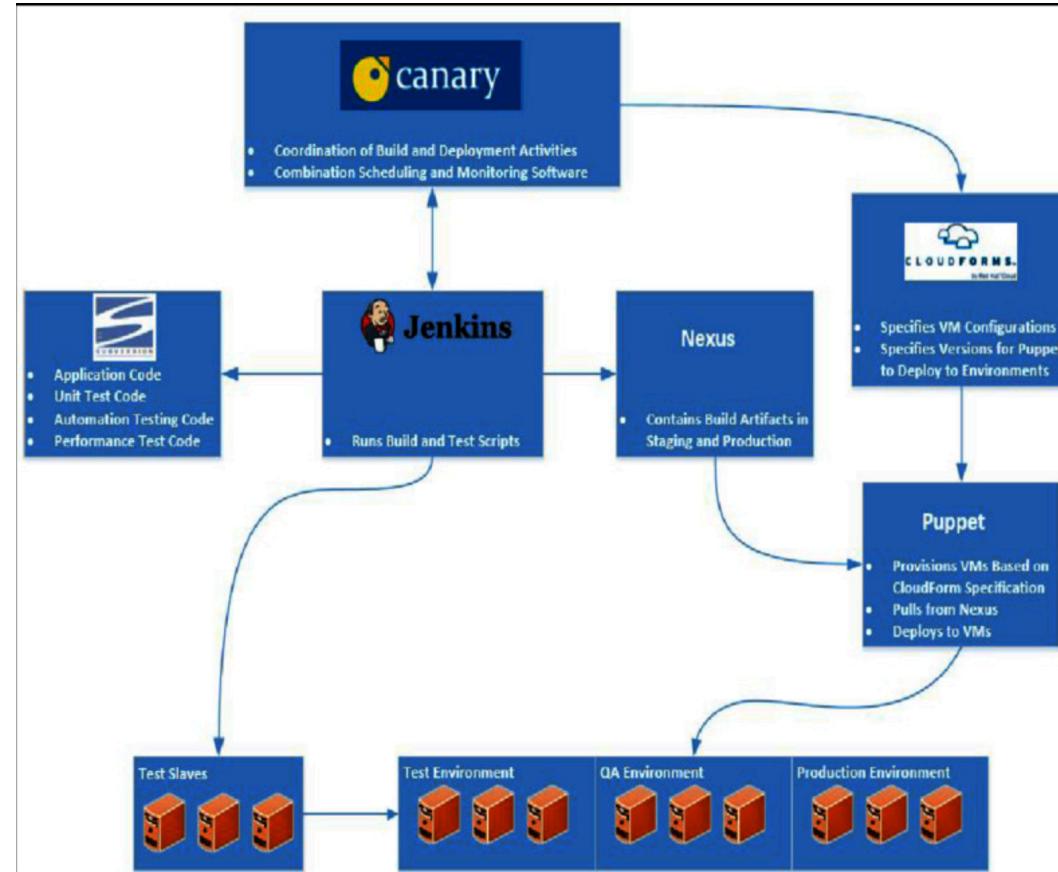
According to IBM



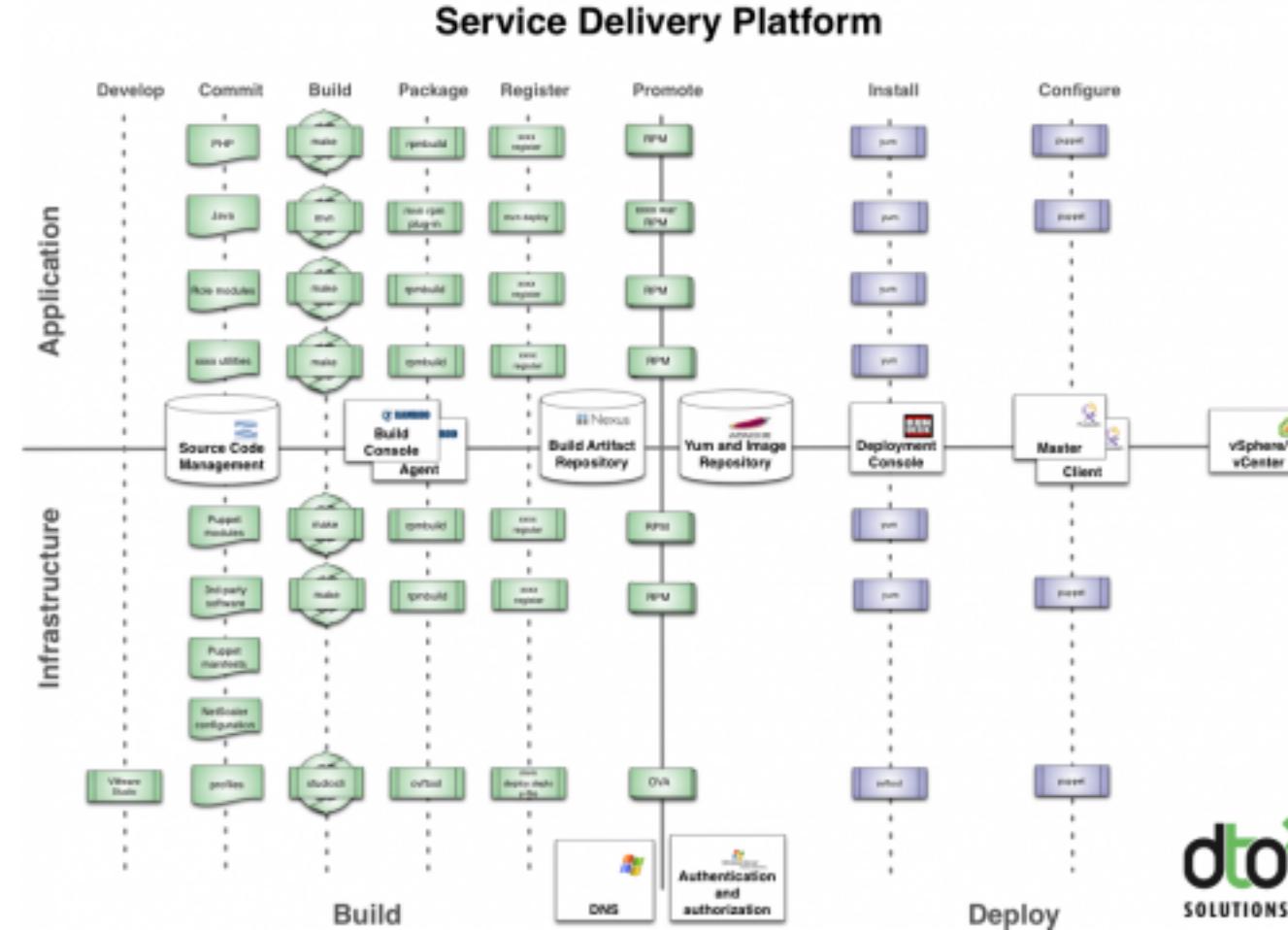
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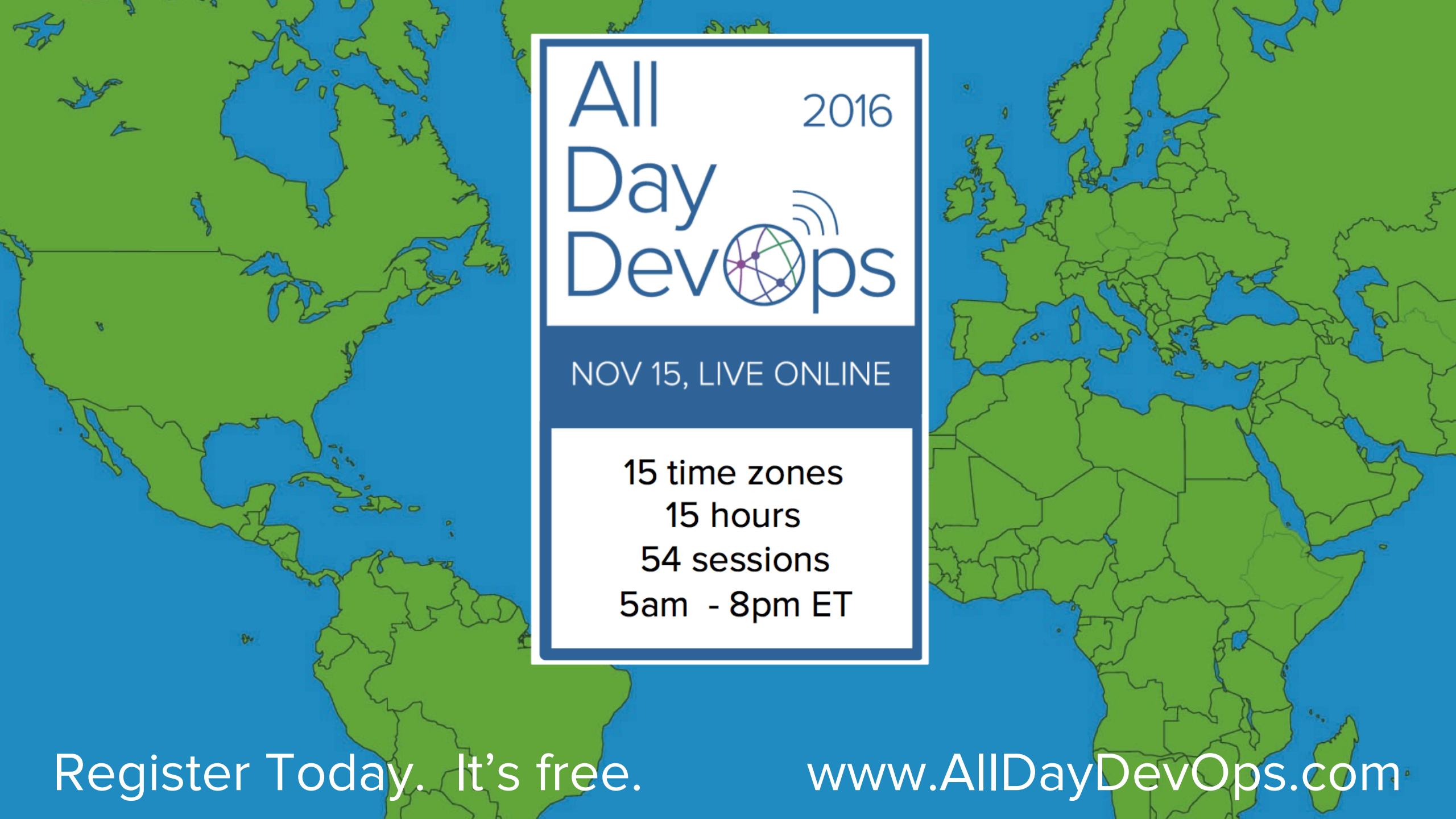
According to US Patent & Trade Office (USPTO)



According to Rundeck



Link to Blog: What is DevOps
<http://bit.ly/1sxSm2g>



All Day DevOps

2016

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15 time zones
15 hours
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5am - 8pm ET

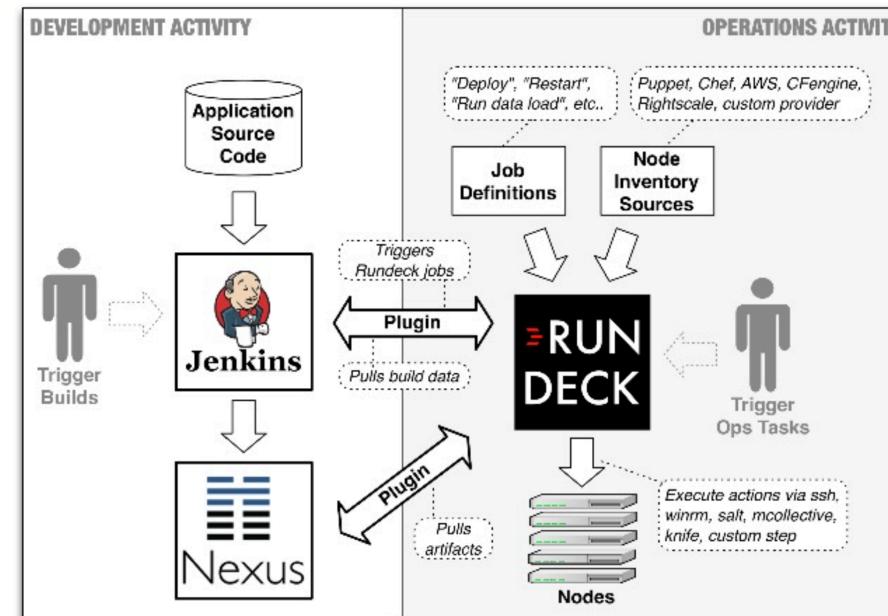
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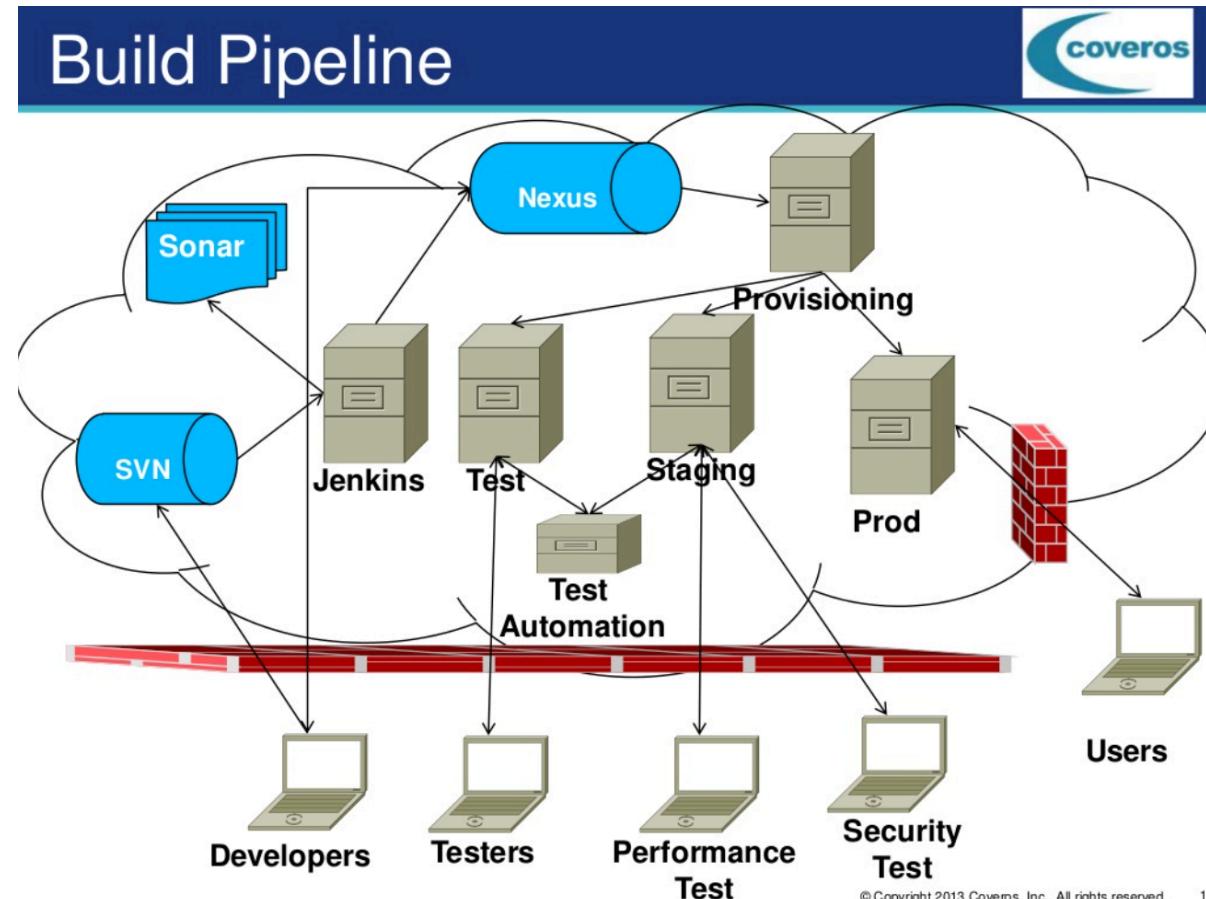
According to Rundeck



Popular Trio: Jenkins + Nexus + Rundeck



According to Coveros

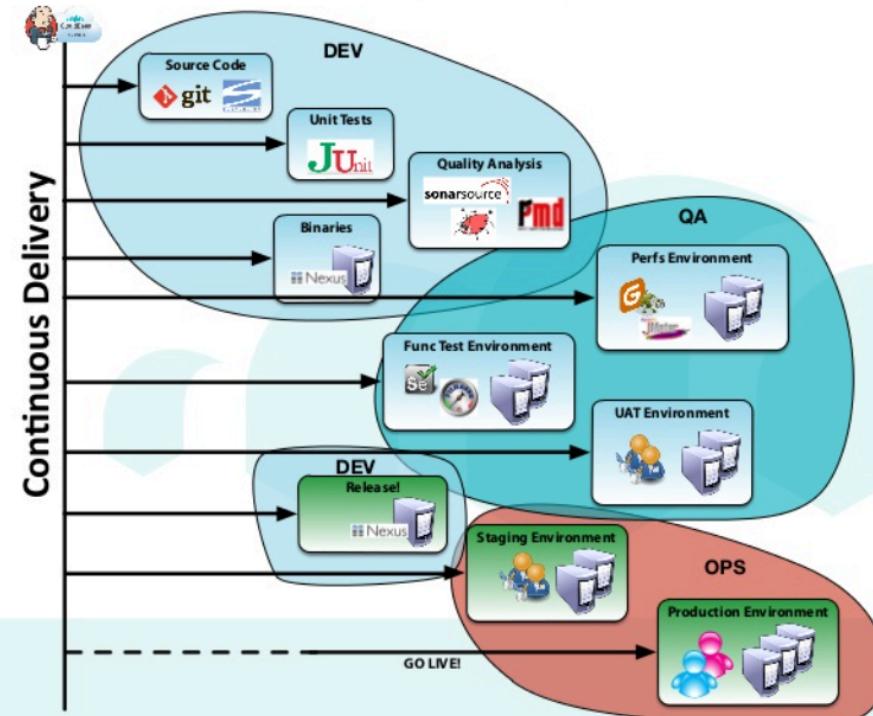


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According to Xebia

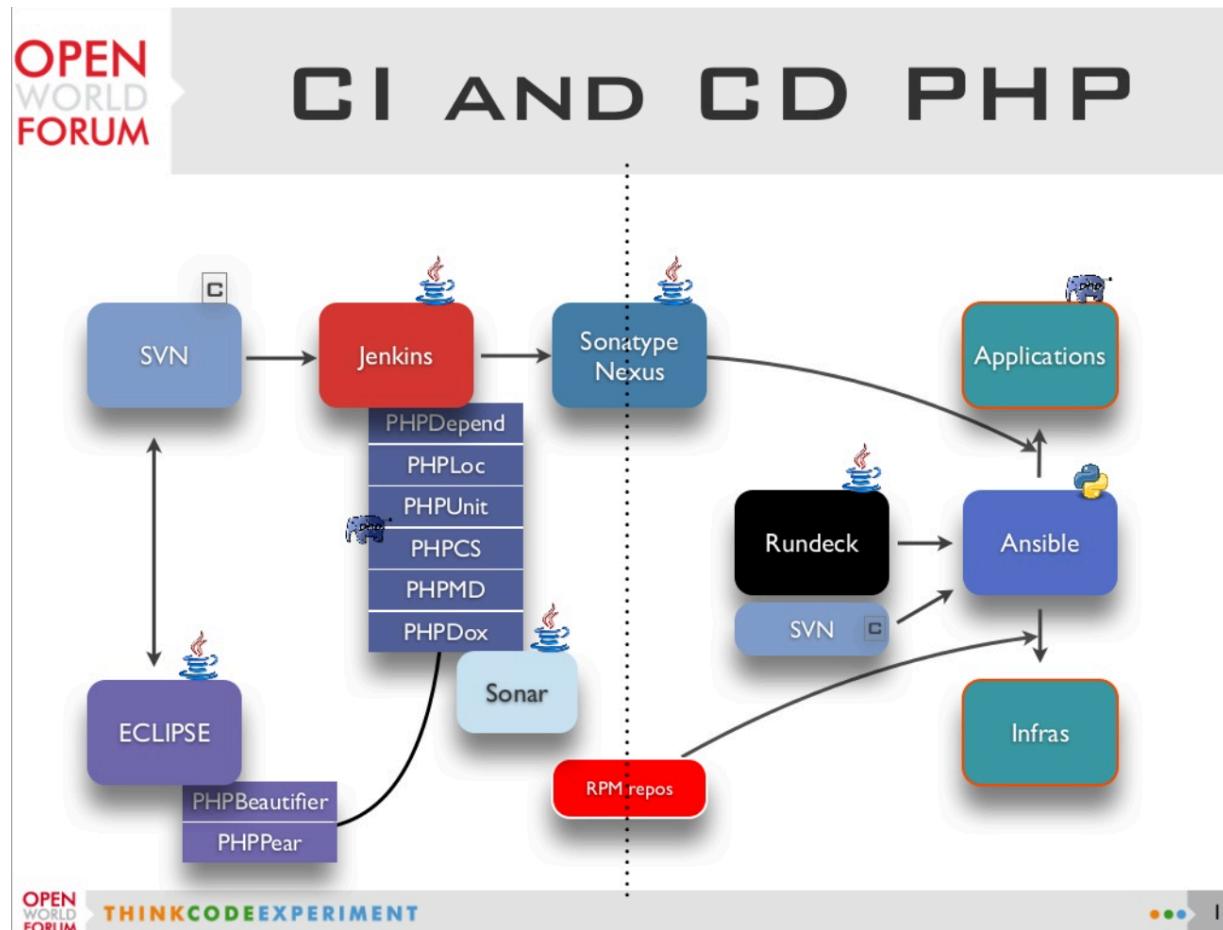


Continuous Delivery Steps



Nexus at Alter Way

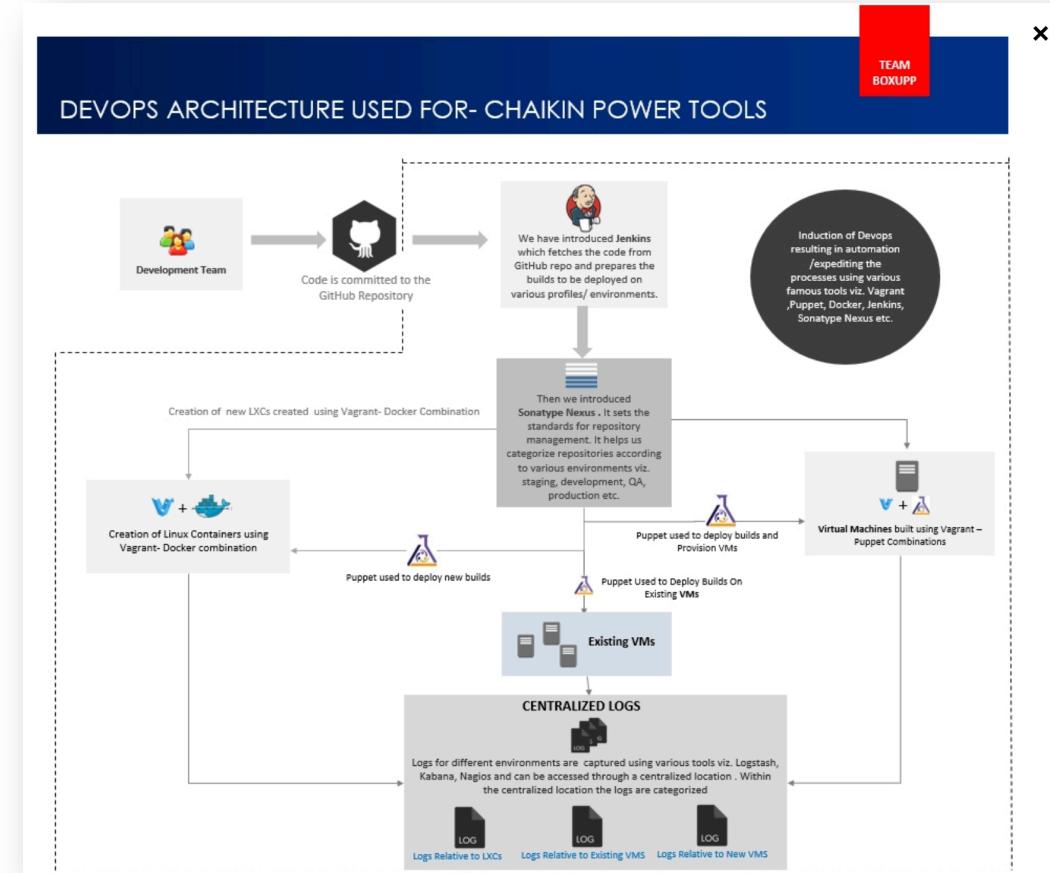
Alter Way



Sonatype

Link to Presentation: Agnostic Continuous Delivery
<http://bit.ly/1U9tHKu>

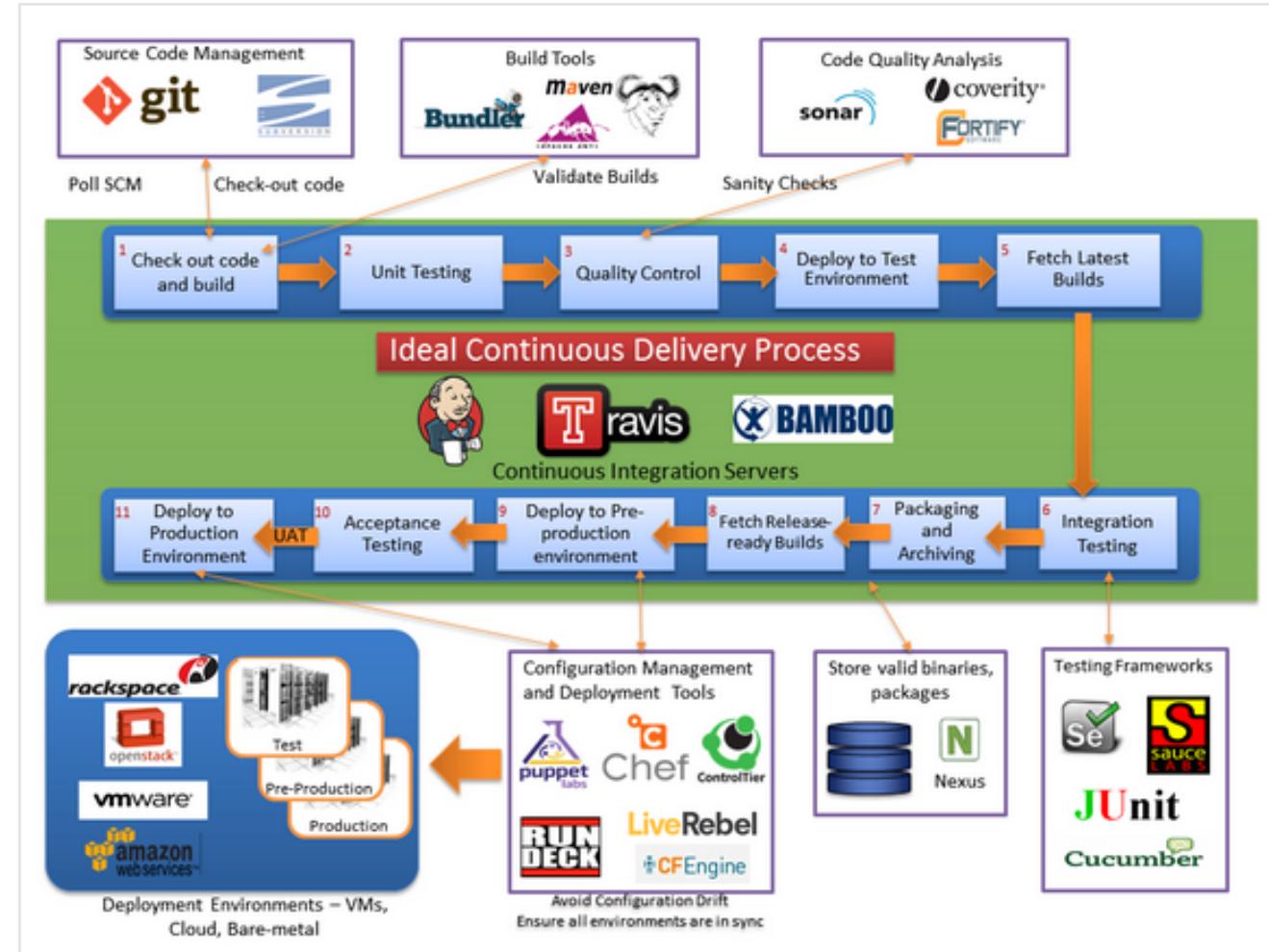
According to Boxupp



Link to Blog: A DevOps Perspective

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

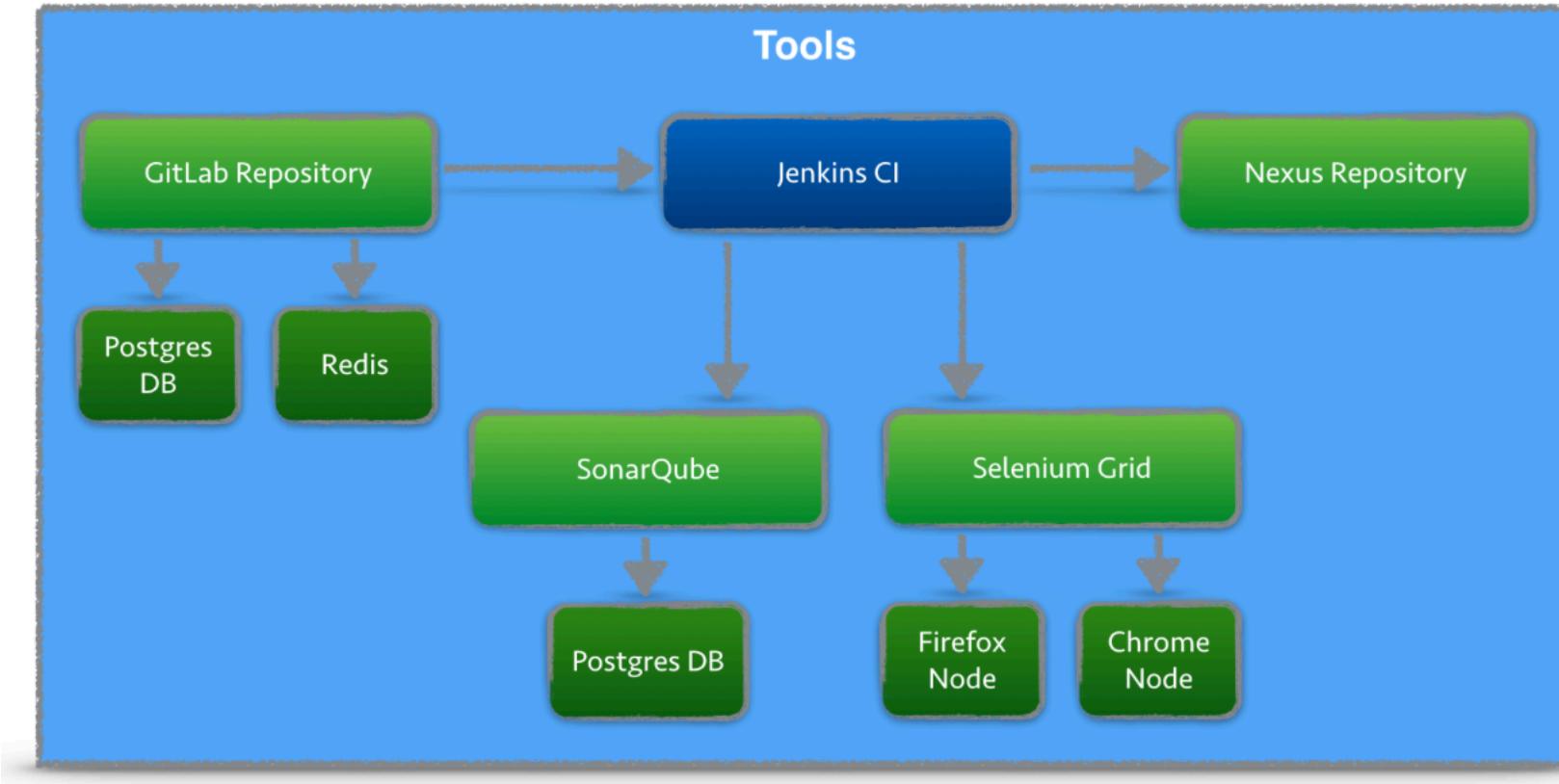
According to bogotobogo



According to codecentric

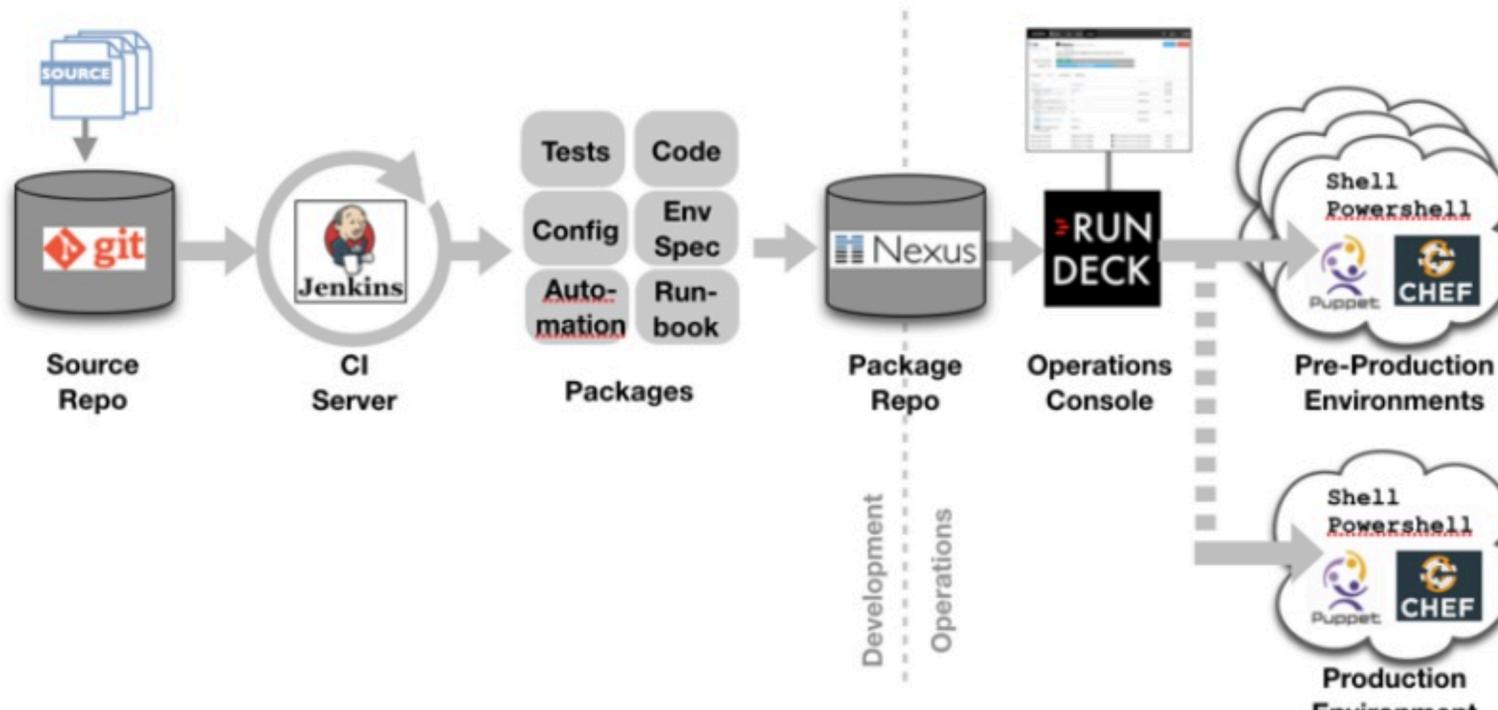


Continuous Integration Platform Using Docker Containers: Jenkins, SonarQube, Nexus, GitLab



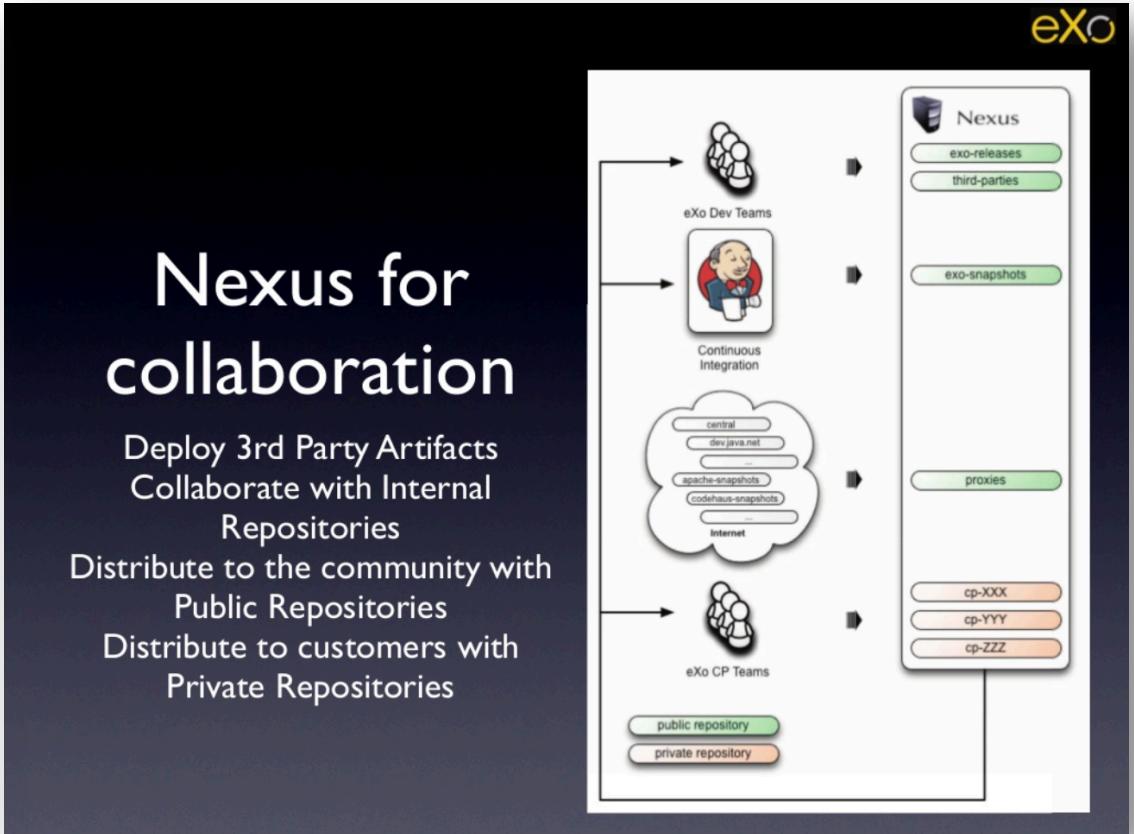
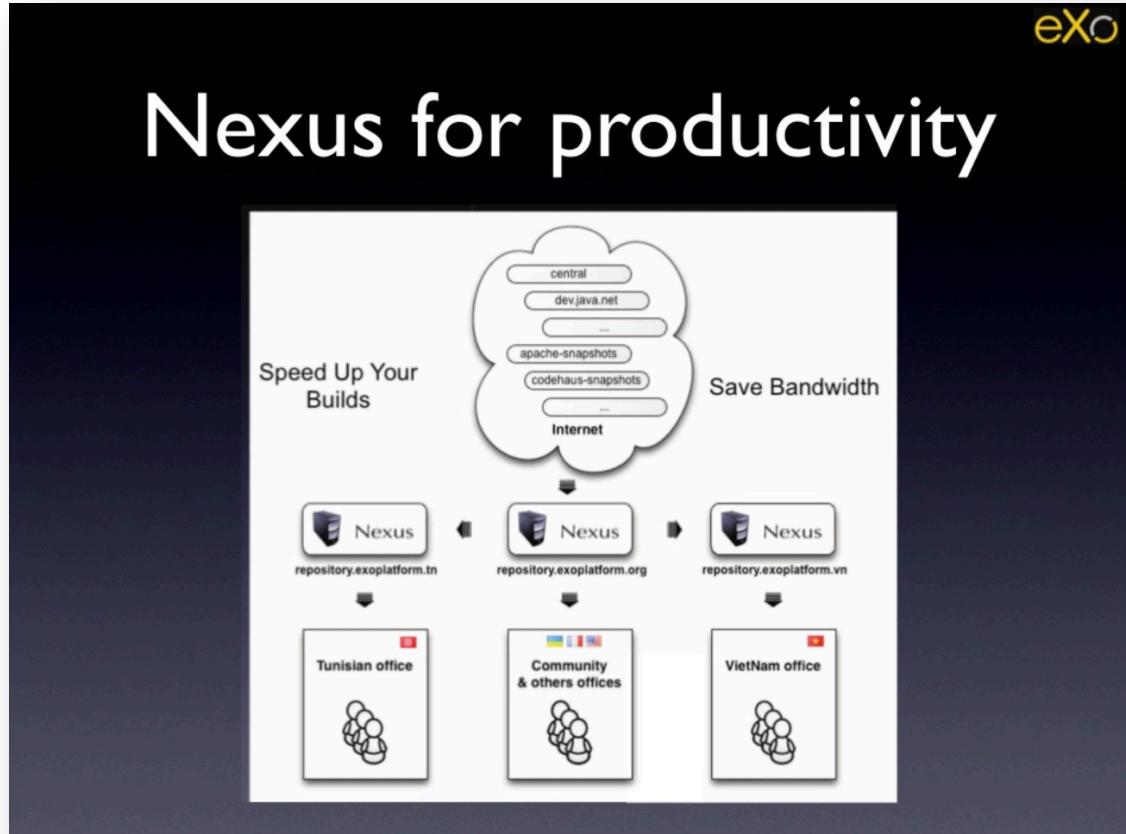
According to SimplifyOps

#SimplifyOps



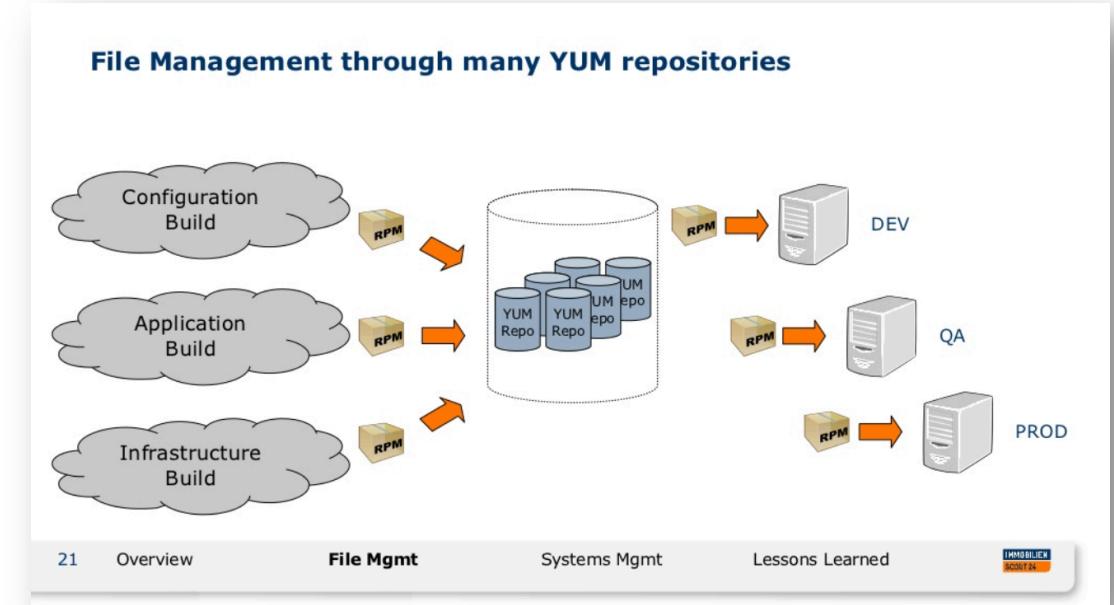
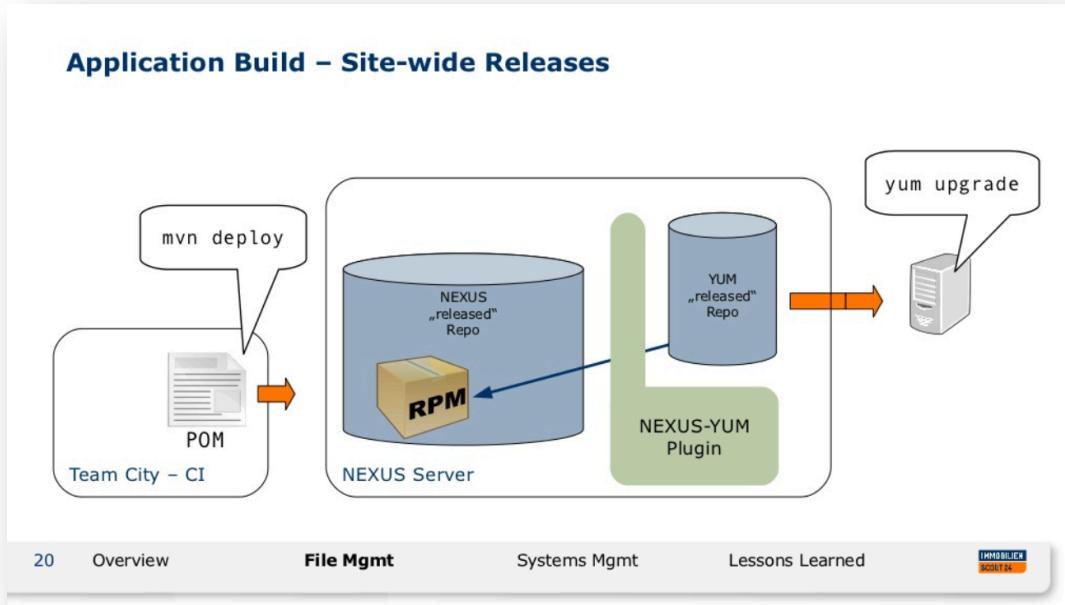
#SimplifyOps

According to eXo Software

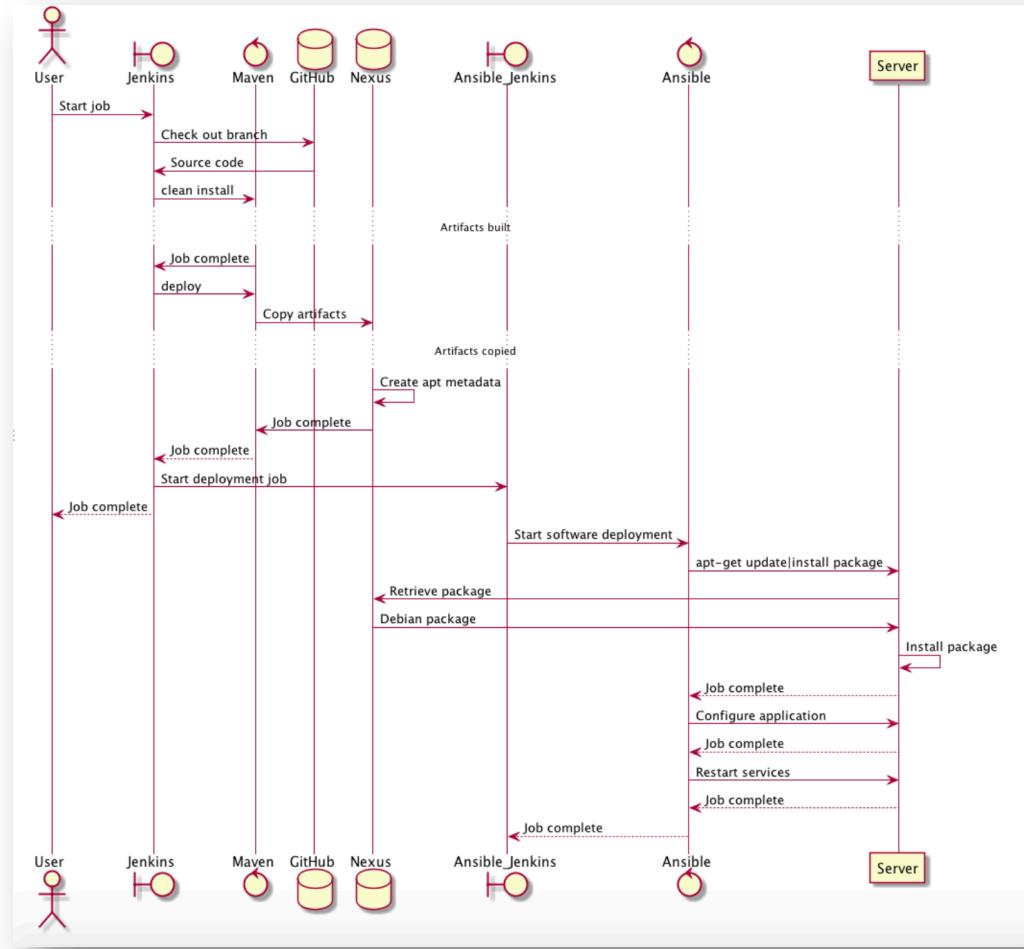


According to ImmobilienScout24

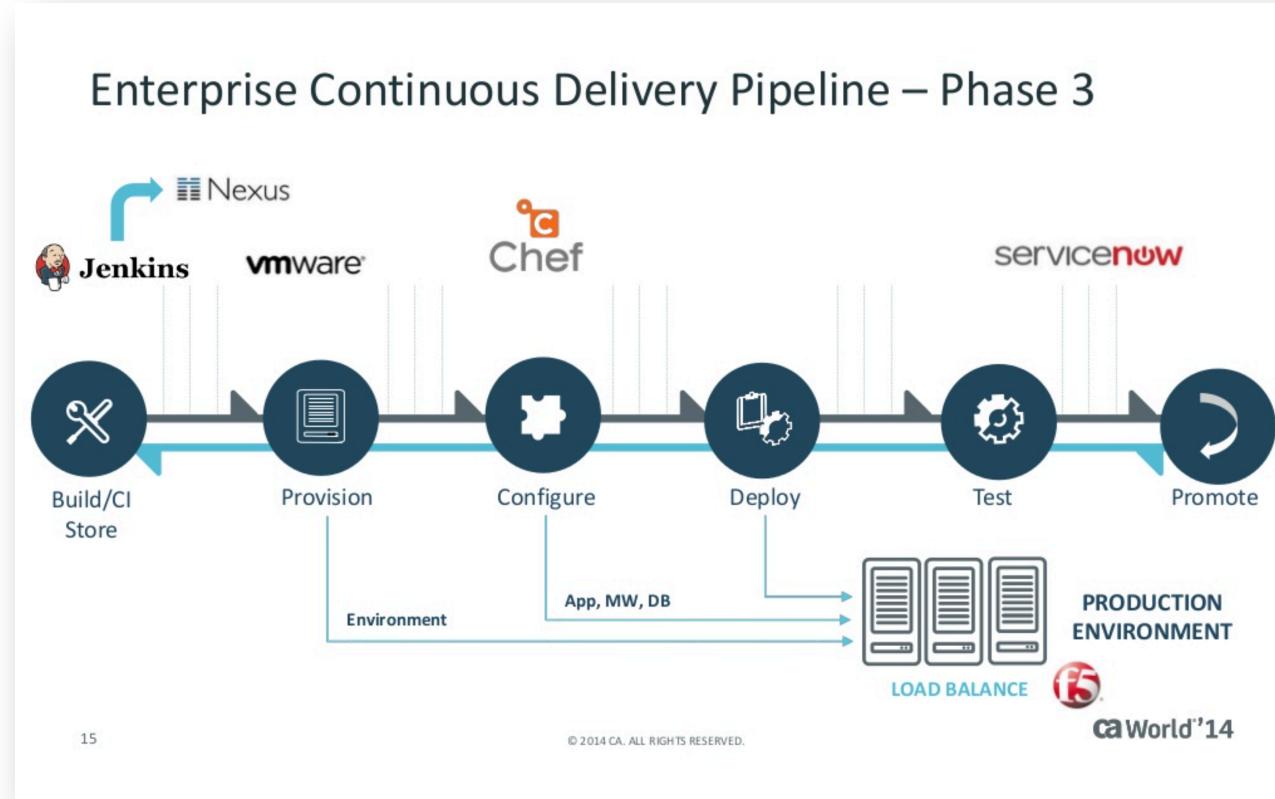
IMMOBILIEN
SCOUT 24



According to IHTSDO



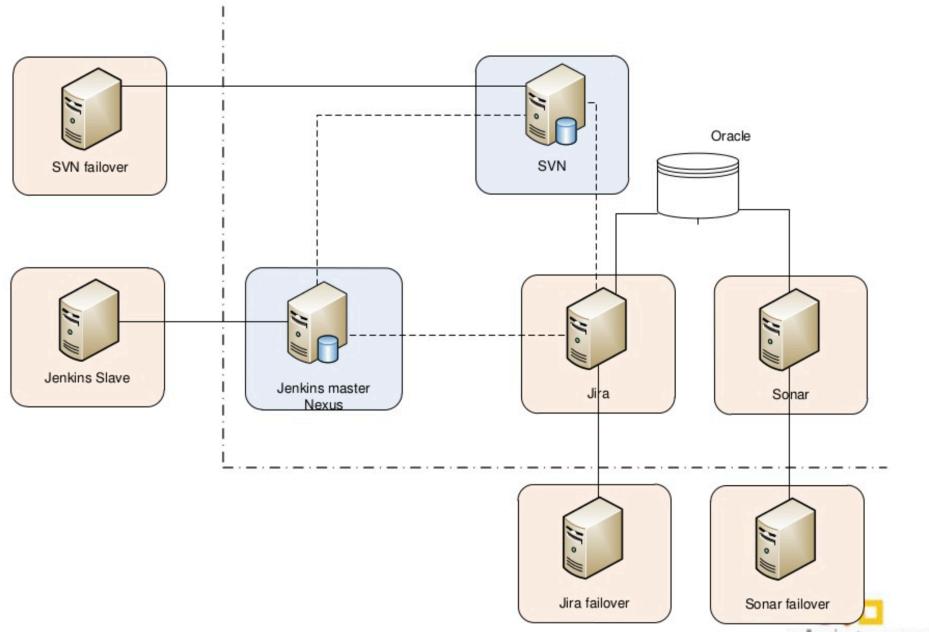
According to CA Technologies



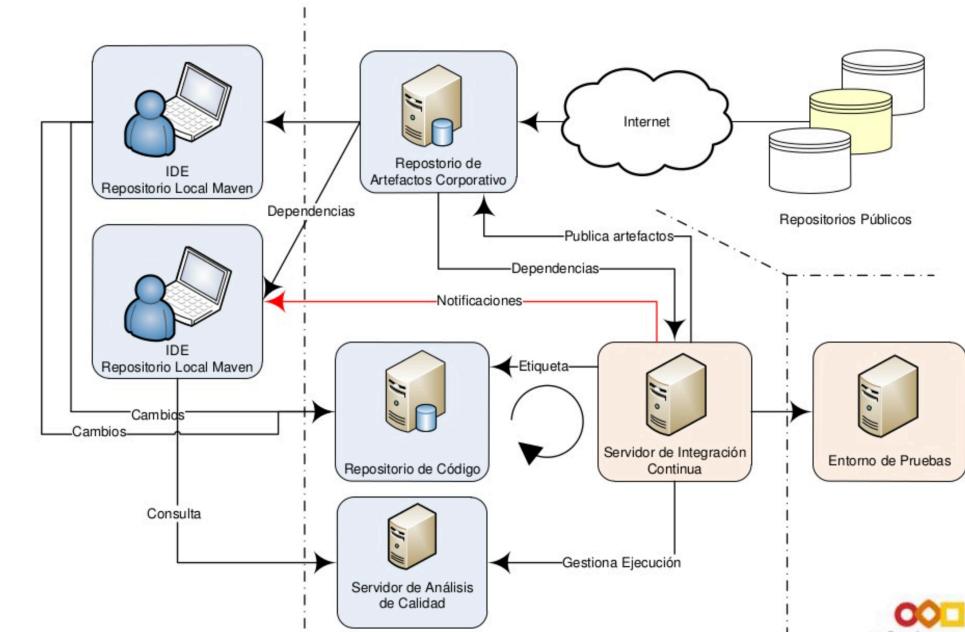
According to atSistemas



3. Caso práctico – Diagrama de sistemas



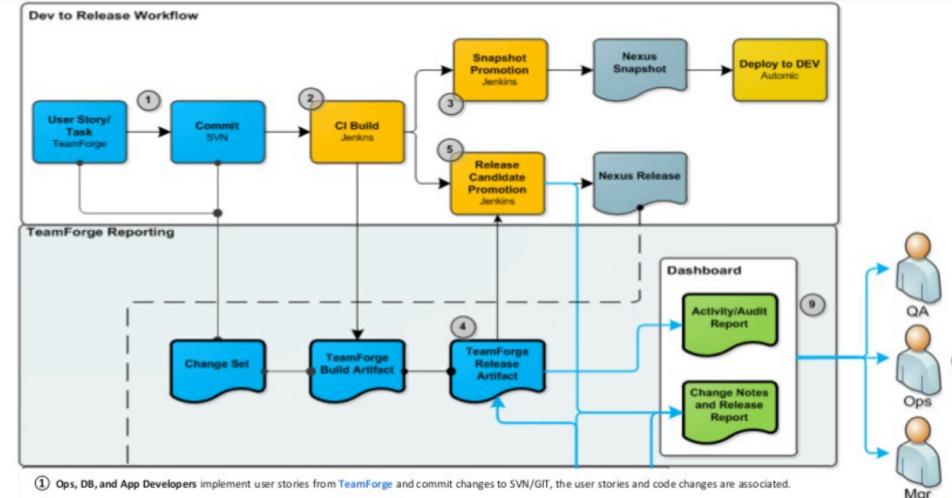
3. Caso práctico - Desarrollo



According to CollabNet



Connect Agile Upstream to Downstream: Example



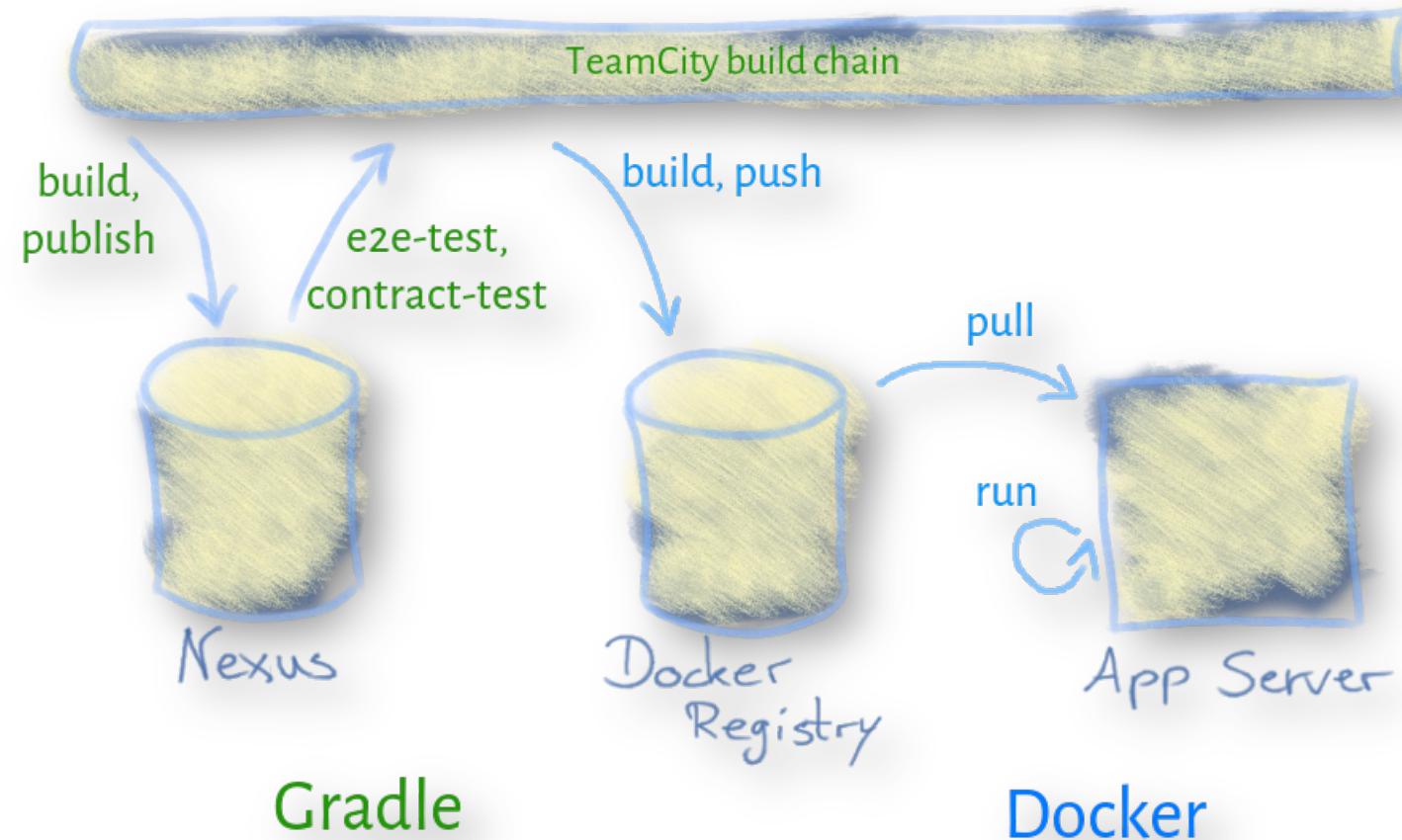
- ① Ops, DB, and App Developers implement user stories from TeamForge and commit changes to SVN/GIT, the user stories and code changes are associated.
- ② A CI build job runs, executing unit tests, code analysis, etc, a TeamForge Build Artifact is created, change notes are generated and associated.
- 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.

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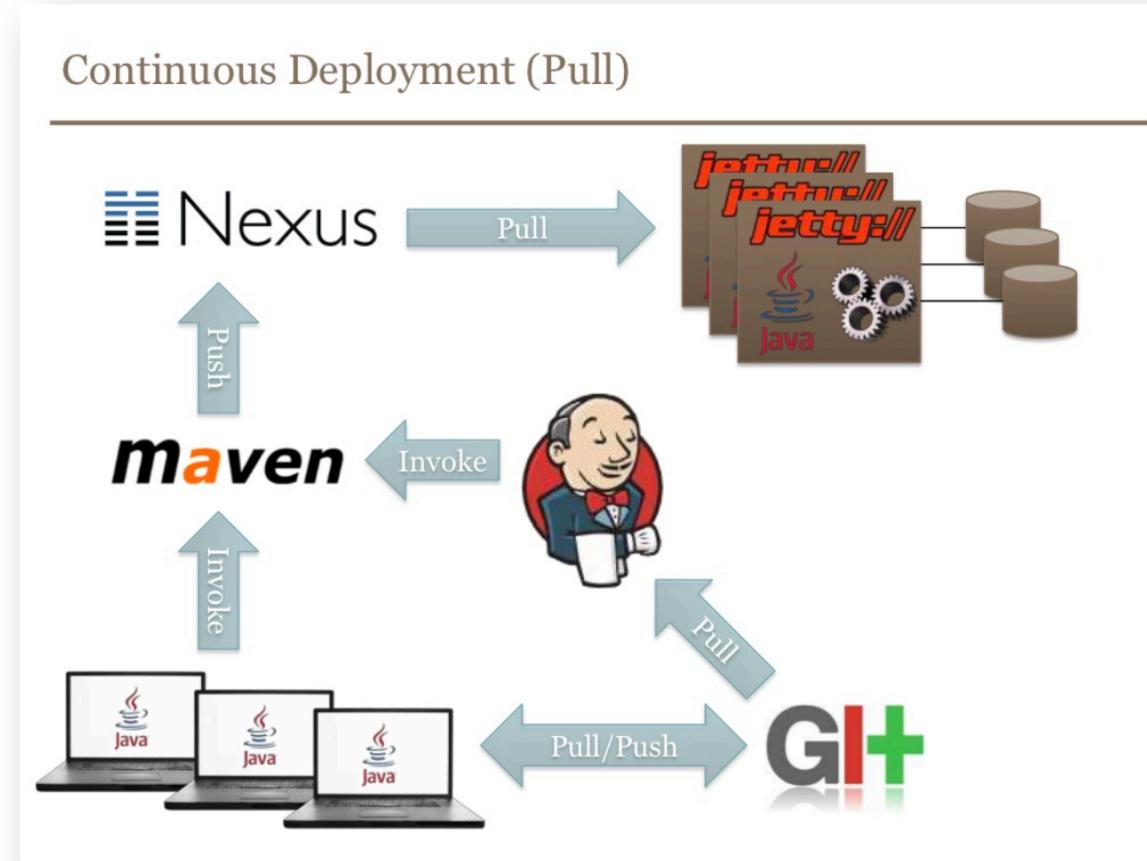


According to Hypoport AG

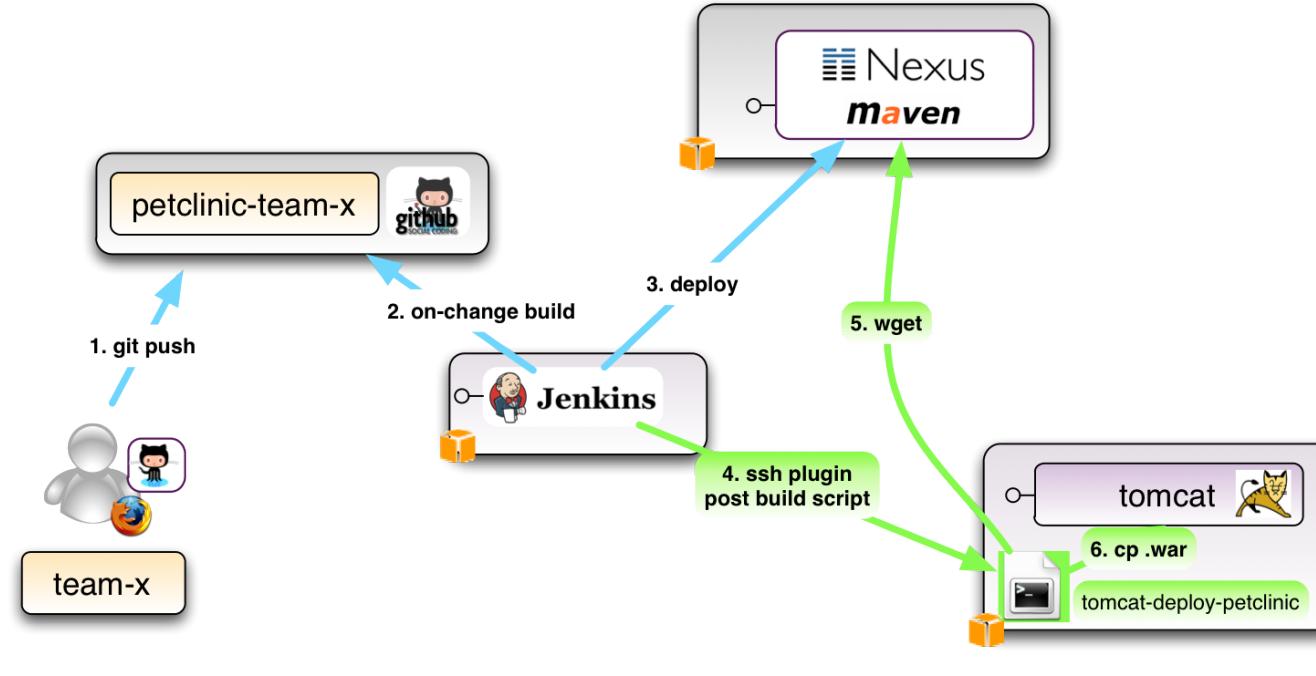


According to BEKK

BEKK

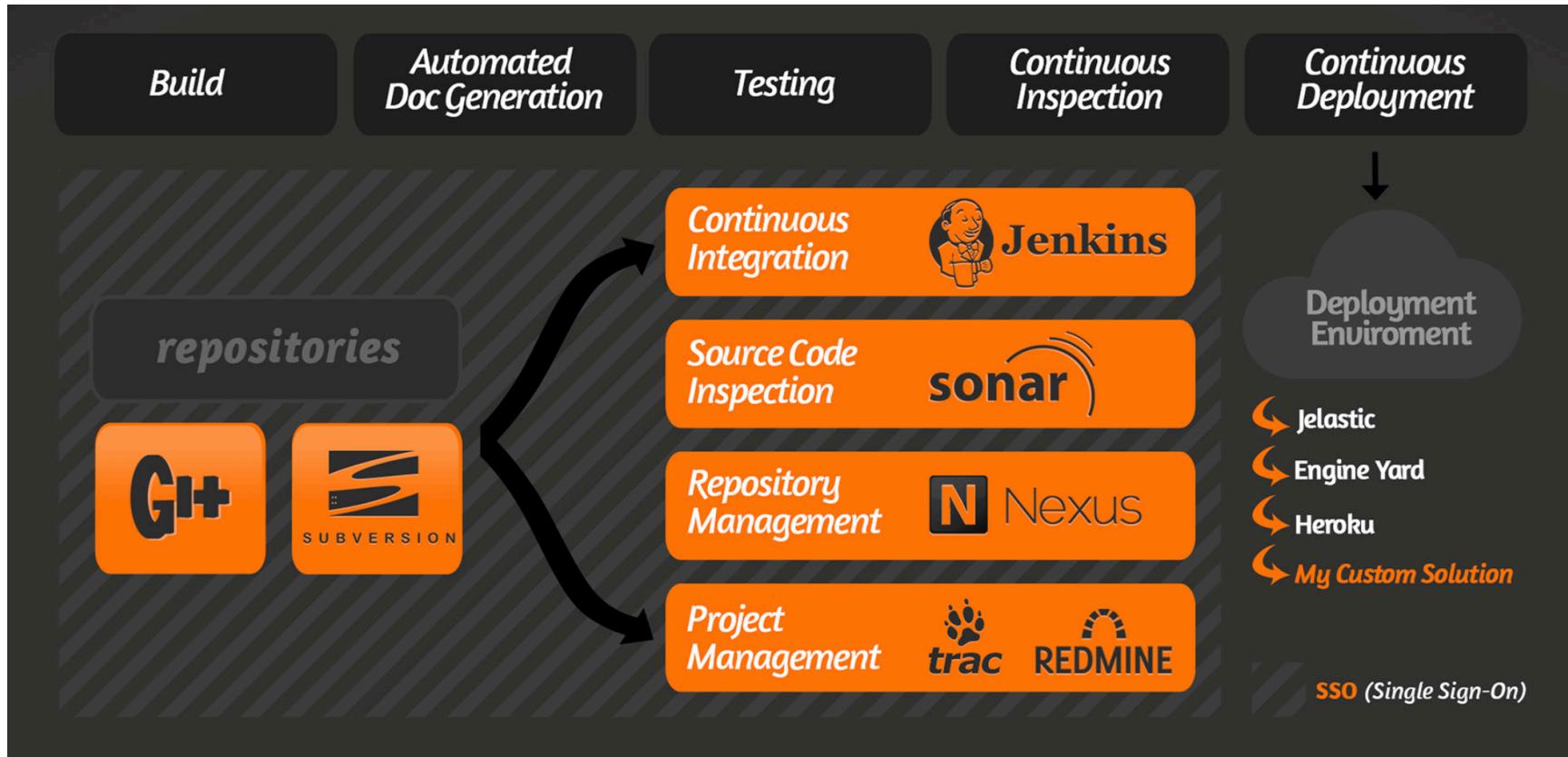


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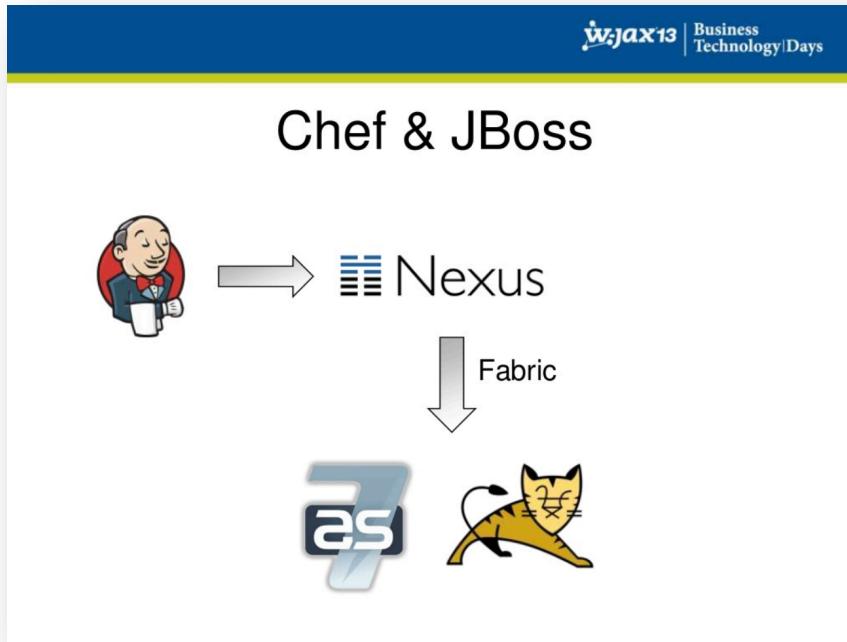
Lab : Continuous Deployment
with Jenkins SSH Plugin

According to ClinkerHQ



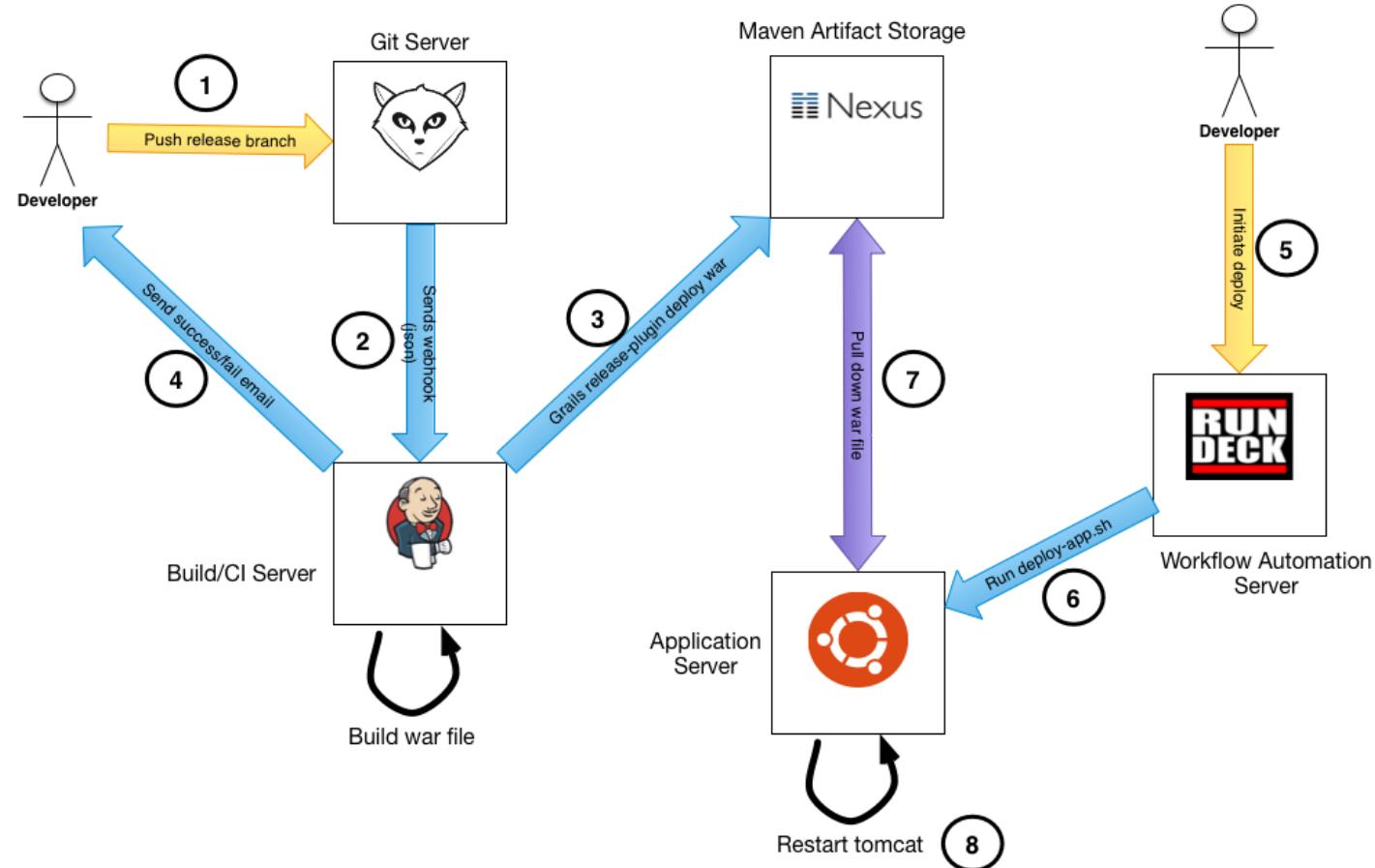
According to Zanox

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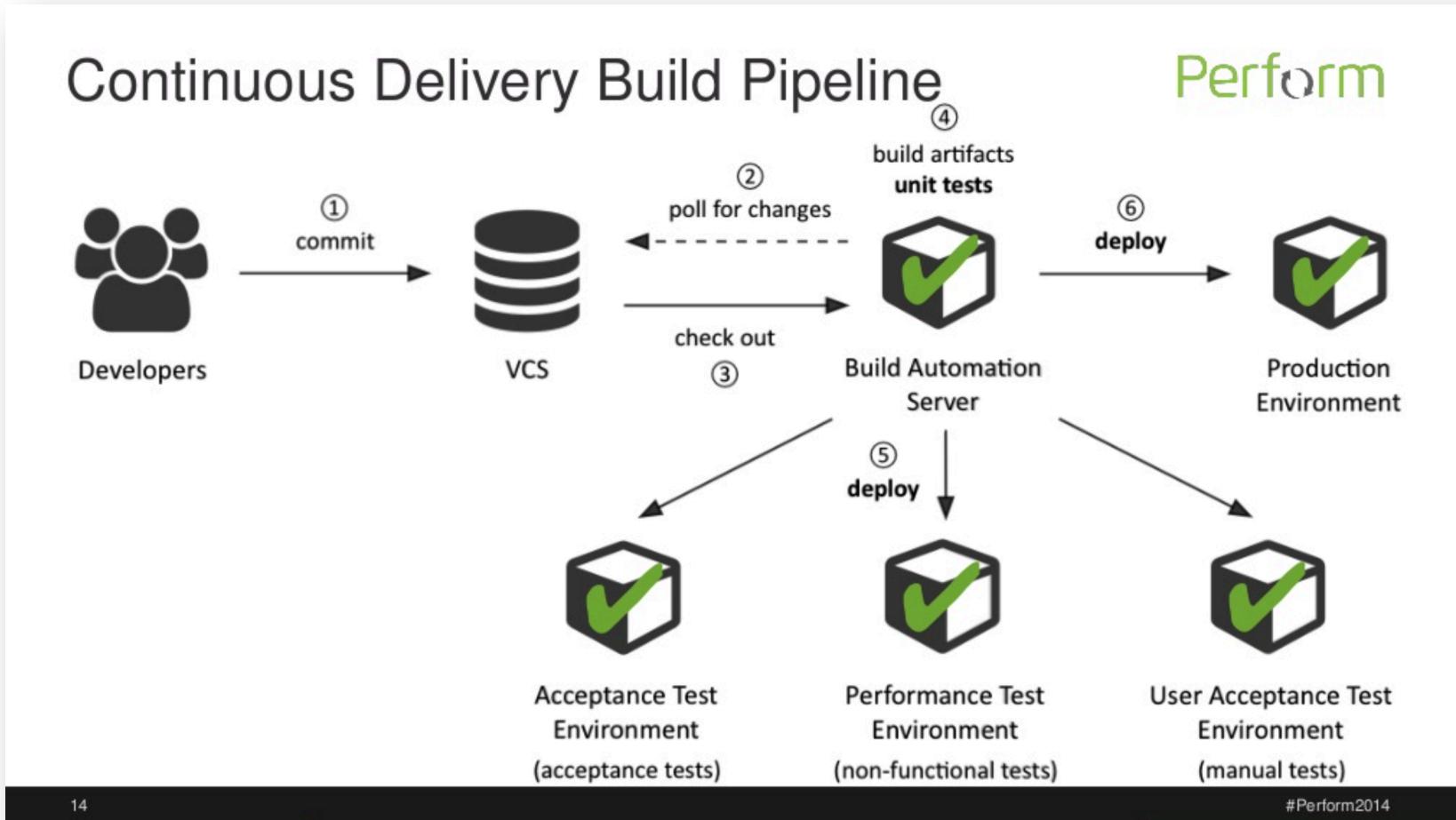


According to Riverside I/O

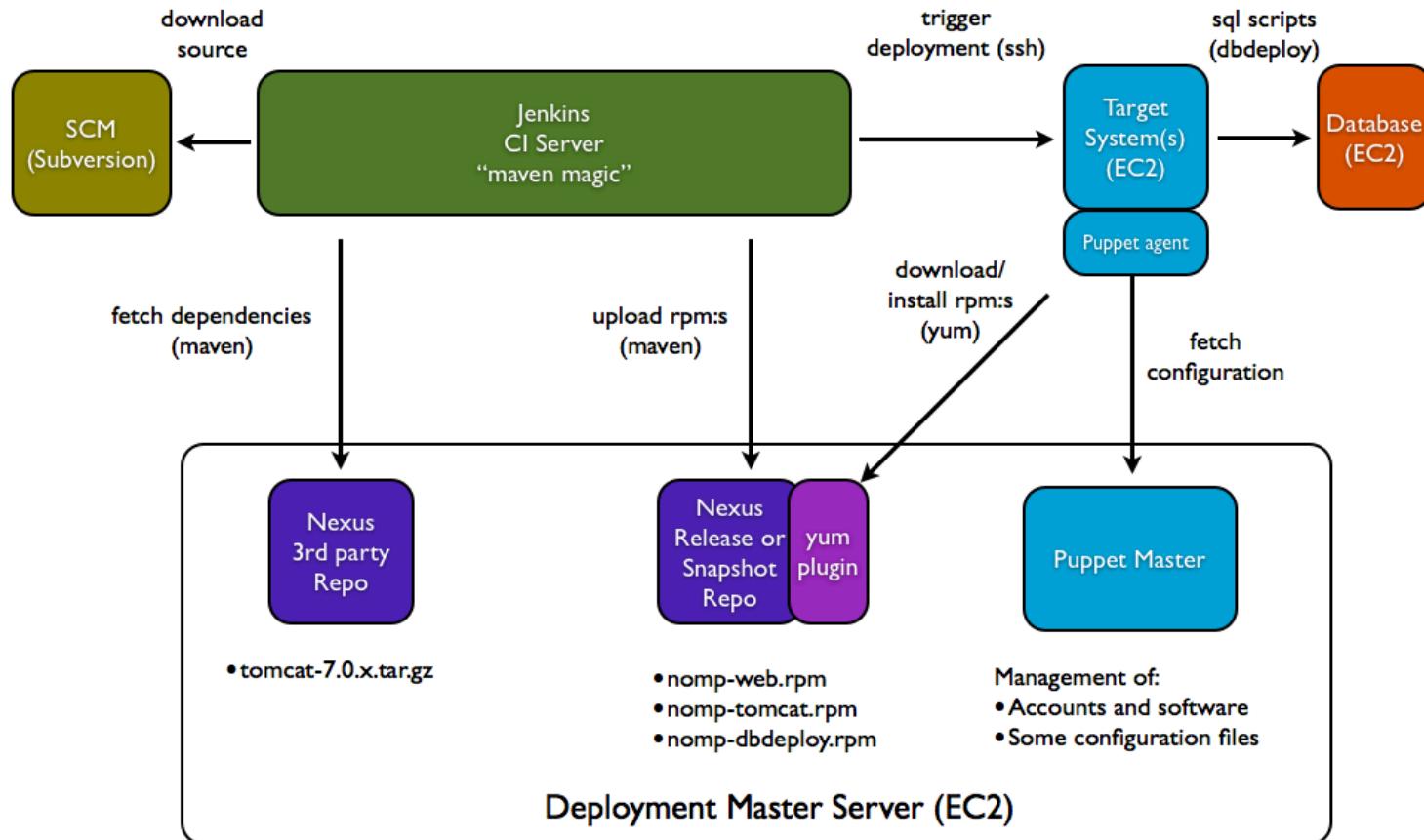
RIVERSIDE I/O



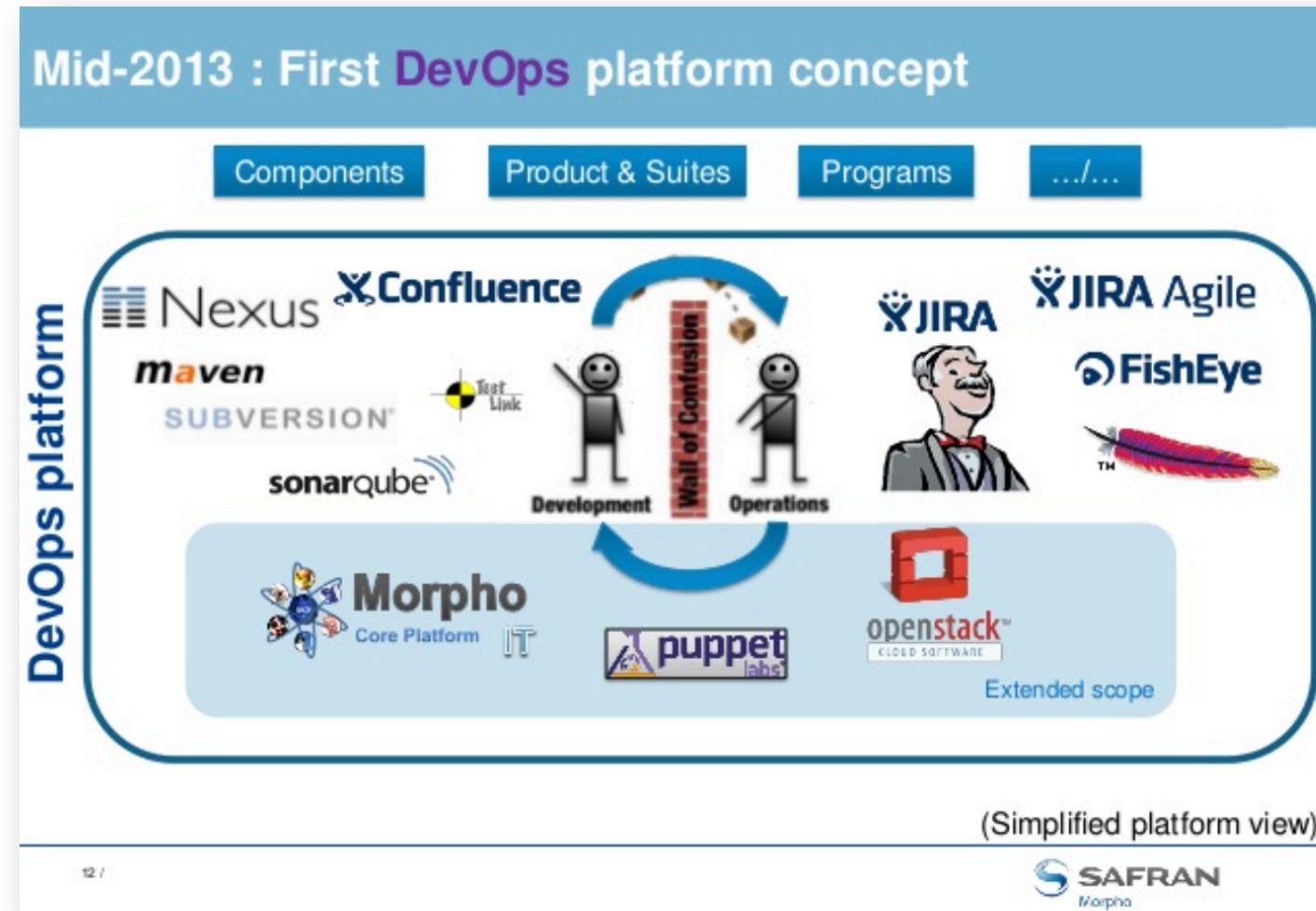
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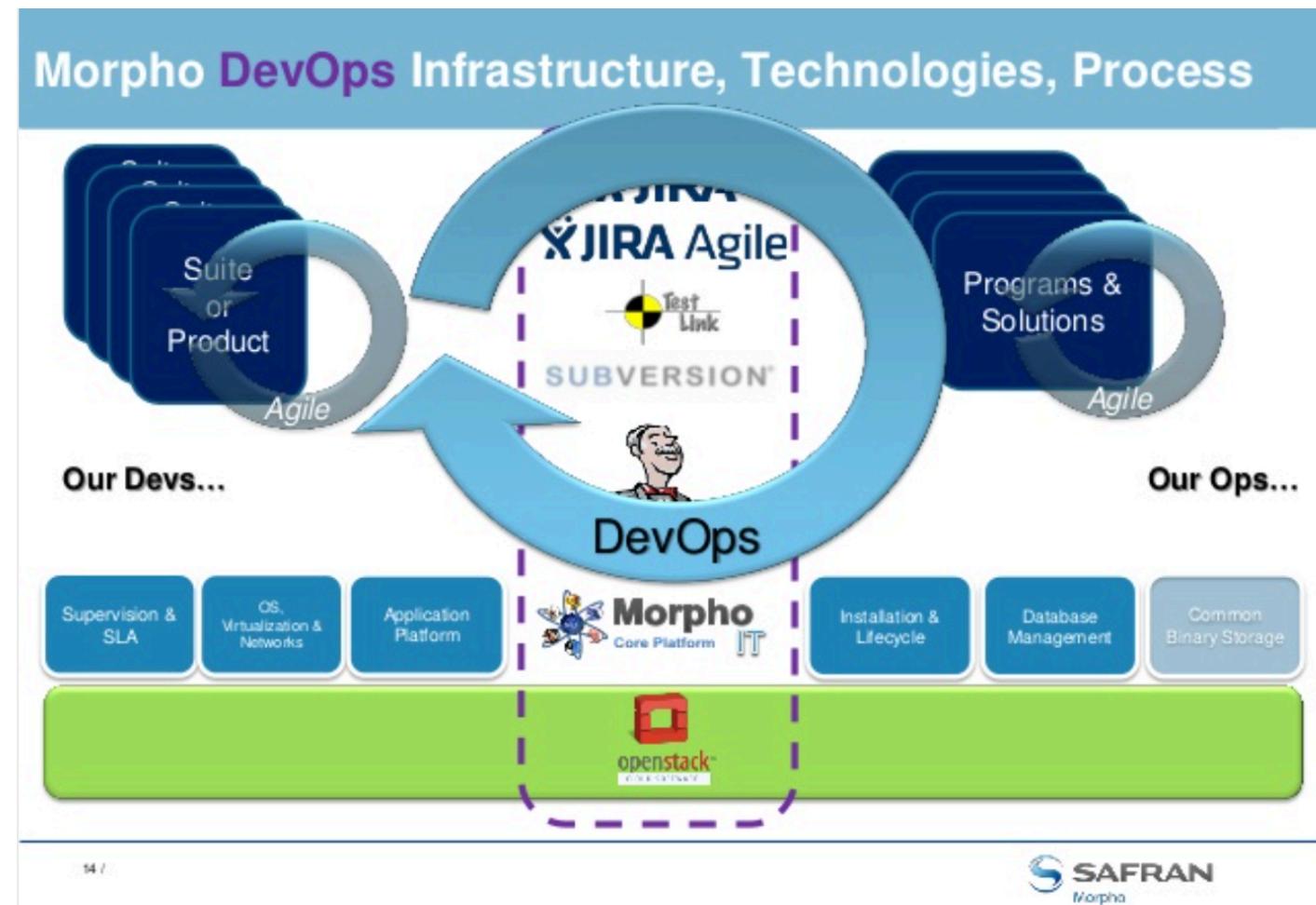
According to Stefan Norberg



Nexus at Morpho

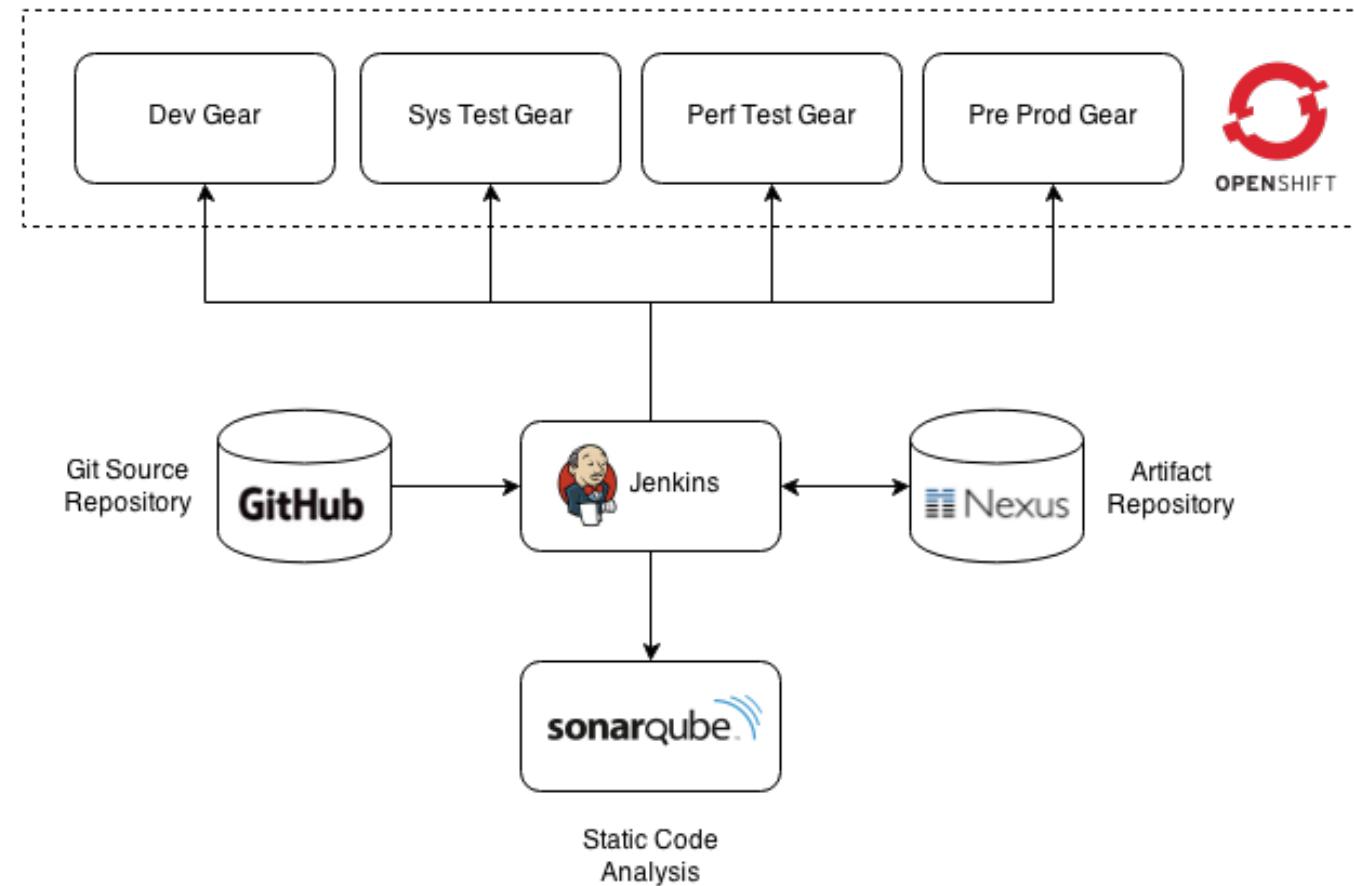


According to Morpho

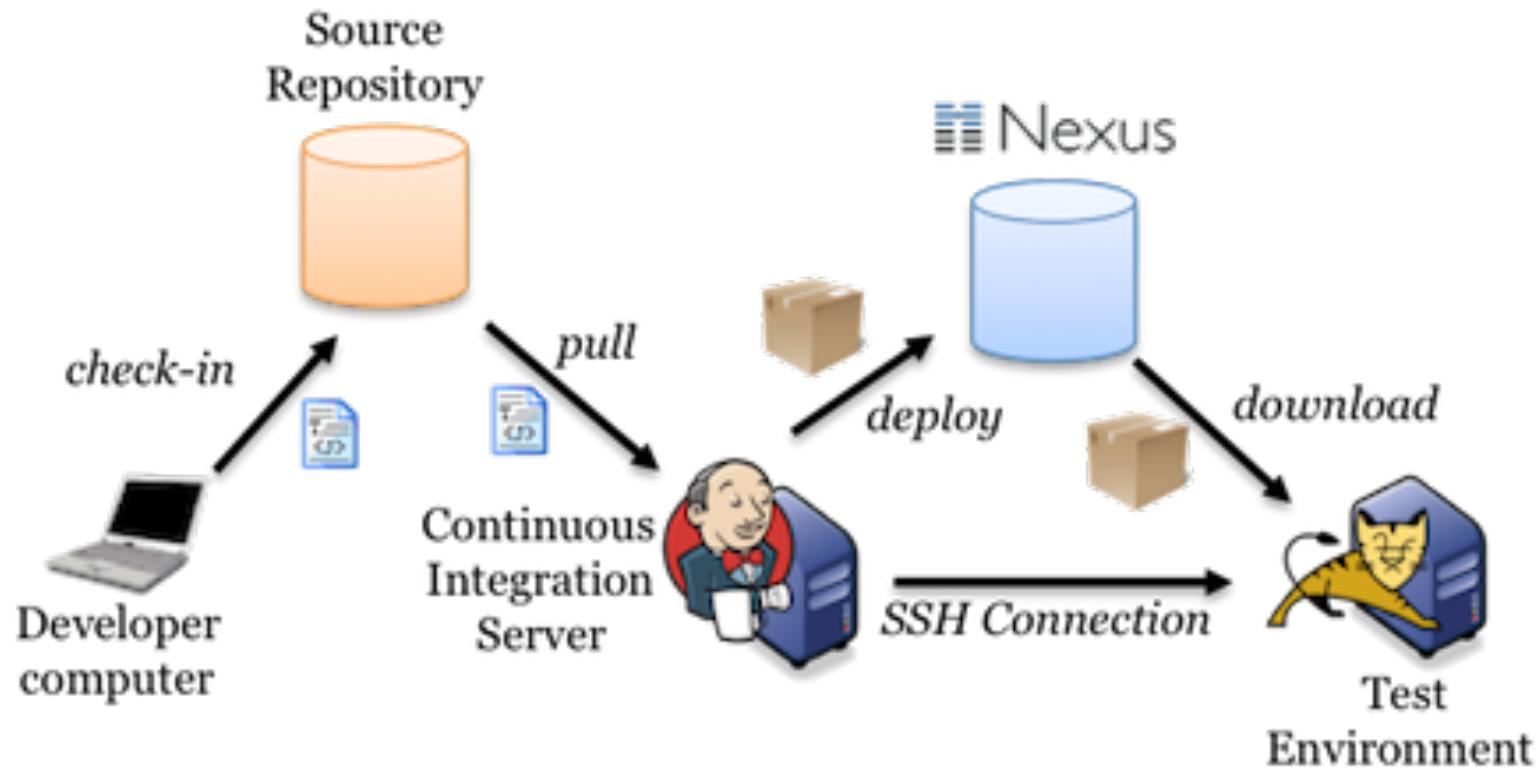




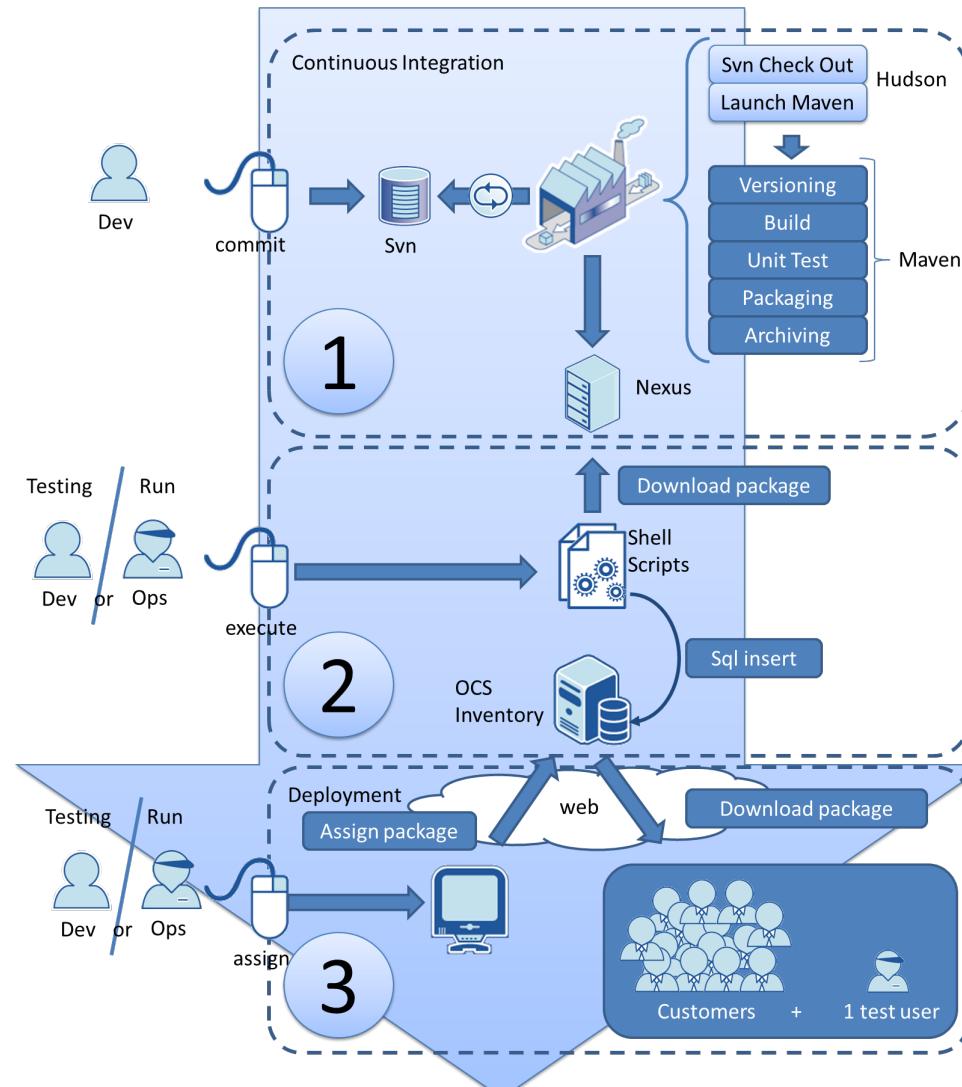
According to OPENSHIFT



According to akquinet

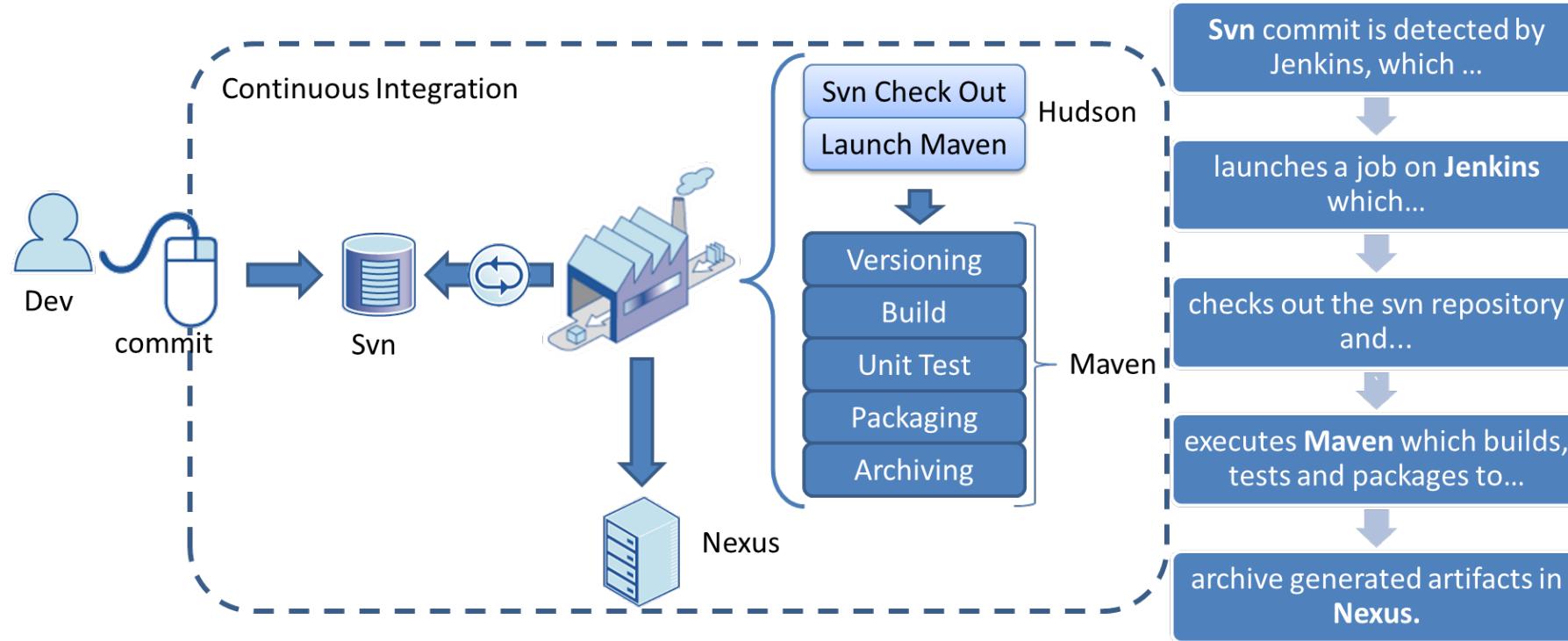


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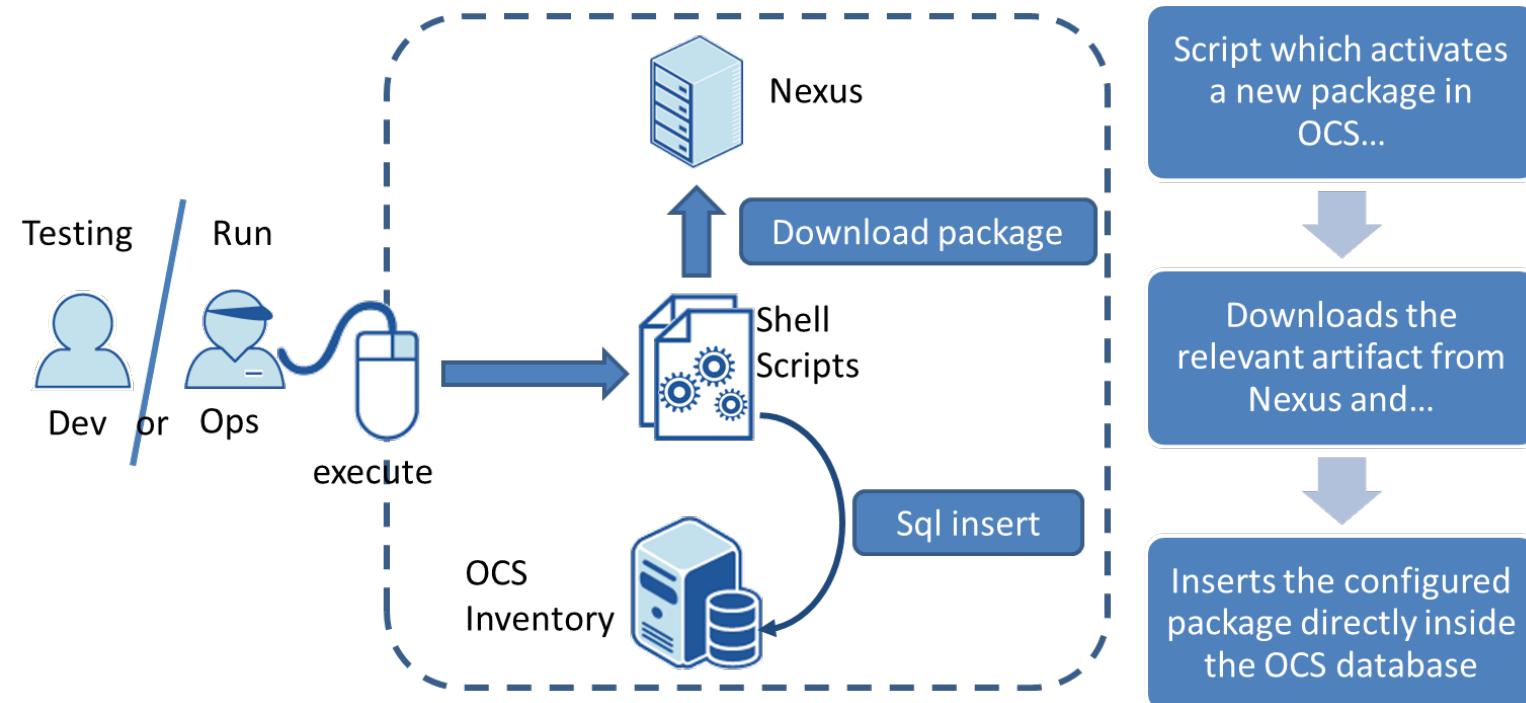


Link to Blog: Continuous Delivery
<http://bit.ly/1U7bIBn>

According to OCTO



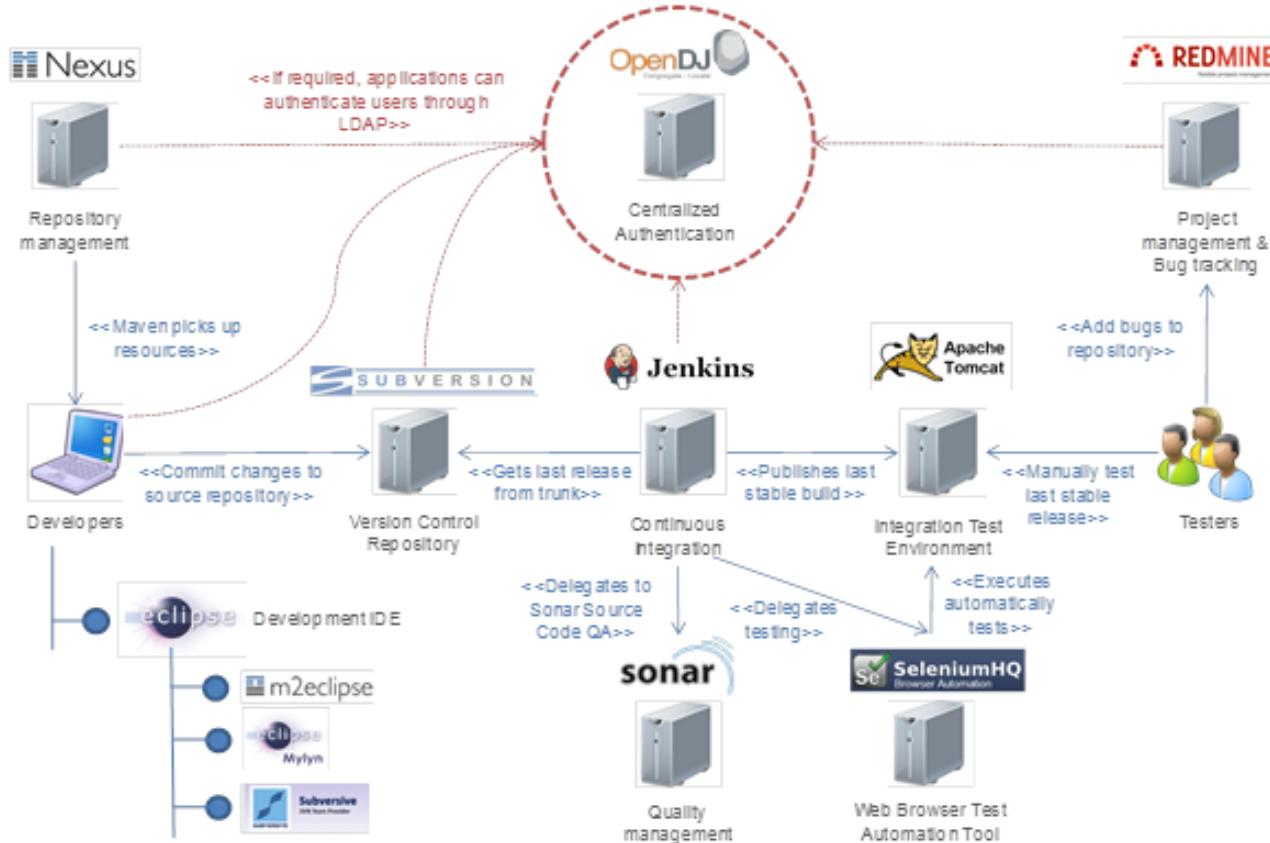
According to OCTO



According to Jordi Cuenca-Aubets

Free continuous integration platform @Glance

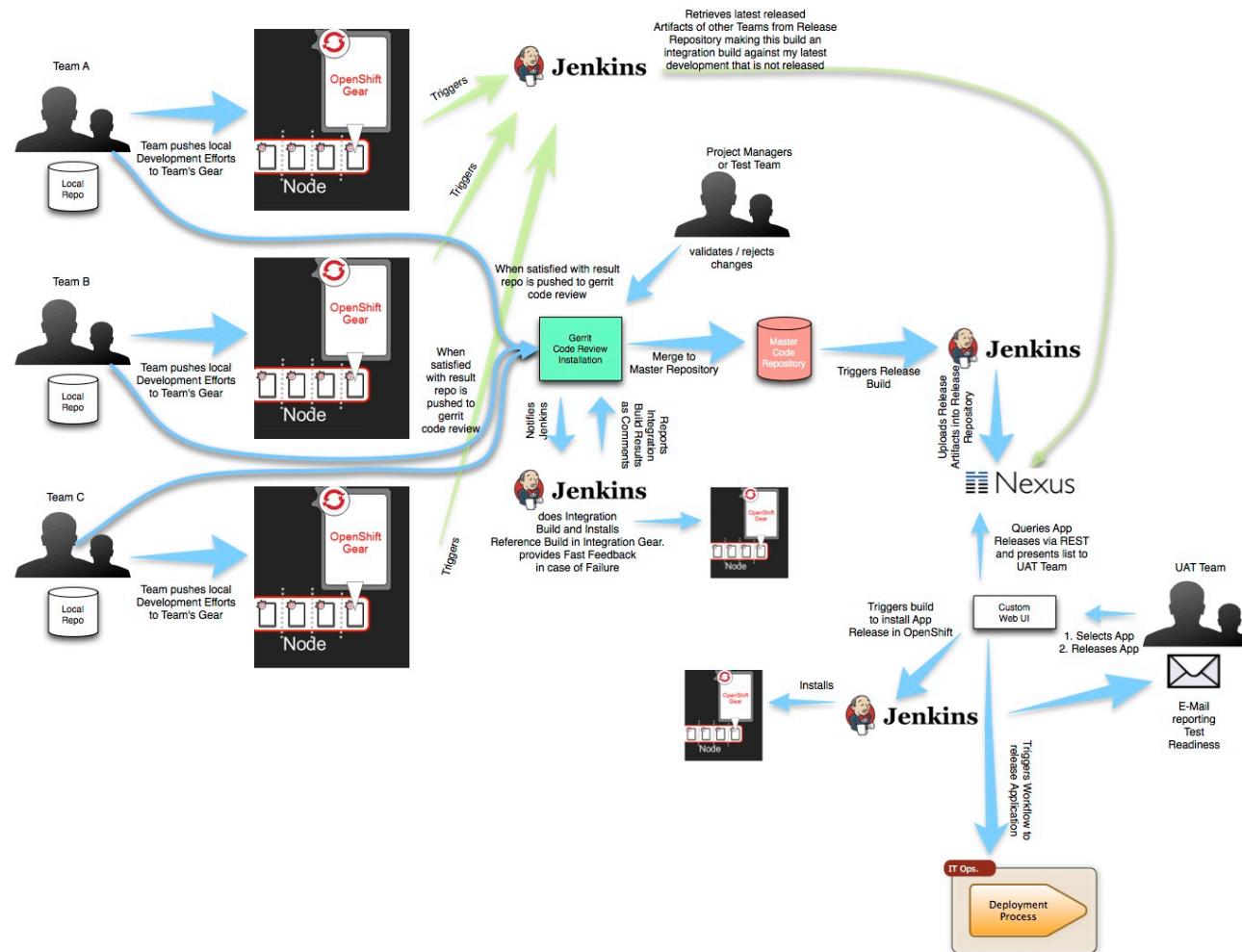
Runtime architecture



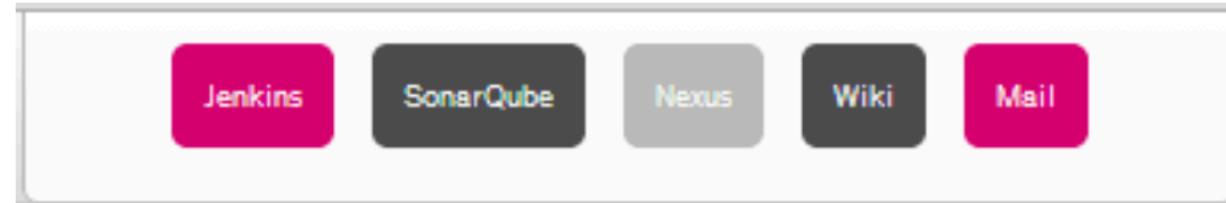
Who Am I?
Jordi CuencaAubets (LinkedIn)
@jordicau (Twitter)

According to Open Sourcerers

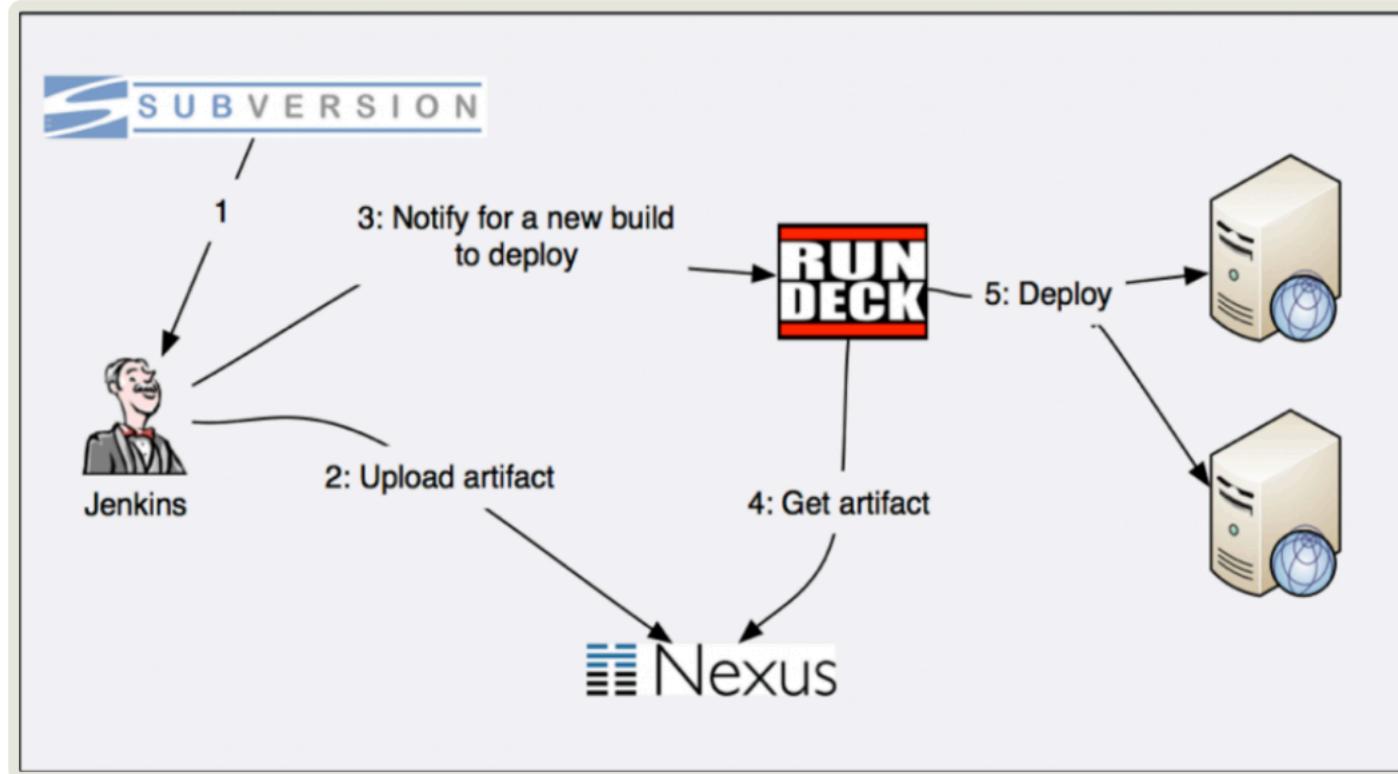
OPEN SOURCERERS



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

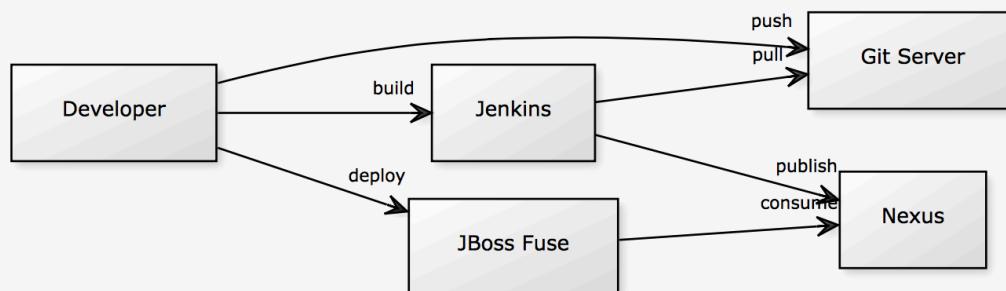
It's the software we use to **store the binaries** we produce from our code base. It is accessed by *JBoss Fuse*, that downloads artifacts from it but it is also accessed from *Jenkins*, that publishes binaries on it, as the last step of a successful build job.

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 Continous Integration server. **In our case, git server is just a filesystem accessed via ssh**.



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

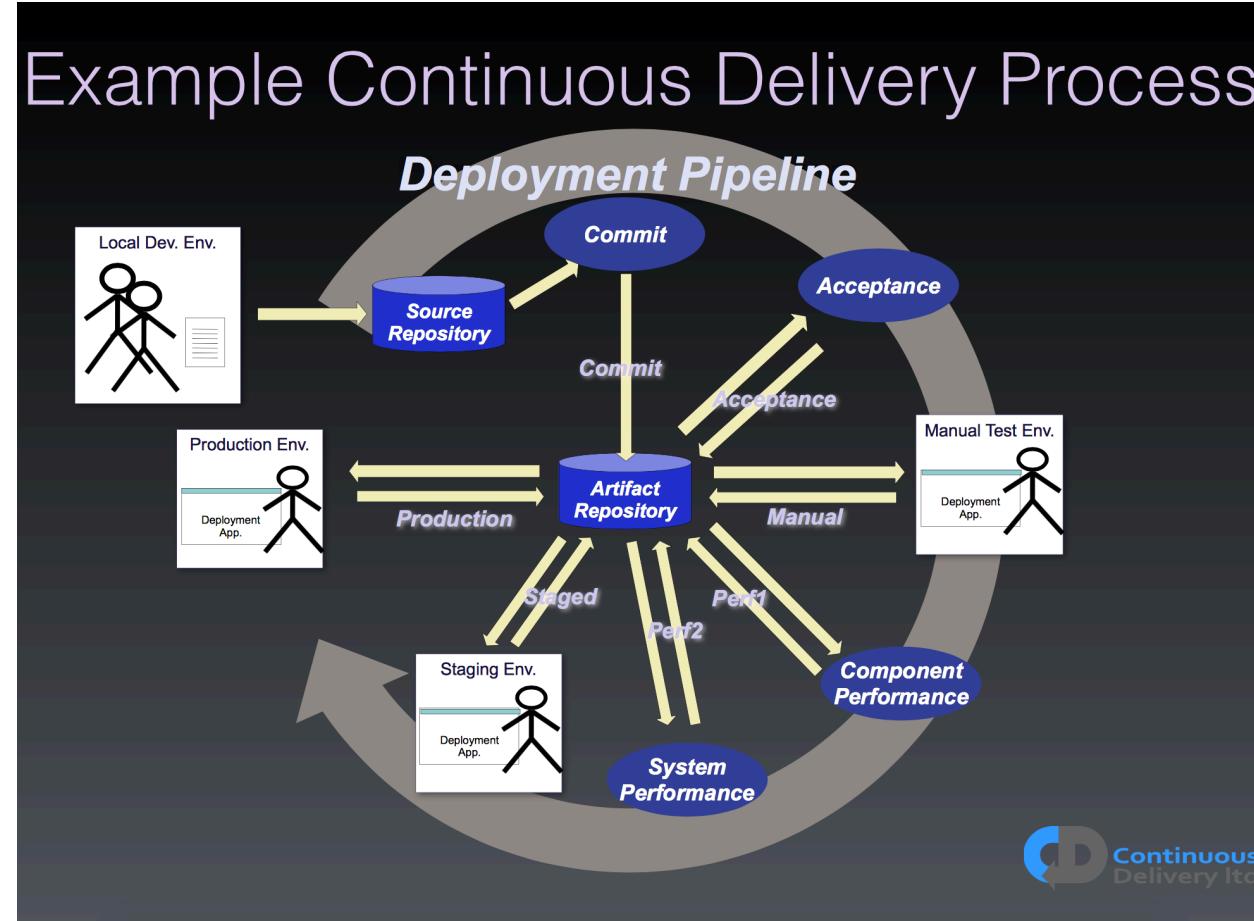
According to Atlassian



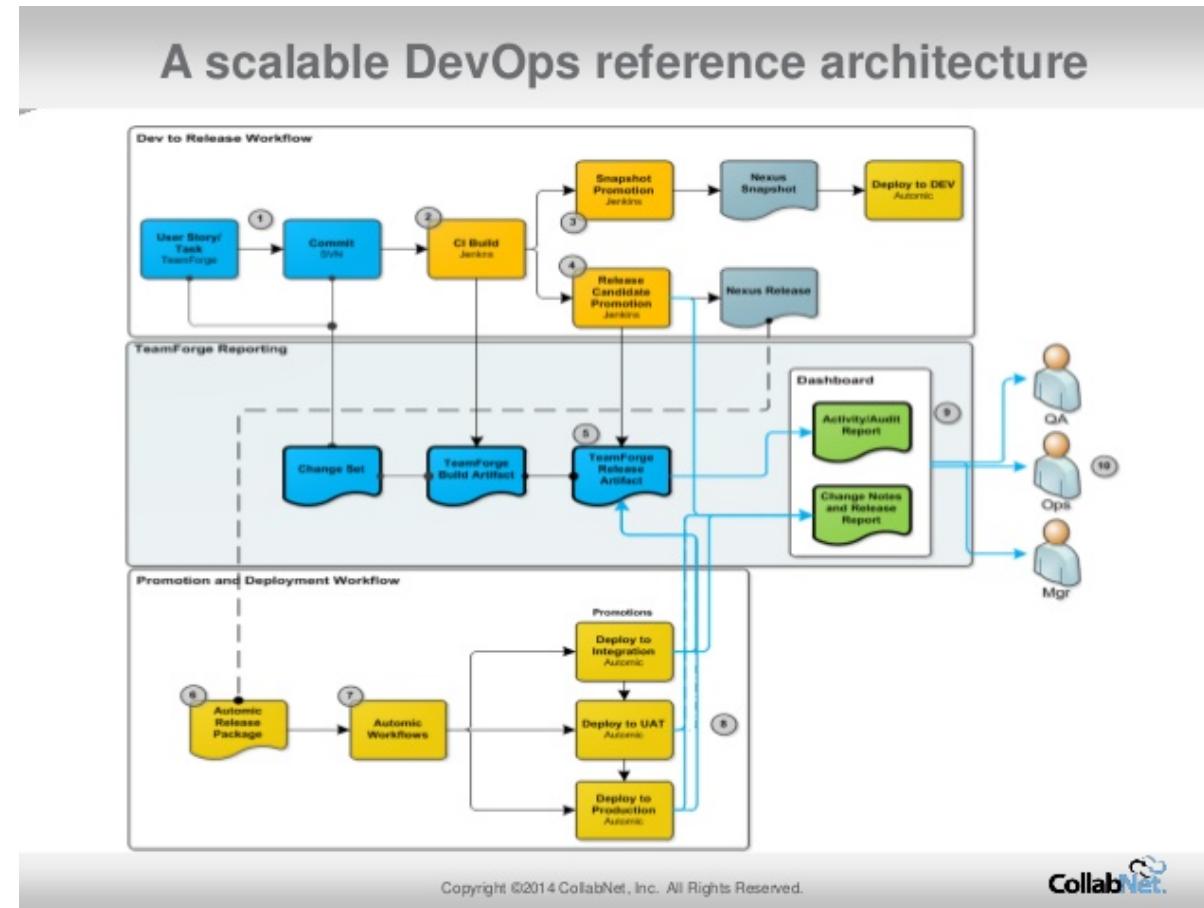
Build Engineering today @ Atlassian

- 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

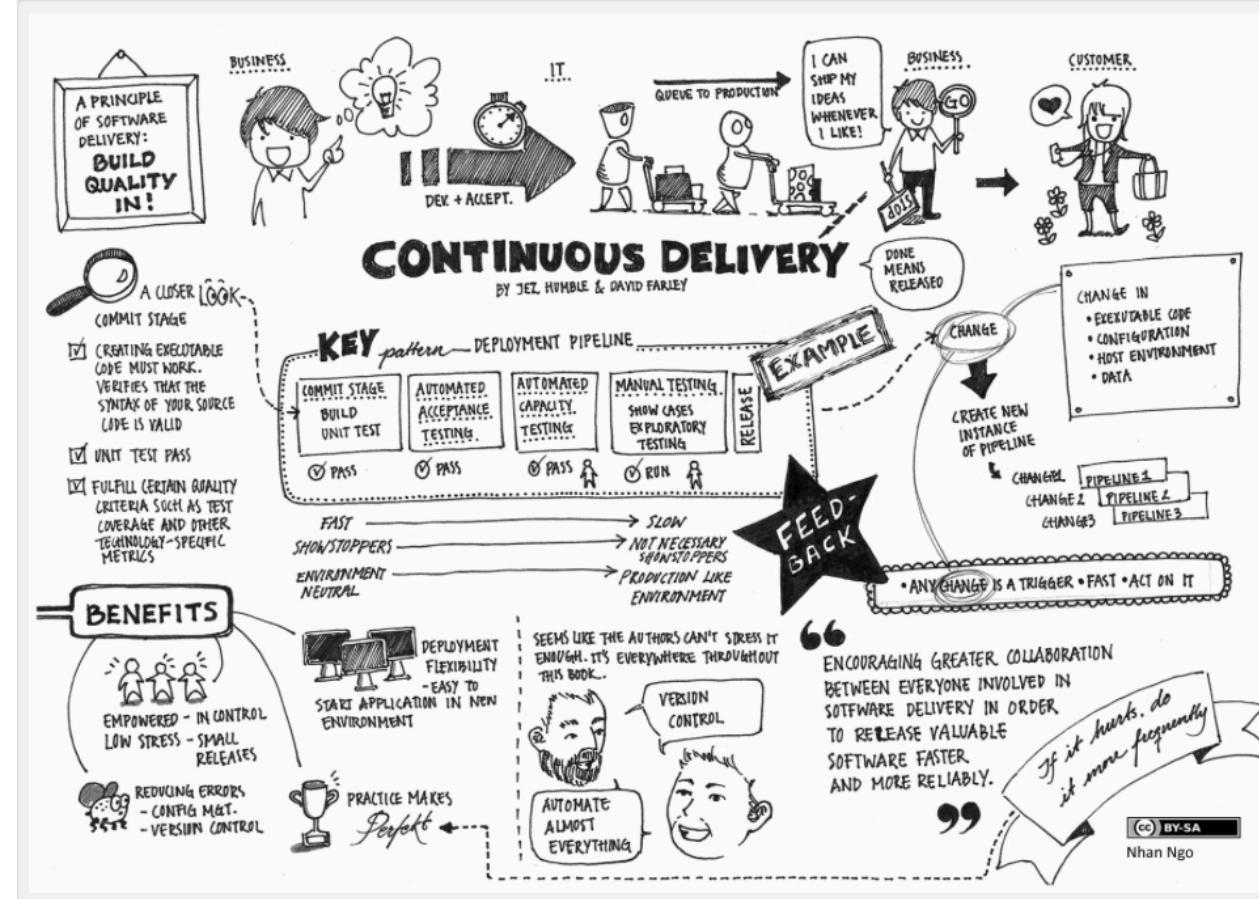
According to Continuous Delivery Ltd



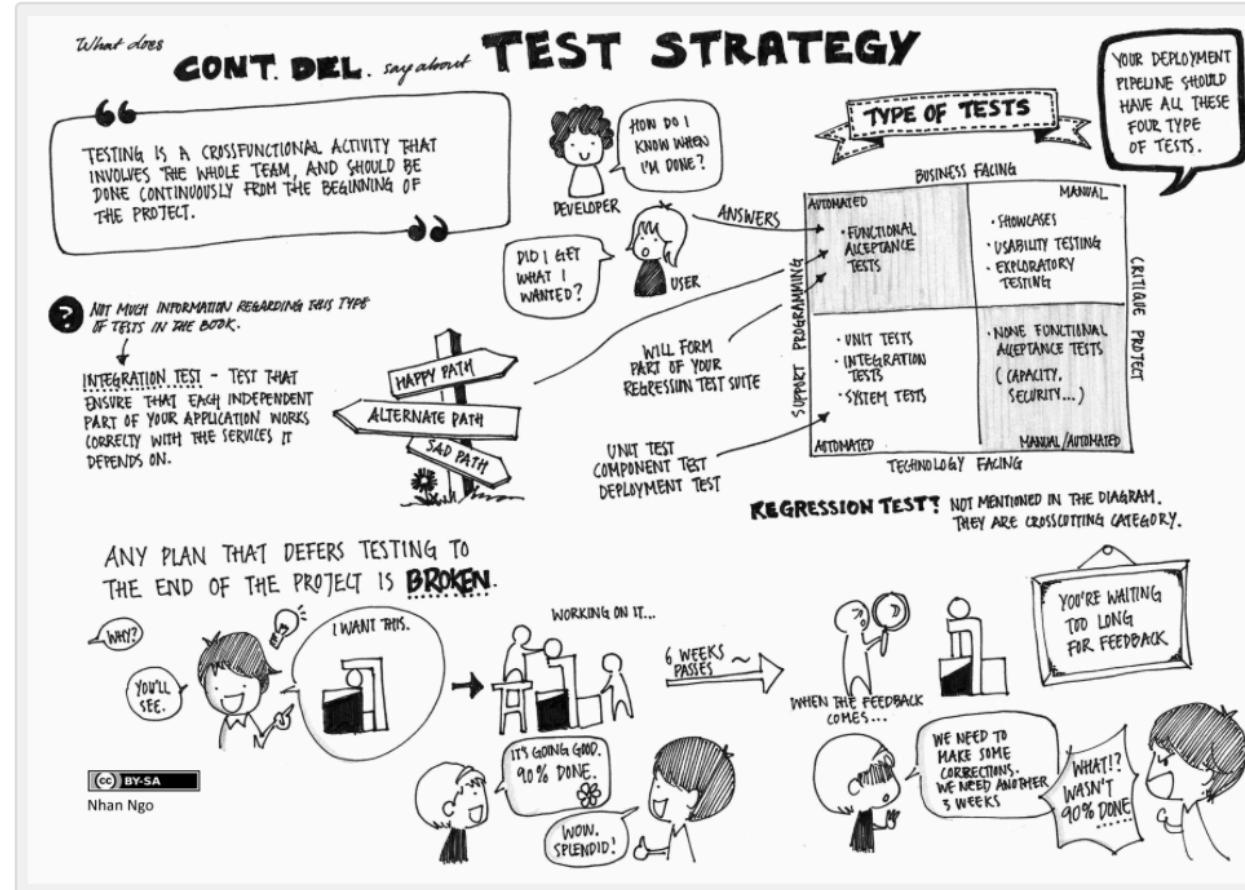
According to CollabNet



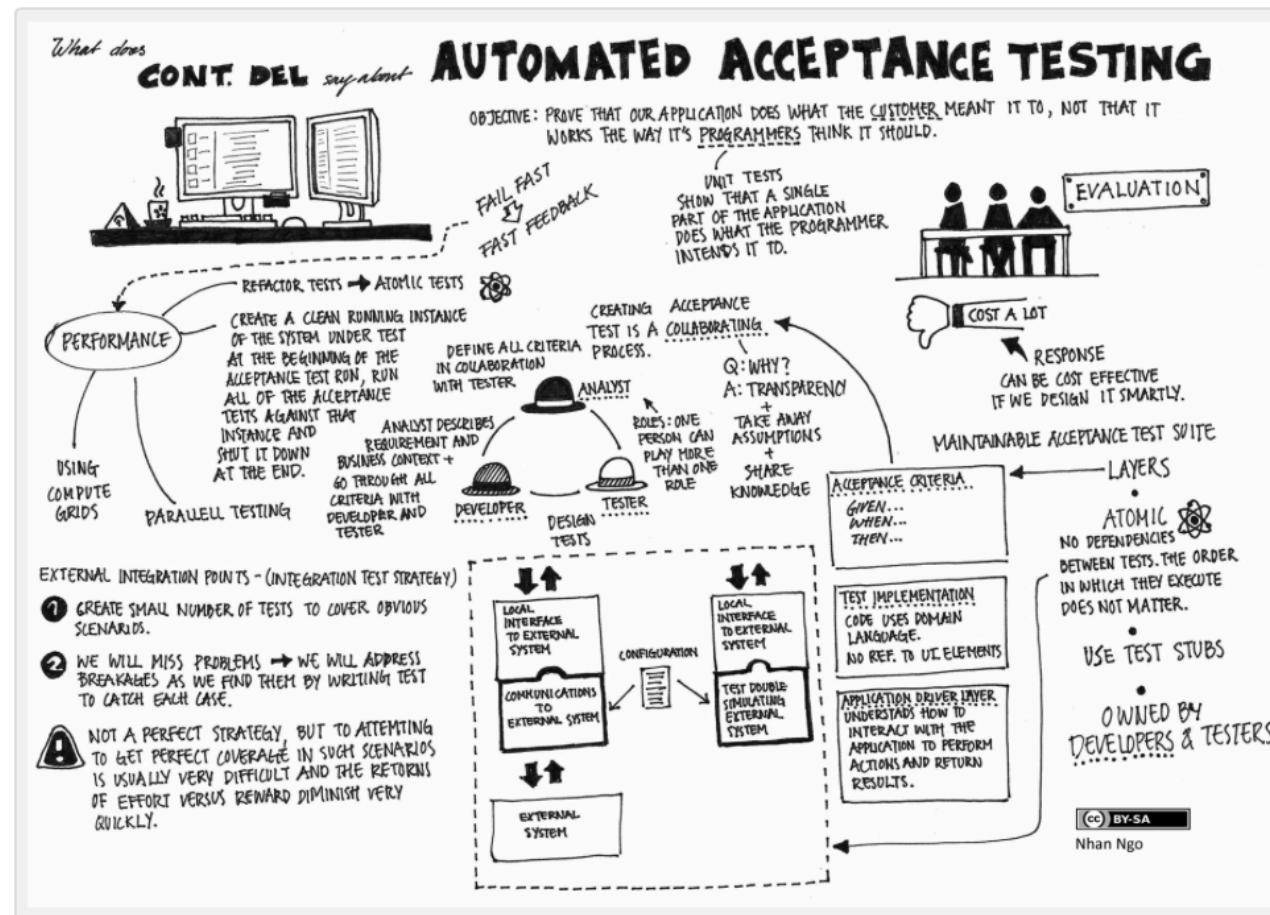
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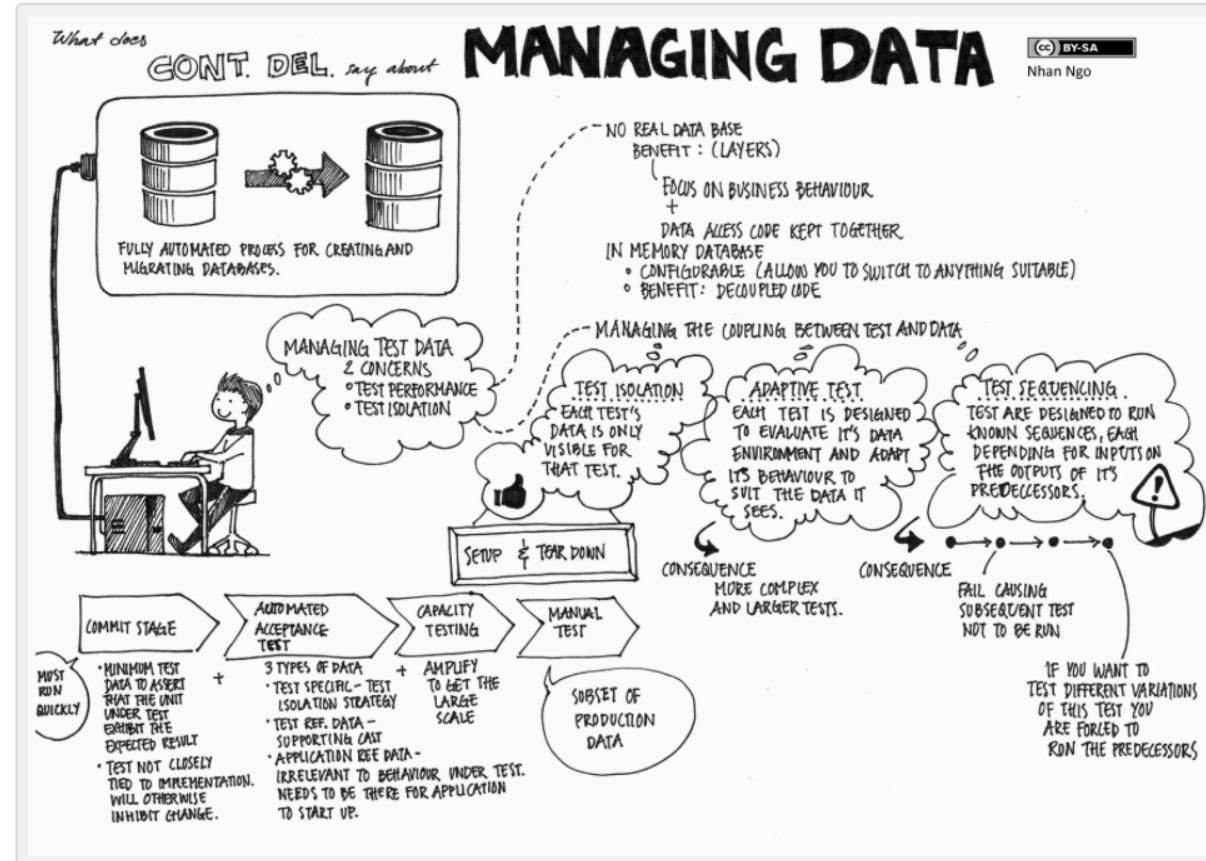
According to Nhan Ngo



According to Nhan Ngo



According to Nhan Ngo



According to WSO2

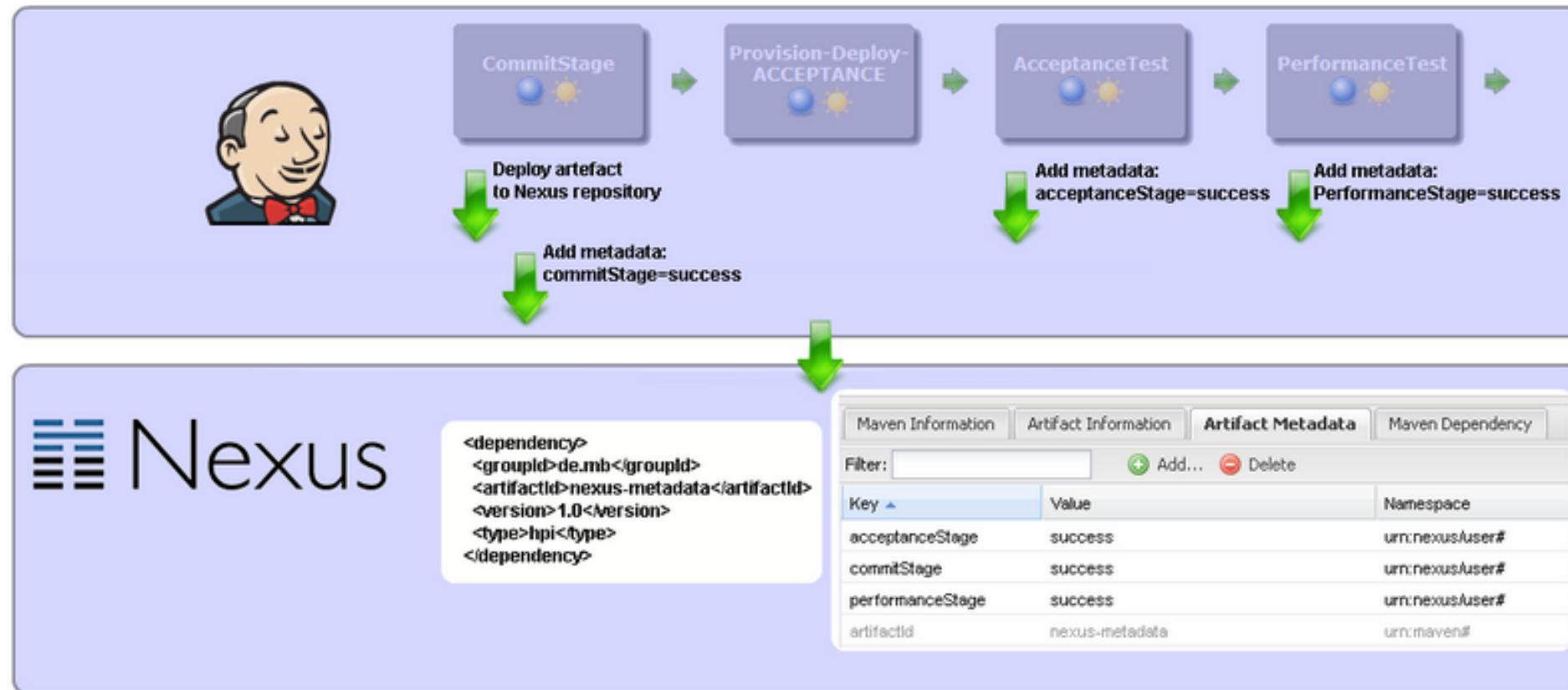


A Reference Architecture DevOps both dev and ops perspective

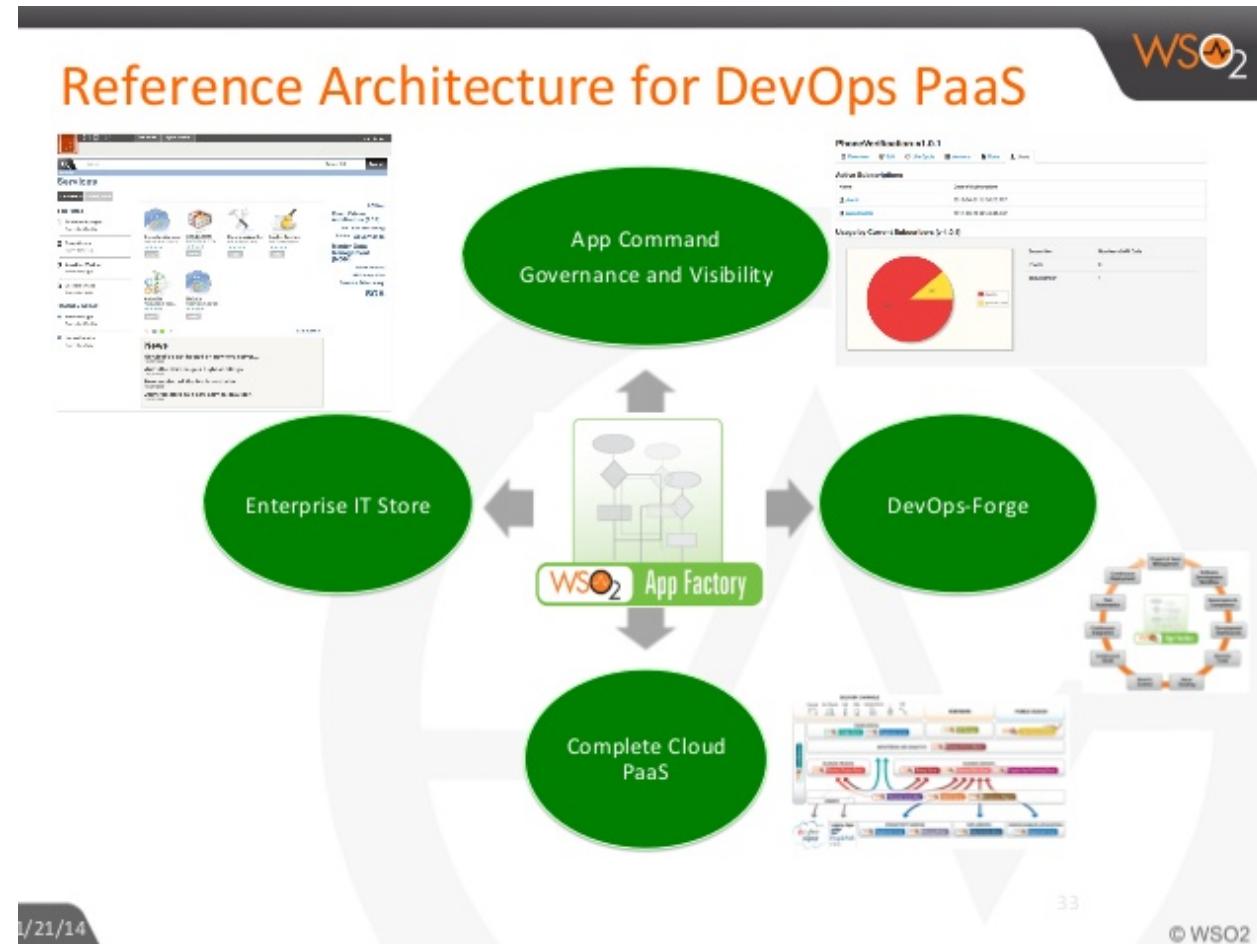


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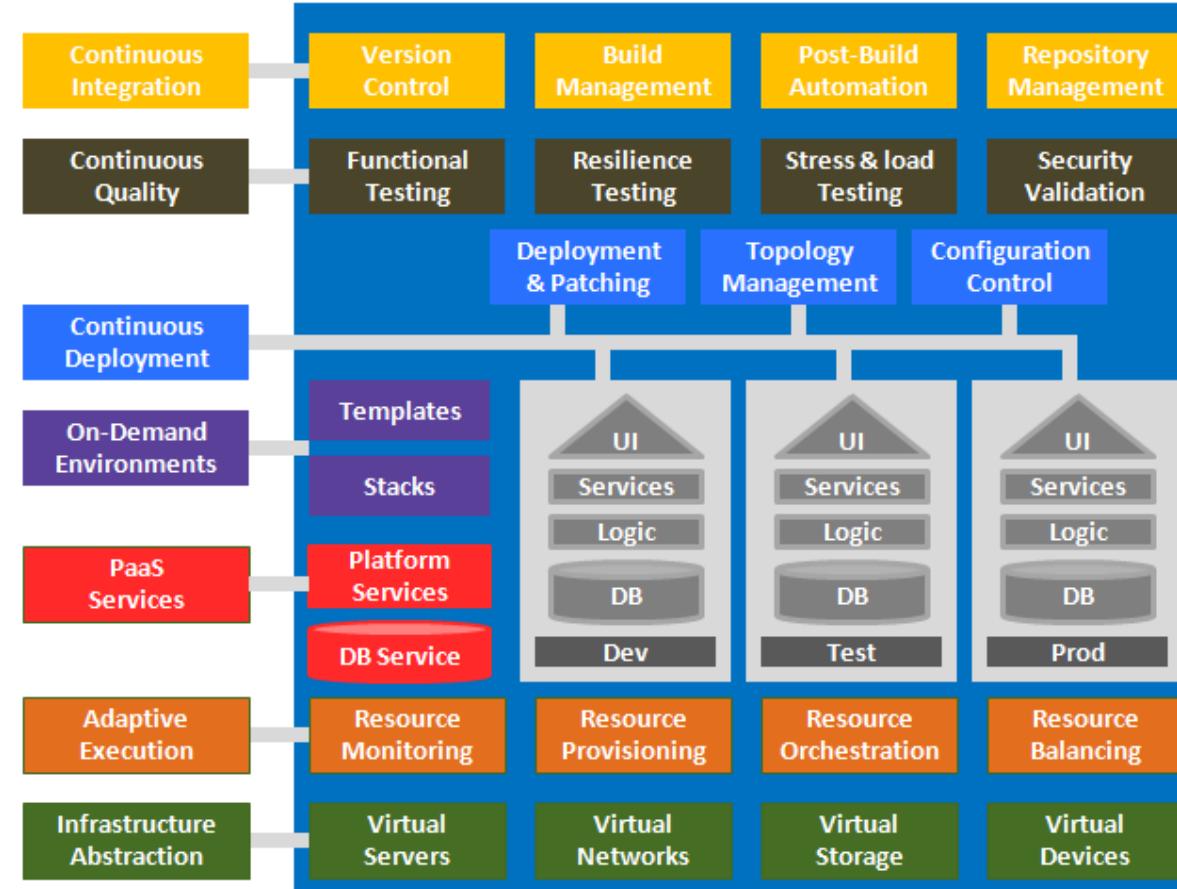
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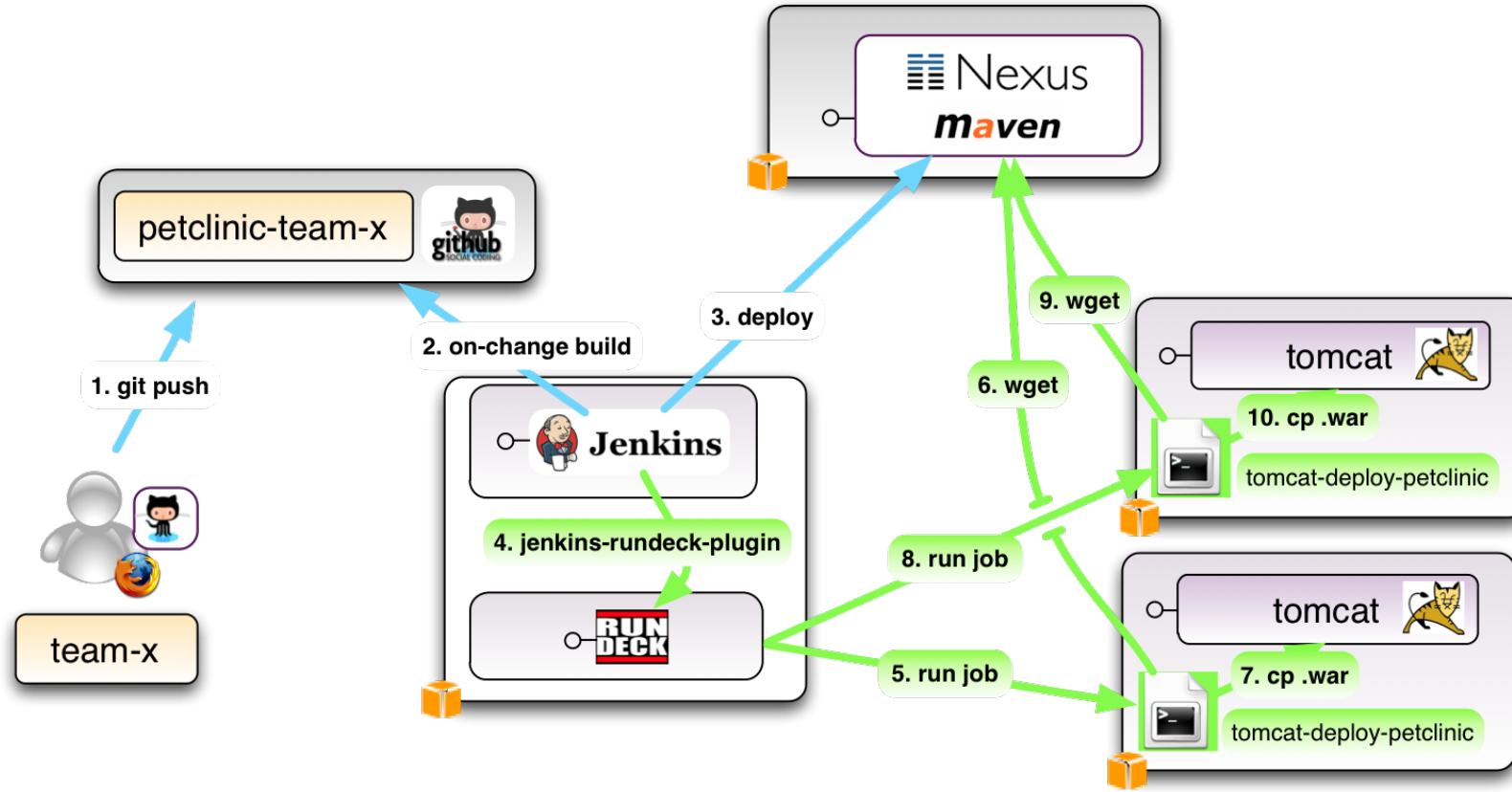
According to WSO2



According to Momentum SI



According to Goobbe

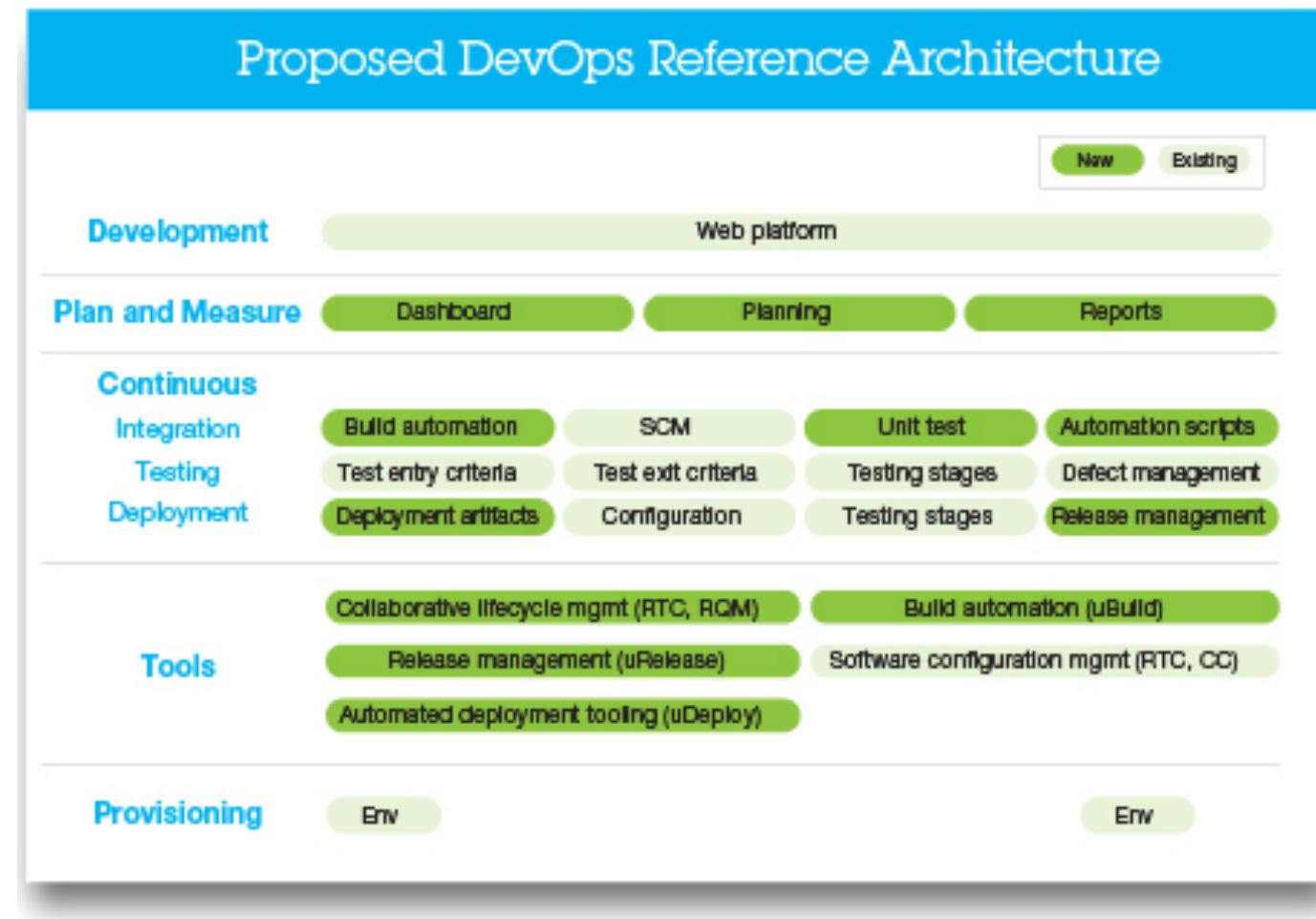


Lab : Continuous Deployment
with Rundeck

already installed →
lab →

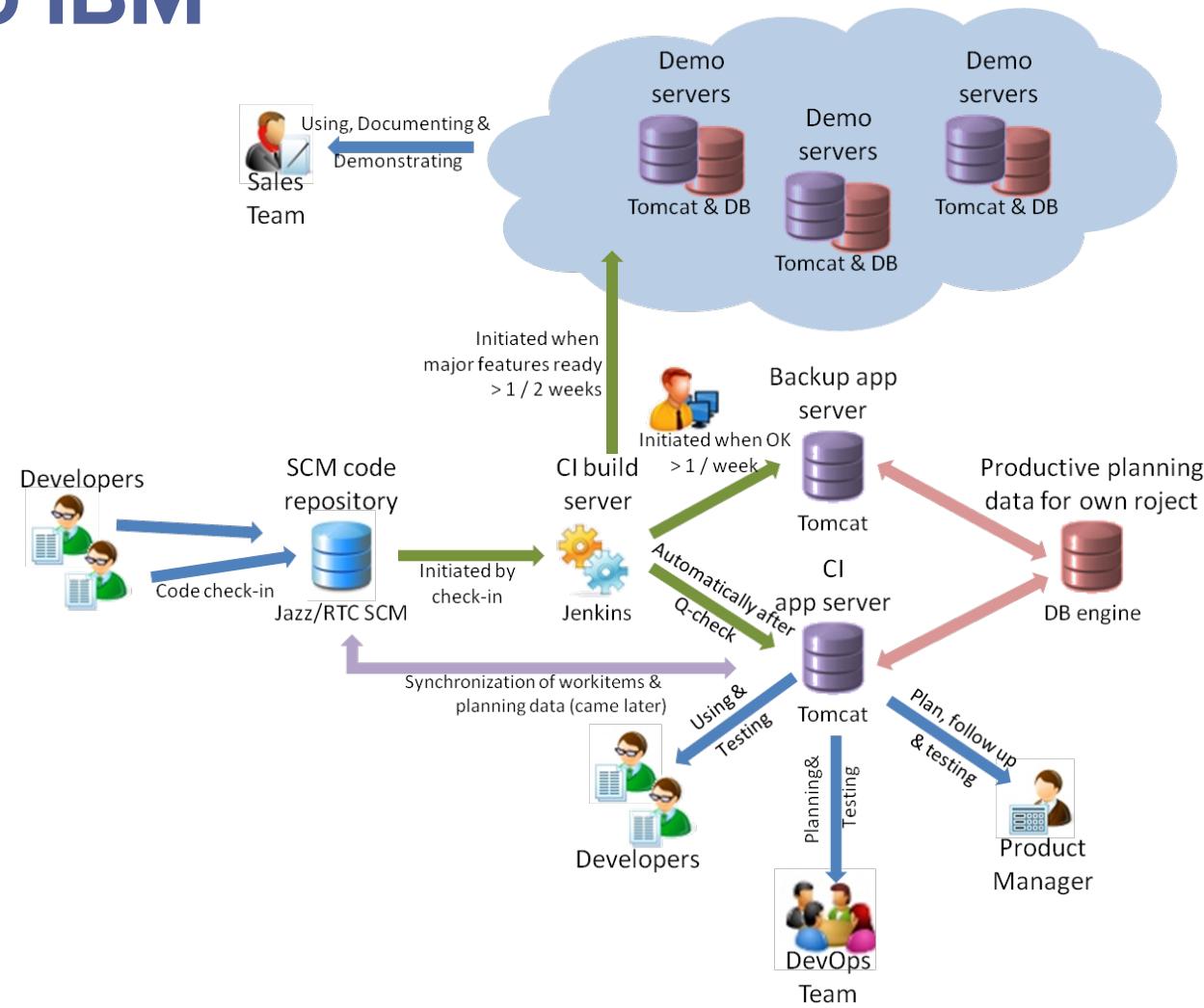


According to IBM



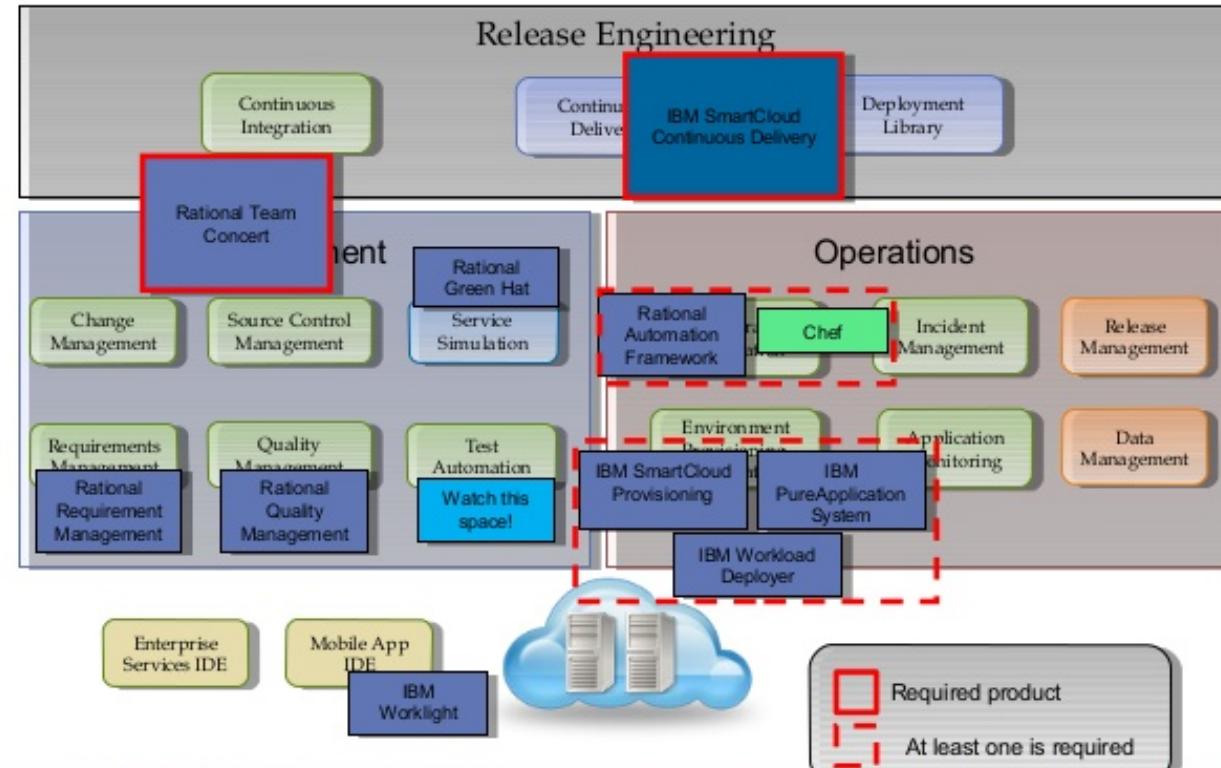


According to IBM



According to IBM

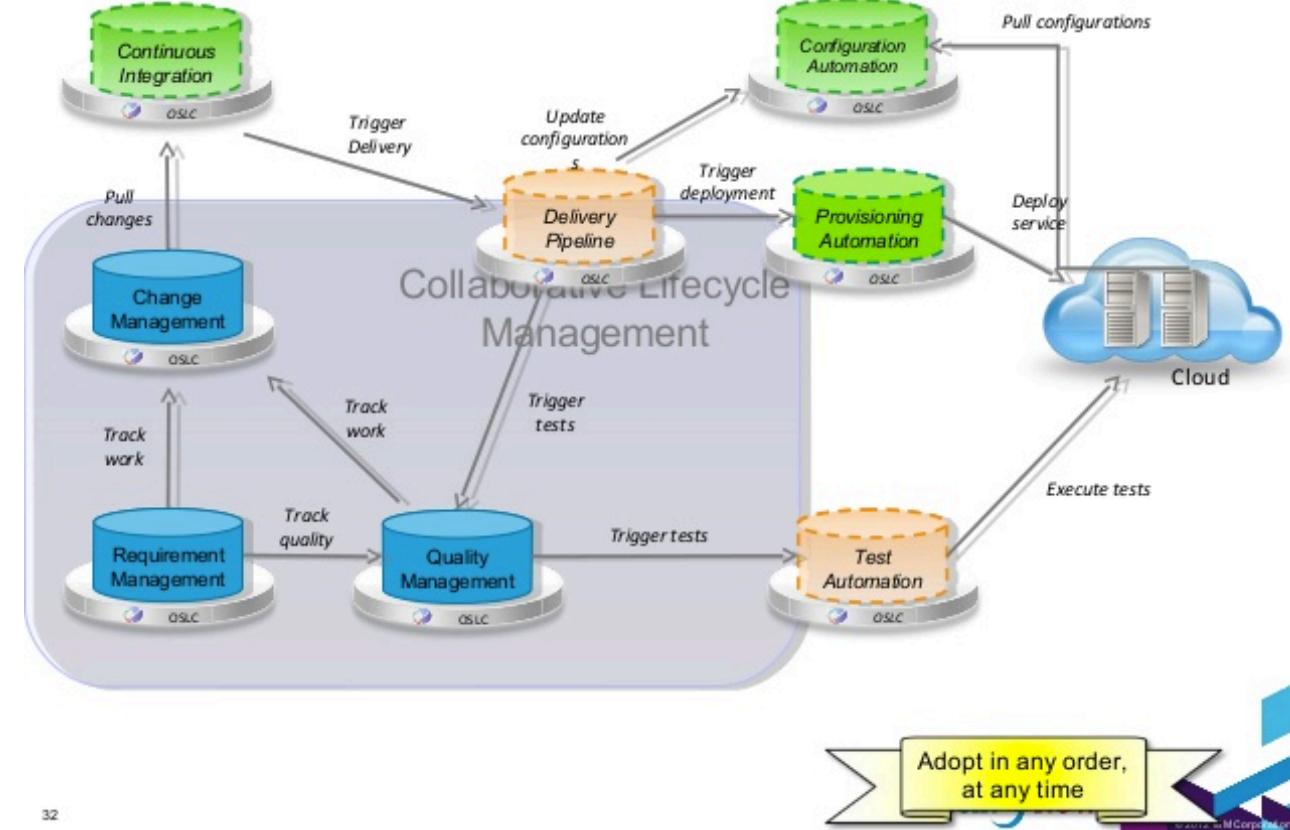
Reference Architecture: Product Implementations



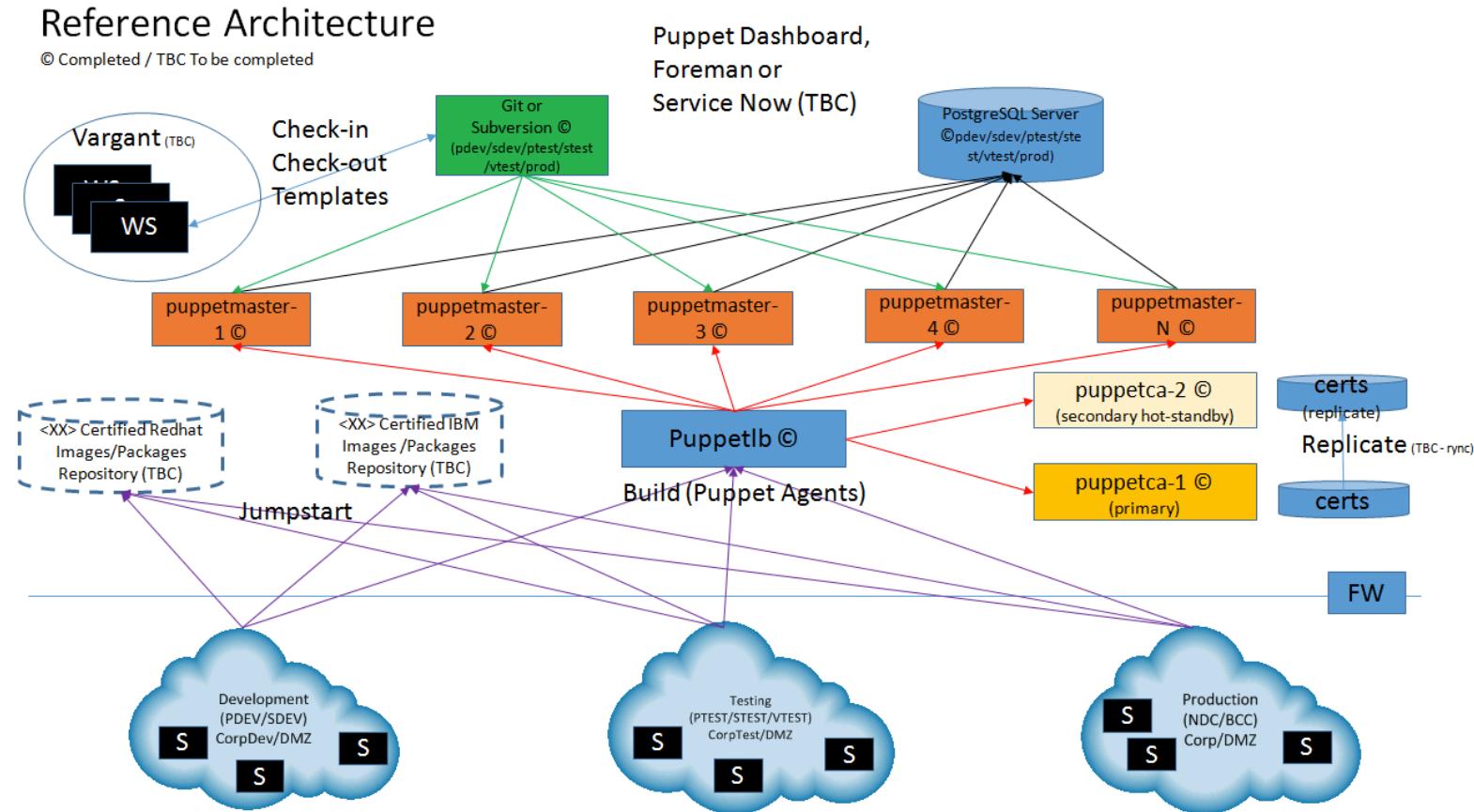
According to IBM

Lifecycle Management Reference Architecture

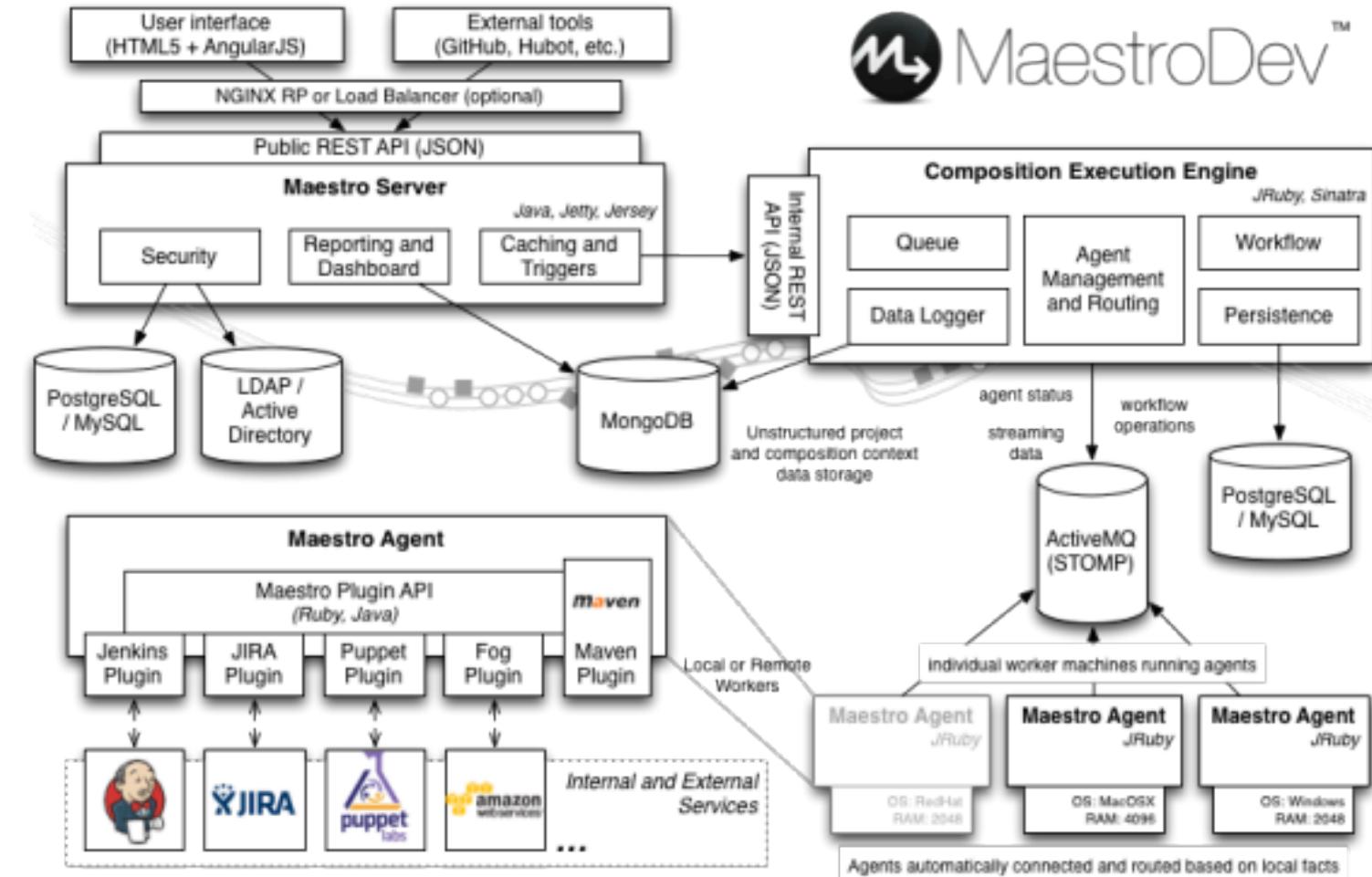
IBM



According to OZsofts



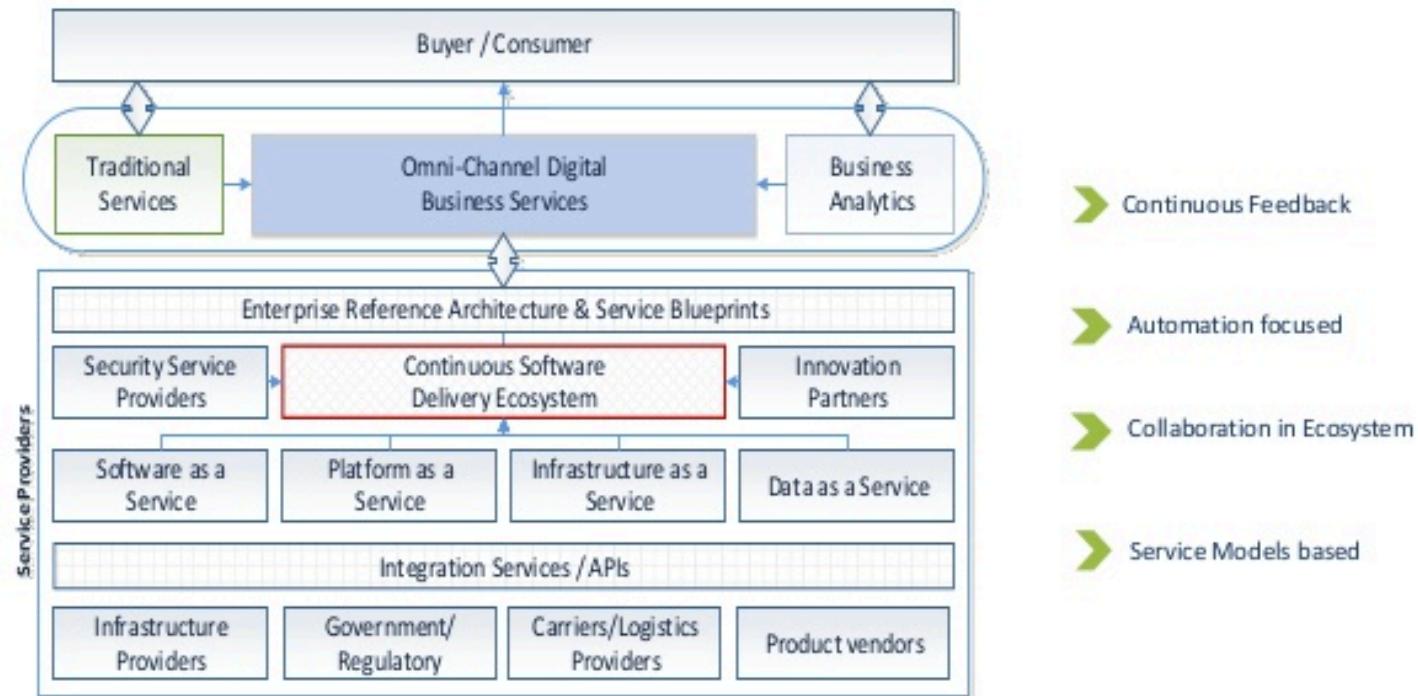
According to MaestroDev



According to The Open Group

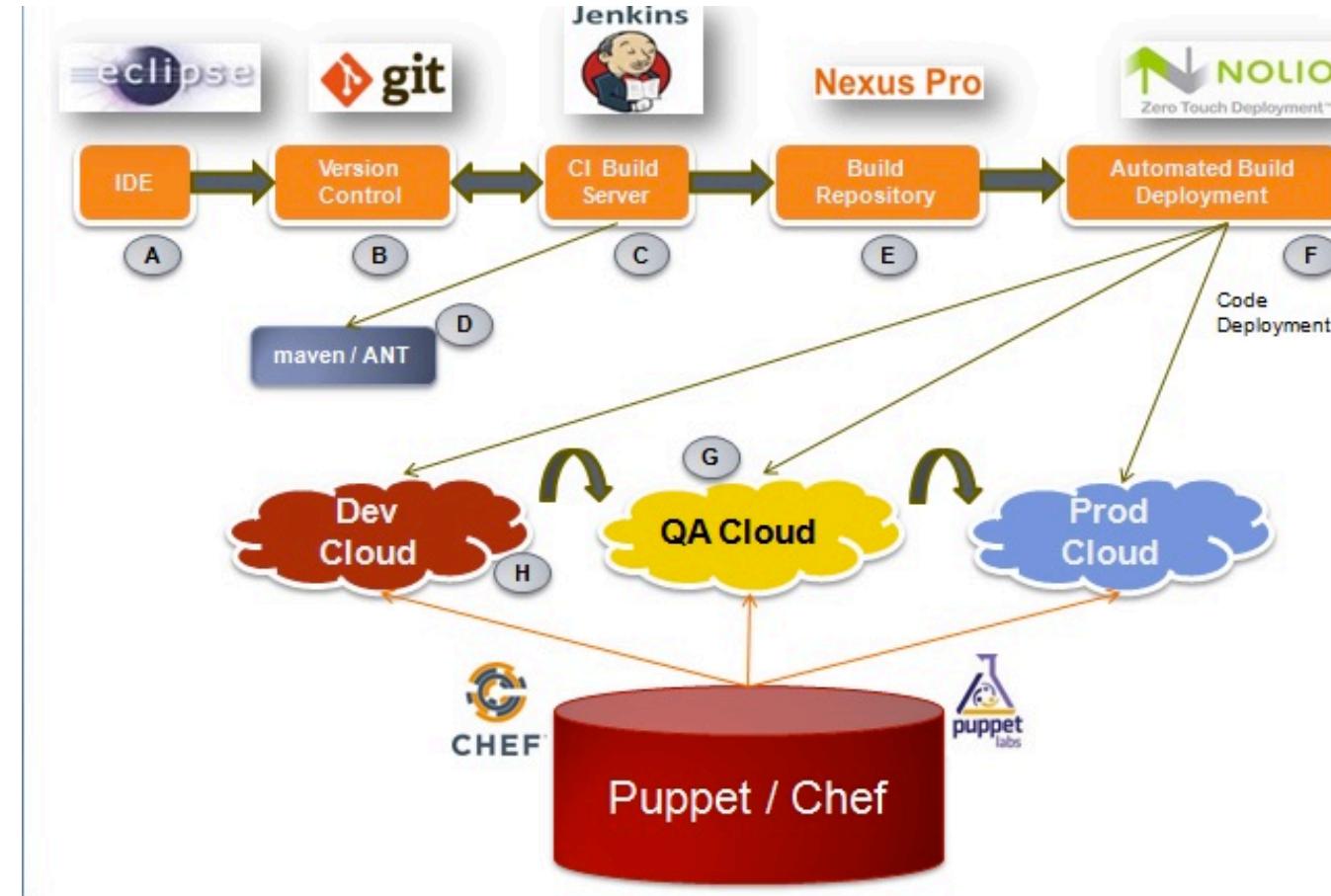
THE *Open* GROUP

DevOps – A paradigm shift in IT to deliver Digitalization



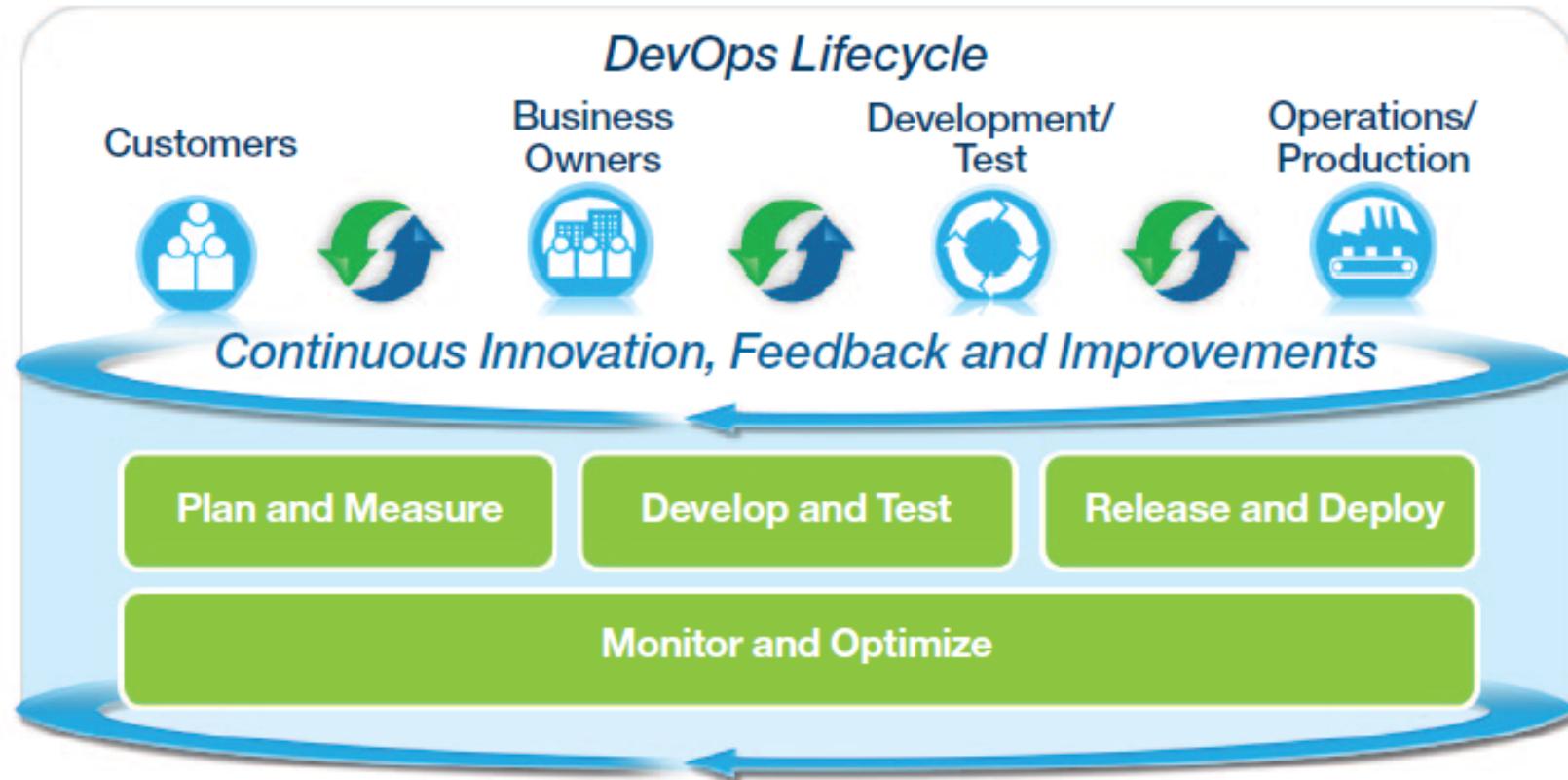


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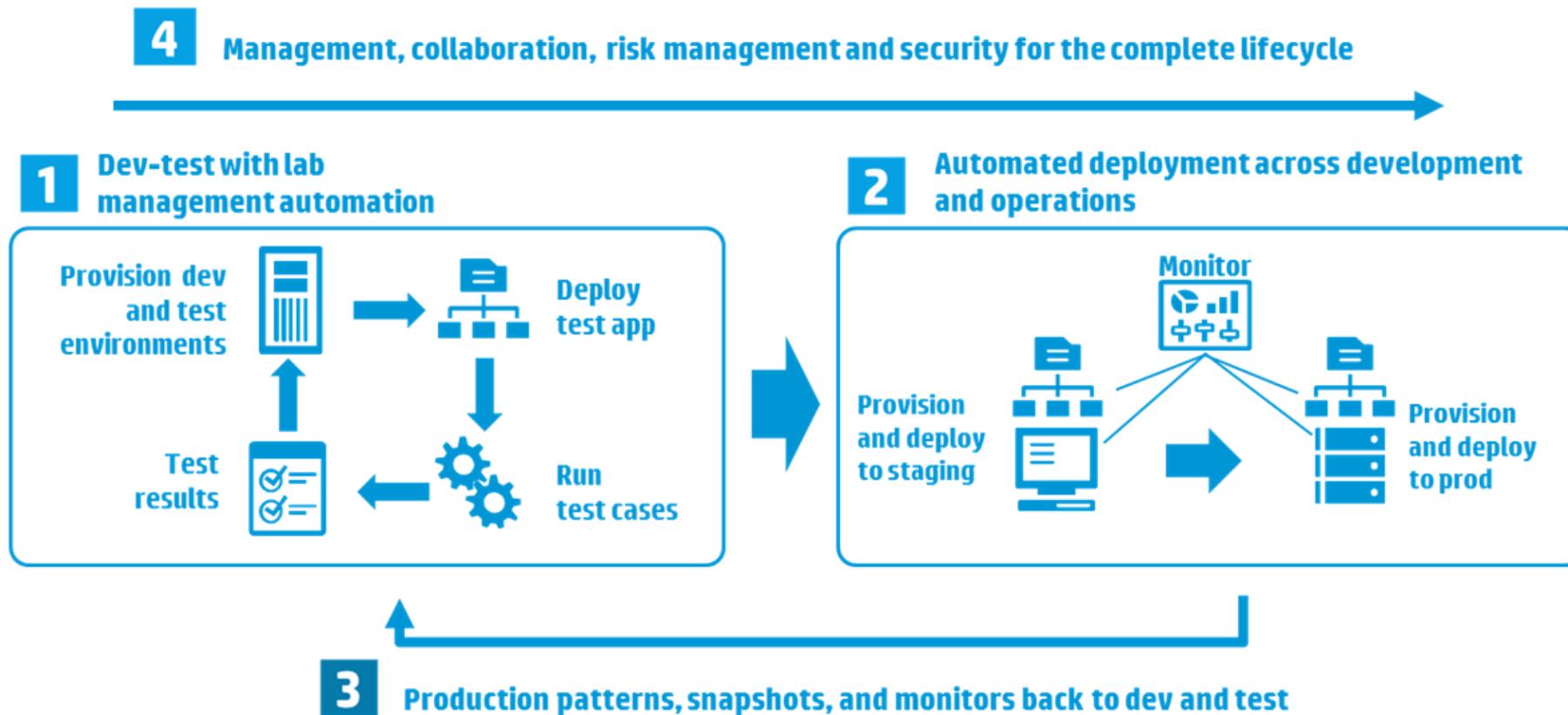


According to DevOps by Design

DEVOPS BY DESIGN

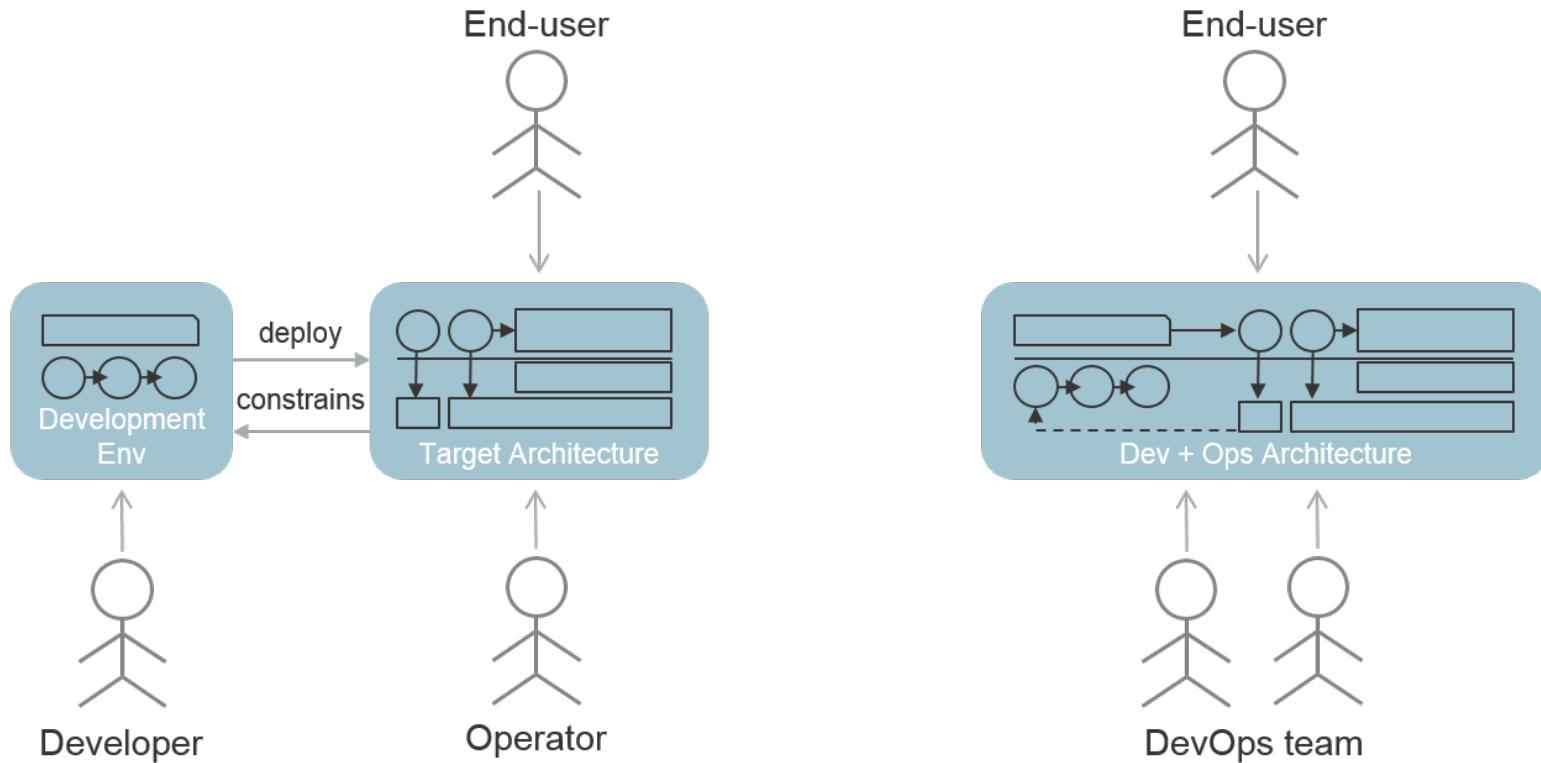


According to HP

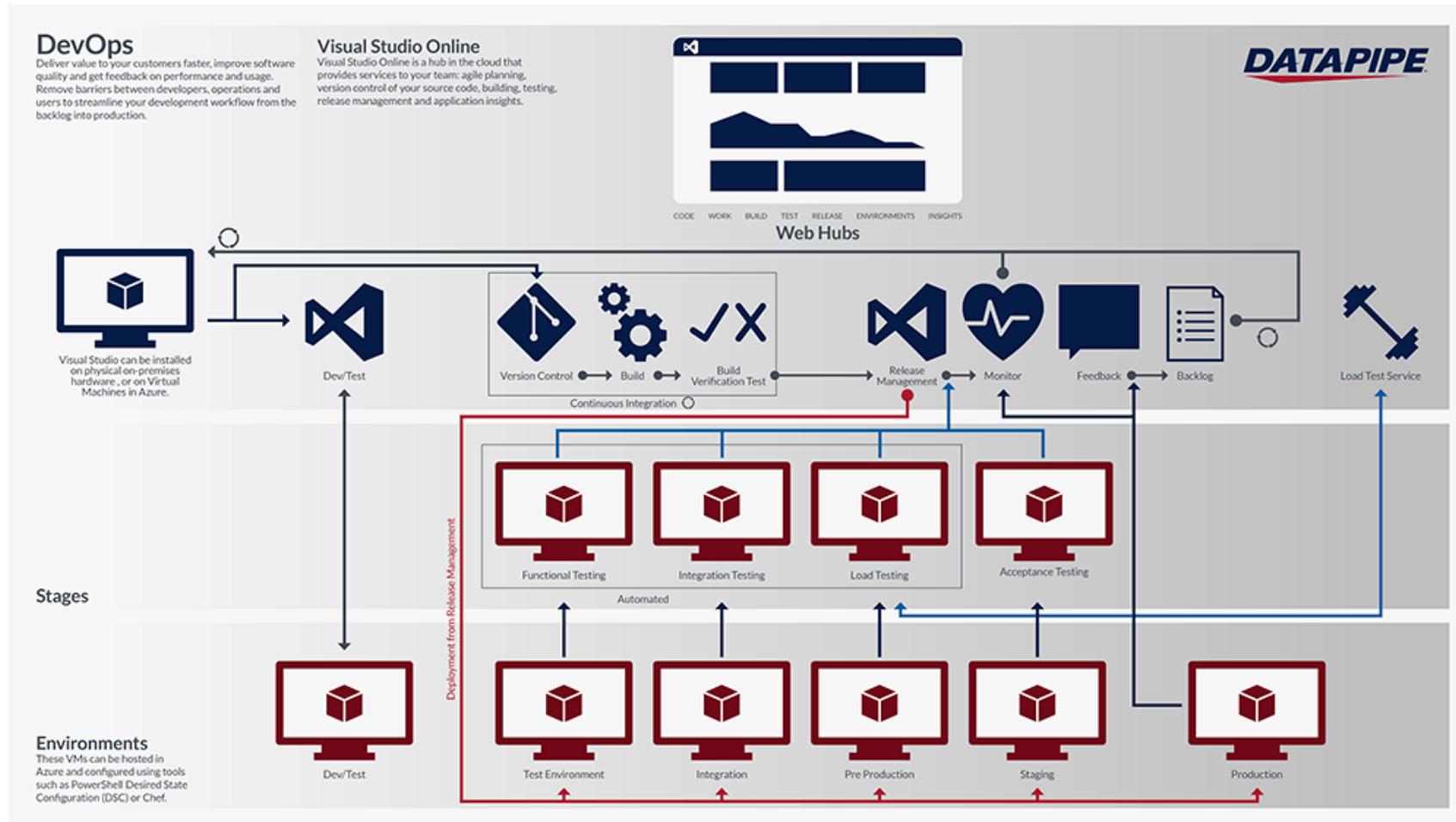


According to Eljto

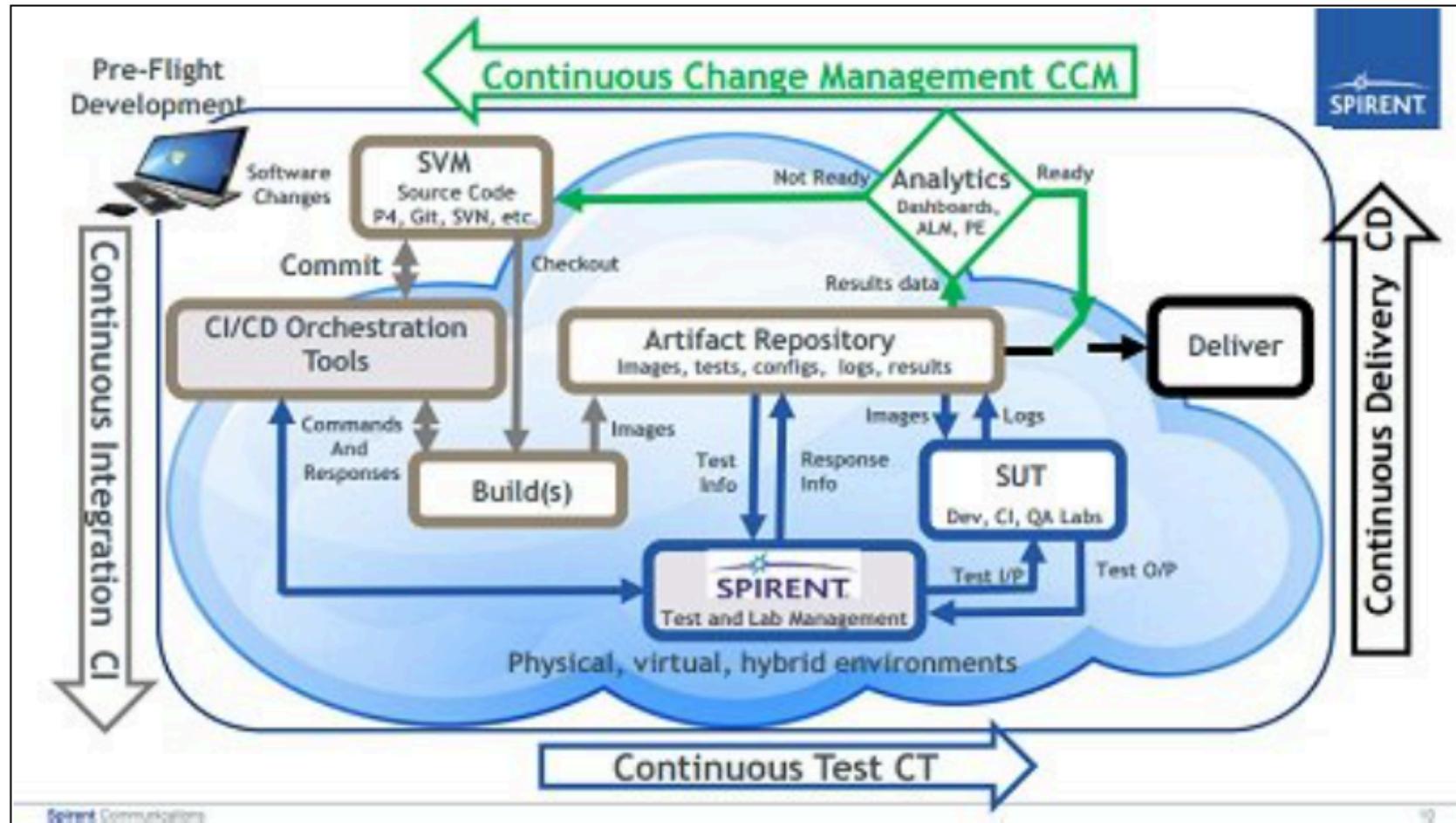
Architecture separated from Dev → Consolidated DevOps architecture



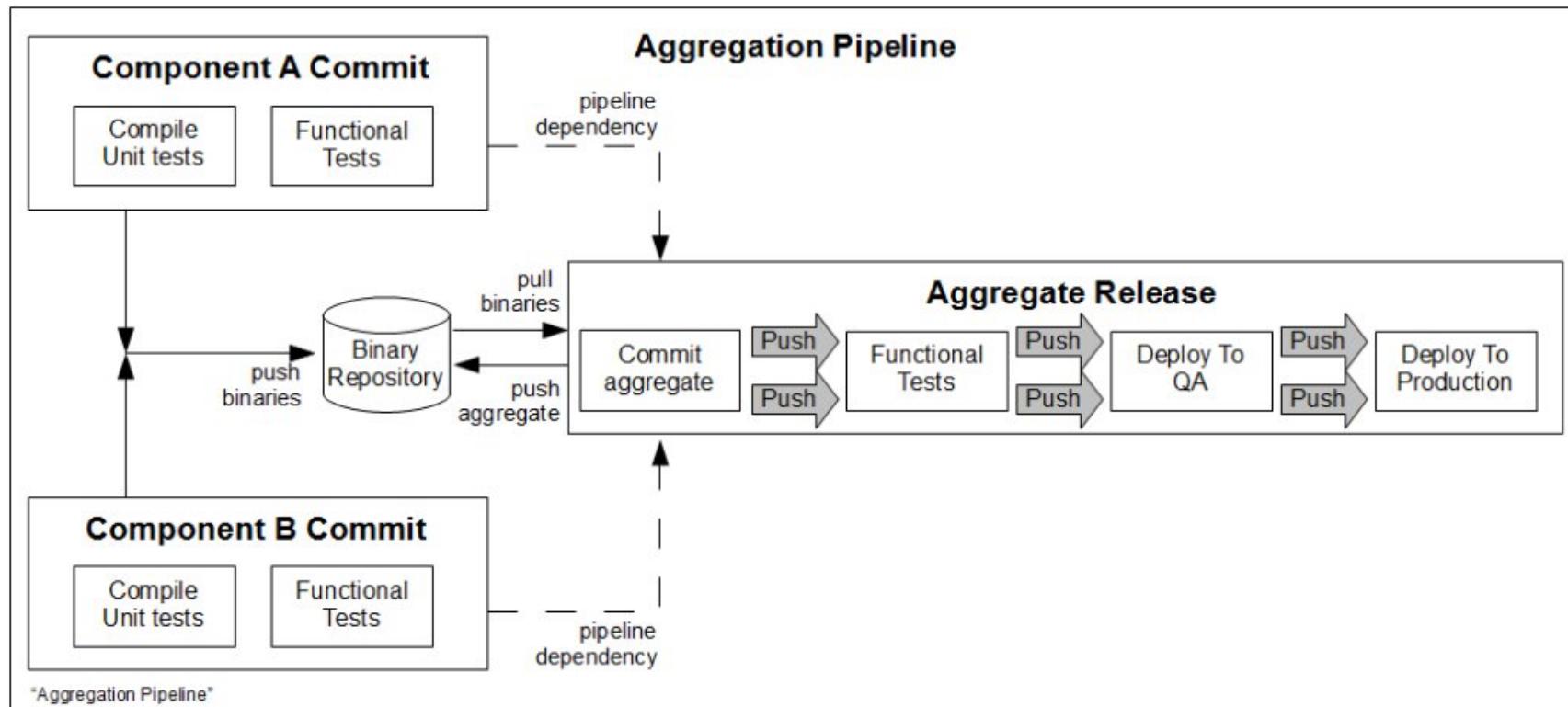
According to DATAPIPE



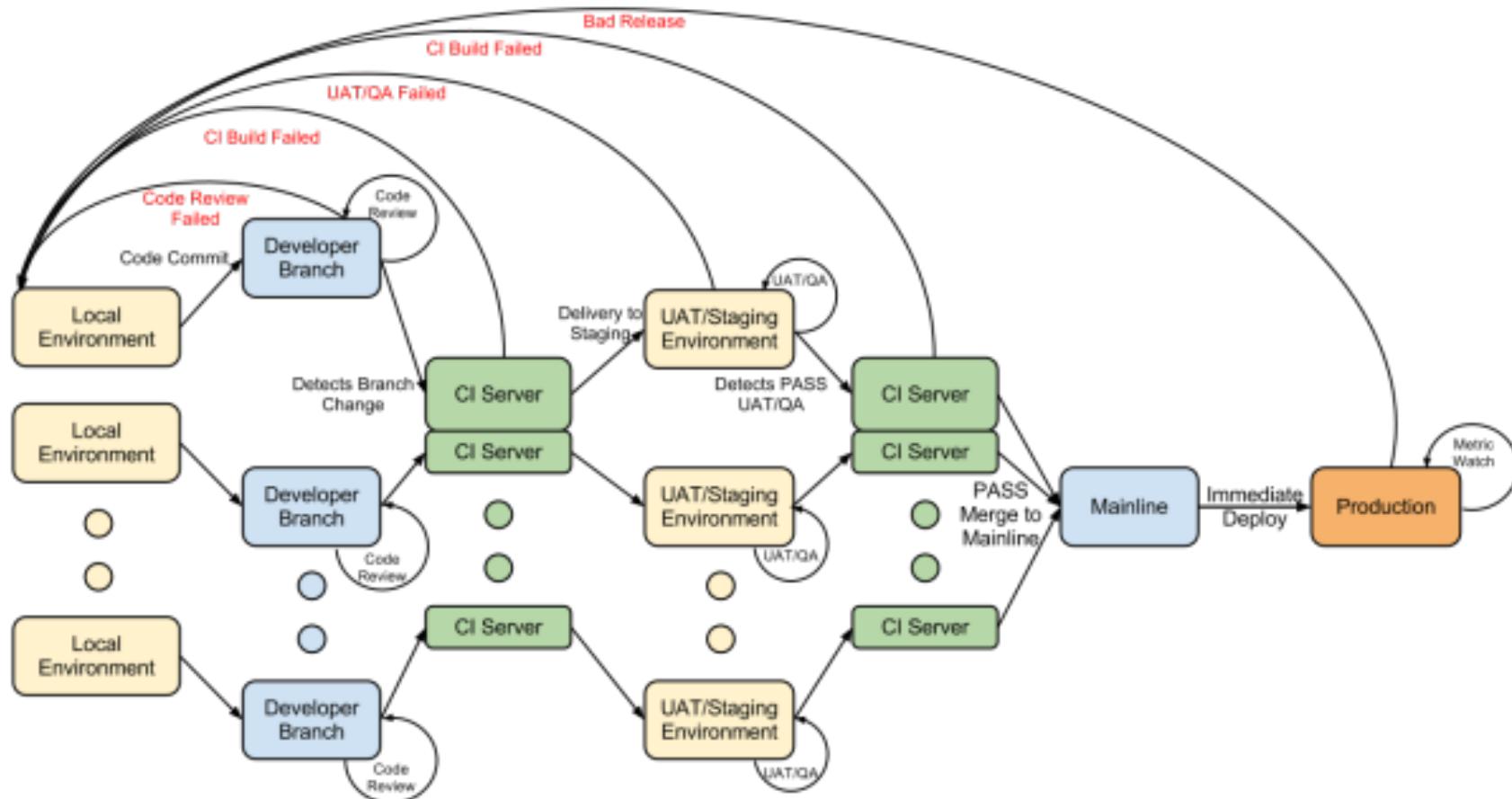
According to Spirent



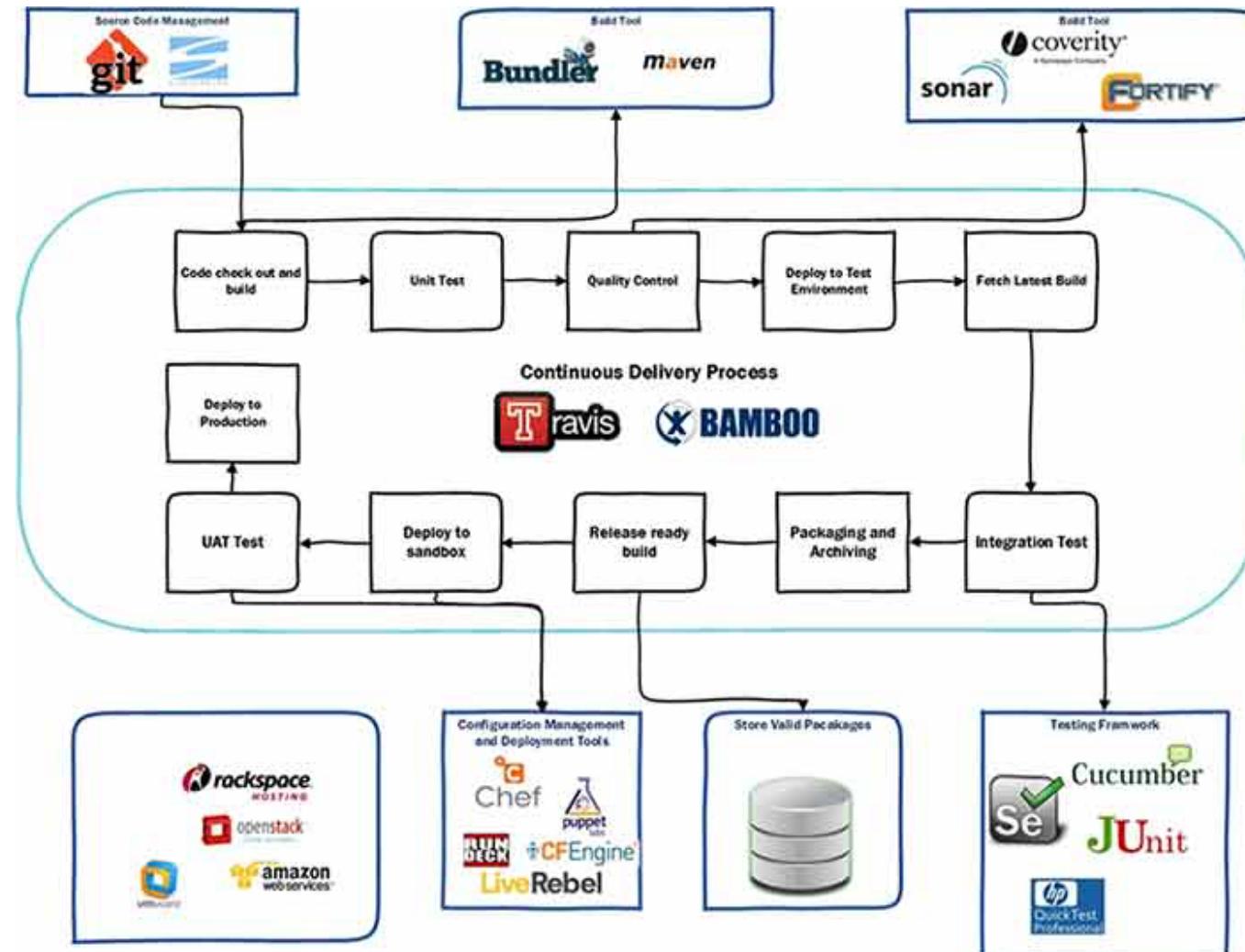
According to Always Agile



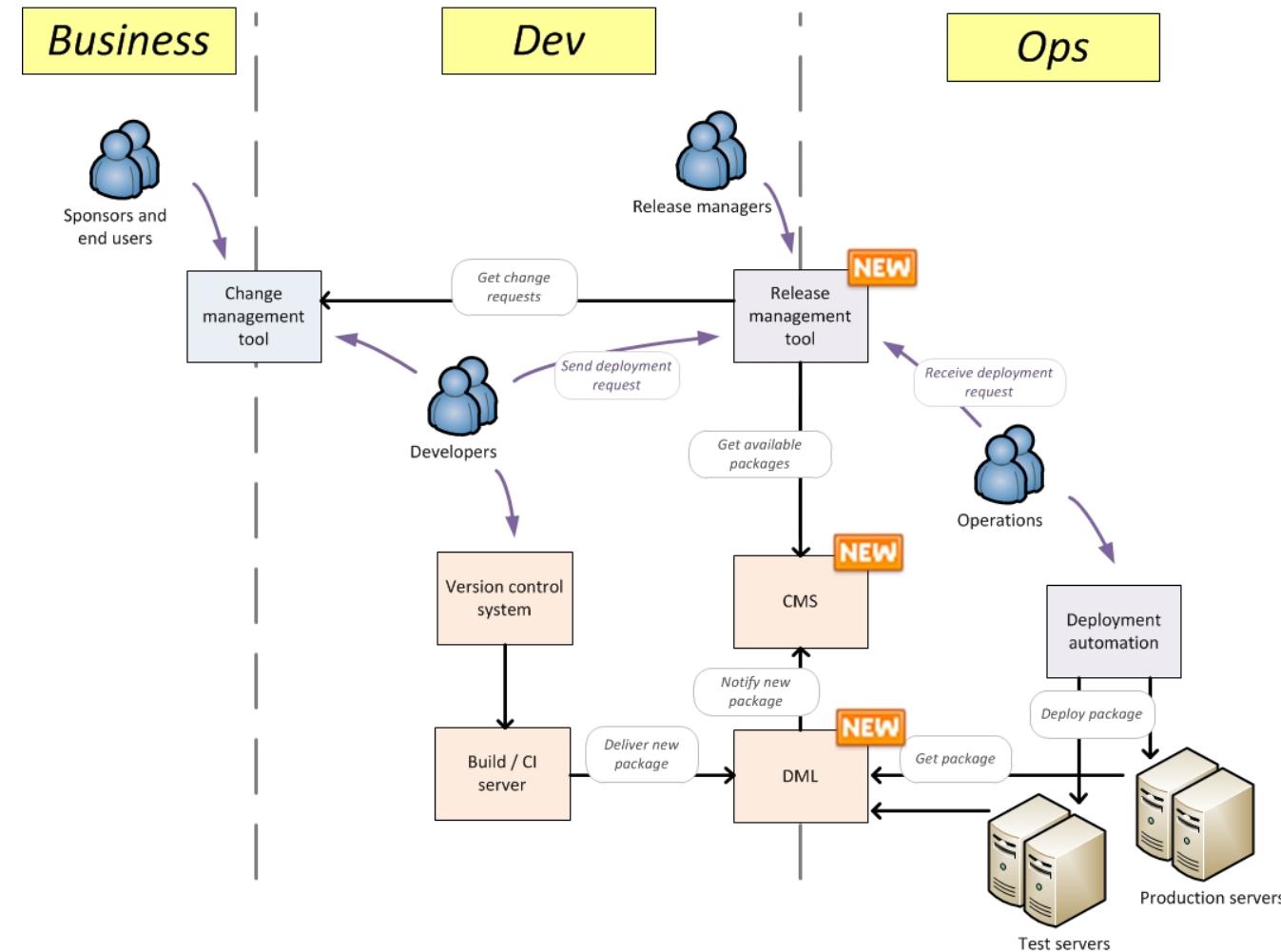
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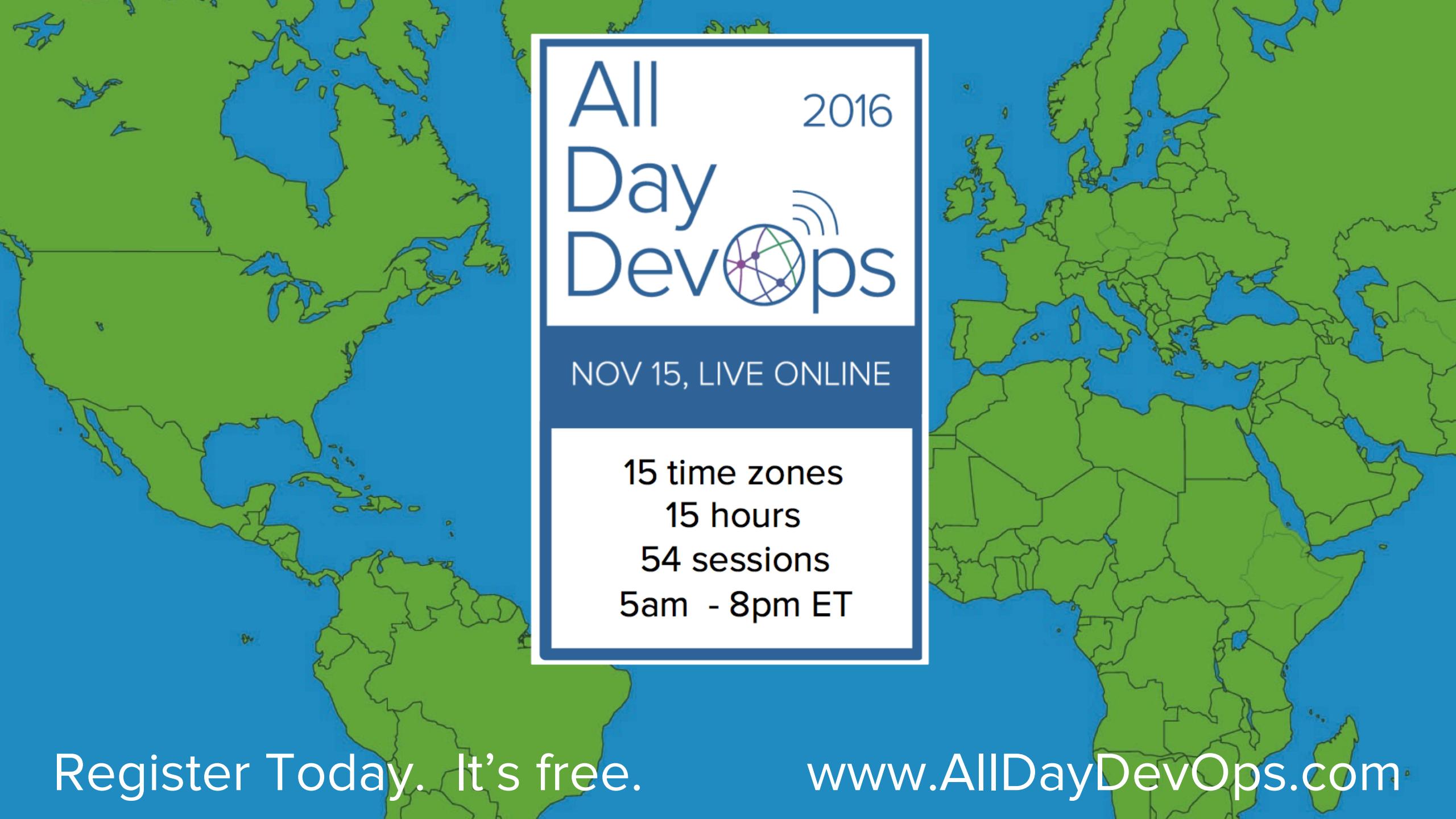


According to Girikon



According to Bartholomeus





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