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Rapid CI/CD for Microservices Development on Cloud

*ORACLE
CODE*

developer.oracle.com

云端微服务开发的CI/CD

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Live for the Code

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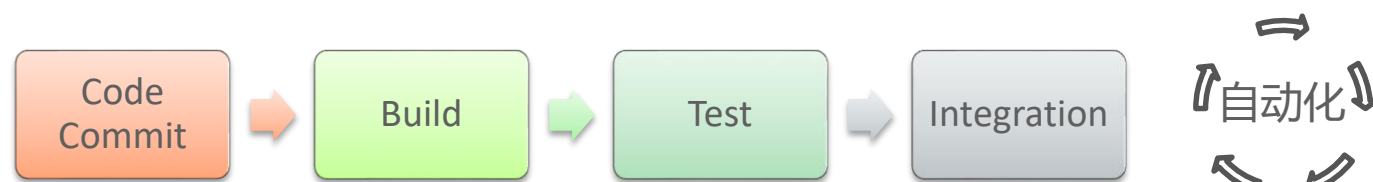
以下内容旨在概述产品的总体发展方向。该内容仅供参考，不可纳入任何合同。本演示不承诺提供任何材料、代码或功能，也不应将其作为购买决策的依据。此处所述有关 Oracle 产品的任何特性或功能的开发、发布和时间安排均由 Oracle 自行决定。

日程

- 1 为什么选择CI/CD
- 2 甲骨文PaaS产品CI/CD解决方案
- 3 Twitter Feed功能开发案例

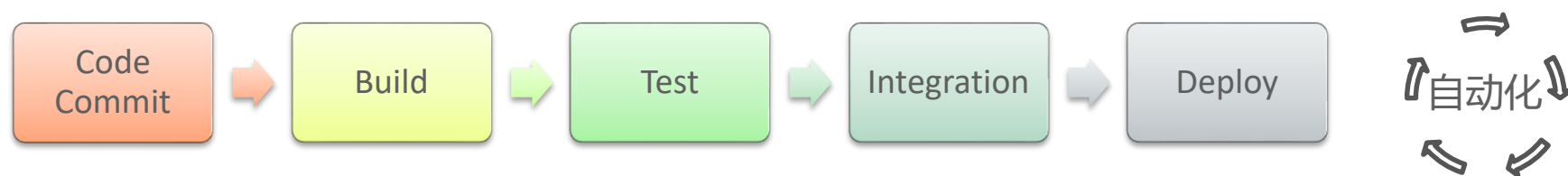
什么是CI/CD

持续集成 (Continuous Integration)



及时发现问题，及时修正
提高生产效率
改善项目质量
快速响应市场需求

持续部署 (Continuous Deployment)



项目开发模式的转变

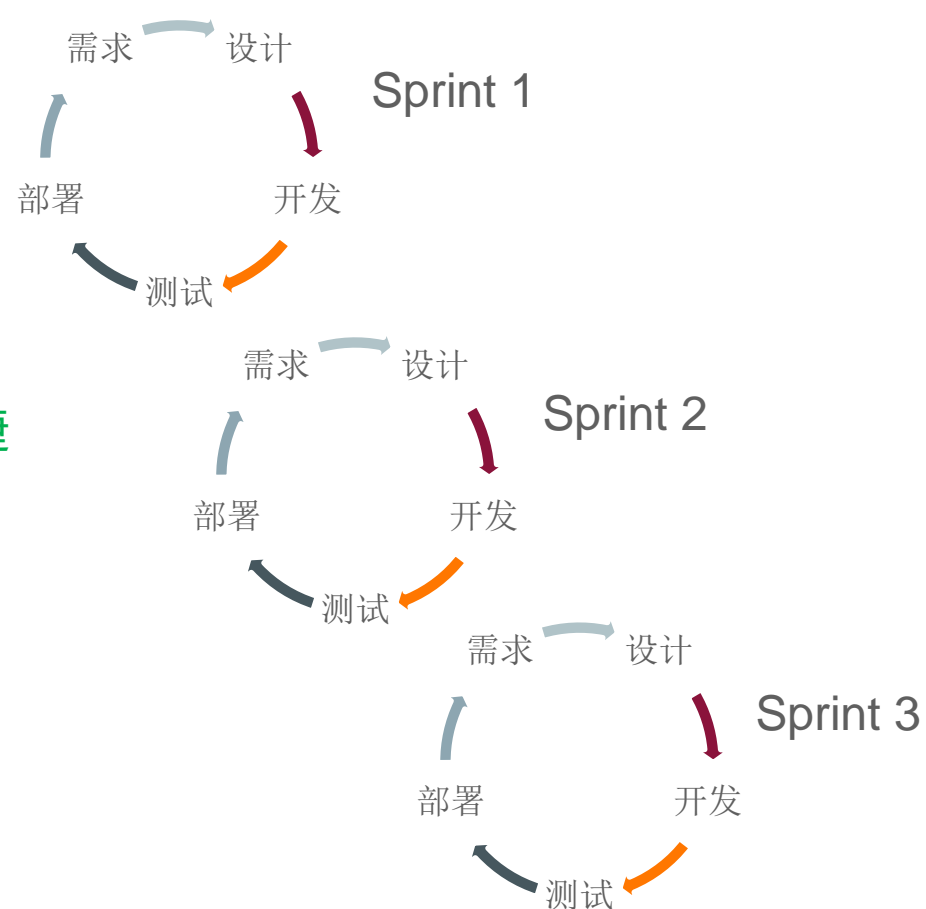


传统

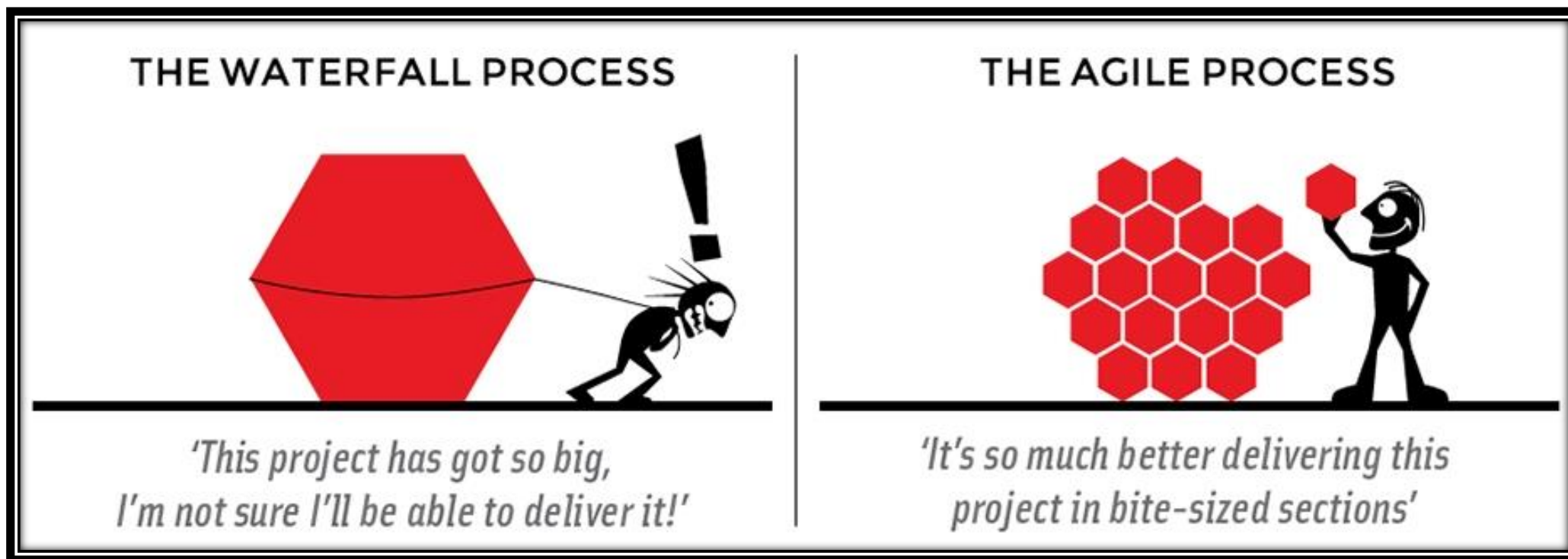


敏捷

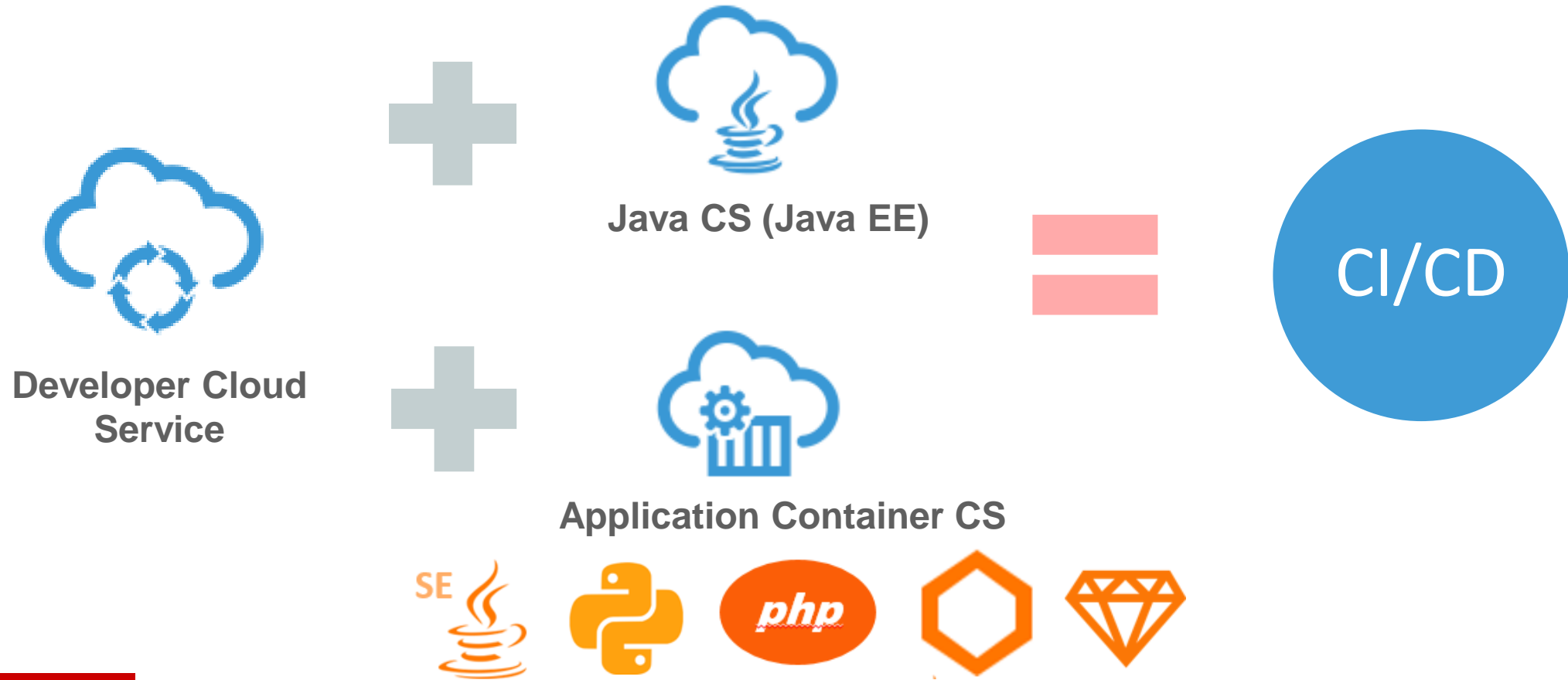
需要更快的迭代速度



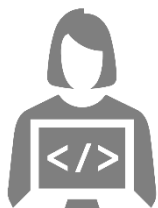
你会选择哪一个？



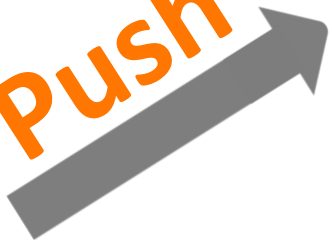
甲骨文PaaS产品CI/CD解决方案



代码提交



Push



自动编译

Build



Zip



Deploy!



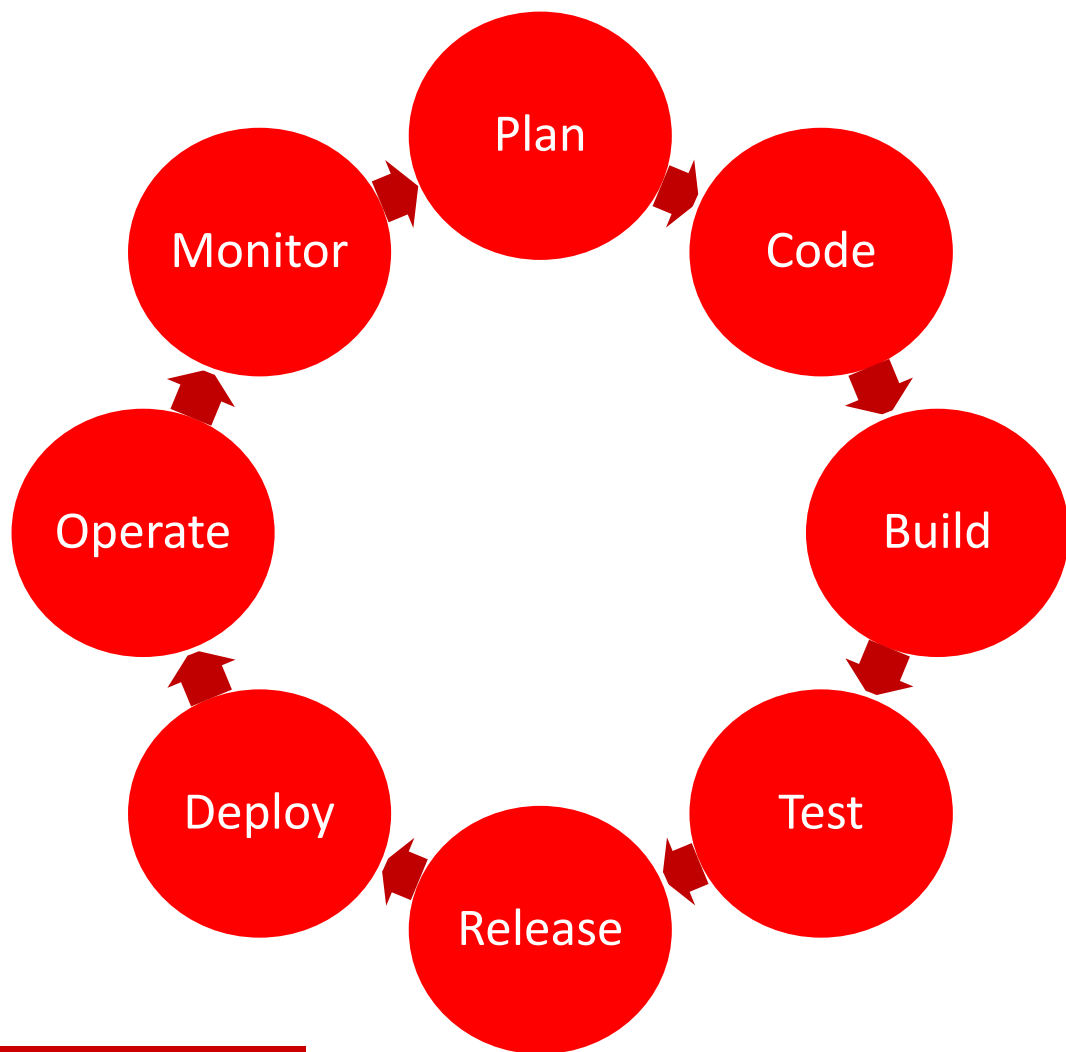
自动部署

Developer Cloud Service



Oracle开发云是对项目全生命周期管理的云平台

- 项目计划与管理
agile, task, team
- 代码管理
version, code review, change tracking
- 编译与交付
automate build, test, deliver, deploy
- 团队协作
wiki, webhook, web dashboard

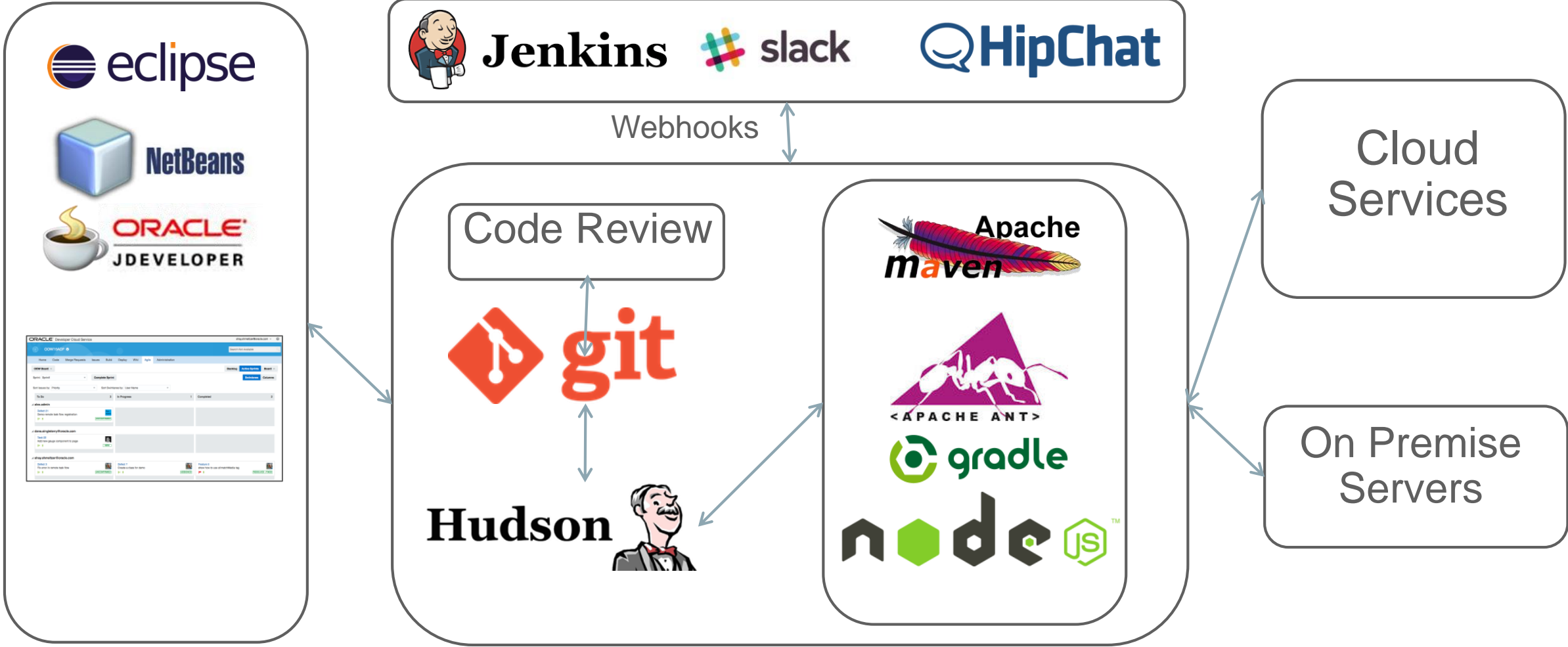


Oracle Developer Cloud Service – What's In It

- Code/DevOps Management
 - Version Management – Git
 - Build Automation
 - Ant, Maven, Gradle, npm, Grunt, Bower, Gulp, SQLcl, Shell
 - Test Automation
 - Selenium, JUnit, Findbugs
 - Continuous Integration Engine
 - Deployment Automation
- Team/Agile Management
 - Issues Tracking
 - Agile Process Management and Reports
 - Code Review
 - Wiki
 - Activity stream



Oracle Developer Cloud Service – Architecture

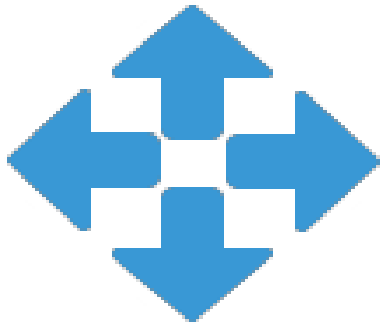


Oracle Application Container Cloud

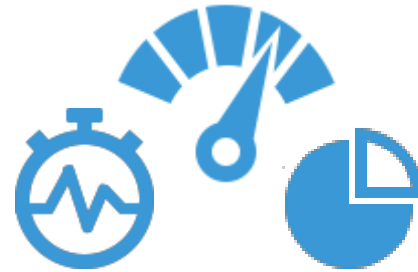


Docker Container-Based、
开放的、高可用的、支持多开
发语言的云应用部署平台

Oracle Application Container Cloud



弹性扩展

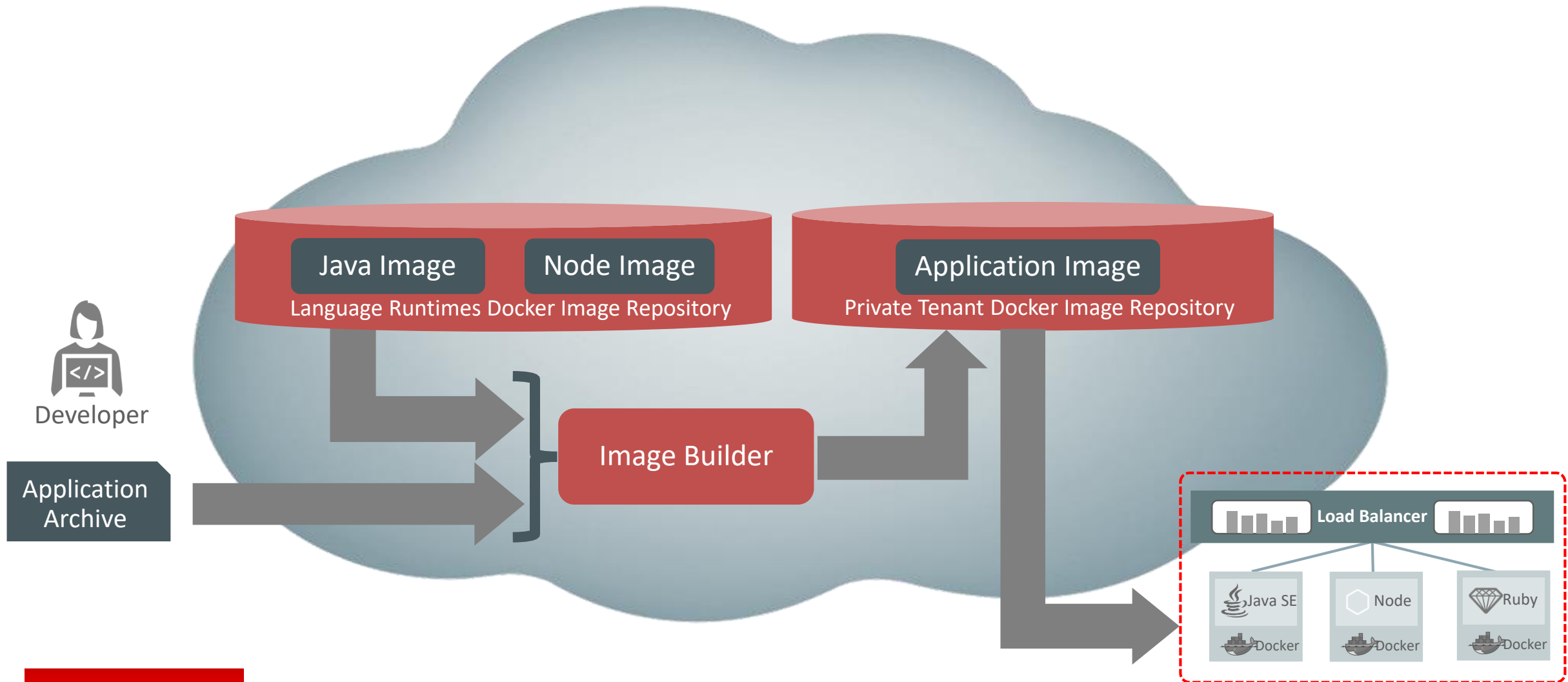


性能监控



环境升级

Application Deployment





Elastic Scaling—Web, REST API, or Automatic*

Scale Up/Down—In/Out

As of Sep 15, 2016 1:28:15 PM UTC

Resources

5 Instances 1 Memory (GB)

Apply **Cancel**

▲ Instances **Health Check**

Name: web.1 **Memory:** 1GB

Performance Metrics as of Sep 14, 2016 6:12:00 PM UTC

Memory used(%): 10.9%



Java Flight Recorder & Mission Control

updates Logs **Recordings**

Use the Get Recording button to retrieve Java Flight Recorder profiling and event information for your Java application. If you started your application with Java Flight Recorder running in continuous mode, the data is retrieved and added to the recordings list. If Java Flight Recorder is not running in continuous mode, then 60 seconds of profile and event information is recorded and added to the recordings list. Download the recordings and analyze them with Java Mission Control.



Instance: web.1

[Get Recording](#)

1 recordings

Name	Size	Last Uploaded
web.1_2016_09_15_14_09_23.jfr	209.66 KB	Sep 15, 2016 2:11:24 PM UTC

The screenshot shows the Oracle Java Mission Control interface. On the left is the 'JVM Browser' with a tree view of the JVM structure. The main area is divided into 'Overview' and 'Event Types'.

Overview: Shows a timeline graph for the period 15/09/16 10:09:24 AM to 15/09/16 10:10:24 AM. Below the graph is a 'Producers' table:

Producer	Total	Count
HotSpot JVM	2 min 19 s 234 ms	67

Event Types: Shows a table of event types with a corresponding pie chart:

Event Type	Total	Count
Java Monitor Wait	58 s 991 ms	59
Java Thread Sleep	1 min 20 s	6
Java Monitor Blocked	241 ms 916 us	2



Update to new releases with single click (or REST call)

As of Jul 4, 2016 4:19:31 PM UTC

Overview

2 Instances

Deployments

0 Service Bindings

0 User-defined Variables

Administration

2 Updates Available

Updates ?

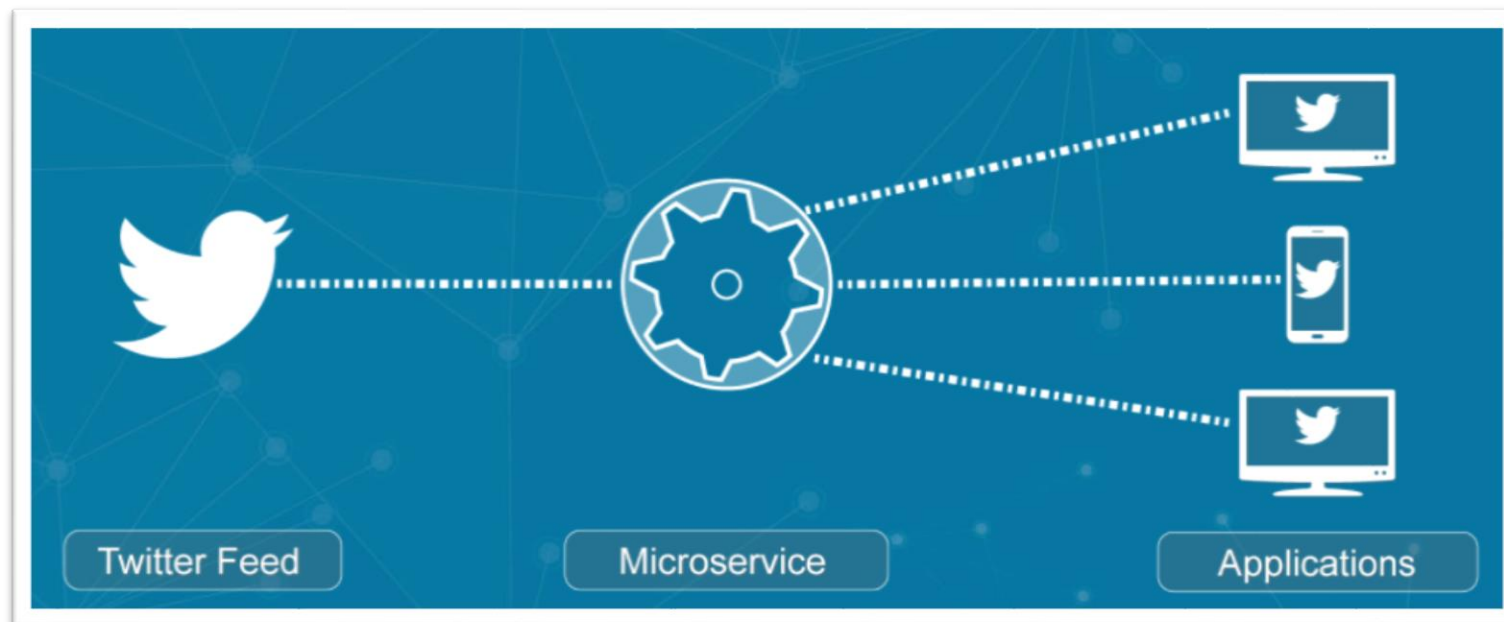
Current Version: Java SE 8u71

Available Updates

	Runtime: Java SE 8u91 Release Notes	Release Date: Jul 4, 2015 12:00:00 AM UTC	Update
	An Application Container Cloud update is available. Your application will be automatically upgraded when you make a change that requires a restart, such as updates to the deployment environment or scaling up, or you can upgrade now by clicking the Restart button.		Restart

► **Update and rollback history**

Twitter Feed 案例说明



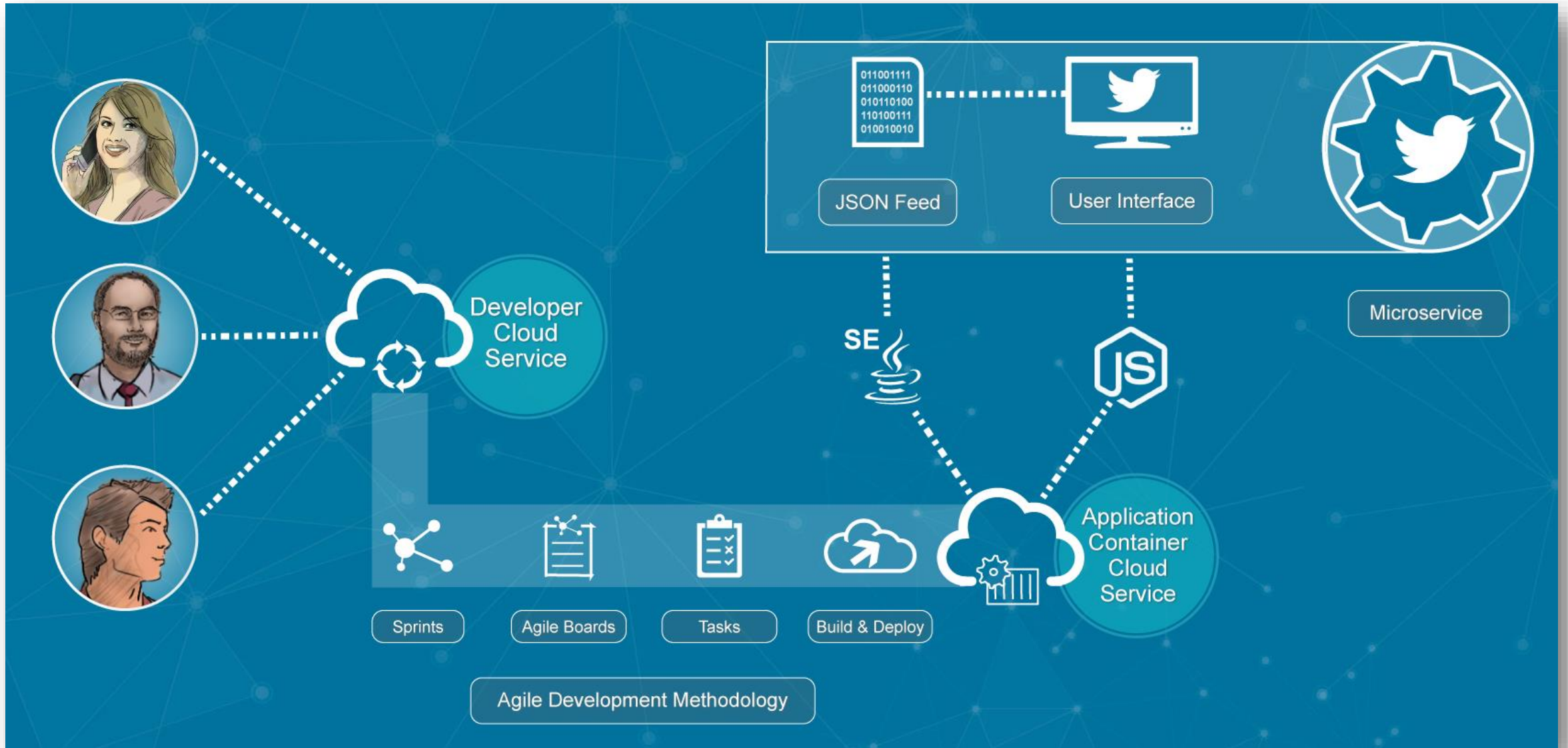
项目经理 Lisa



服务端开发 Bala



前端开发 Join



Demo Step



- 创建项目和任务
- 分配任务
- 开启Sprint



- 构建后端服务Git Repository
- 开发Twitter数据 Filter功能
- Merge开发分支到Master
- 应用部署



- 构建前端Git Repository
- 开发前端展示Twitter数据功能
- Merge开发分支到Master
- 发布应用
- 应用部署

Demo

https://cloud.oracle.com/developer_service

Platform > Application Development > Developer

Developer [Get started for free](#)

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Streamline Team Development and Software Delivery

Hosted team development and delivery platform including issue tracking, code versioning, wiki, agile-development tools, continuous integration and delivery automation.

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Oracle Developer Cloud Service

Get Started

Oracle Developer Cloud Service is a cloud-based software development Platform as a Service (PaaS) and a hosted environment for your application development infrastructure. It provides an open-source standards-based solution to develop, collaborate on, and deploy applications within Oracle Cloud.

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View an interactive to learn how to request and activate your trial service or read the text version.
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https://cloud.oracle.com/acc

Platform > Application Development > Application Container Cloud (Java SE, Node.js, PHP, Python & Ruby)

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Oracle Application Container Cloud Service provides a lightweight infrastructure so that you can run applications in the Oracle Cloud.

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