Objectives

After completing this lesson, you should be able to:

- Get an overview of Oracle Application Container Cloud
- Understand the unique features of Oracle Application Container Cloud
- Understand how to build, zip, and deploy applications to the cloud

Oracle Application Container Cloud Service

An open highly available Docker container-based elastic polyglot cloud application platform

Oracle Application Container Cloud

Simple and easy to use deployment platform for Java SE & Node applications

Open platform—use any application frameworks and libraries

Runs applications in Docker containers for reliability and scalability

Polyglot Platform

Deploy applications to a selection of popular language runtimes supported

- Latest release supports Java SE, Java EE Web Apps, Node.js, and PHP

Leverage unique Oracle Java SE features

- Immediate access to platform upgrades, security, platform optimizations
- Continued commercial support for Java SE versions no longer receiving public updates

Node access to Oracle DB with open source database driver

ORACLE

Runtime releases regularly updated to the latest

Open Platform

Use any of the thousands of open source or commercial Java or Node frameworks—no restrictions.

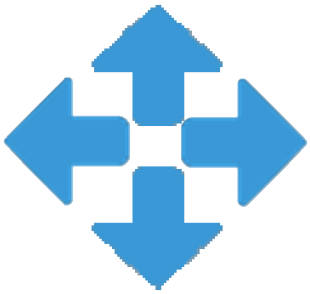
Container-based Application Platform as a Service

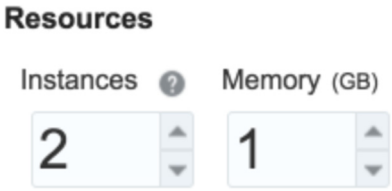
Applications run on Oracle Linux in Docker containers

Stateless Applications

- Ephemeral disk
- Permanent storage through database or storage service

Elastic Scaling





On demand elastic scaling either through the service console or using the service REST API

Scale out / in

- Add / remove application instances to handle workloads

Scale up / down

- Add / remove RAM to accommodate application memory requirements

Profiling

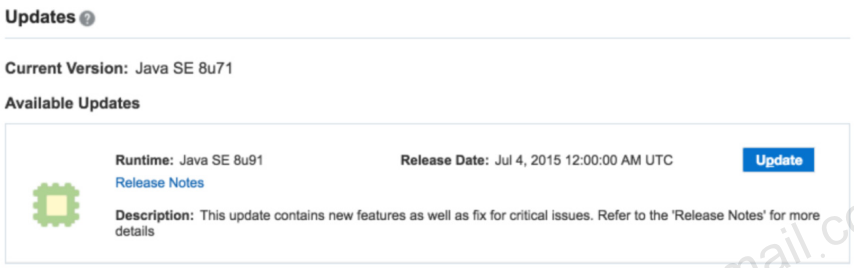
Java application can use Java Flight Recorder to monitor application and JVM behavior and analyze in Mission Control

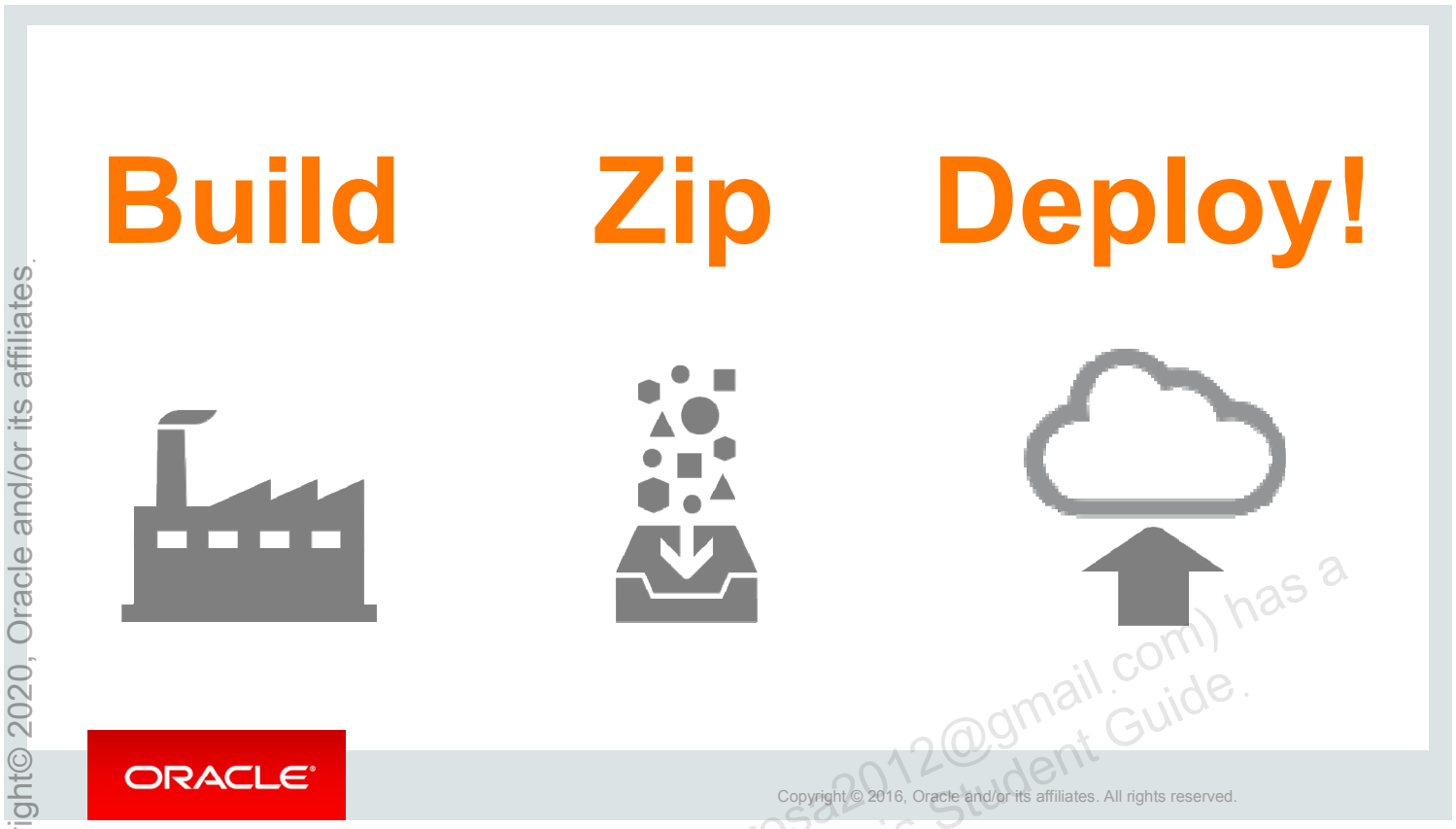
Use Application Performance Monitoring Cloud Service for advanced use cases

Manageable

New Java and Node releases published in the service console

One-click upgrade to the latest releases—applications are simply restarted to upgrade to new runtime





Build

- Use your favourite or corporate standard build system to produce binaries and deployable resources.

Zip

- Zip up all binaries, scripts, html files, images, etc. that make up your application. The structure of the zip is entirely up to the user—we have no opinion on structure.

Deploy

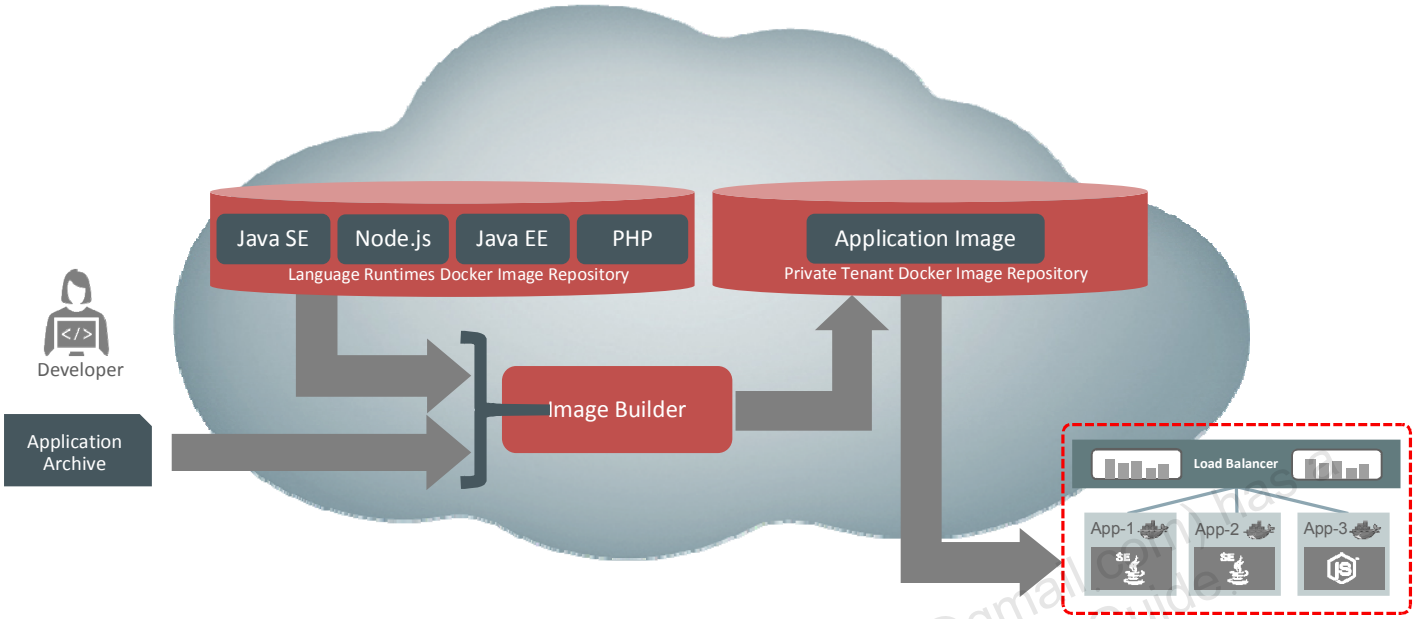
- Deploy the application archive (zip) to the platform and tell us how to start the application. This could be “java –jar’, “java –classpath … <main>”, “node myapp.js”, or “sh bootmyapp.sh”.

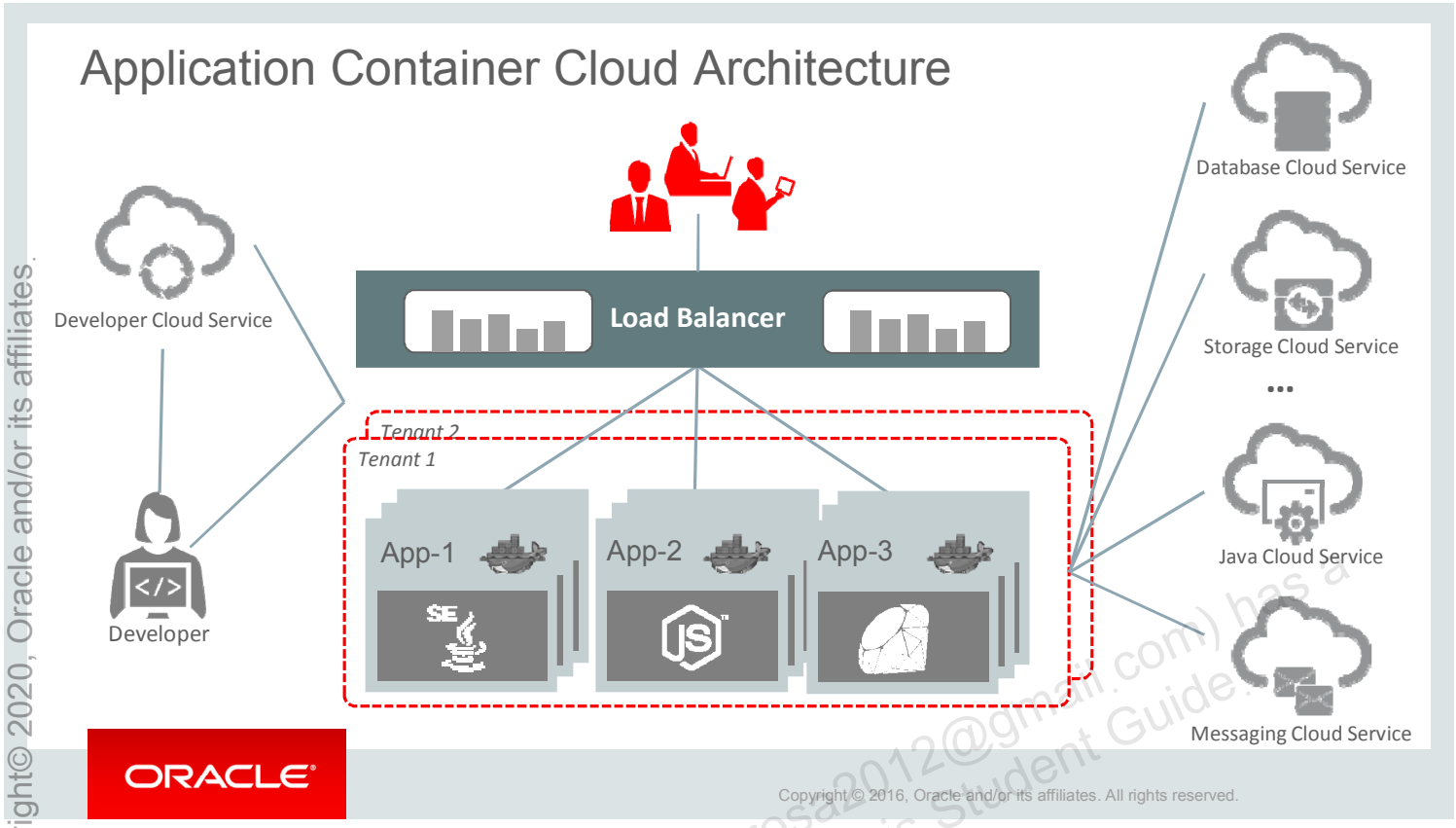
Deploy—Application Archive (Zip)

- All application binaries
- All required libraries
- Binaries of any container/embedded container
- Images files
- HTML files

Everything you'd need to run your application on a virgin machine

Application Deployment





- Tenant Isolation
- Polyglot
- Integrated
- Developer Friendly

Load Balancer

Fully automated—no user management required

Scale out or in and application instances are automatically registered/unregistered

Vanity URL support (upcoming) will allow installation of certificates

Oracle Developer Cloud Service

Source Control Management

Issue Tracking

Hudson Continuous Integration

Wiki Collaboration

- Complete, Integrated Development Platform—as a Service
- Application Lifecycle Management
- Team Management
- Entitlement with all Application Container Cloud services

Developer Cloud Service – Easy Adoption/Integration

Pre-integrated development technologies in the cloud

Standards Based

- Git, Maven, Hudson, Ant, Grunt, Gulp, etc.

Built-in IDE Integration

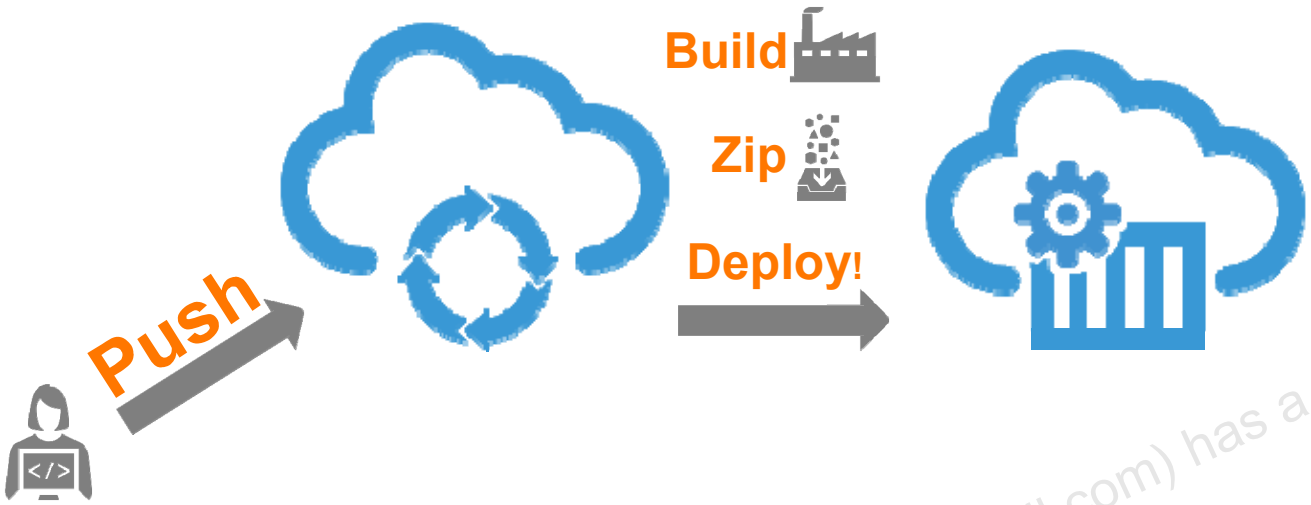
- Eclipse, NetBeans, JDeveloper

Flexible Source Location

- Hosted Git or GitHub

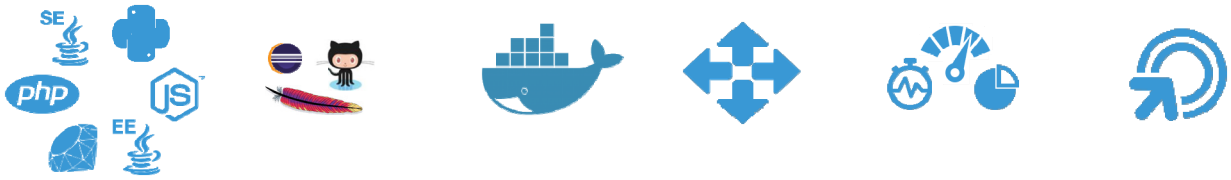
Choice of Deployment Target

- Oracle Cloud or on-premise



Rather than build on-premise, use DevCS to perform continuous build, test, and deployment.

Application Container Cloud Service Advantages



- Integrated ***enterprise*** ecosystem and services from IaaS to PaaS and SaaS
- Java SE Advanced – completely ***unique*** and unavailable on any other cloud platform
- Developer Cloud Service – ***included*** and *integrated*

Summary

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