



Gordon Dickens

- Instructor & Mentor
 - Spring Courses
 - Maven Courses
 - EIP Architect

• Author

- DZone STS RefCard
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Instructor

Agenda

- Introduction
- Enterprise Java in the Cloud
- Java EE in the Cloud
- JEE Cloud Patterns
- Cloud Thinking / Q&A



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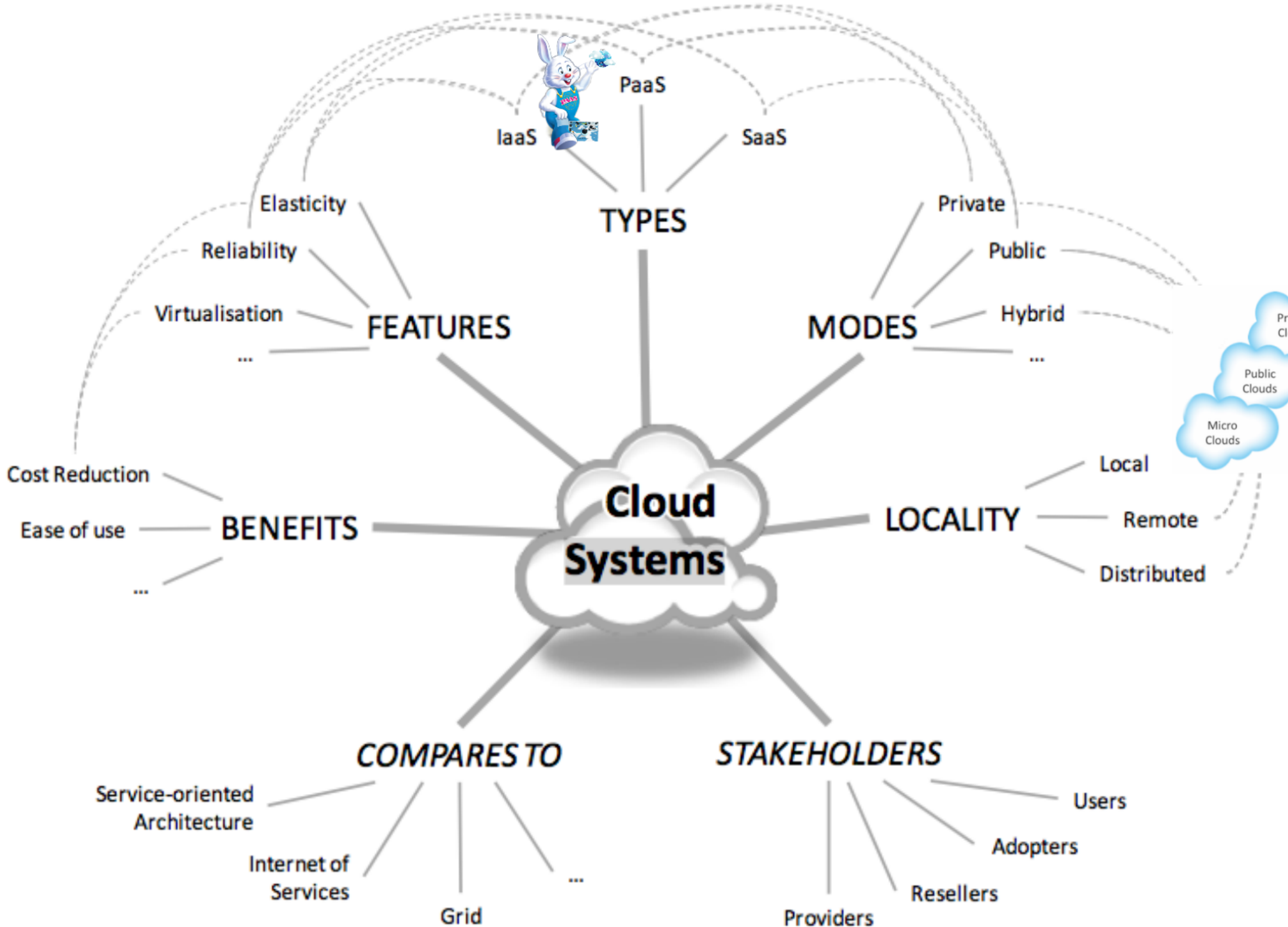
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Instructor

Agenda

- Intro to Cloud
- Enterprise Java in the Cloud
- Java 7 & JEE in the Cloud
- JEE Cloud Players
- Closing Thoughts / Q&A



laaS



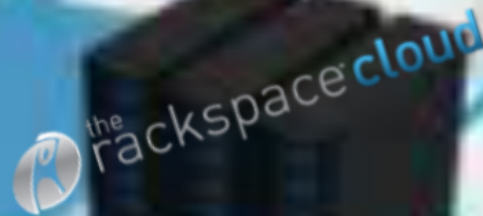
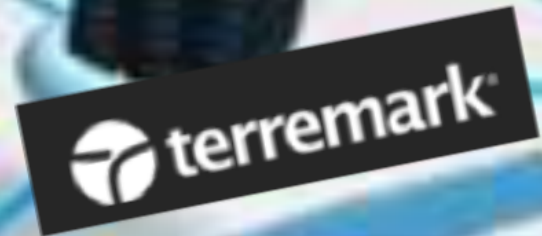
PaaS

SaaS

TYPES



IaaS

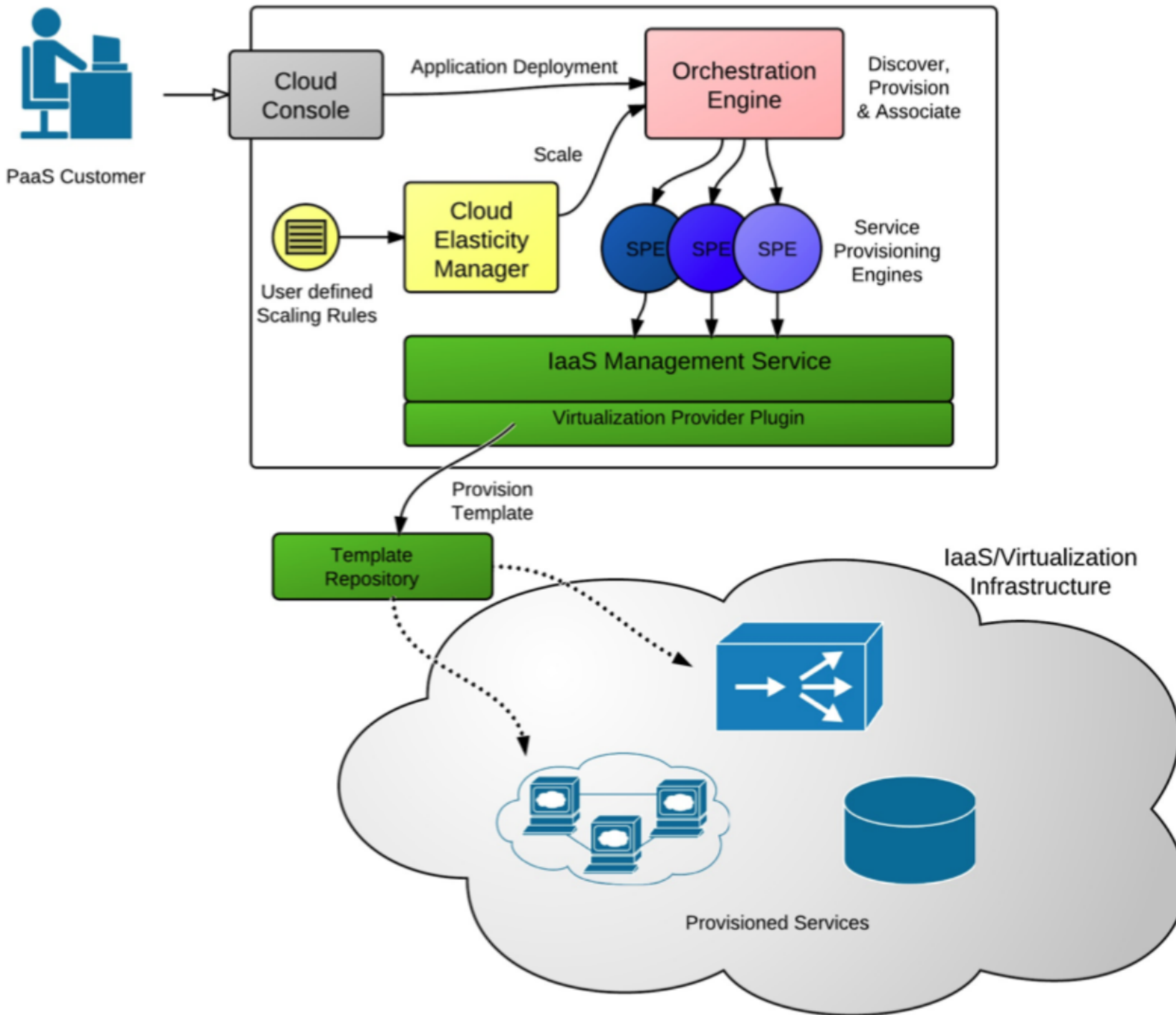


Fun for the Infrastructure Nerds

PaaS



Cloud Platform Admin Service (CPAS)



Which Java Cloud?



CLOUD FOUNDRY™



Enterprise Java Frameworks



Spring Framework



Java EE



Seam Framework

JavaOne 2011



"Java EE 7"

"It's all about the Cloud"

JSR-336

Will Java 7 Help?

No...

It's Just Language Improvements

- Over 500 Changes
- Over 170 New Classes
- Diamond Operator
- Concurrency
- Try/Catch Multi exception
- Try/Catch AutoClose
- File & Directory Classes
- Switch/Case on String

Fork/Join

```
Map<String, List<MyBean>>  
mb = new TreeMap<>();
```

Phaser

ConcurrentLinkedDeque
LinkedTransferQueue

```
catch (  
MyException | YourException e)
```

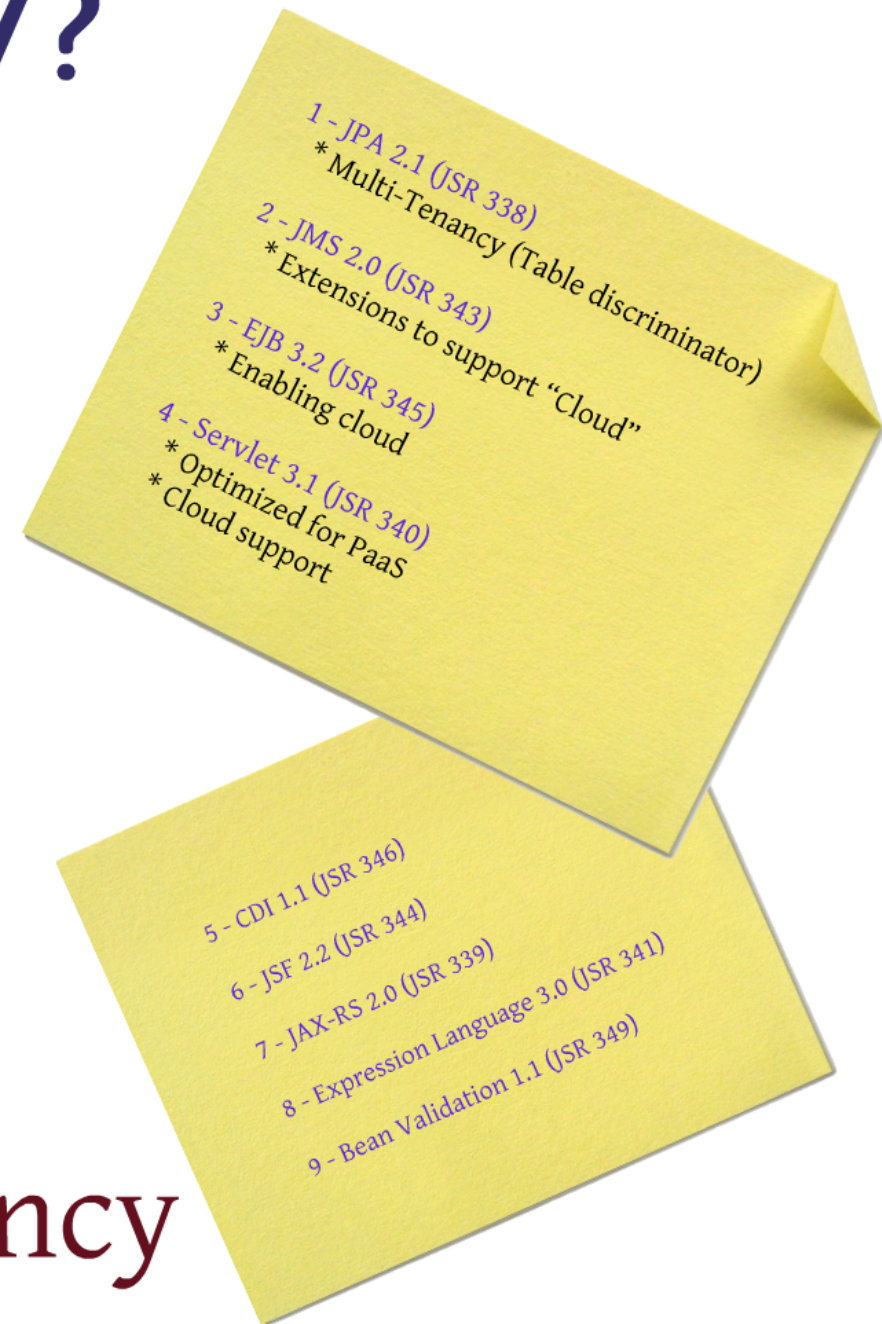
```
try (  
BufferedReader br = Files.newBufferedReader(Paths.get(...));  
BufferedWriter bw = Files.newBufferedWriter(Paths.get(...))  
) { ... }
```


What about JEE 7?

- Not yet...
- Q3 2012
- Timeboxed
 - So???
- 33 JSRs + 9

JEE 7 Focus

- Elasticity
- Multi-tenancy



Java EE 6

JSR-316

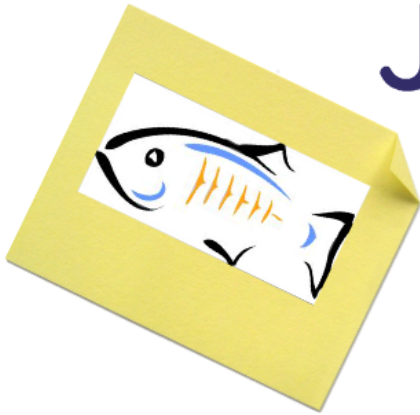
JSR-045 - Debugging Other Languages 1.0
JSR-052 - JSTL 1.2
JSR-067 - XML Messaging 1.3
JSR-077 - J2EE Management 1.1
JSR-088 - EE App Deployment 1.2
JSR-093 - JAXR 1.0
JSR-101 - JAX-RPC 1.1
JSR-109 - Enterprise WS 1.3
JSR-115 - Container Authorization 1.3
JSR-173 - StAX 1.0
JSR-181 - WS Metadata

JSR-196 - Container Authentication SPI
JSR-206 - JAXP 1.3
JSR-221 - JDBC 4.0
JSR-222 - JAXB 2.2
JSR-224 - JAX-WS 2.2
JSR-245 - JSP 2.2/EL 2.2
JSR-250 - Common Annotations 1.1
JSR-255 - JMX 2.0
JSR-299 - CDI for (Web Beans 1.0)
JSR-303 - Validation 1.0
JSR-311 - RESTful WS (JAX-RS) 1.1

JSR-314 - JSF 2.0
JSR-315 - Servlet 3.0
JSR-316 - JEE 6
JSR-317 - JPA 2.0
JSR-318 - EJB 3.1 & Interceptors 1.1
JSR-322 - EE Connector Architecture 1.6
JSR-330 - DI 1.0
JSR-907 - JTA 1.1
JSR-914 - Messaging API 1.1
JSR-919 - JavaMail 1.4
JSR-925 - JAF 1.1

www.oracle.com/technetwork/java/javaee/tech/index.html

Java EE Containers



Jelastic

Jelastic



CloudBees

CloudBees AnyCloud



OPENSIFT

OpenShift



Oracle Public Cloud

Jelastic Demo

<https://app.jelastic.servint.net/>



Elastic



- Tomcat



- GlassFish

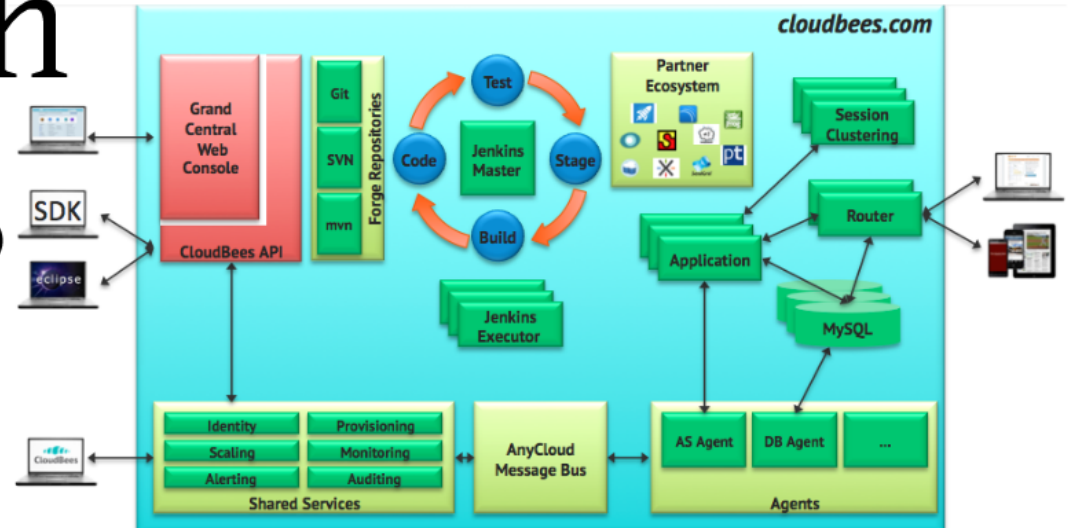


- Jetty

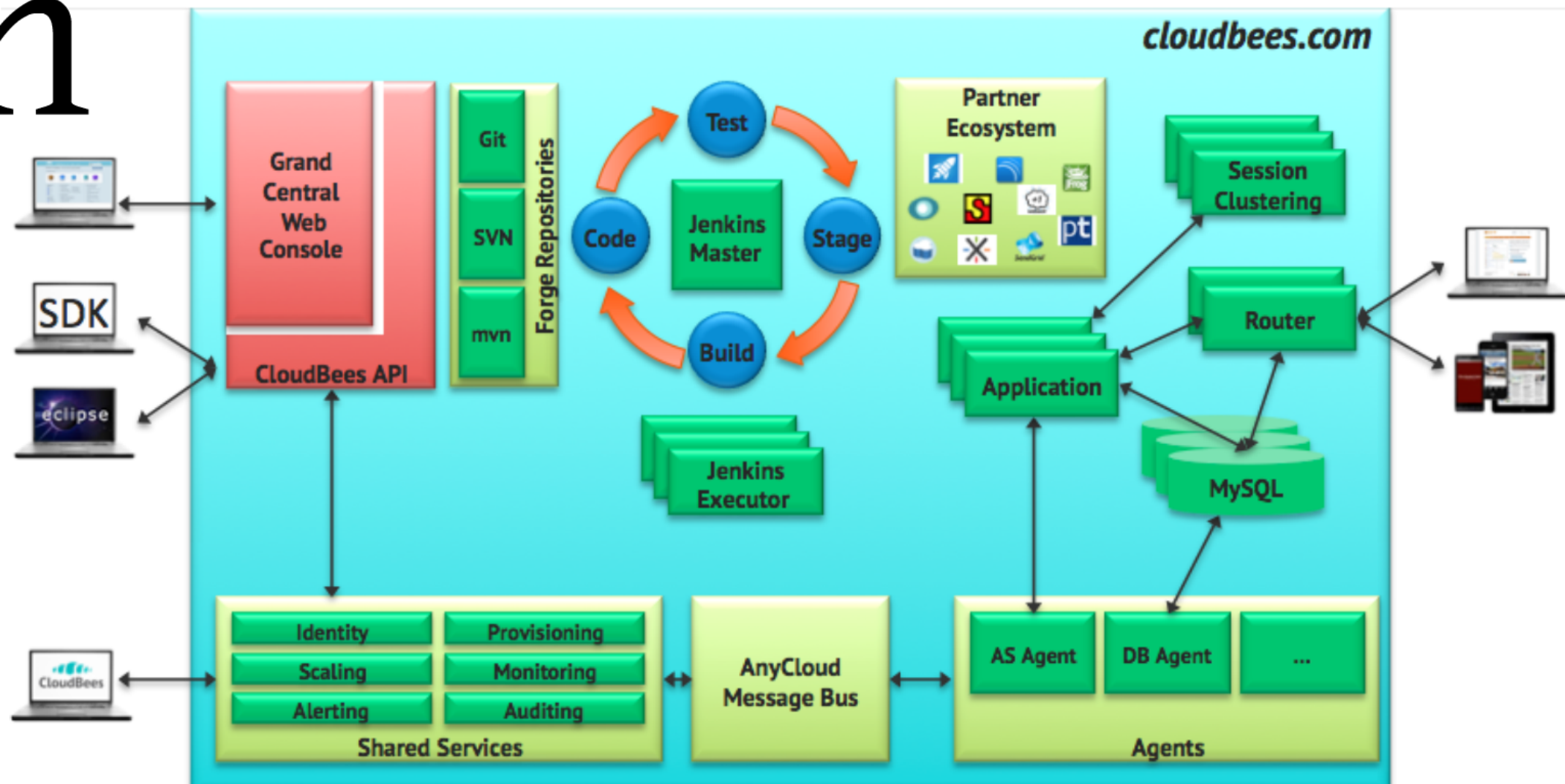




- Tomcat
- Jetty
- GlassFish
- JBoss AS



n



Dev Environment

- **Jelastic**

- Console configuration
- Maven

- **CloudBees**

- Bees SDK - no autoupdate
- `cloudbees-web.xml`
- Maven
- Git or SVN
- Eclipse IDE
- Jenkins

- **OpenShift**

- Maven
- Git
- `.openshift`
- Ruby gem - RHC
- Eclipse IDE

- **Heroku**

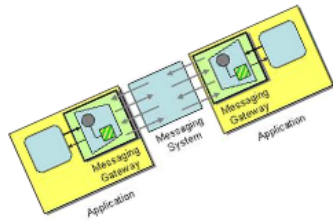
- `Procfile`
- Ruby gems - Heroku & Foreman
- Git
- IntelliJ Plugin
- Eclipse Plugin

- **CloudFoundry**

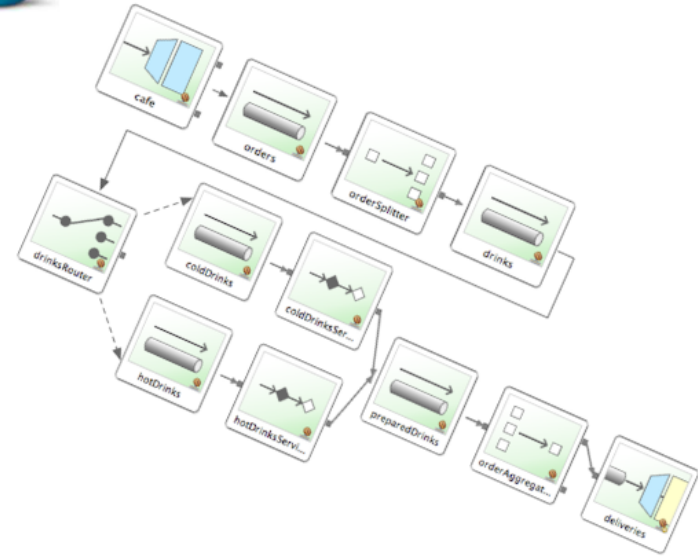
- `cloudfoundry.properties`
- Runtime Jar
- Maven
- Ruby gem - VMC
- Eclipse IDE
- MicroCloud VM

Interoperability

- Resources
 - DB
 - Messaging



- Resource Config
 - fairly familiar
 - properties files, etc.
- Does the platform allow remote connectivity?



Applications in the Clouds

- Jelastic
 - JEE 6/MariaDB/Glassfish - <http://petcatalog.jelastic.servint.net/petcatalog/>
 - Spring/MariaDB/Tomcat - <http://petclinic.jelastic.servint.net/petclinic/>
- CloudBees
 - Spring/MySQL/Tomcat - <http://roobees.gdickens.cloudbees.net>
- OpenShift
 - JBoss - <http://ete2012-chariotsolutions.rhcloud.com>
- CloudFoundry
 - <http://simpleitem.cloudfoundry.com>
- Heroku
 - <http://evening-window-9861.herokuapp.com/>

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Instructor

Pick a Cloud

&
Play!



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