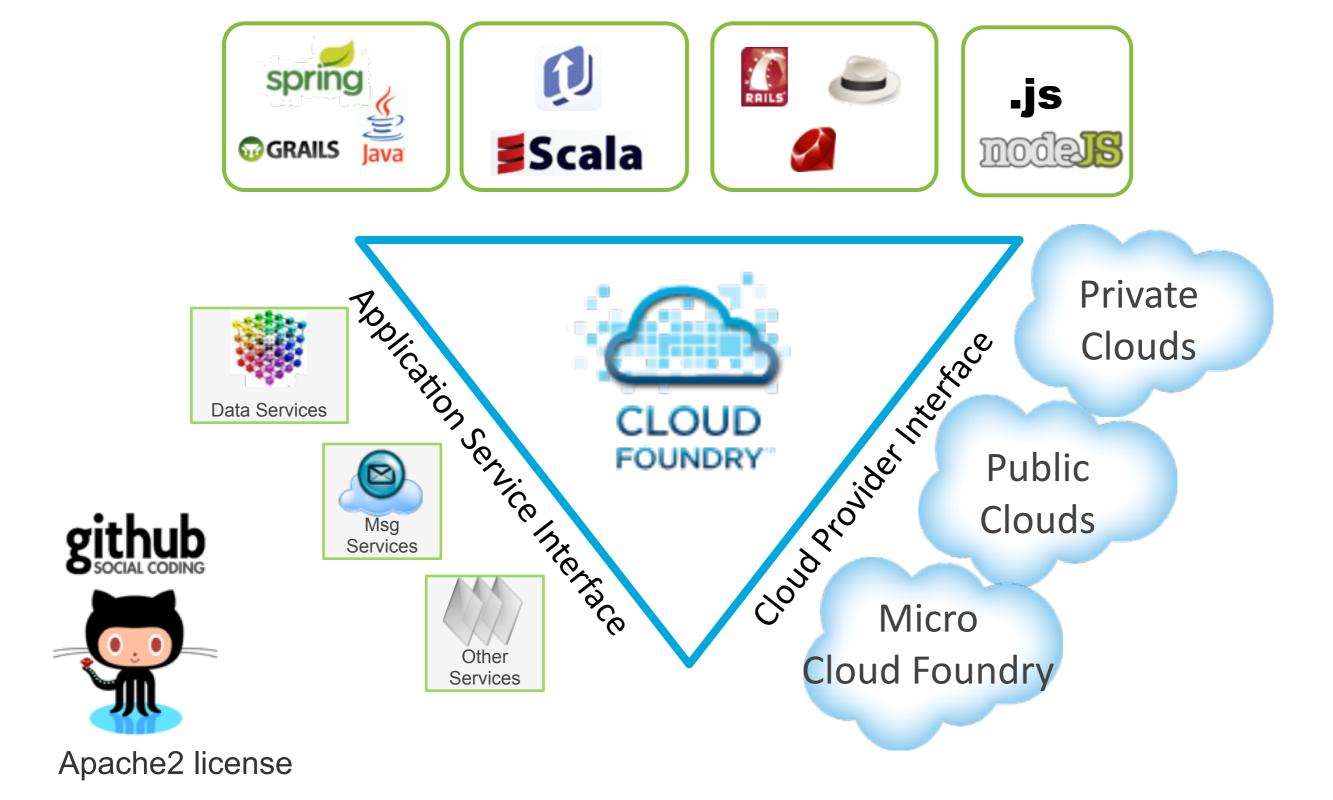


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# Cloud Foundry Open PaaS



### history

developed and published by VMware in 2011 <a href="https://github.com/cloudfoundry">https://github.com/cloudfoundry</a>

Now part of Pivotal <a href="http://gopivotal.com">http://gopivotal.com</a>

Fully open-source (cloud platform itself, hosting and admin tools, developer tooling)

Fully open contribution process

### past: runtimes & frameworks

```
Java (6 + 7): Web, Spring, Lift, Play
node.js (0.4 + 0.6 + 0.8)
Ruby: Rails, Sinatra, Rack
BYOC (standalone apps, container + JVM tuning)
```

# future: buildpacks

Heroku-like buildpacks
define the environment
you can write and use your own buildpacks

## Java buildpack

- Standard Containers
  - Groovy (Configuration)
  - Java Main Class (Configuration)
  - Play
  - Spring Boot CLI (Configuration)
  - Tomcat (Configuration)
- Standard Frameworks
  - JAVA\_OPTS (Configuration)
  - New Relic (Configuration)
  - Play Auto Reconfiguration (Configuration)
  - Play JPA Plugin (Configuration)
  - Spring Auto Reconfiguration (Configuration)
- Standard JREs
  - OpenJDK (Configuration)
- Extending
- Utilities
  - Caches (Configuration)
  - Logging (Configuration)

#### services

ClearDB - MySQL RedisCloud - Redis ElephantSQL - PostgreSQL MongoLab - MongoDB CloudAMQP - RabbitMQ NewRelic - Monitoring LoadImpact - Load Testing SendGrid - EMail TreasureData - Hadoop Data Warehouse BlazeMeter - | Meter Load Testing

on your own:

you can implement your own services services can be hosted externally

#### tools

(developer perspective)

cf - command line Cloud Foundry Integration for Eclipse

Maven plugin
Gradle plugin
web-based dashboard

## additional highlights

BOSH (managing cloud environments)

allows you to operate your own CF in your own datacenter

used by all CF teams to operate their CF installations

## example app

Spring version runs out-of-the-box when deployed from Eclipse

replacing embedded database with SQL service: should be done automatically, if available

or define yourself using the cloud profile

```
@Configuration
@PropertySource("classpath:/application.properties")
@Profile("!cloud")
public class AppLocalConfig {
```

```
9 @Profile("cloud")
10 @Configuration
11 public class AppCloudConfig extends AbstractCloudConfig {
```

# spring cloud

allows you to define your Spring app independent of a specific PaaS offering

```
@Autowired @Qualifier("inventory-db") DataSource inventoryDb;
@Autowired @Qualifier("shipping-db") DataSource shippingDb;
```

```
<cloud:data-source id="inventory-db" service-name="inventory-db-service">
        <cloud:connection properties="sessionVariables=sql_mode='ANSI';characterEncoding=UTF-8"/>
        <cloud:pool pool-size="20" max-wait-time="200"/>
</cloud>
```

https://github.com/spring-projects/spring-cloud

#### Resources

Cloud Foundry

http://www.cloudfoundry.com

http://www.cloudfoundry.org

Cloud Foundry GitHub <a href="https://github.com/cloudfoundry">https://github.com/cloudfoundry</a>

CloudFoundry Integration for Eclipse <a href="https://github.com/spring-projects/eclipse-integration-cloudfoundry">https://github.com/spring-projects/eclipse-integration-cloudfoundry</a>

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