

**RED HAT  
SUMMIT**

**LEARN. NETWORK.  
EXPERIENCE OPEN SOURCE.**

June 11-14, 2013  
Boston, MA





# OpenShift PaaS

## Overview and Roadmap

**Matt Hicks**, Director of Engineering, Red Hat @MattHicksJ  
**Juan Noceda**, Product Manager, Red Hat @Juan\_Noceda

June 12<sup>th</sup>, 2013



# Agenda

- The 3 Takeaways
- PaaS in 3 Minutes with Demo
- What makes OpenShift Unique?
- The Big Announcement this Summit
- Roadmap Ahead
- Q & A



OPENSIFT

Your 3 Takeaways:

Enterprise Grade PaaS  
Dev Acceleration  
Focus on  
what you care the most



What is OpenShift Anyway?!

**SELF-SERVICE  
ELASTIC  
FULL-STACK APP ENVS  
ON DEMMAND**



# We ❤️ Real Life Features

- Code, Push, Cloud-Build, Deploy, Run!
- Wow! It Scales Up! Scales Down! Scales Up!
- Snap Shot App Here, Download, Upload There

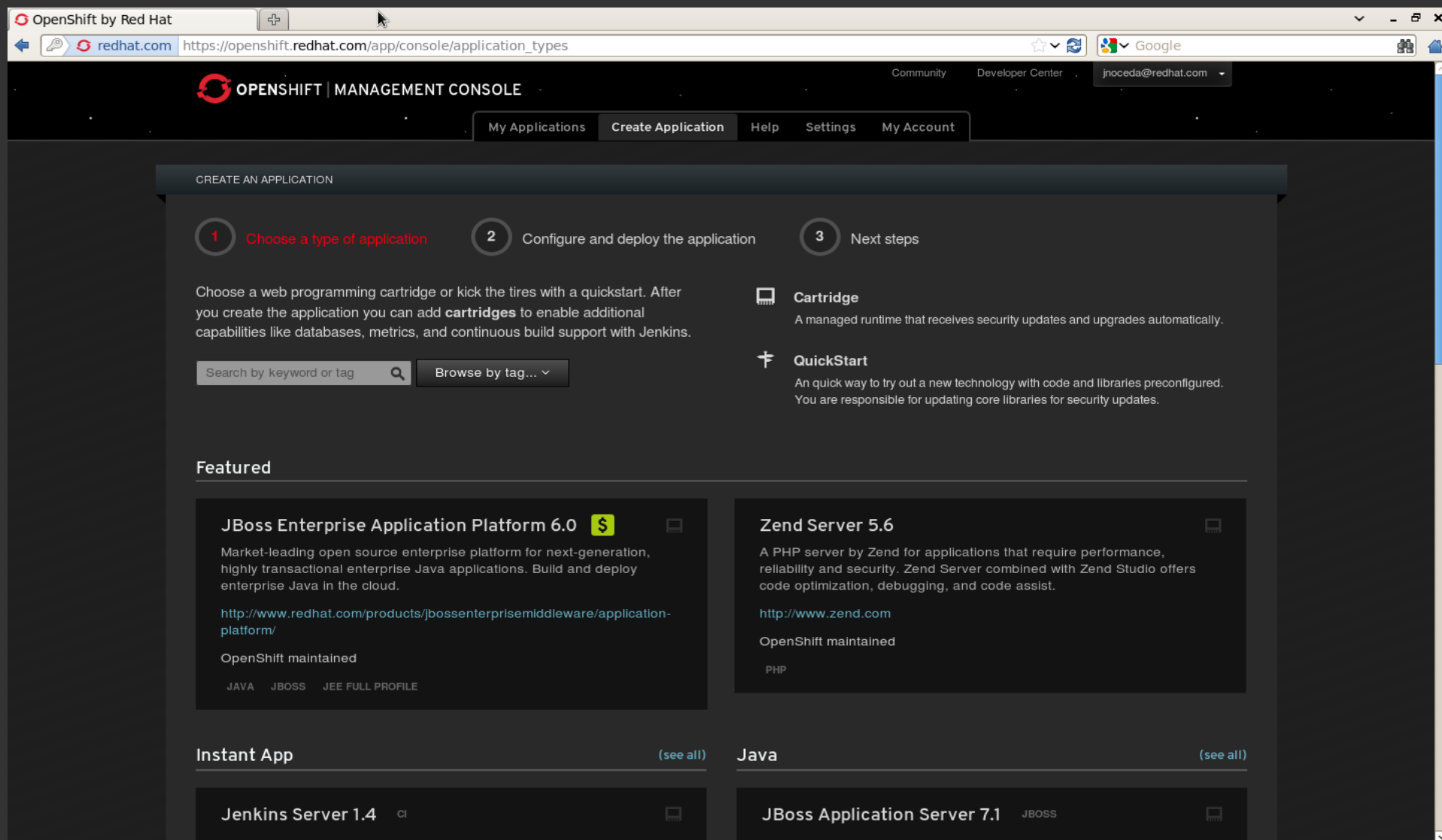


OPENSIFT

# SHOW ME!



# Step 1: Open the Browser Console...



The screenshot shows the OpenShift Management Console interface. The browser address bar displays the URL `https://openshift.redhat.com/app/console/application_types`. The page header includes the OpenShift logo and navigation links for Community, Developer Center, and a user profile (jnoceda@redhat.com). The main navigation bar contains links for My Applications, Create Application (highlighted), Help, Settings, and My Account.

The 'CREATE AN APPLICATION' section features a three-step process:

- 1 Choose a type of application (highlighted in red)
- 2 Configure and deploy the application
- 3 Next steps

Below the steps, a text block explains: "Choose a web programming cartridge or kick the tires with a quickstart. After you create the application you can add **cartridges** to enable additional capabilities like databases, metrics, and continuous build support with Jenkins." Search and filter options are provided: "Search by keyword or tag" and "Browse by tag...".

Two main categories are listed:

- Cartridge**: A managed runtime that receives security updates and upgrades automatically.
- QuickStart**: A quick way to try out a new technology with code and libraries preconfigured. You are responsible for updating core libraries for security updates.

The 'Featured' section displays two application cards:

- JBoss Enterprise Application Platform 6.0** (marked with a yellow '\$' icon): Market-leading open source enterprise platform for next-generation, highly transactional enterprise Java applications. Build and deploy enterprise Java in the cloud. URL: <http://www.redhat.com/products/jbossenterprisemiddleware/application-platform/>. OpenShift maintained. Tags: JAVA, JBOSS, JEE FULL PROFILE.
- Zend Server 5.6**: A PHP server by Zend for applications that require performance, reliability and security. Zend Server combined with Zend Studio offers code optimization, debugging, and code assist. URL: <http://www.zend.com>. OpenShift maintained. Tag: PHP.

At the bottom, there are two sections: 'Instant App' (with a '(see all)' link) and 'Java' (with a '(see all)' link). The 'Instant App' section lists 'Jenkins Server 1.4' with a 'CI' tag. The 'Java' section lists 'JBoss Application Server 7.1' with a 'JBOSS' tag.





OPENSIFT

# Step 1: ...and Select App Type

Instant App

(see all)

Jenkins Server 1.4

CI

Drupal 7

CMS DRUPAL NOT SCALABLE PHP

WordPress 3.x

BLOG CMS NOT SCALABLE

PHP

(see all)

PHP 5.3

CakePHP

NOT SCALABLE

Reveal.js

CSS3 HTML5 PRESENTATIONS

Ruby

(see all)

Ruby 1.9

Ruby 1.8

Ruby on Rails

RAILS

Other types

Node.js 0.6

JAVASCRIPT NODEJS

Java

(see all)

JBoss Application Server 7.1

JBoss

Tomcat 6 (JBoss EWS 1.0)

JBoss TOMCAT TOMCAT6

Tomcat 7 (JBoss EWS 2.0)

JBoss TOMCAT TOMCAT7

CapeDwarf

APP ENGINE GOOGLE

JEE Full Profile on JBoss

JAVA EE JBoss JEE

Spring Framework on JBoss EAP6

JBoss

Python

(see all)

Python 2.6

PYTHON2

Python 2.7 Community Cartridge

COMMUNITY PYTHON2

Python 3.3 Community Cartridge

COMMUNITY PYTHON3

Django



OPENSHIFT

# Step 2: Choose Stack Components

MY APPLICATIONS / AUTOMO

## AutoMo @ <http://AutoMo-JuanDom.rhcloud.com/>

GEARS  
3 TOTAL

### Cartridges

ADD CARTRIDGE +

#### JBoss Application Server 7.1

STATUS  
IDLE

GEARS  
2 SMALL

STORAGE  
1 GB

GIT REPOSITORY  
`ssh://6f552baeb9884e589376a23b70f7bd3e@AutoMo-JuanDom.rhcloud.com/~/.git/AutoMo.git/`

WANT TO LOG IN TO YOUR APPLICATION?

Scaled up with HAProxy x2

Enable Jenkins builds

#### MongoDB NoSQL Database 2.2

STATUS  
IDLE

GEARS  
1 SMALL

STORAGE  
1 GB

ADD CARTRIDGE

### ALIASES

ADD ALIAS +

No aliases set. [Set one now](#)

---

### NEW TO OPENSHIFT?

[See the getting started tips for this app](#) →

### NEED HELP?

[OpenShift User Guide](#)  
[Sync your OpenShift repo with an existing Git repo](#)

Delete this application

10



OPENSIFT

# Step 2: Choose Stack Components

Choose a cartridge to add to your application.

## MySQL Database 5.1

MySQL is a multi-user, multi-threaded SQL database server.

Select »

## RockMongo 1.1

Web based MongoDB administration tool. Requires the MongoDB cartridge to be installed first.

Select »

## PostgreSQL Database 8.4

PostgreSQL is an advanced Object-Relational database management system

Select »

## Jenkins Client 1.4

The Jenkins client connects to your Jenkins application and enables builds and testing of your application. Requires the Jenkins Application to be created via the new application page.

Select »

## OpenShift Metrics 0.1

An experimental cartridge that demonstrates retrieving real-time statistics from your application. May be removed or replaced in the future.

Select »

## SwitchYard 0.6

SwitchYard is a lightweight service delivery framework providing full lifecycle support for developing, deploying, and managing service-oriented applications.

Select »

## Cron 1.4

The Cron cartridge allows you to run command line programs at scheduled times. Use this for background jobs and periodic processing.

Select »

## Installed

MongoDB NoSQL Database 2.2

OpenShift Web Balancer

## Has Dependencies

phpMyAdmin 3.4

Web based MySQL admin tool. Requires the MySQL cartridge to be installed first.

Requires mysql-5.1



OPENSHIFT

# Step 3: Is Up! Here's the URL & Repo

MY APPLICATIONS / AUTOMO

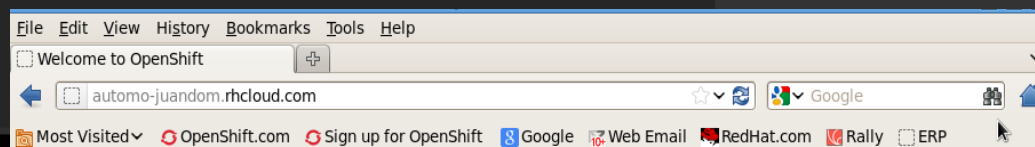
AutoMo @ <http://AutoMo-JuanDom.rhcloud.com/>

Cartridges

JBoss Application Server 7.1

GIT REPOSITORY

ssh://6f552baeb9884e589376a23b70f7bd3e@AutoMo-JuanDom.rhcloud.com



 OPENSHIFT

## Welcome To OpenShift, JBossAS7 Cartridge

Place your application here

In order to commit to your new project, go to your projects git repo (created with the `rhc app create` command) directory.

For example, if you named your application `myfirstapp` (by passing in `-a myfirstapp` to the `rhc app create` command), you would find the contents of this app located under `myfirstapp/src/main/webapp`. You can edit that and push your changes from the `myfirstapp` directory by running:

```
git commit -a -m 'Some commit message'
git push
```

Then reload this page.

See the `myfirstapp/README` file for more information on the options for deploying applications.



OPENSHIFT

# Step 3: Open Eclipse Code and Push

MY APPLICATIONS / AUTOMO

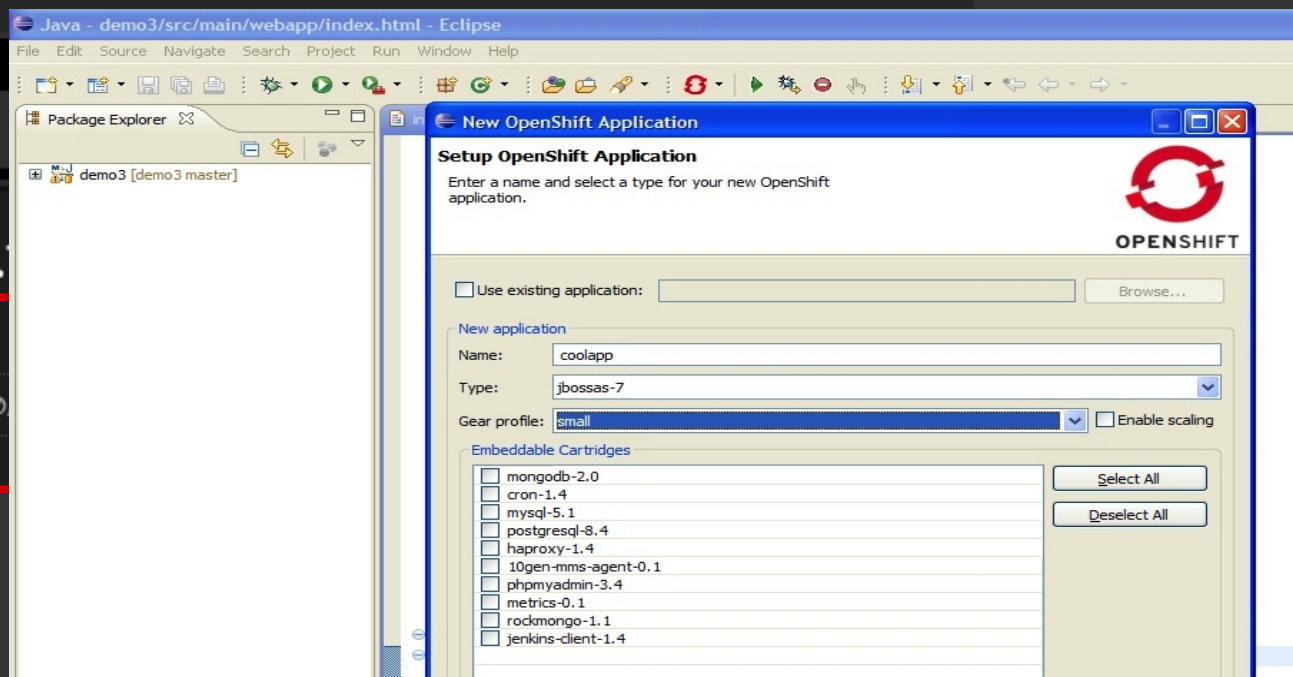
AutoMo @ <http://AutoMo-JuanDom.rhcloud.com/>

Cartridges

JBoss Application Server 7.

GIT REPOSITORY

ssh://6f552baeb9884e589376a23b70f7bd3e@



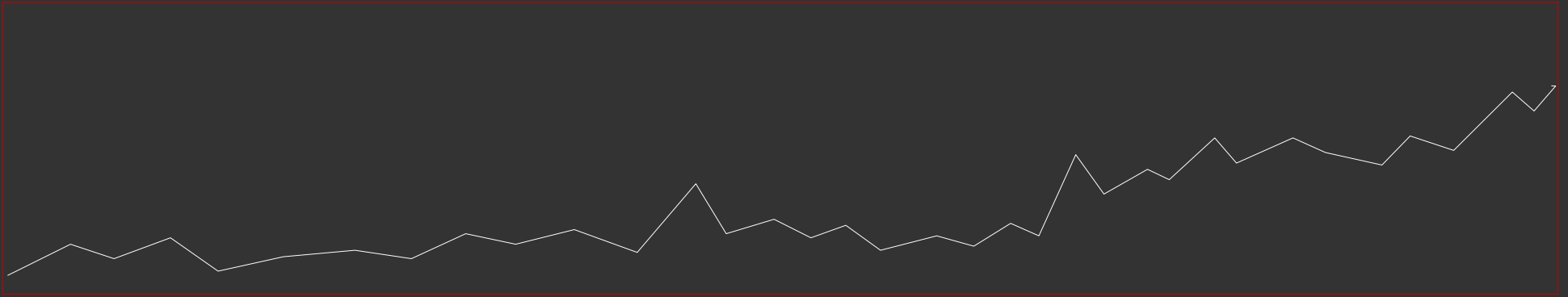


## Step 3: Or do the same from the CL

1. Create JBoss app with MongoDB cartridge  
`rhc app-create javasample jbossas-7 mongodb-2`
2. Add add WAR or EAR file to your deployments directory  
  
`cd javasample`  
`cp /path/to/ear/earfilename.ear ./deployments`
3. Add the WAR or EAR file to git  
`git add ./deployments/earfilename.ear`
4. Push your code  
`git push`
5. Done



# Watch!: It Auto-Scales Out!



APPLICATION



GEAR/S

Demo time..!





OPENSIFT

# Dev Acceleration

**CONFIRMED**



OPENSIFT

Focus on  
what you care the most

**CONFIRMED**



# Enterprise-Grade Maturity

**Prove it!**

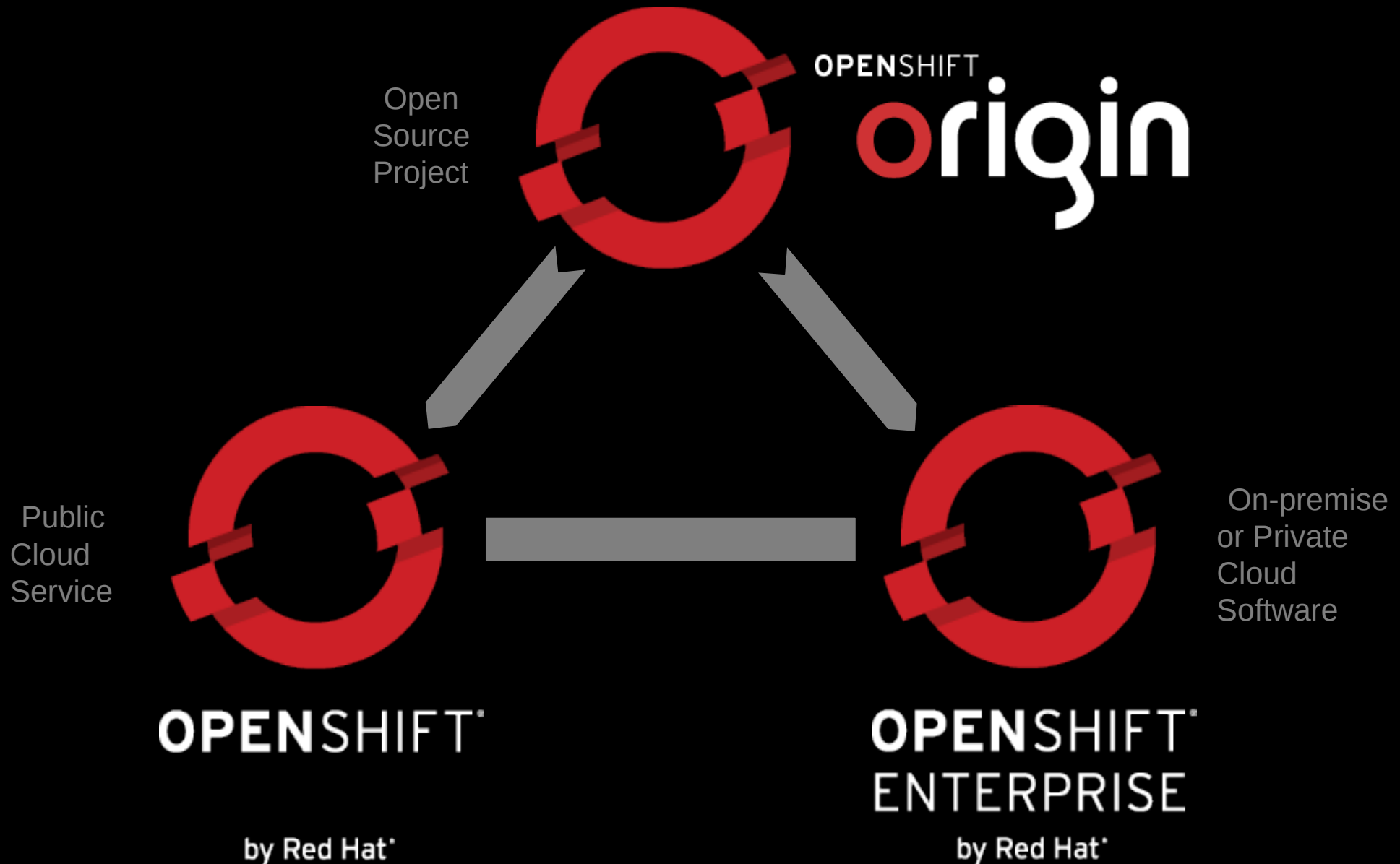


# #S

## Last Month Stats

- 690,000,000 pages served by all apps
- 180,000,000 gear hours
- 13,213,440 IaaS minutes consumed
- 8,000,000 user actions
- 96,000 application updates
- 1000 new applications per day

# The Triangle: Open Hybrid Cloud





The Summit 2013 Big Announcement:



OPENSIFT

We are

**OPEN**

For Business

OpenShift.com



OPENSIFT

Base Plan

# FREE



OPENSIFT

Go Pro Starting at

# \$20

High Scale  
Red Hat World Class Support  
Premium Services





OpenShift.com is cool,  
but I have to stay inside the firewall...



To the rescue...

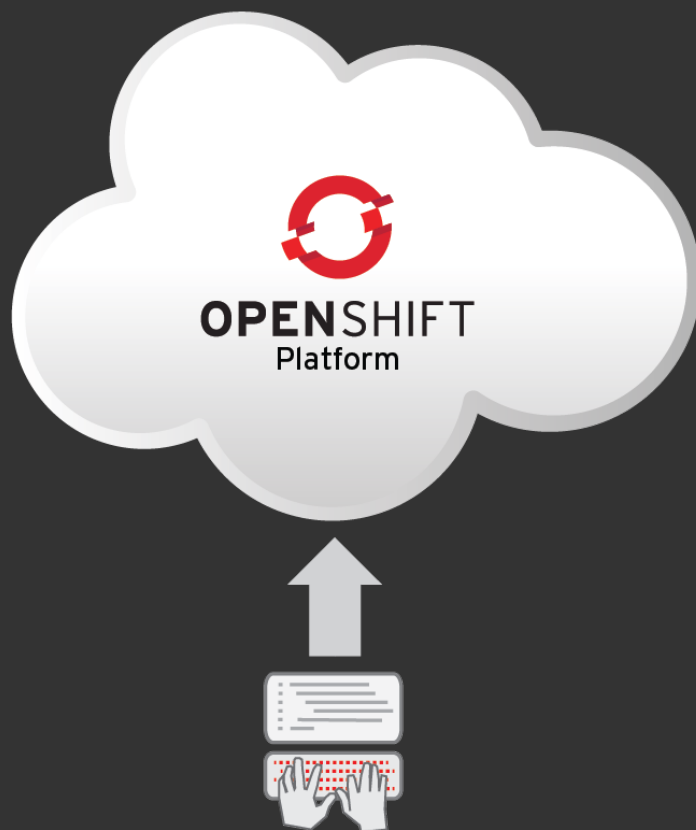
**OPENSIFT<sup>®</sup>**  
**ENTERPRISE**

by Red Hat<sup>®</sup>

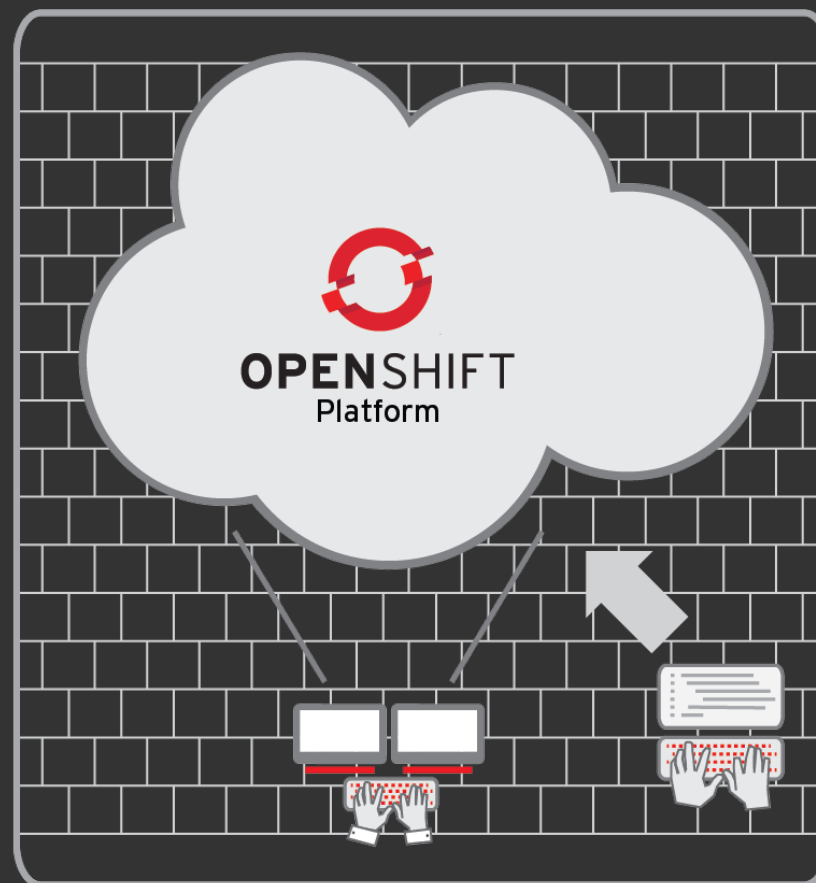


OPENSIFT

## Your Choice: Online, On-premises, or Hybrid

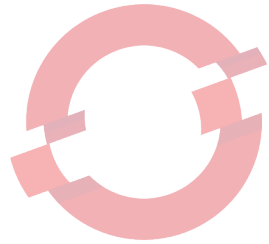


OpenShift OnLine



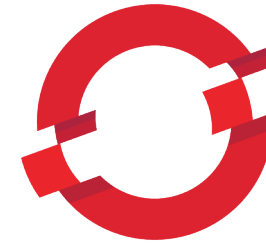
OpenShift Enterprise

# OpenShift Enterprise: Run your on PaaS on any Infrastructure



**OPENSHIFT  
ONLINE**

Public  
Cloud  
Service

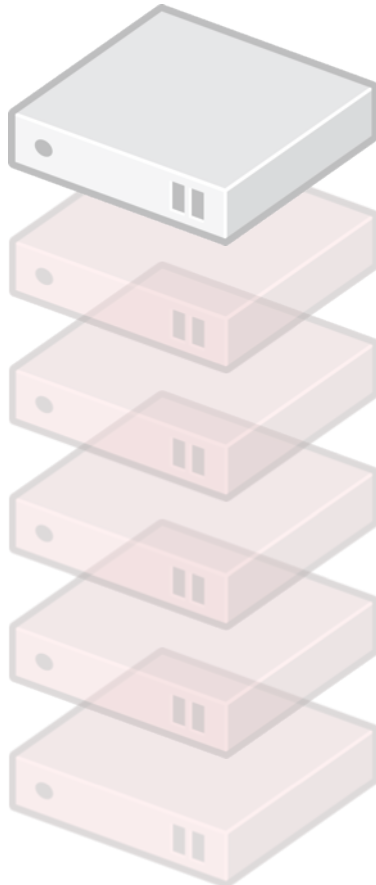


**OPENSHIFT  
ENTERPRISE**

**On-Premise or  
Private Cloud  
Software**

Developer  
Controls

**Operated  
by  
Red Hat  
For  
18  
months**



APPLICATION

APPLICATION PLATFORM  
(JBOSS, PHP, RUBY, ETC)

OPERATING SYSTEM  
(RHEL)

VIRTUALIZATION  
(RHEV)

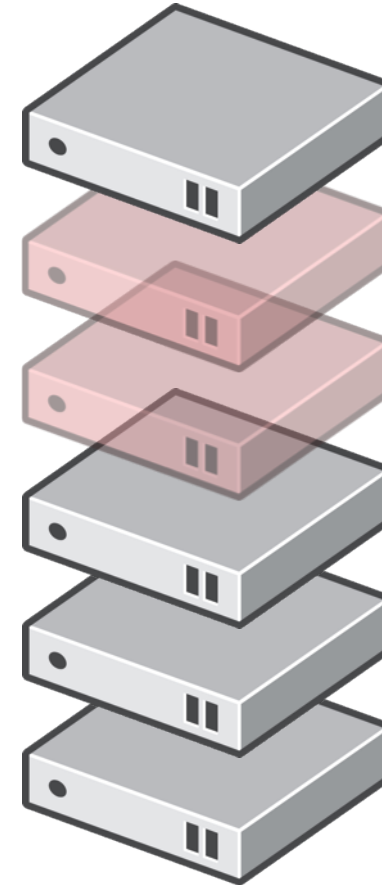
HARDWARE  
(x86, Power, S/390)

STORAGE  
(RHS)

Developer  
Codes

**OpenShift  
Enterprise  
Software**

IT Ops  
Provides



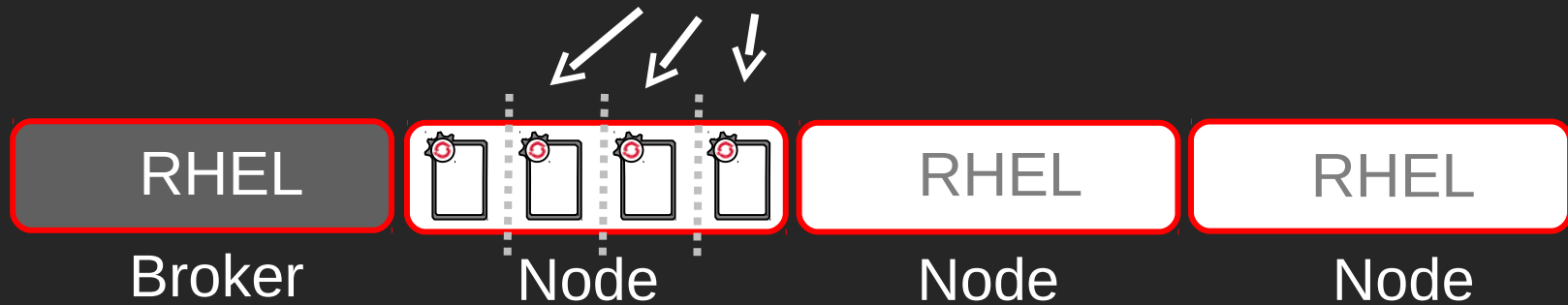
# OpenShift ENTERPRISE

## Multitenant within RHEL

High Security and High Density with SELinux



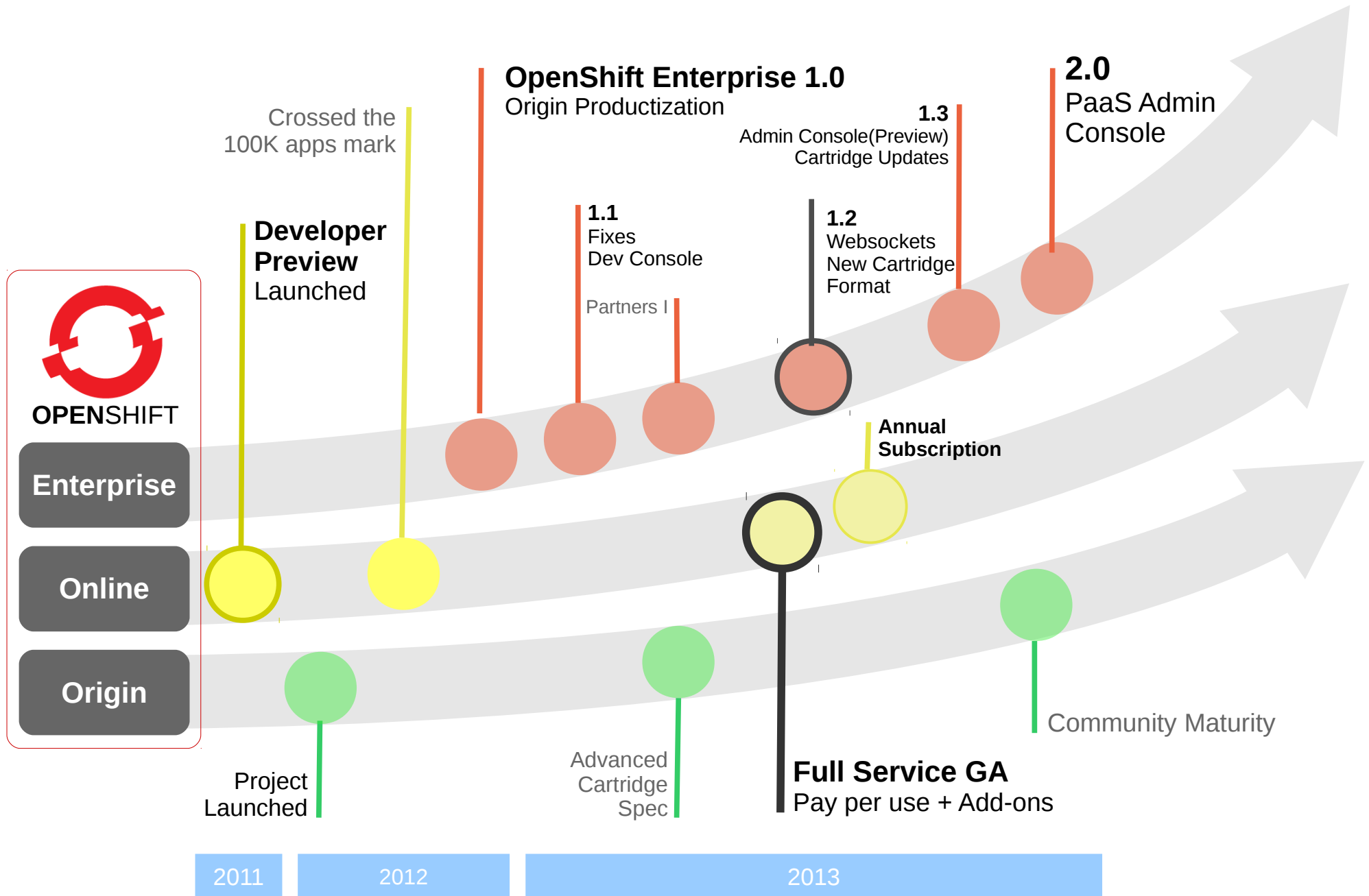
User Applications Run Inside  
OpenShift GEARS which are secure  
containers in RHEL using SELinux



AWS / CloudForms / OpenStack / Any VIRT Hyper-visor / Bare Metal

Now a window into the Future...

# OpenShift CY2011-2013 Roadmap





# Thinking Ahead...

- More and Newer Cartridges
- Uplift even more the dev experience for Java and the other stacks
- Go Wider and Deeper in JBoss Middleware Portfolio Integration
- More Modular and Plug-and-Play Topology
- More App-Level and Platform-Level Visibility and Control
- More Scalability Options in the Data Layer
- More Tools for Continuous Delivery, CI, and ALCM
- Stronger Open Source Community and Partner Ecosystem
- Tighter integration with OpenStack



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**OpenShift.com**

Twitter: @OpenShift

**Matt Hicks, @MattHicksJ**

**Juan Noceda, @Juan\_Noceda**