the State of the Union 2012

OpenShift State of the Union

brought to you by JBoss

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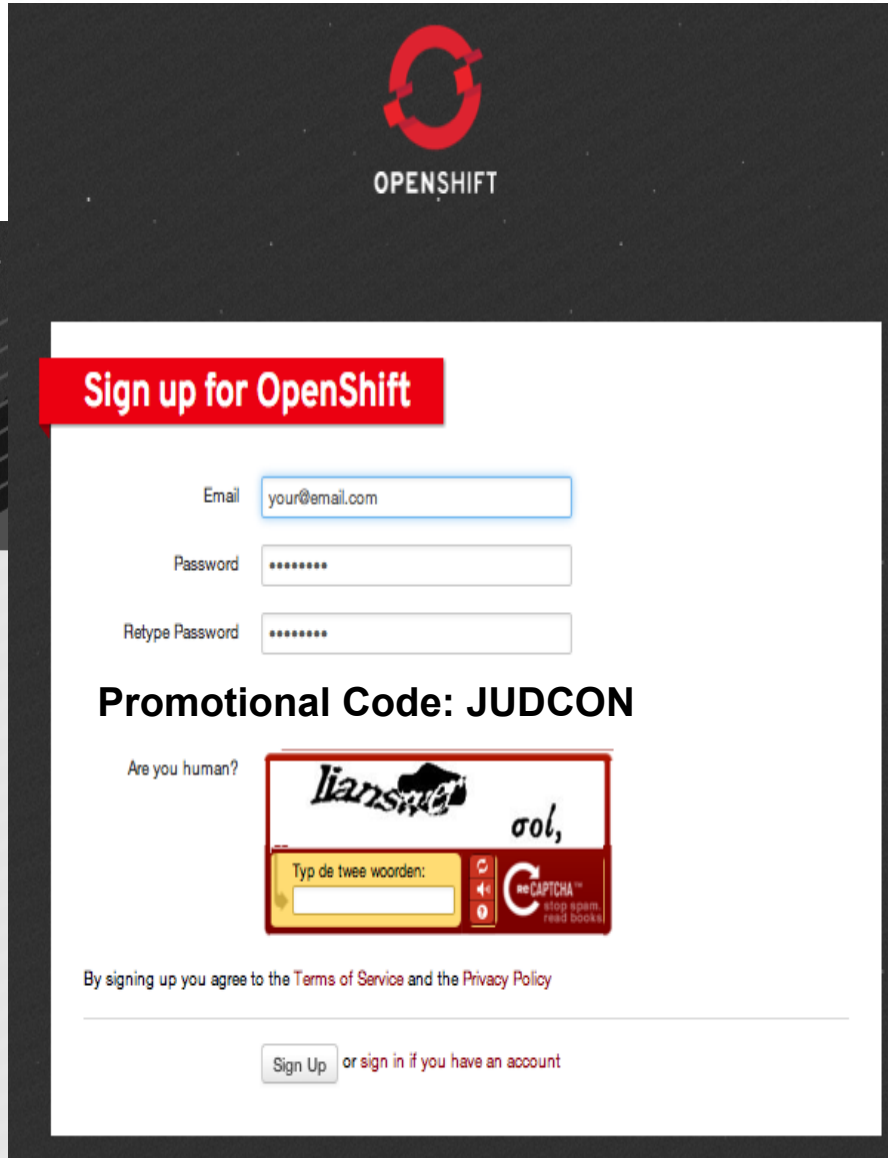
First things first, sign up!

http://openshift.redhat.com



State of the Union:

"A speech given by the US President to Congress every year describing the condition of the country..."

OpenShift, a little history

- Nov 2010 – Makara acquired
- In 2011 – merged into OpenShift project
- May 2012 – Open Sourced OpenShift
  - LiveCD launched for local PaaS
  - GitHub code base
  - Activity: blogs, howto's, quickstarts, webinars
- June 2012 – JBoss World, stay tuned!

JUDCon PaaS Training

- Day 1:
  - 1400 hrs – Mobilize your application using JBoss (Grant)
  - 1530 hrs – Deployment of JEE6 apps on OpenShift made easy (Xavier)
- Day 2:
  - 1100 hrs – Deploying the JBoss Portfolio in the Cloud (William (aka Bill))

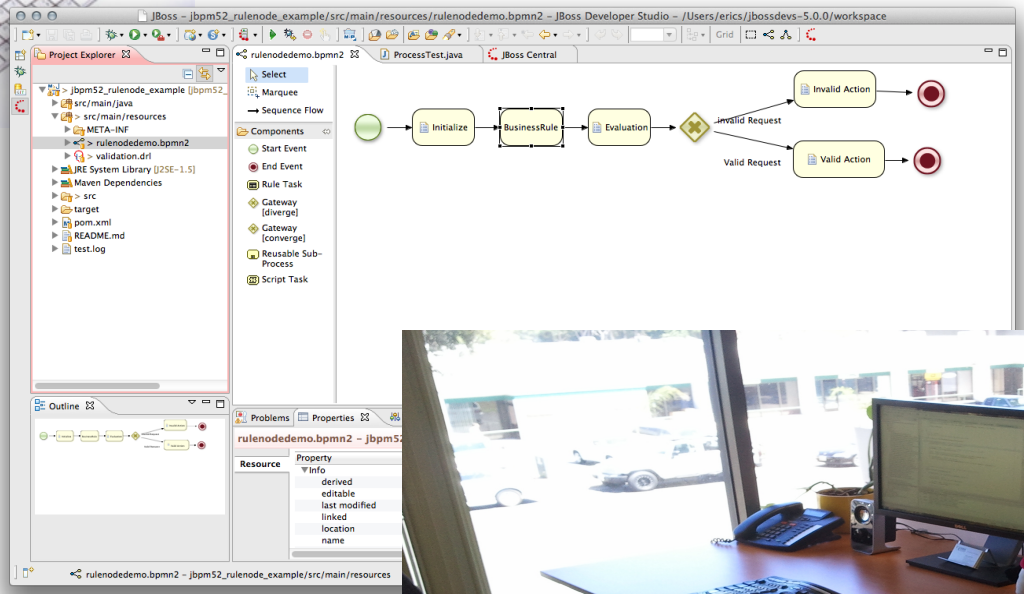
An OpenShift Primer

Get your code into the Cloud!

Book coming soon... DeveloperPress.com!


Never look back...

PaaS?


JBoss – jbpm52_rulenode_example/src/main/resources/rulenodedemo.bpmn2 – JBoss Developer Studio – /Users/erics/jbossdevs-5.0.0/workspace
Project Explorer
rulenodedemo.bpmn2
ProcessTest.java
JBoss Central
Select
Marquee
Sequence Flow
Components
Start Event
End Event
Rule Task
Gateway [diverge]
Gateway [converge]
Reusable Sub-Process
Script Task
Initialize
BusinessRule
Evaluation
Invalid Action
Invalid Request
Valid Request
Valid Action
Outline
Problems
Properties
Resource
Property
Info
derived
editable
last modified
linked
location
name


Why am i DORKING
with the stack?!

Quickstart

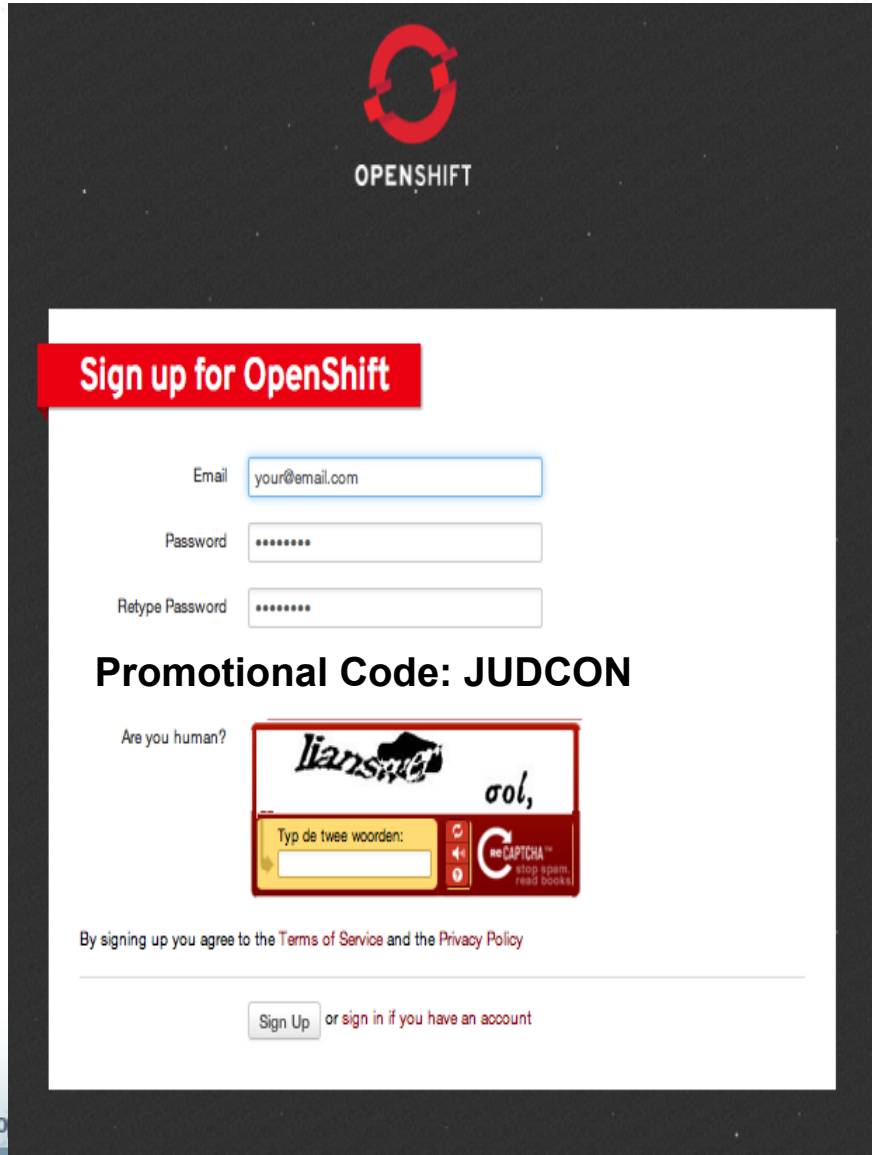
1. Sign Up
2. Install Client Tools
3. Create Domain
4. Create Application
5. Deploy Application (GIT)

Sign up, it's free!

- http://openshift.redhat.com – ***"Sign up and Try it!"***

- Example projects you can deploy now!
  - https://www.github.com/openshift

- Help?
  - IRC: freenode #openshift
  - Forums: http://www.redhat.com/openshift/community/forums
  - Email: openshift at redhat dot com



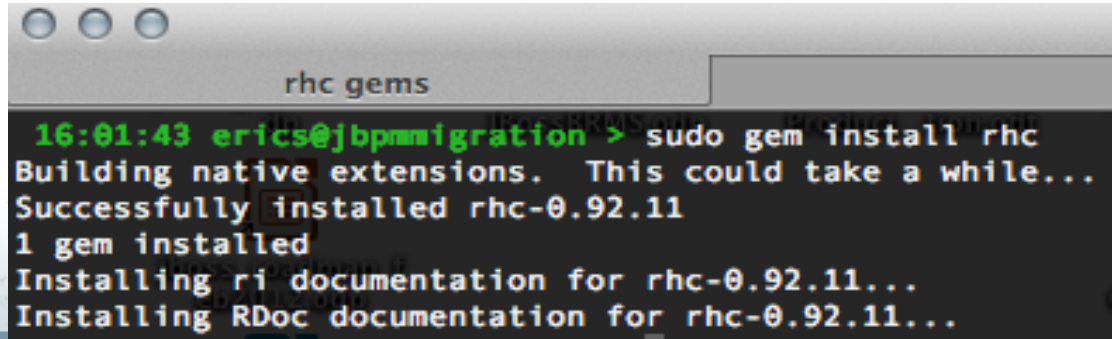
Install Client Tools

- Fedora / RHEL
  - openshift.repo
- Move to yum.repos.d

  $ sudo mv openshift.repo /etc/yum.repos.d
- Install client tools

  $ sudo yum install rubygem-rhc

- The rest (osX, Ubuntu, Cygwin):
  - gem install rhc (json_pure)
  - see forums, blogs

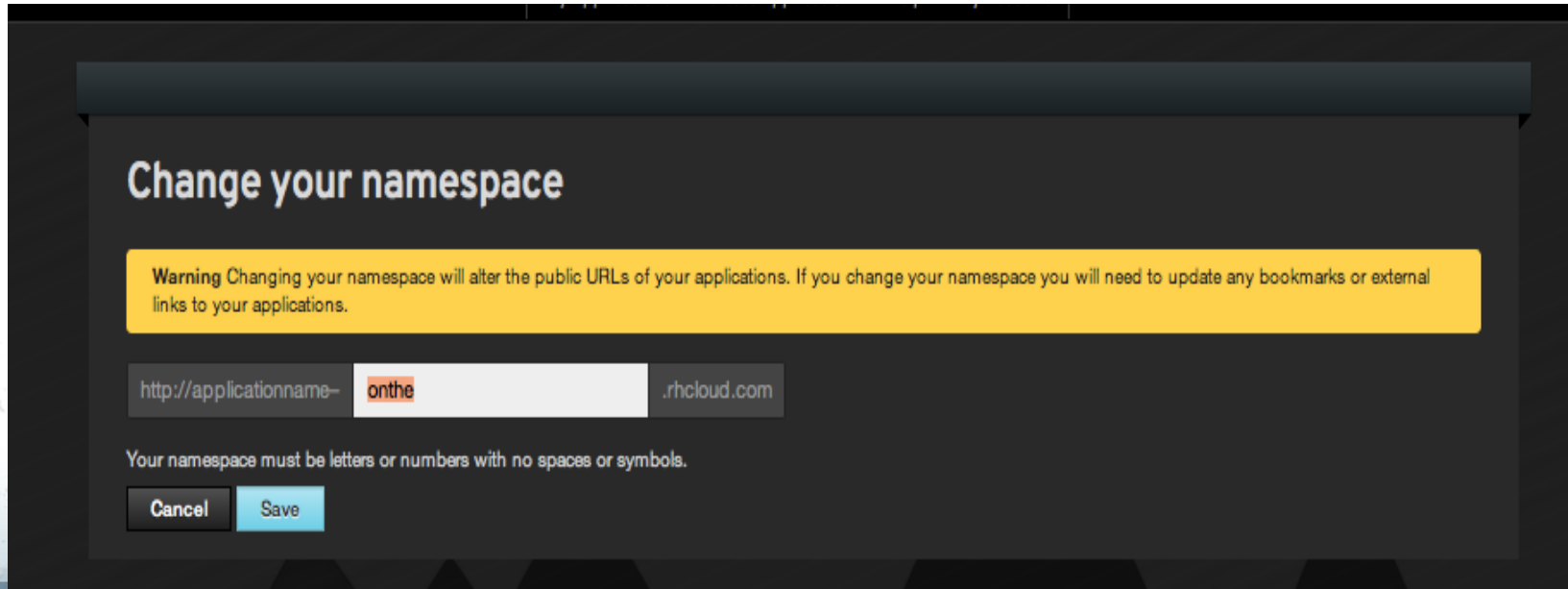


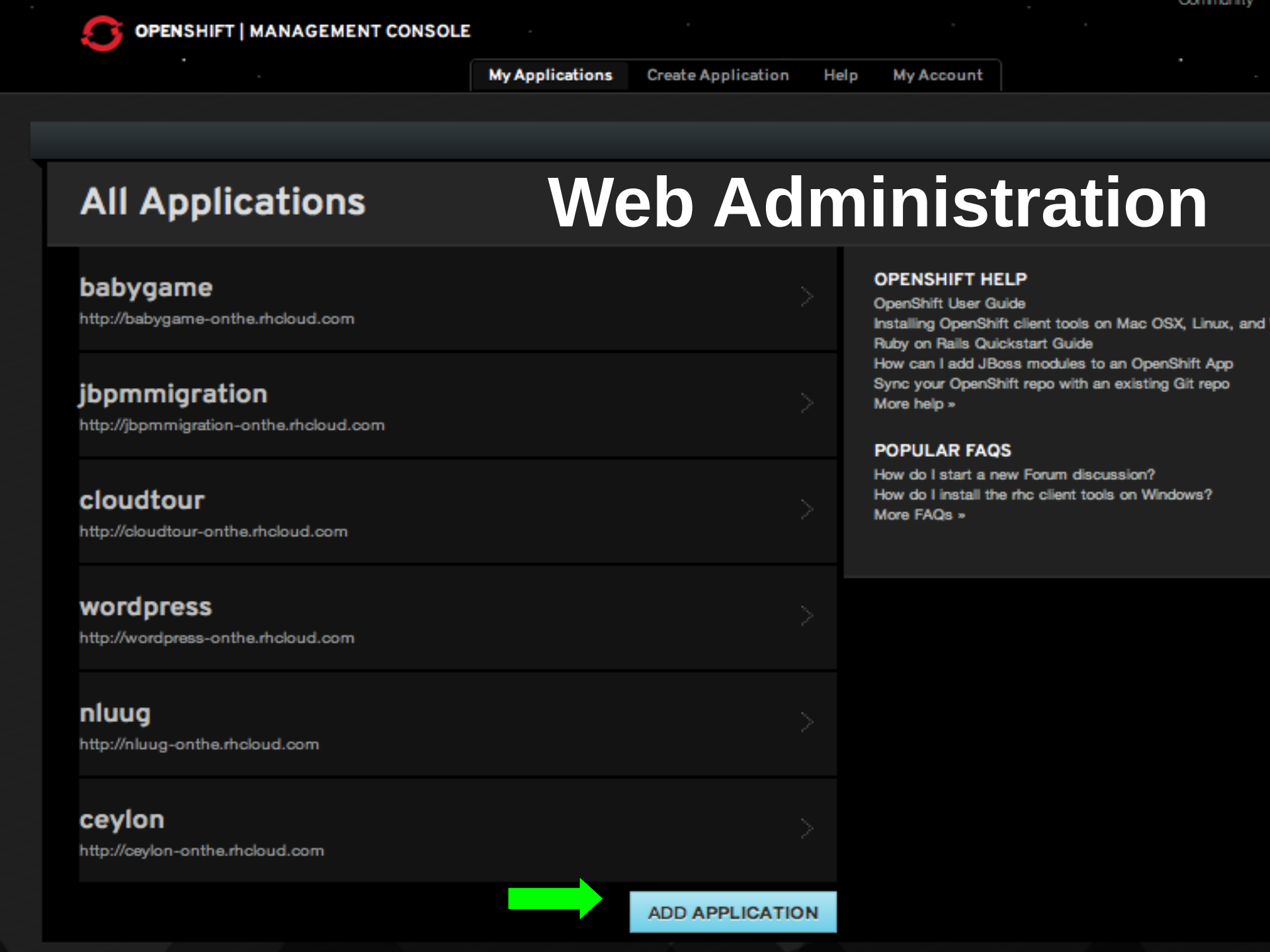
Create Domain

- Use rhc command

  $ rhc domain create -n mydomain -l openshiftlogin

- Use admin console!




OPENSHIFT | MANAGEMENT CONSOLE
My Applications
Create Application
Help
My Account
All Applications
Web Administration
babygame
http://babygame-onthe.rhcloud.com
jbpmmigration
http://jbpmmigration-onthe.rhcloud.com
cloudtour
http://cloudtour-onthe.rhcloud.com
wordpress
http://wordpress-onthe.rhcloud.com
nluug
http://nluug-onthe.rhcloud.com
ceylon
http://ceylon-onthe.rhcloud.com
ADD APPLICATION
OPENSHIFT HELP
OpenShift User Guide
Installing OpenShift client tools on Mac OSX, Linux, and
Ruby on Rails Quickstart Guide
How can I add JBoss modules to an OpenShift App
Sync your OpenShift repo with an existing Git repo
More help »
POPULAR FAQS
How do I start a new Forum discussion?
How do I install the rhc client tools on Windows?
More FAQs »

My Applications | Create Application | Help | My Account

Instant Applications

1 Choose a type of application — 2 Configure and deploy the application — 3 Next steps

Choose a web programming cartridge (from scratch) or kick the tires with a preconfigured application. After you create the application you can add **cartridges** to enable additional capabilities like databases, metrics, and continuous build support with Jenkins.

Instant Applications

The preconfigured applications below contain a web cartridge, any other required cartridges (such as a database), and all of the code needed to get you up and running in seconds.

Kitchensink Example — EXPERIMENTAL

This quickstart uses JBoss AS7 to show off all the new features of Java EE 6 and makes a great starting point for your Java project.

Select »

WordPress — EXPERIMENTAL

A semantic personal publishing platform written in PHP with a MySQL back end, focusing on aesthetics, web standards, and usability.

Select »

Drupal — EXPERIMENTAL

An open source content management platform written in PHP powering millions of websites and applications. It is built, used, and supported by an active and diverse community of people around the world.

Select »

Ruby on Rails — EXPERIMENTAL

An open source web framework for Ruby that is optimized for programmer happiness and sustainable productivity. It lets you write beautiful code by favoring convention over configuration.

Select »

Didn't Find What You Were Looking For?

If you would like to try another framework, more quickstarts are available here.. If there are another applications you would like to see here or as a quickstart, please suggest or vote for it.

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My Applications | Create Application | Help | My Account

1 Choose a type of application — 2 Configure and deploy the application — 3 Next steps

Configure New Application

Kitchensink Example

EXPERIMENTAL

Website: https://docs.jboss.org/author/display/AS71/Kitchensink+quickstart
Version: 7.0.0

This quickstart uses JBoss AS7 to show off all the new features of Java EE 6 and makes a great starting point for your Java project.

What you get:

- jbossas-7

This application will be created from the OpenShift repository http://github.com/openshift/kitchensink-example. Deploying this application may take a bit longer than normal while we download and configure the necessary cartridges.

Please be sure to read the source repository README for any additional configuration that may be required. Some templates may have hard coded passwords or other security related settings that must be modified after creation.

Public URL http:// Application name -onthe.rhcloud.com

Your application name uniquely identifies the application and becomes part of your public URL. You can add your own domain names to the application later.

Back | Create Application

Web Cartridges

The web cartridge is the heart of your application, handling incoming web requests and dishing out web pages, business APIs, or the content for your next hot mobile app.

Node.js 0.6

Node.js is a platform built on Chrome's JavaScript runtime for easily building fast, scalable network applications. Node.js uses an event-driven, non-blocking I/O model that makes it lightweight and efficient, perfect for data-intensive real-time applications that run across distributed devices.

Select »

Ruby 1.8.7

Ruby is a dynamic, reflective, general-purpose object-oriented programming language. Rack provides a minimal, modular and adaptable interface for developing web applications in Ruby. Popular development frameworks include: Ruby on Rails and Sinatra.

Select »

JBoss Application Server 7.1

The leading open source Java EE6 application server for enterprise Java applications. Popular development frameworks include Seam, CDI, Weld, and Spring.

Select »

Do-It-Yourself

The Do-It-Yourself (DIY) application type is a blank slate for trying unsupported languages, frameworks, and middleware on OpenShift. See the community site for examples of bringing your favorite framework to OpenShift.

Select »

Python 2.6

Python is a general-purpose, high-level programming language whose design philosophy emphasizes code readability. The Web Server Gateway Interface (WSGI) defines a simple and universal interface between web servers and web applications or frameworks for the Python programming language. Popular development frameworks include: Django, Bottle, Pylons, Zope and TurboGears.

Select »

PHP 5.3

PHP is a general-purpose server-side scripting language originally designed for Web development to produce dynamic Web pages. The mod_php Apache module is used to execute PHP applications. Popular development frameworks include: CakePHP, Symfony, and Code Igniter. Popular applications include: Drupal, Wordpress, and Mediawiki.

Select »

Jenkins Server

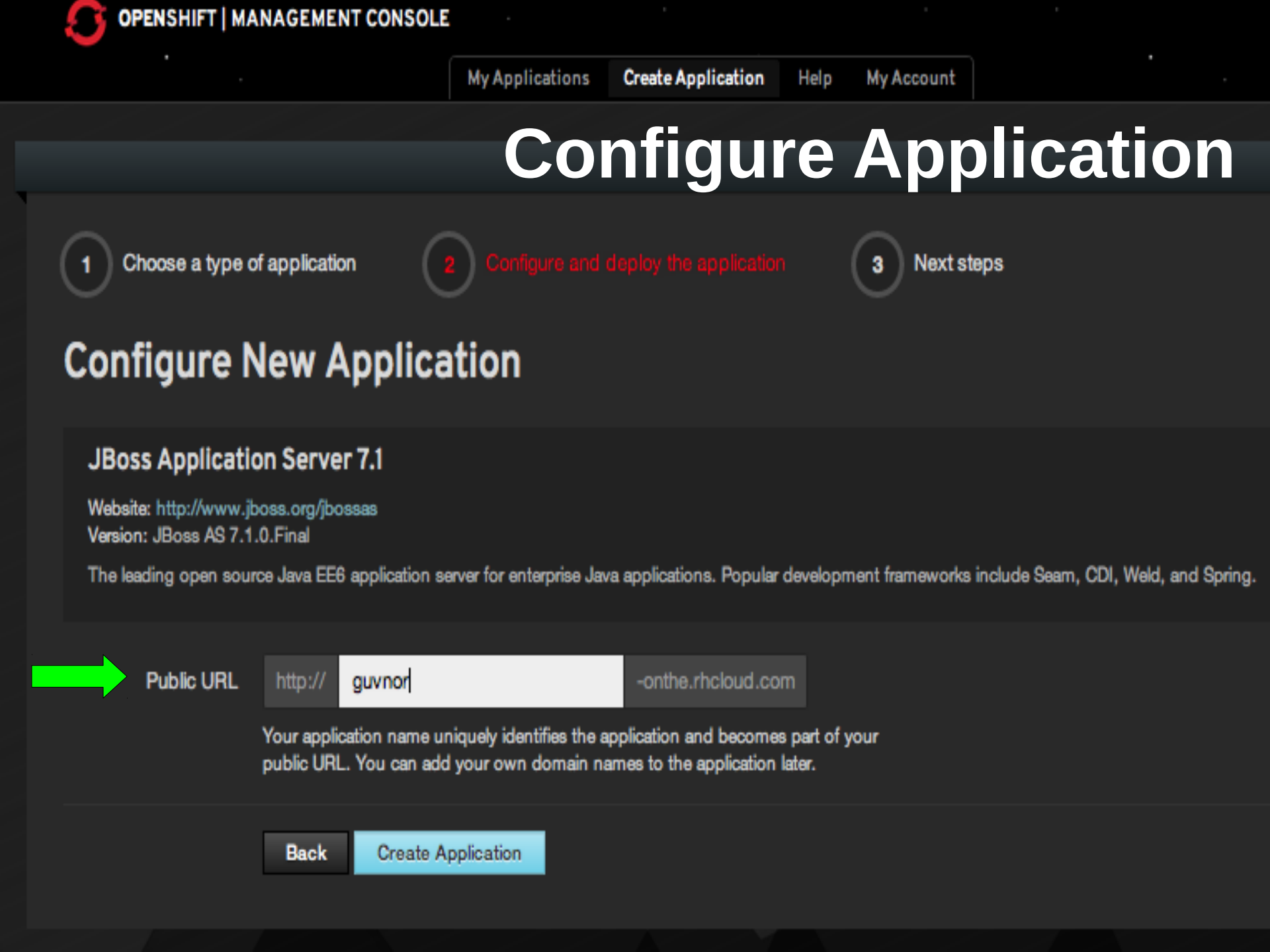
Jenkins is a continuous integration (CI) build server that is deeply integrated into OpenShift. When you add Jenkins as an application you will enable your other applications to run complex builds whenever you push code. See the Jenkins info page for more.

Select »

Perl 5.10

Perl is a high-level, general-purpose, interpreted, dynamic programming language. mod_perl is an optional module for the Apache HTTP server. It embeds a Perl interpreter into the Apache server, so that dynamic content produced by Perl scripts can be served in response to incoming requests, without the significant overhead of re-launching the Perl interpreter for each request.

Select »


OPENSHIFT | MANAGEMENT CONSOLE
My Applications
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Help
My Account
Configure Application
1
Choose a type of application
2
Configure and deploy the application
3
Next steps
Configure New Application
JBoss Application Server 7.1
Website: http://www.jboss.org/jbossas
Version: JBoss AS 7.1.0.Final
The leading open source Java EE6 application server for enterprise Java applications. Popular development frameworks include Seam, CDI, Weld, and Spring.
Public URL
http://
guvnor
-onthe.rhcloud.com
Your application name uniquely identifies the application and becomes part of your public URL. You can add your own domain names to the application later.
Back
Create Application

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My Applications | Create Application | Help | My Account

Ready to code!

MY APPLICATIONS / DROOLSGUVNOR / NEXT STEPS

1 Choose a type of application — 2 Configure and deploy the application — 3 Next steps

Your application has been created. If you're new to OpenShift check out these tips for where to go next.

Accessing your application

Your application has one or more cartridges that expose a public URL to the Internet. Click the link below to see your application:

http://droolsguvnor-onthe.rhcloud.com

The application overview page provides a summary of your application and its cartridges.

Making code changes

OpenShift uses the Git version control system to manage the code of your application. Each cartridge has a single Git **repository** that you'll use to check in changes to your application. When you **push** a change to your Git repository we'll automatically deploy your code and restart your application if necessary. Learn more about uploading code

Install the Git client for your operating system, and from your command line run

```
git clone ssh://94122f0beb774794a46cf8fdf33e8097@droolsguvnor-onthe.rhcloud.com/~/git/droolsguvnor.git/
cd droolsguvnor/
```

This will create a folder with the source code of your application. After making a change, **add**, **commit**, and **push** your changes.

```
git add .
git commit -m 'My changes'
git push
```

When you push changes the OpenShift server will report back its status on deploying your code. The server will run any of your configured deploy hooks and then restart the application.

Managing your application

Most of the capabilities of OpenShift are exposed through command line tool, **rhc**. Whether it's adding cartridges, ch uptime, or pulling log files from the server, you can quickly finger on the pulse of your application. Follow these steps the client on Linux, Mac OS X, or Windows.

After installing the command line tool follow our User Guid to manage your application from the command line

Adding capabilities

Cartridges are the components of an OpenShift application include databases, build systems, and management capab Adding a cartridge to an application provides the desired ca without forcing you to administrate or update that feature.

To run a PHP application with MySQL (the M and P in LAM **embed** the MySQL cartridge into your application. OpenSh your PHP code access to your new MySQL database, but base server for you.

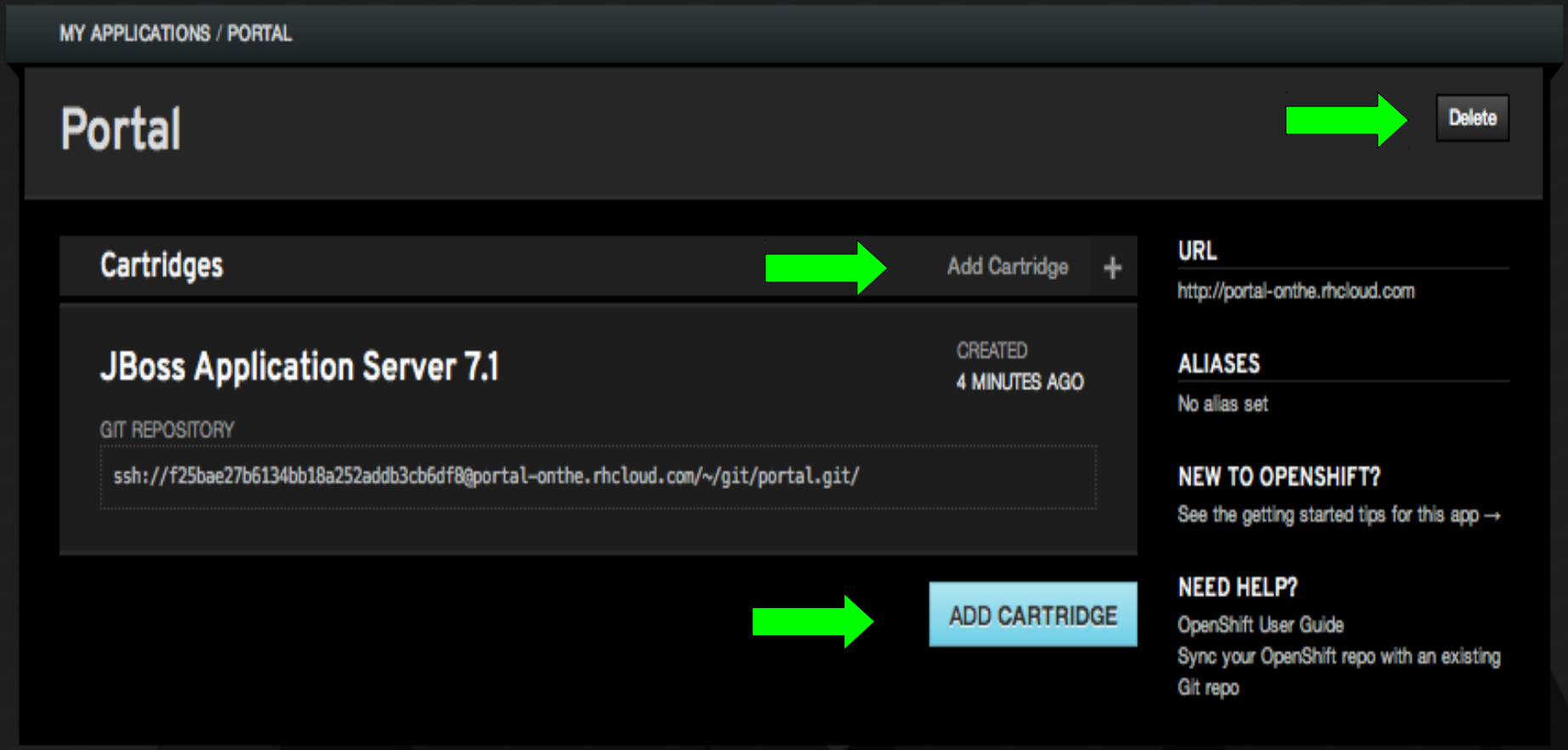
You can see the list of available cartridges online or from th command line with

```
rhc app cartridge list
```

You may also add a cartridge to your application by runnin

```
rhc app cartridge add -a droolsguvnor -c <cart_id>
```

Application Details



Other Options

- Name app and define type

  $ rhc app create -a appname -t apptype -l openshiftlogin

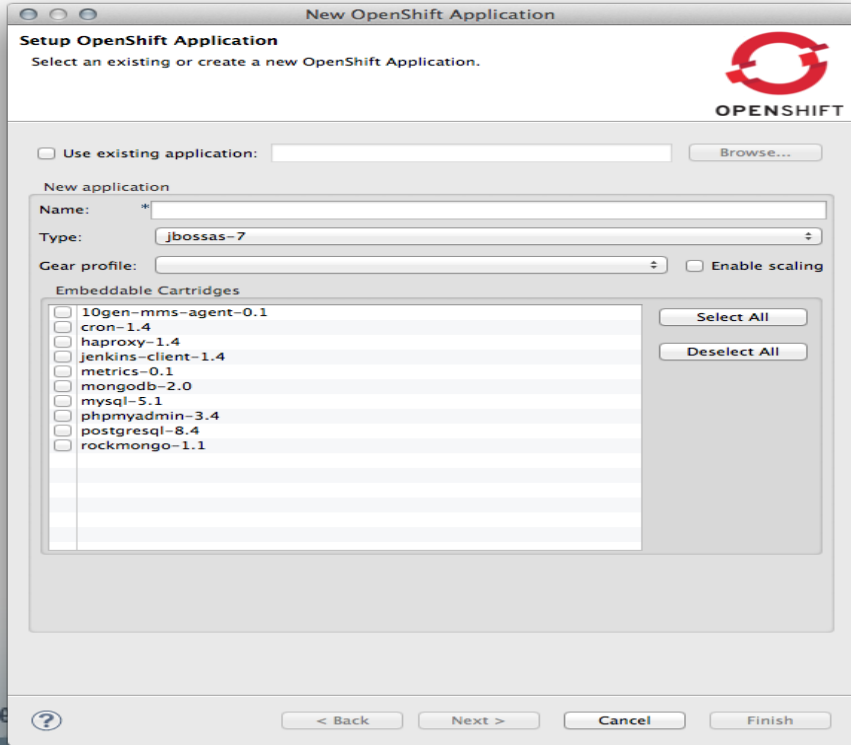
  (Node.js, DIY, Jenkins, PHP, Ruby, Python, Perl and most important, Java!)

- Add application to local repo

  $ git add .

- Commit changes

  $ git commit -m “Initial app import.”

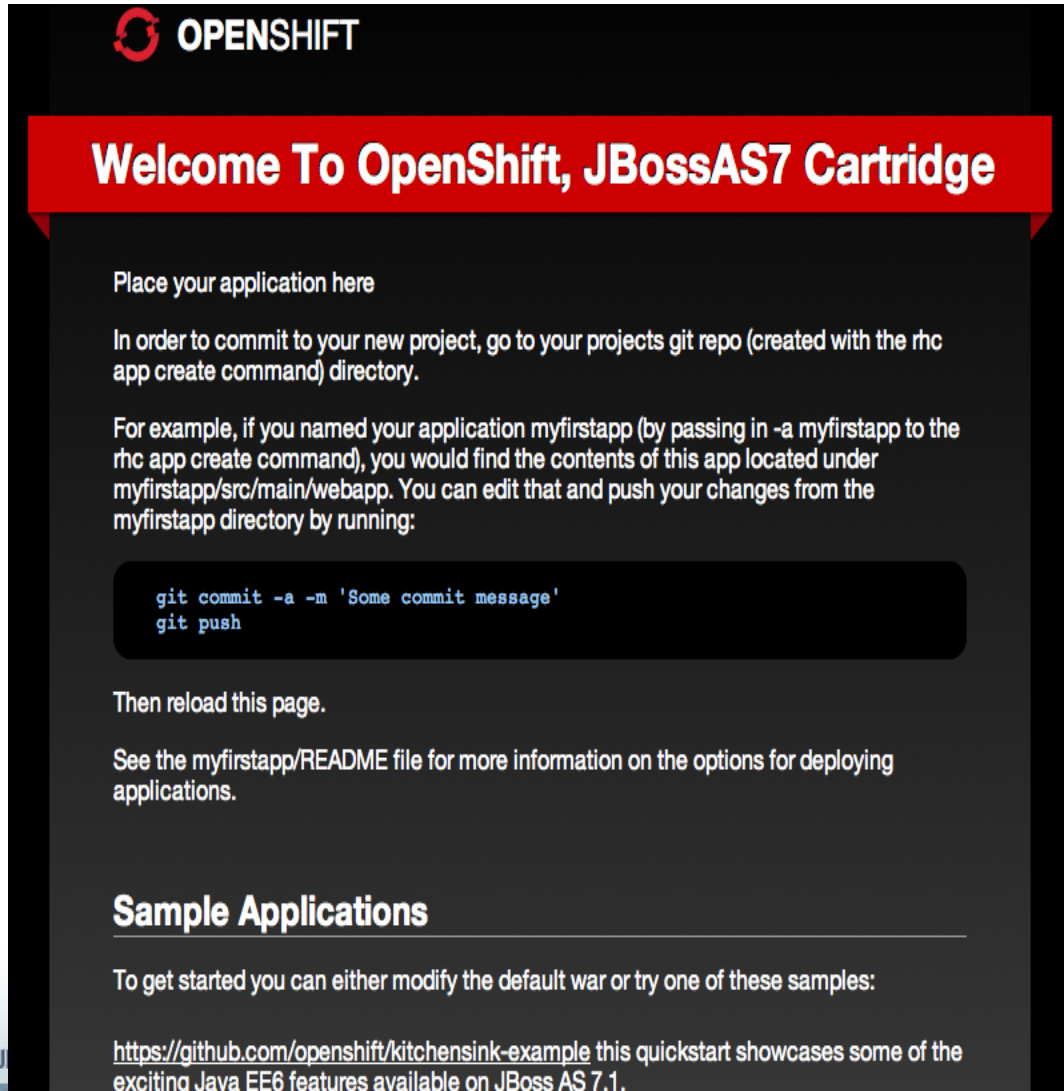


Deploy to Cloud

- Push the code to Express

  $ git push

- Congratulations, your app is in the cloud!

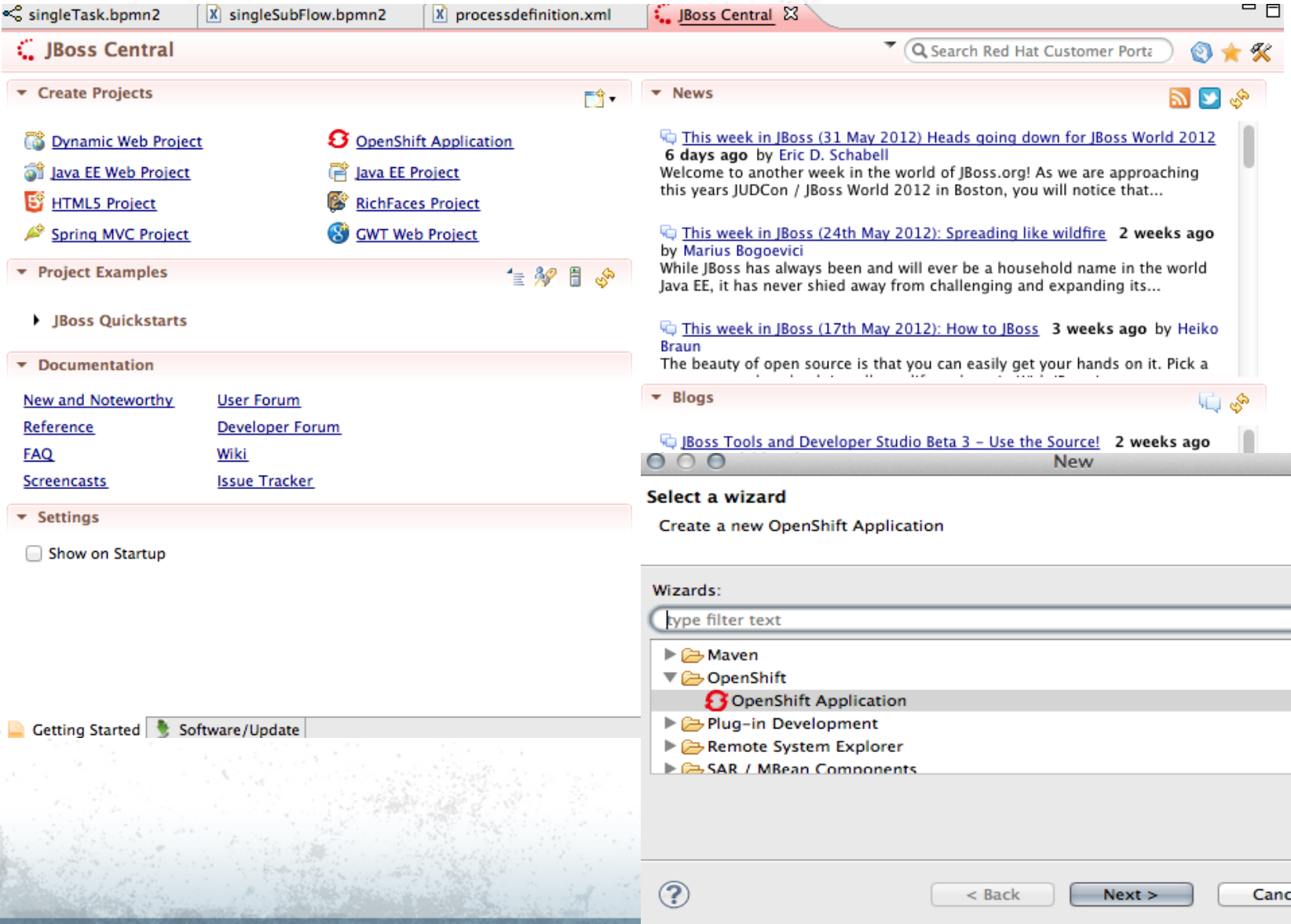


EASY PEASY

Gears

500MB memory + 1GB storage

JBoss Developer Studio



Demo JUDCon Mobile App

$ rhc app create -a judcon -t jbossas-7

$ cd judcon

$ git remote add upstream -m master git://github.com/eschabell/openshift-judcon.git

$ git pull -s recursive -X theirs upstream master

$ git push

http://judcon-$your_domain.rhcloud.com

Demo jBPM Web Designer

$ rhc app create -a editor -t jbossas-7

$ cd editor

$ git remote add upstream -m master git://github.com/eschabell/openshift-webdesigner-jbpmmigration.git

$ git pull -s recursive -X theirs upstream master

$ git push

http://editor-$your_domain.rhcloud.com/designer/editor?profile=jbpm&uuid=123

Demo jBPM Migration Project

$ rhc app create -a jbpmmigration -t jbossas-7

$ cd jbpmmigration

$ git remote add upstream -m master git://github.com/eschabell/openshift-jbpmmigration.git

$ git pull -s recursive -X theirs upstream master

$ git push

http://jbpmmigration-$your_domain.rhcloud.com/jbpmmigration_upload-0.4

Demo Switchyard Project

$ rhc app create -a swyesb -t jbossas-7

$ cd swyesb

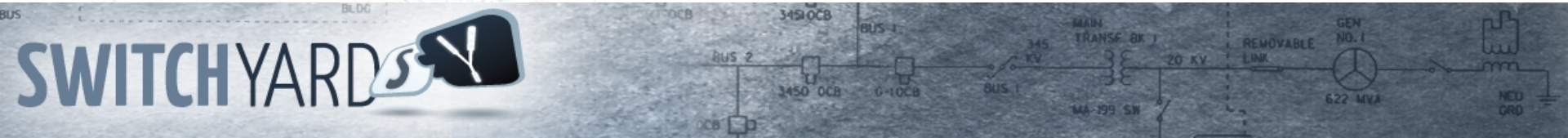
$ git remote add upstream -m master git://github.com/eschabell/switchyard-openshift.git

$ git pull -s recursive -X theirs upstream master

$ git apply standalone.diff

$ git push

http://swyesb-$your_domain.rhcloud.com/swydws/OrderService?wsdl



Demo Ceylon Project

$ rhc app create -a ceylon -t jbossas-7

$ cd ceylon

$ git remote add upstream -m master git://github.com/eschabell/ceylon-openshift.git

$ git pull -s recursive -X theirs upstream master

$ git push

http://ceylon-$your_domain.rhcloud.com

Demo GateIn Project

$ rhc app create -a portal -t jbossas-7

$ cd portal

$ git remote add upstream -m master git://github.com/eschabell/openshift-portal.git

$ git pull -s recursive -X theirs upstream master

$ git push

http://portal-$your_domain.rhcloud.com/portal

Demo Drools Planner

$ rhc app create -a droolsplanner -t jbossas-7

$ cd droolsplanner

$ git remote add upstream -m master git://github.com/eschabell/openshift-droolsplanner.git

$ git pull -s recursive -X theirs upstream master

$ git push

http://droolsplanner-$your_domain.rhcloud.com/droolsplanner

Demo JBoss BRMS 5.3

$ rhc app create -a brms53 -t jbossas-7

$ cd brms53

$ git remote add upstream -m master git://github.com/eschabell/openshift-brms53.git

$ git pull -s recursive -X theirs upstream master

$ git push

http://brms53-$your_domain.rhcloud.com:8080/jboss-brms

What will the future bring?

JBoss++

Commercial Service / Pricing

Mobile

Open Source (SDK + project)

Loving your hammers?

- OpenShift: http://openshift.redhat.com
- OpenShift Express: https://openshift.redhat.com/app/express
- Blogs: https://www.redhat.com/openshift/community/blogs
- Repository for all OpenShift demos shown here: https://github.com/eschabell
- OpenShift demo repository: https://github.com/openshift
- Rise above the Cloud hype with OpenShift: http://www.schabell.org/2012/01/rise-above-cloud-hype-with-openshift.html