OpenShift Primer
Cloud development has never been easier

Eric D. Schabell
JBoss technology evangelist
First things first, sign up!

http://openshift.redhat.com
OpenShift, a little history

- Nov 2010 – Makara acquired
- In 2011 – merged into OpenShift project
- May 2012 – Open Sourced
  - GitHub, blogs, howto's, quickstarts, webinars
- June 2012 – OpenShift State of the Union
- Dec 2012 – OpenShift Primer (e-book)
- June 2013 – Online Public PaaS / Enterprise Private PaaS
- Sep 2013 – JBoss xPaaS Services for OpenShift
An OpenShift Primer

- Amazon
- Barns&Nobel
- iTunes
- Developerpresss.com
Never look back...
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
- Example projects you can deploy now
  - https://www.github.com/openshift
- Help?
  - IRC: freenode #openshift
- Forums
- Email: openshift@redhat.com
Install Client Tools

- Fedora / RHEL
  - openshift.repo
  - /etc/yum.repos.d

$ sudo yum install rubygem-rhc

- The rest:
  - gem install rhc (json_pure)
  - see forums, blogs
Create Domain

- Use rhc command
  
  $ rhc domain create -n mydomain

- Use admin console!
Choose a type of application

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.

Cartridge
A managed runtime that receives security updates and upgrades automatically.

QuickStart
An quick way to try out a new technology with code and libraries preconfigured. You are responsible for updating core libraries for security updates.

Tagged with instant_app (show all)

Jenkins Server
Jenkins is a continuous integration (CI) build server that is deeply integrated into OpenShift. See the Jenkins info page for more. Based on Jenkins 1.509+

http://www.jenkins-ci.org
OpenShift maintained

AeroGear Push 0.X
The AeroGear UnifiedPush Server allows for sending native push messages to different mobile operation systems. This initial community version of the server supports Apple's Push Notification Service (APNs), Google Cloud Messaging (GCM) and Mozilla's SimplePush.

It has a built in administrative console that makes it easy for developers of any type to create and manage push related aspects of their applications.

AppStar
Building your own mobile web application from scratch.

Learn more

Community created / Does not receive automatic security updates

Drupal 7

DokuWiki
DokuWiki is a simple to use and highly versatile Open Source wiki software that doesn't require a database. It is loved by users for its clean and readable syntax. The ease of maintenance, backup and integration makes it an administrator's favorite. Built in access controls and authentication connectors make DokuWiki especially useful in the enterprise context and the large number of plugins contributed by its vibrant community allow for a
Choose a type of application

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.

Cartridge
A managed runtime that receives security updates and upgrades automatically.

QuickStart
An quick way to try out a new technology with code and libraries preconfigured. You are responsible for updating core libraries for security updates.

Featured

**JBoss Enterprise Application Platform 6.1.0**
Market-leading open source enterprise platform for next-generation, highly transactional enterprise Java applications. Build and deploy enterprise Java in the cloud.
http://www.redhat.com/products/jbossenterprise/middleware/application-platform/
OpenShift maintained
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.
http://www.zend.com
OpenShift maintained
PHP

**AeroGear Push 0.X**
The AeroGear Unified Push Server allows for sending native push messages to different mobile operation systems. This initial community version of the server supports Apple's Push Notification Service (APNs), Google Cloud Messaging (GCM) and Mozilla's SimplePush.

It has a built in administrative console that makes it easy for developers of any type to create and manage push related aspects of their applications.

Learn more
OpenShift maintained / Does not receive automatic security updates
NEW INSTANT APP JAVA MESSAGING NOT SCALABLE
Based On

**JBoss Enterprise Application Platform 6.1.0 Cartridge**

Market-leading open source enterprise platform for next-generation, highly transactional enterprise Java applications. Build and deploy enterprise Java in the cloud.

http://www.redhat.com/products/jbossenterprisemiddleware/application-platform/

OpenShift: maintained

JAVA, JBOSS, JEE FULL PROFILE

Public URL

`http://goto-inthe.rhcloud.com`

OpenShift will automatically register this domain name for your application. You can add your own domain name later.

Source Code

**Default**

We'll create a Git code repository in the cloud, and populate it with a set of reasonable defaults.

Gears

**Small**

Gears are the application containers running your code. For most applications, the 'small' gear size provides plenty of resources. If you require more resources, select a larger gear size here.

Cartridges

**JBoss Enterprise Application Platform 6.1.0**

Applications are composed of cartridges - each of which exposes a service or capability to your code. All applications must have a web cartridge.

Scaling

**No scaling**

OpenShift automatically routes web requests to your web gear. If you allow your application to scale, we'll set up a load balancer and allocate more gears to handle traffic as you need it.

---

**JBoss Enterprise Application Platform 6.1.0 is based on a premium cartridge.**

It costs an additional **$0.03** per gear hour after the first 3 gears.
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. Click the link below to see your application:

http://goto-inthe.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.

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

```
git clone ssh://5242d855500446e92f9000d6@goto-inthe.rhcloud.com/~/git/goto.git/
git cd goto/
```

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.

### Adding capabilities
Cartridges are the components of an OpenShift application, and include databases, build systems, and management capabilities. Adding a cartridge such as MySQL or MongoDB to an application provides the desired capability without forcing you to administer or update that feature.

Add a cartridge to your application now

### Managing your application
#### RHC Client Tools
Most of the capabilities of OpenShift are exposed through our command line tool, rhc. Whether it's adding cartridges, checking uptime, or pulling log files from the server, you can quickly put a finger on the pulse of your application. Follow these steps to install the client on Linux, Mac OS X, or Windows.

After installing the command line tool read more on how to manage your application from the command line in our User Guide.

#### JBoss Developer Studio
The JBoss Developer Studio is a full featured IDE with OpenShift integration built in. It gives you the ability to create, edit and deploy applications without having to leave the IDE. Links to download, install and use the JBoss Developer Studio for Linux, Mac OS X, or Windows can be found on the JBoss Developer Studio tools page.
Application Details

JBoss Enterprise Application Platform 6.1.0

Git Repository:
ssh://5242d855500448e83f0000d6@goto-inthe.rhcloud.com/~/git/goto.git/

Want to log in to your application?
Enable Jenkins builds

Aliases
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
Other Options

- Name app and define type
  
  $ rhc app create -t apptype appname

  (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
  
  ```
  $ git push
  ```

- Congratulations, your app is in the cloud!
Gears

500MB memory + 1GB storage
Welcome to JBoss

Start from scratch

- HTML5 Project
  - OpenShift Application
  - Java EE Web Project
  - Spring MVC Project

Start from a sample

Web Applications
- kitchensink
- greeter
- helloworld
- kitchensink-rf

Mobile Applications
- kitchensink-html5-mobile

Back-end Applications
- jax-rs-client
- helloworld-jms
- nummorph

Portal Applications
- Simplest Hello World Portlet
- JSF2 Hello World Portlet
- JSF2+RF4 Hello World Portlet

JBoss Buzz

- This week in JBoss (30 May): Catching up! 5 days ago by Eric D. Schabell
- Eclipse Day Florence 6 days ago
- This week in JBoss (16 May): WildFly 8 Alpha1 about to be released 2 weeks ago by Helko Braun
- This week in JBoss (10 May 2013): Controversy Abounds 3 weeks ago by Kevin Conner
- JBoss Tools Reloaded 1 month ago
- This week in JBoss (24th of April 2013): Welcome WildFly! 1 month ago by Eric D. Schabell
- This week in JBoss (11 April 2013): Going to Brazil 2 months ago by Marius Bogoevici
- This week in JBoss (5th April 2013): Not fooling around 2 months ago by Kevin Conner
- This week in JBoss (28 March 2013): Announcing OptaPlanner 2 months ago by Eric D. Schabell
- JBoss Tools at EclipseCon and Devxoxx 2 months ago
- This week in JBoss (21 Mar 2013): Tooling for the Business Rules Management System 2 months ago by Helko Braun
- This week in JBoss (15 Mar 2013) – Overlord has awakened 3 months ago by Burr Sutter
- Let’s go to Kepler! 3 months ago
- This week in JBoss (7 Mar 2013): EAP binaries available for all developers 3 months ago by Heiko Braun
- This week in JBoss (28 February 2013): Hands-on OAuth, OData, Ceylon and GWT Testing 3 months ago by Heiko Braun
- This week in JBoss (21 February 2013): JUDDCon activities spinning up! 3 months ago by Eric D. Schabell
- m2e-wtp 0.17.0 has been released! 3 months ago
- This week in JBoss (15 February 2013): Highly Modular (or, Bits and Pieces) 4 months ago by Marius Bogoevici
- This week in JBoss (7 Feb 2013): A new JavaChampion! 4 months ago by Heiko Braun
- JBoss Tools 4 and Developer Studio 6 is ready! 6 months ago

Getting Started | Software/Update

Other resources
- JBoss developer website
- User Forum
- Developer Forum
- Product documentation
- Videos
GOTO 2013 Mobile App Demo

$ rhc app create -t jbosseap-6 goto
$ cd goto
$ git remote add upstream -m master git://github.com/eschabell/openshift-goto.git
$ git pull -s recursive -X theirs upstream master
$ git push

http://goto-$your_domain.rhcloud.com
jBPM Migration Project Demo

$ rhc app create -t jbossas-7 --from-code git://github.com/eschabell/openshift-jbpmmigration.git jbpmmigration

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

Welcome to the jBPM Migration in the Cloud!
Host Awestruct Presentations

$ rhc app create -t ruby-1.9 --from-code git://github.com/eschabell/openshift-presos-awestruct.git presos

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

Presentations

- JUDCon 2013 Boston
- June 2013 - Eric Live in Chicago
- Webinar July 2013 - Are you ready to rumble with JBoss Integration & BPM
- GOTO Aarhus 2013 - OpenShift Primer

Eric D. Schabell
Jboss Technology Evangelist (Integration & BPM)
@ericschabell
Drools (Opta) Planner Demo

$ rhc app create -t jbosseap-6.0 --from-code git://github.com/eschabell/openshift-droolsplanner.git droolsplanner

http://droolsplanner-$your_domain.rhcloud.com/droolsplanner
Business Activity Monitoring

$ rhc app create -t jbossas-7 --from-code
git://github.com/eschabell/openshift-bpm-bam-dashboard.git bam

Setup user login:

$ rhc app show bam

$ scp bampreview/.openshift/config/bam-*.properties
xxxxxx@bam-inthe.rhcloud.com:~/jbossas/standalone/configuration/

http://bam-$your_domain.rhcloud.com (u:erics / p:erics)
JBoss BPM v6 Designer Demo

$ rhc app create -t jbossas-7 --from-code git://github.com/eschabell/openshift-bpm-process-designer.git designer

http://designer-$your_domain.rhcloud.com (follow link)

http://editor-$your_domain.rhcloud.com/designer (u:erics / p:erics)
WHAT OTHERS ARE SAYING

"As a start-up, OpenShift has been an ideal platform because it has allowed us to focus on our application and our customers and not on infrastructure and operations."
— Ruben Daniels, Cloud 9 IDE

"With OpenShift, I can have a developer deploy her first line of business logic in less time than a meeting with an IT organization."
— Gregori Faroux, TekAways

"In my first 3 days with the OpenShift Online service I was able to stand up Django-CMS, Redis, OwnCloud, Sonar, SugarCRM, WordPress, Jmeter, Node.JS, MongoDB, and Jenkins; and hosted a hackathon and several workshops for 88 senior developers, solution architects. If I could do all this in my spare time in just three days, I cannot wait to see how productive our technical teams can get in the next 30 days!"
— David Perales Ferrera, Telefonica Digital

I'm at the #dockerboston meetup representin' if anyone has questions about #docker on #fedora, #rhel, #centos. Because it's pretty awesome.
— mattdm

Deploying #Drupal 8 project to the @openshift cloud in a matter of minutes. Just start with openshift.com/quickstarts/dr... #DrupalCon
— Vojtech Vitek

Just finish my working (but still dumb) Flask+SQLAlchemy app on RedHat #OpenShift. using this concise tutorial openshift.com/blogs/build-yo...
— Eko Suprapto Wibowo

. @TheSteve0 proves his mastery if engaging an audience yet again. Great talk on #OpenShift. #JavaOne http://t.co/8nwYdADEv
— Ray Ploski

WHY OPENSHEET?

FOLLOW OPENSHEET
MORE OPENSHEET BUZZ
Loving your hammers?
• OpenShift: http://openshift.redhat.com
• 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