

JUDCon

JBoss Users & Developers Conference

2012:India



O P E N S H I F T™

PaaS by Red Hat® Cloud

A Happy Cloud Friendly Java Developer with OpenShift

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Xebia

PaaS



WIKIPEDIA
The Free Encyclopedia
ἡ ἐλεύθερη ἐγκυκλοπαιδεία
WIKIPEDIA

“Platform as a service (PaaS) is the delivery of a computing platform and solution stack as a service.”

Why PaaS Is Important?

- Avoids getting caught up in systems management or other lower level concerns.
- Lets developer focus on his job i.e. to write code.
- You develop “Cloud Aware “ applications from bottom up.
- Automatic Scaling.
- Improves developer productivity.

As a developer it gives you power to prototype and create application very rapidly.



Movie Verdict

@movieverdict INDIA

We analyze the tweets to find whether people liked the recently released #bollywood movie or not. Its people opinion. Follow us to save your hard earned money.

Following

Tweet to @movieverdict

Tweets Favorites Following Followers Lists

movieverdict Movie Verdict Analyzed 8426 tweets and found 81.53% people liked and 18.47% people disliked movie don 2 #don2 28 Dec

movieverdict Movie Verdict Analyzed 8220 tweets and found 81.7% people liked and 18.3% people disliked movie don 2 #don2 28 Dec

movieverdict Movie Verdict Analyzed 7982 tweets and found 81.71% people liked and 18.29% people disliked movie don 2 #don2 28 Dec

movieverdict Movie Verdict Analyzed 7859 tweets and found 81.59% people liked and 18.41% people disliked movie don 2 #don2 28 Dec

About @movieverdict

277 Tweets 0 Following 104 Followers 1 Listed

Following view all

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Pre 2011 Approaches to PaaS

Single Language
One or more
Cloud PaaS

Amazon Beanstalk
Heroku
CloudBees

Multiple Languages
Single Cloud
PaaS

Google App Engine
Force.com
Microsoft Azure

Pre 2011 Java Developer was Sad

PaaS == Problem as a Service

Issues with pre 2011 PaaS

- Can't run existing code.
- Tied to particular environment.
- Vendor lock-in (lack of cloud portability).
- Deployment on public cloud only.
- Need to change the mindset.
- Diluted frameworks.
- Fewer Options or Choices.

Things changed in 2011



Open PaaS – Third Approach

Multiple Languages
Multiple Cloud
PaaS

Open PaaS

OpenShift
Cloud Foundry



O P E N S H I F T™

PaaS by Red Hat® Cloud

Enter OpenShift

- Multi Language, Multi Frameworks, Multi Cartridges , and Multi Cloud.
- Cloud Portability.
- No Proprietary Software.
- No Vendor Lock-in.
- No Need to change your code or learn something new.
- Comes in three flavors
 - Express, Flex and Power.

OpenShift Express

- Java, Perl, Python, PHP, and Ruby
- Command Line, Eclipse & Forge plugin
- Jenkins Support
- MySQL and MongoDB support
- Client Tools for datastores
- Runs on top of EC2 but free
- Supports 5 applications per user.
- Multi tenant
- Shell Access.

Get Started With Express

- Sign up at [OpenShift website](#)
- Install client tools. RHC Ruby Gem ,Eclipse Plugin
- Create Domain
- Create Application
- Deploy using GIT. Just do git push.
- I have written Spring Roo OpenShift Express add-on

Demo – OpenShift Express

- PasteBin Clone with a twist.
 - Spring Application
 - MongoDB datastore
 - Spring Roo
 - Jenkins Support.

OpenShift Express Limitations

- Five 512 MB RAM instances
- Java Max Heap Memory 128 MB, 83MB permgen.
- 100 process which translates to 80 Java Threads.
- I think it is good for rapid prototyping.


Enterprise Flexibility?



Enter OpenShift Flex

- Java and PHP
- Web UI.
- Runs on dedicated EC2 provide your credentials.
- JBoss, Apache Web Server and Tomcat, MySQL, Memcached, Membase, Infinispan, MRG Messaging and MongoDB
- Supports shell access.
- Configure Components, Auto-Scaling, Performance Monitoring, Log Management
- Coolest – Cost Calculator (I think)

Demo 2 Getting Started with Flex



OPENSHIFT™ PaaS by Red Hat® Cloud

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INTRODUCTION

BEGINNING TASKS

Welcome to OpenShift. During signup, you configured a cloud provider, allocated cloud servers into a server cluster, and deployed a sample application. Here you can re-do those steps but why not move on to other guides? Each guide will start with a few explanatory screenshots and then navigate you to the right page to get started.

- [TRY IT](#) ✓ DEFINE A CLOUD ACCOUNT
You already setup your cloud account during signup but if you'd like to use an additional cloud account or re-enter your cloud credentials, start here.
- [TRY IT](#) ✓ CREATE A SERVER CLUSTER
During signup, you created a server cluster. Come back here if you've deleted it and want to create one again, or if you want to create additional server clusters. Multiple applications can share a server cluster (and thus a URL space and scaling policies) or you can create a server cluster for each application.
- [TRY IT](#) ✓ DEPLOY SAMPLE APPLICATION
During signup, you deployed an application from the library of samples. If you've deleted it, or want to deploy another one, this guide will get you started. Keep in mind that running multiple applications on the same cluster requires more resources... usually RAM is the constraining resource.
- [TRY IT](#) VIEW RUNNING APPLICATION
Find the URL to use to exercise the running application
- [TRY IT](#) RECONFIGURE SAMPLE APPLICATION
Learn a little about application deployment definitions by making a simple change to the application's URL routing configuration
- [TRY IT](#) SCALE SAMPLE APPLICATION
Scale up to handle more load, or scale down to save money
- [TRY IT](#) MONITOR APPLICATION PERFORMANCE
Monitor the performance of your application.
- [TRY IT](#) DEFINE AND DEPLOY YOUR OWN APPLICATION
Now that you've used a sample application, upload your own application to get deployed in the cloud

RESOURCES

HOW-TO GUIDES

- [Getting Started with OpenShift Flex](#)
- [Deploying JBoss with OpenShift Flex](#)
- [Deploying Drupal with OpenShift Flex](#)

Demo 3 – Deploying Application

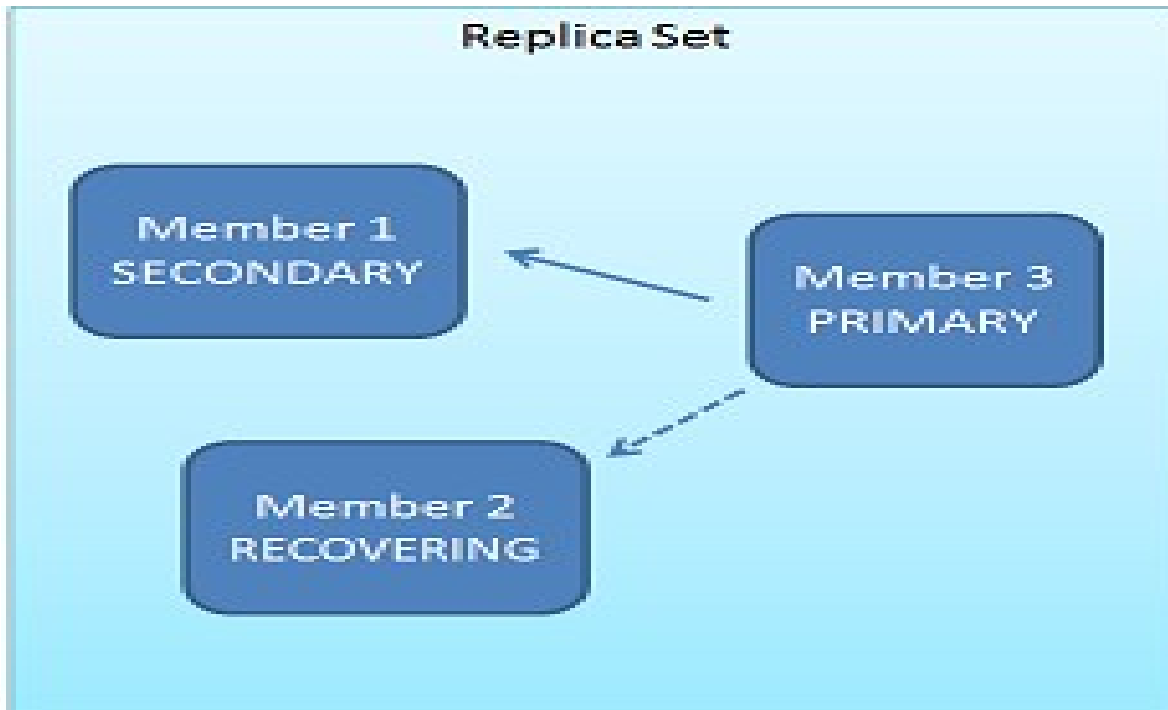
- PasteBin Clone with a twist.
 - Spring Application
 - MongoDB datastore
 - Spring Roo
 - Already created application.

Demo 4

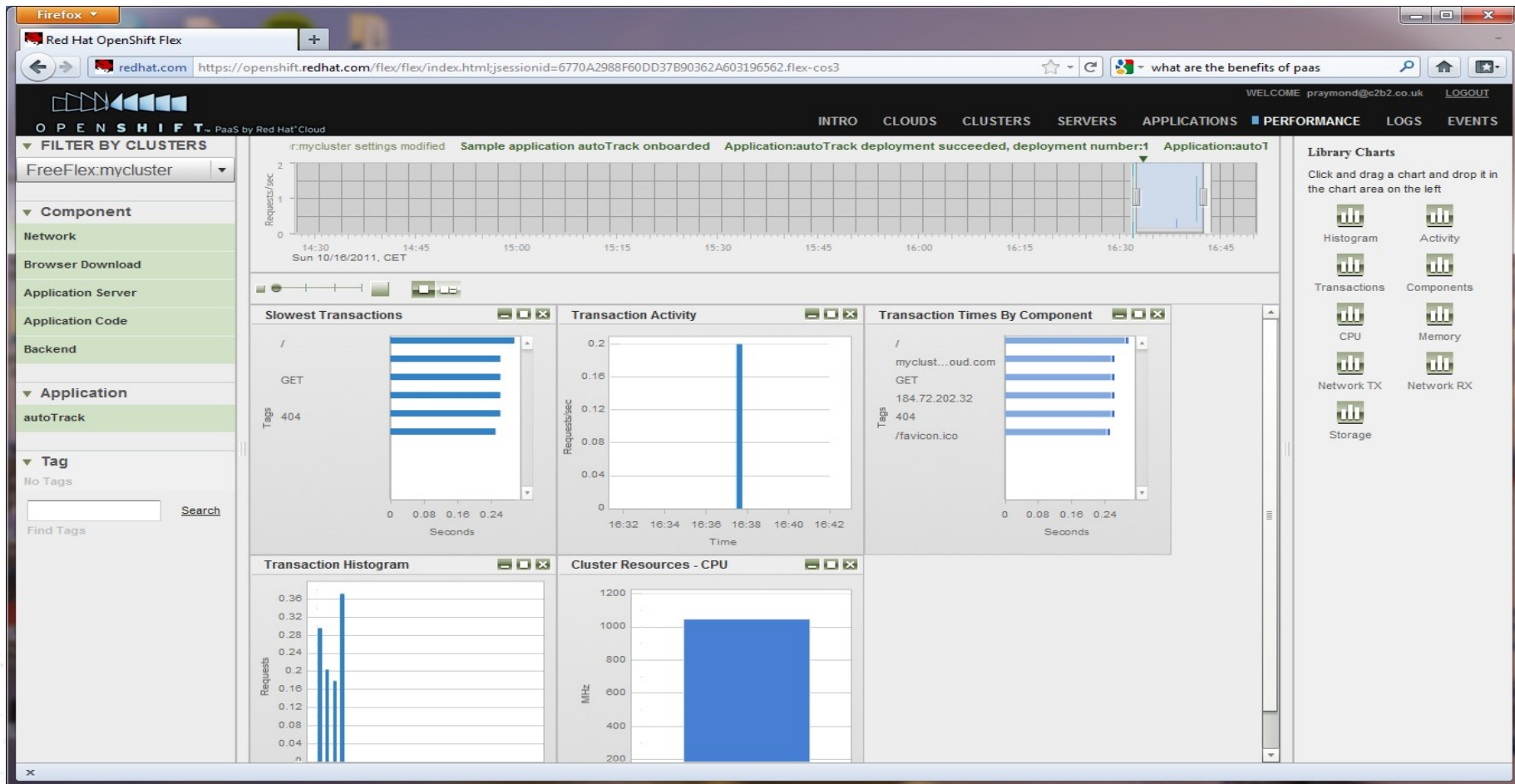
Managing Overload- Scalability



Demo 5 –MongoDB Replica Set Scaling MongoDB Reads



OpenShift Flex Monitoring Performance



Conclusion

- Its a great time to be a Java developer
- It is very easy to deploy existing applications.
- Developer have to only focus on writing code and new apps not raising tickets.
- Try OpenShift. It is awesome.

In case you want to know my details..

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Thanks for listening

