Optimize OpenShift 3 Deployments
on Red Hat Enterprise Linux 7 & Atomic:

OPENSHIFT FOR OPERATORS
redhat.slides.com/nhr/openshift-for-operators

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I can't hear you over how awesome my app is!
My Problem

OPERATORS:

Developer Problem → My Problem
AGENDA

TECH OVERVIEW
What is OpenShift?
What is RHEL Atomic?

LABS
Learn how to get OpenShift running - and keep it running.

LAB OVERVIEW
A quick look at the lab environment

WRAP-UP
Where to continue your quest for learning
Don't forget to rate our lab!
TECHNOLOGY OVERVIEW
OVERVIEW: OPENSHIFT 3

The Next-Generation PaaS

- Self-Service
- Multi-Language
- Auto-Scaling
- Collaborative

Standards Based
Web Scale
Enterprise Grade
Open Source

by Red Hat®
OVERVIEW: OPENSHIFT 3

Components:

<table>
<thead>
<tr>
<th>Container Host</th>
<th>Container API</th>
<th>Orchestration</th>
<th>Middleware &amp; Services</th>
<th>Lifecycle, Project Mgt.</th>
<th>User Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Docker</td>
<td></td>
<td>Kubernetes</td>
<td>xPaaS</td>
<td>OPENSHIFT</td>
<td></td>
</tr>
</tbody>
</table>
OVERVIEW: OPENSHIFT 3
What's Different?

v3 versus v2:

- New base OS: RHEL Atomic or RHEL 7+ versus RHEL 6
- New container model: docker versus gears
- New orchestration engine: Kubernetes versus broker
- New packaging model: docker images versus cartridges
- New routing tier: cluster-wide routing versus Node-based
- Better experience for developers and operators
OVERVIEW: RHEL ATOMIC

Run and orchestrate container-based apps at scale

What is Atomic?

- A variation of Red Hat Enterprise Linux 7
- Components:
  - systemd
  - Docker
  - SELinux
- Just enough OS for Containers
- OStree delivers yum + RPM as an atomic operation
LAB OVERVIEW

(Download the Lab Guide)
LAB OVERVIEW

What can I expect?

This lab is about learning how to get OpenShift running - and *keep* it running.

- "The POC": OpenShift v3 Test Drive on RHEL Atomic
- "The Rollout": Deploying OpenShift v3 Using Ansible
- "Maintenance Mode": Components, Apps and Users
- "Cluster Party Tricks": Node Maintenance
LAB ENVIRONMENT:
Test Driving OpenShift on RHEL Atomic

- `ose3-atomic.example.com`
- `192.168.133.10`
- User / Password: `cloud-user / redhat`
- Start and interact with a completely containerized OpenShift instance
- Perform some basic CLI and web console tasks
LAB ENVIRONMENT:
OpenShift v3 in 3-Host Cluster

- ose3-master.example.com
- ose3-node1.example.com
- ose3-node2.redhat.com
- User / Password: root / redhat
- Deploy and manage OpenShift 3 in a model production environment
LAB TIME!
REVIEW

- Overviews
  - OpenShift
  - RHEL Atomic
- Labs
  - "The POC"
  - "The Rollout"
  - "Maintenance Mode"
  - "Cluster Party Tricks"
TAKEAWAY?
TAKE IT WITH YOU:

$ docker pull openshift/origin
LOOKING FOR MORE?

Check out these resources in a web browser near you:

- OpenShift Blog: blog.openshift.com
- OpenShift Upstream: openshift.org
- Project Atomic: projectatomic.io
THANK YOU!