Michael Surbey
Solutions Architect
msurbey@redhat.com

August 2016

redhat.

Agenda

Introduction & Overview

8:00 - 8:45 AM

OpenShift Tech Deep Dive

8:45 - 9:30 AM

OpenShift Community vs. Enterprise

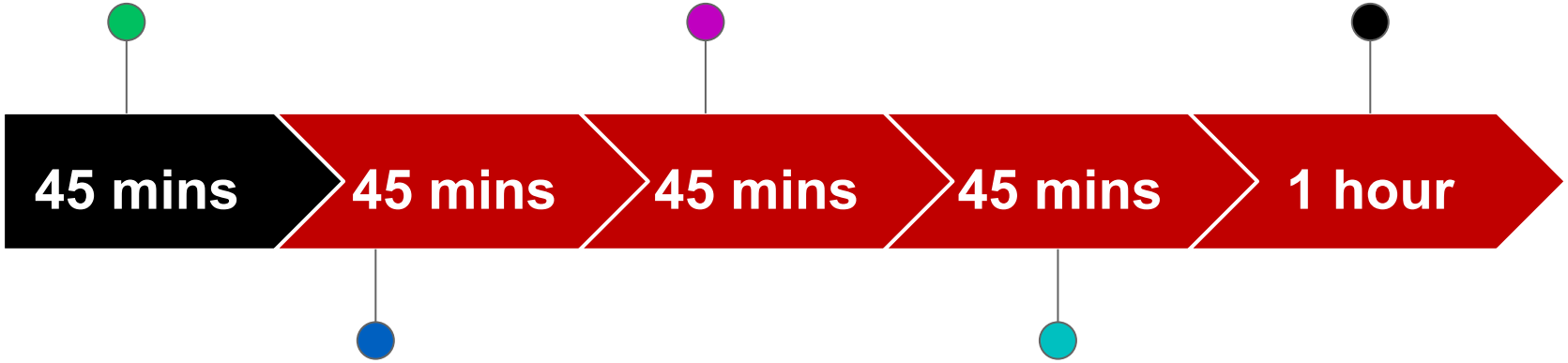
9:30 - 10:15 AM

OpenShift + Red Hat Mobile

10:15 - 11:00 AM

OpenShift Workshop

11:00 - 12:00 PM



Software Disrupts Business

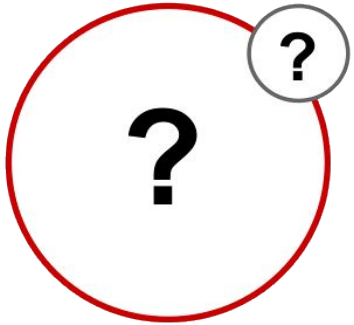
Industry Shake-up

Retail

Finance

Media

Transportation



Impact Of Technology

36%

of US CEOs say they entered or considered entering a different industry at some point over the past three years

Half

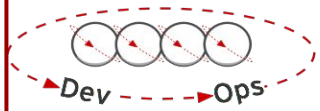
Half of US CEOs believe a significant competitor is emerging or could emerge from technology sector versus 32% of CEOs globally.

Think it's likely competitors will compete in industries other than their own over the next three years

61%

IT Must Evolve

Development Process	Application Architecture	Deployment & Packaging	Application Infrastructure
Waterfall	Monolithic	Physical Servers	Datacenter
Agile	N-Tier	Virtual Servers	Hosted
DevOps	**Microservices**	**Containers**	**Cloud**



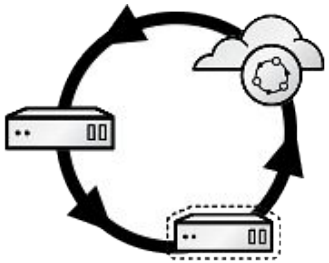
What Are Containers?

Containers

Why Hype Containers?

The Value of Containers

FASTER APP DELIVERY



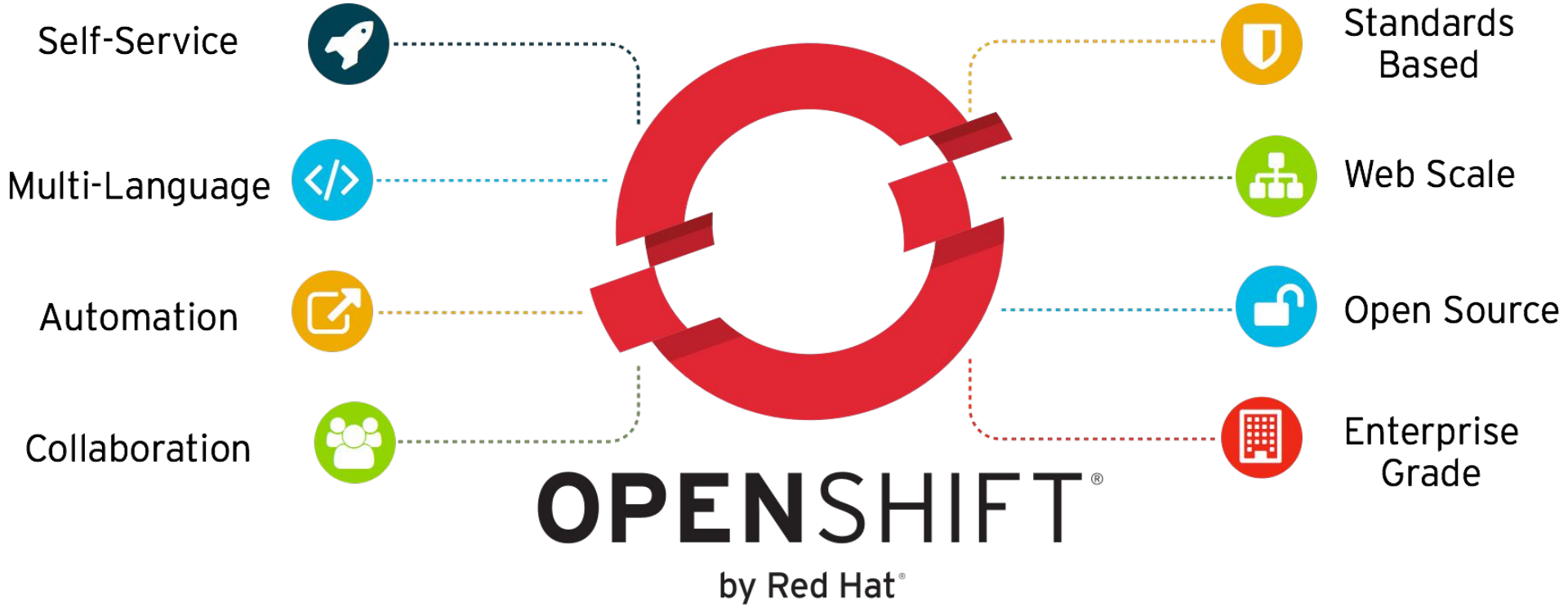
DEPLOYMENT FLEXIBILITY

OPERATIONAL EFFICIENCY

LOWERED DEPLOYMENT COSTS

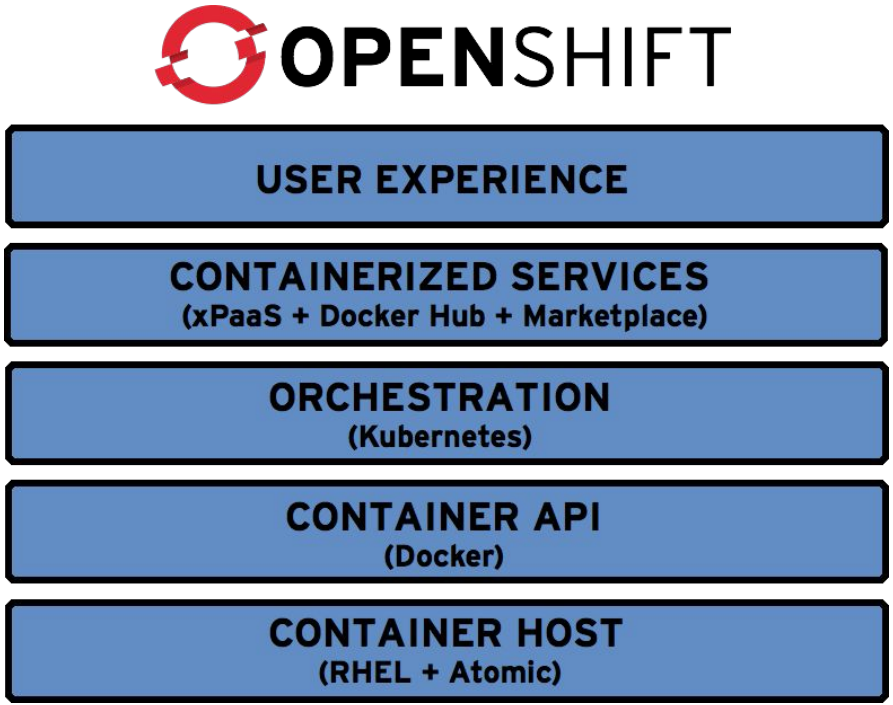
What Is OpenShift?

Red Hat's Container Application Platform



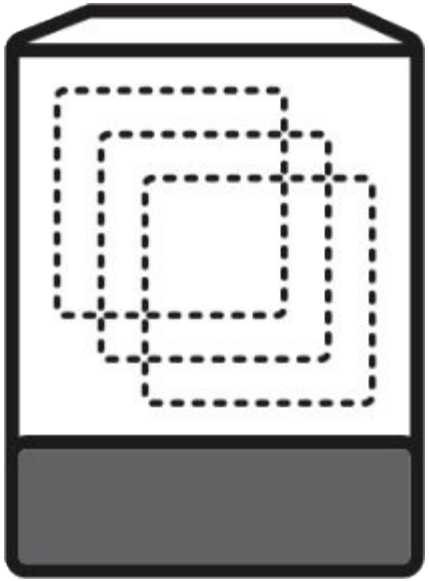
OpenShift 3.2

- Standard containers API
- Web-scale orchestration
- Container optimized OS
- Expanded choice of frameworks and services
- Improved developer & operator experience



Why Select OpenShift?

Trusted Container Host



- Enterprise-grade security, stability & reliability with Red Hat Enterprise Linux 7
- Minimal footprint, container optimized, auto updated OS with Atomic Host
- Certified to run Linux containers at scale

CVE-2016-3697

It was found that Docker would launch containers under the specified UID instead of a username. An attacker able to launch a container could use this flaw to escalate their privileges to root within the launched container.

Find out more about CVE-2016-3697 from the MITRE CVE dictionary dictionary and NIST NVD.

Impact: Moderate
Public Date: 2016-04-22

Bugzilla:
1329450: CVE-2016-3697 docker: privilege escalation via confusion of usernames and UIDs

CVSS v2 metrics

NOTE: The following CVSS v2 metrics and score provided are preliminary and subject to review.

Base Score	6
Base Metrics	AV:N/AC:M/Au:S/C:P/I:P/A:P
Access Vector	Network
Access Complexity	Medium
Authentication	Single
Confidentiality Impact	Partial
Integrity Impact	Partial
Availability Impact	Partial

Visit link for more: http://red.ht/202eyw3

Driving & Adopting Standards

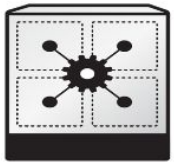
Isolation with Linux Containers

- Isolating applications on host operating systems
- Security
- Portability across host systems

Container format with Docker

- Interface for communication, configuration, data persistence & provisioning
- Content agnostic
- Infrastructure agnostic

Orchestration With Kubernetes

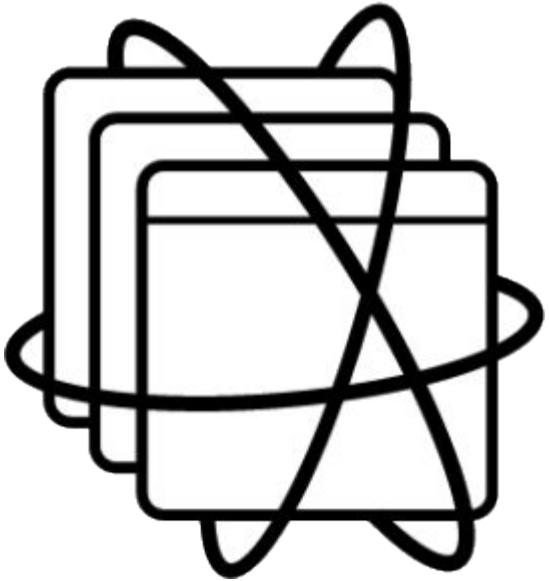


- Orchestrate containers at scale
- Define application topologies
- Handle container networking
- Manage container state
- Schedule across hosts

Registry/Container Discovery

- Easily find and consume trusted container images
- Federate consumption libraries
- Promote consistency and reuse

Application Services

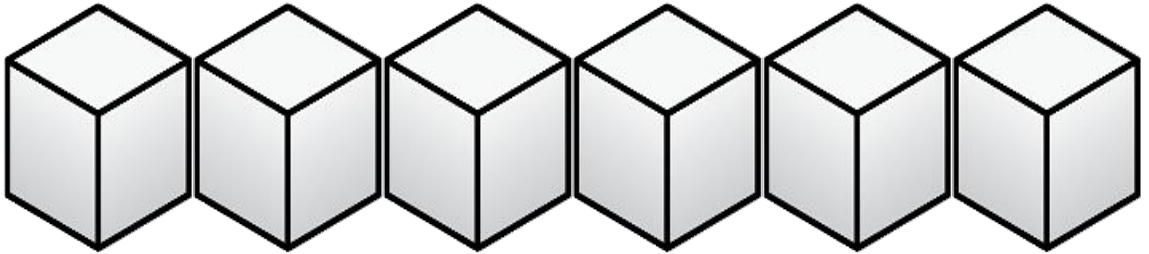


- Access certified container images from Red Hat & ISVs
- Choice of language runtimes, databases, etc.
- xPaaS application & integration services powered by JBoss

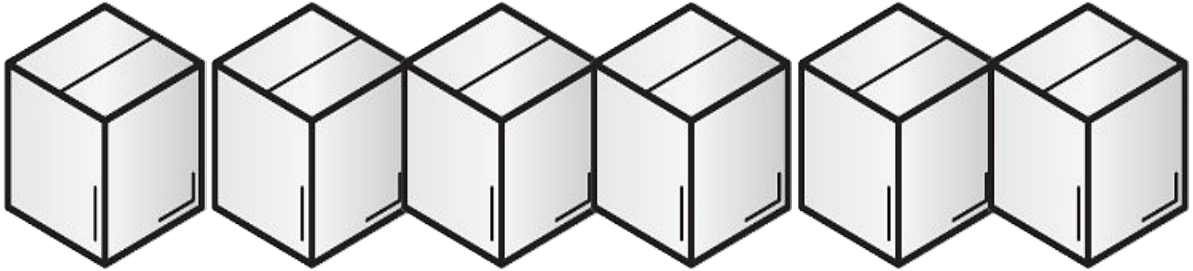
Software Collections & JBoss
CVE Fixes
Bug Patches
Support Life Cycle
Technical Support

MySQL 5.5
9.2
mongoDB 2.4
php 5.5
python 3.3
2.0
node .10
5.16
RED HAT JBOSS A-MQ 6.2
RED HAT JBOSS ENTERPRISE APPLICATION P N PLATFORM 6.4
RED HAT JBOSS WEB SERVER 7.0.59 8.0.18

Red Hat Certified Containers
CVE Fixes
Bug Patches
Technical Support



Any Docker Registry
Supported Container API
Supported Execution



OpenShift Short Story

tex
tex

TT 095
PSA
TT 172 PSA
TT 191 PSA
TT 166
TT 80
TT 198 PSA
TT 208 PSA
TT 213 PSA

OpenShift Live Demo

Thank You!

plus.google.com/+RedHat

facebook.com/redhatinc

linkedin.com/company/red-hat

twitter.com/RedHatNews

youtube.com/user/RedHatVideos