Teamworkx Cloud - Red Hat
OpenShift für die Atlassian Toolchain

What is all the fuss over Containers?

Hubert Schweinesbein
Senior Manager, EMEA Partner Enablement Team
hubert@redhat.com
What to expect

WHY OPEN SOURCE?

WHY RED HAT?

AND WHAT’S about CONTAINERS?

AND Atlassian and Teamworkx?
KEY QUESTIONS OF DIGITAL BUSINESS

WHY CHANGE?
WHY NOW?
WHY OPEN SOURCE?
WHY RED HAT?
I.T. LEADERS SAY CHANGE IS COMING

IS YOUR ORGANIZATION ALSO SEEING DIGITAL DISRUPTION?

87% anticipate that their industries will be disrupted by digital trends to a great or moderate extent.

44% say their organizations are adequately preparing for the disruptions to come.

THE DIGITAL TRANSFORMATION JOURNEY

I.T. TAKES EVERYONE ON ALL PATHS
“We need to deliver products to market quicker than ever and be more responsive to market trends. We want to become the bank of the future.”

SIMON CASHMORE
HEAD OF PaaS MIDDLEWARE ENGINEERING
BARCLAYS

Why is Innovation Important?

If change is happening on the outside faster than on the inside the end is in sight.

Jack Welch, former CEO, GE
DIGITAL LEADERS ARE HIGH PERFORMERS
I.T. THROUGHPUT MEANS MOVING QUICKLY TO ANSWER DEMAND

High-performing organizations deploy code

46x

more frequently than low-performing ones

OPEN SOURCE IS DRIVING INNOVATION

WHY OPEN SOURCE?

INNOVATION

OPEN INNOVATION

PROPRIETARY INNOVATION

TIME
IT'S NOT JUST CODE; IT'S CULTURE

Collaboration

Shared problems are solved faster

Transparency (both access and the ability to act)

Working together creates necessary standardization

WHY OPEN SOURCE?
WHY RED HAT?

FROM COMMUNITY TO ENTERPRISE
WE ARE BUILDING MODERN I.T. SOLUTIONS

RED HAT
ENTERPRISE LINUX

RED HAT
VIRTUALIZATION

RED HAT
OPENSTACK
PLATFORM

RED HAT
ENTERPRISE LINUX
ATOMIC HOST

RED HAT
STORAGE

RED HAT
SATELLITE

1,000,000+
PROJECTS

fedora

oVirt

RDO

ATOMI

GLUSTER
caph

FOREMAN

CentOS

openstack

JBoss Community
FuseSource

FEEDHENRY

origin

ManageIQ

ANSIBLE

RED HAT
JBOSs
MIDDLEWARE

RED HAT
MOBILE

RED HAT
OPENSIFT

RED HAT
CLOUDFORMS

ANSIBLE

by Red Hat
OPEN SOURCE IS EVERYWHERE

RED HAT SOLUTIONS POWER LEADING ORGANIZATIONS

- 100% of airlines in the Fortune Global 500 rely on Red Hat
- 100% of telcos in the Fortune Global 500 rely on Red Hat
- 100% of healthcare companies in the Fortune Global 500 rely on Red Hat
- 100% of commercial banks in the Fortune 500 rely on Red Hat
- 100% of U.S. executive departments rely on Red Hat

* Red Hat client data and Fortune Global 500 list, 2015
THE HIGH LEVEL STORY

WHY CHANGE?

Your world is changing faster than ever before, and all organizations must embark on a digital transformation journey to compete and win.

WHY NOW?

Technology is no longer about running the business. Technology drives competitive advantage and delivers clear business outcomes.

WHY OPEN SOURCE?

Open source brings the innovation, economics, and agility needed for digital transformation.

WHY RED HAT?

Red Hat sets the standard for taking open source to the enterprise with a complete portfolio and partner ecosystem.
What are containers & why do you need them?
The Problem

Applications require complicated collaboration during installation and integration every time they are deployed.

*Image: Manually Loading Ships 1921*
What About Virtualization?

Cargo holds help, but you still have to load the ship manually
What about Configuration Management

Alone, it’s just, better boxes, bags, barrels, crates and forklifts
The solution

Containerize

Adopting a container strategy will allow applications to be easily shared and deployed.
Load Applications at the Factory, not the Dock
**WHAT ARE CONTAINERS?**

**CONTAINER BENEFITS FOR MULTIPLE TEAMS**

- **DEVELOPERS**
  - Cloud-Native Apps
  - Simplify Packaging
  - Simplify Testing

- **IT OPERATIONS**
  - Consistent App Deploys
  - Automated App Deploys
  - Improved App Performance
  - Multi-Cloud Consistency

- **BUSINESS LEADERS**
  - Enable DevOps Culture
  - Enable Hybrid Cloud
  - Reduce VM Licensing Costs
  - Accelerate App-Dev Cycles

**CONTAINERS**

- Package all app dependencies
- Integrated in Linux OS
- Fully Open Source
- Secure Isolation of Applications
- Eliminates need for VM Hypervisor
- Runs on Any Cloud Platform

**CLOUD INFRASTRUCTURE**

- Linux Host (Kernel)

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General Distribution
CONTAINER INFRASTRUCTURE
WITH CONTAINERS, THE OS MATTERS MORE THAN EVER

CONTAINERS ARE LINUX

Red Hat Enterprise Linux is a leader in paid Linux

70%
CY2016 paid Linux share

Linux OS host spans every container

Linux is in every single container
The Next Problem

The solution requires more than just ships, trucks, and trains
What’s in the Container Matters...

- Liquids
- Frozen Goods
- Contraband
Container Management

With thousands of containers, building software systems to pack, unpack, load, unload, and track containers is complicated.

Image: Container Logistics is Not Trivial
WHY DO CONTAINERS NEED KUBERNETES?

- CONTAINERIZED APPLICATIONS
- MANAGE CONTAINERS SECURELY
- MANAGE CONTAINERS AT SCALE
- INTEGRATE IT OPERATIONS
- ENABLE HYBRID CLOUD
KUBERNETES IS THE CONTAINER ORCHESTRATION STANDARD

2 YEARS AGO
Fragmented landscape

TODAY
Kubernetes consolidation

OTHER ORCHESTRATORS
(Cloud Foundry Diego, Nomad, Blox, etc.)

Red Hat bet early on Kubernetes. It has now become the dominant orchestration ecosystem
RED HAT HAS BEEN A KUBERNETES LEADER SINCE DAY 1
KUBERNETES PROJECT CONTRIBUTIONS

#1 - Google - 41,649
#2 - Red Hat - 14,410
#6 - IBM - 1230
#9 - CoreOS - 964*
#10 - Microsoft - 728
#13 - VMware - 433
#15 - Intel - 400
#23 - Cisco - 192
#26 - Pivotal - 141
#41 - Oracle - 36
#56 - Docker - 14
Amazon/AWS - ?

* Most CoreOS commits were done using personal email addresses (Independent)
IT Must Evolve to Innovate

Development Process
- Waterfall
- Agile
- DevOps

Application Architecture
- Monolithic
- N-Tier
- Microservices

Deployment & Packaging
- Physical Servers
- Virtual Servers
- Containers

Application Infrastructure
- Datacenter
- Hosted
- Cloud
Streamlining Application Development with PaaS

**Craftwork**

How to Build an Application:

1. Have idea
2. Get budget
3. Submit hardware acquisition request
4. Wait
5. Get hardware
6. Deploy framework/appserver
7. Deploy testing tools
8. Test testing tools
9. Code
10. Configure production servers
11. Push to production
12. Launch
13. Order more servers to meet demand
14. Wait
15. Deploy new servers
16. Perform additional steps as required

**Assembly Line**

How to Build an Application with PaaS:

1. Have idea
2. Get budget
3. Code
4. Test
5. Launch
6. Automatically scale
“IDC believes that modernisation and automation of the Atlassian estate can play a major role in improving software development, collaboration and business operations — some of the top business priorities for European organisations.”
Thank you

Red Hat is the world’s leading provider of enterprise open source software solutions. Award-winning support, training, and consulting services make Red Hat a trusted adviser to the Fortune 500.

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