JBug Brno - Cloud Apps

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June 1st 2016

AGENDA

JBug Brno

- Traditional vs Cloud IT models
- Why IaaS is not enough
- PaaS - Openshift 3
- Container Development Kit + Eclipse IDE
- Demo time!!!

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Traditional vs Cloud IT model

Traditional	Cloud Computing
Application	SaaS
Platform	PaaS
Infrastructure	IaaS

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Early Cloud Offerings

Infrastructure managed by a provider

- Who owns the infrastructure?
- Utilize the cost of owning (EC2) - cloudonomics
    - Customers pay for 'usage' (e.g. $0.1 per Hour)
- Reasons for using (almost exclusively) public cloud
    - Efficiency
    - Agility
    - Provision infrastructure faster
    - ...save money?

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Today's Cloud Offerings

Dedicate your energy to what really matters: Building your app

- What services does it provide?
  - Application development stack
  - Persistence
  - Autoscaling
  - API management
  - Complete CI/CD pipeline
- Reasons for using Cloud?
  - Build and deploy apps faster

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Why IaaS is not enough

PaaS is focused on developers!

Iaas

1. Have idea
2. Get Budget
3. Submit VM request
4. Wait
5. Deploy framework/appserver
6. Deploy testing tools
7. Code
8. Configure prod VMs
9. Push to prod
10. Launch
11. Request more VMs to meet demand
12. Wait
13. Deploy app to new VMs

PaaS

1. Have idea
2. Get budget
3. Code
4. Test
5. Launch
6. Automatically scale

Openshift 3

Red Hat's container application platform (PaaS)

- Base unit is Docker managed Linux container
- Orchestrated by Kubernetes
  - Job scheduling
  - Service discovery
- Openshift adds:
  - Easy to use builds and deployments
- IT platform that is quick to code and provision

Meeting Openshift

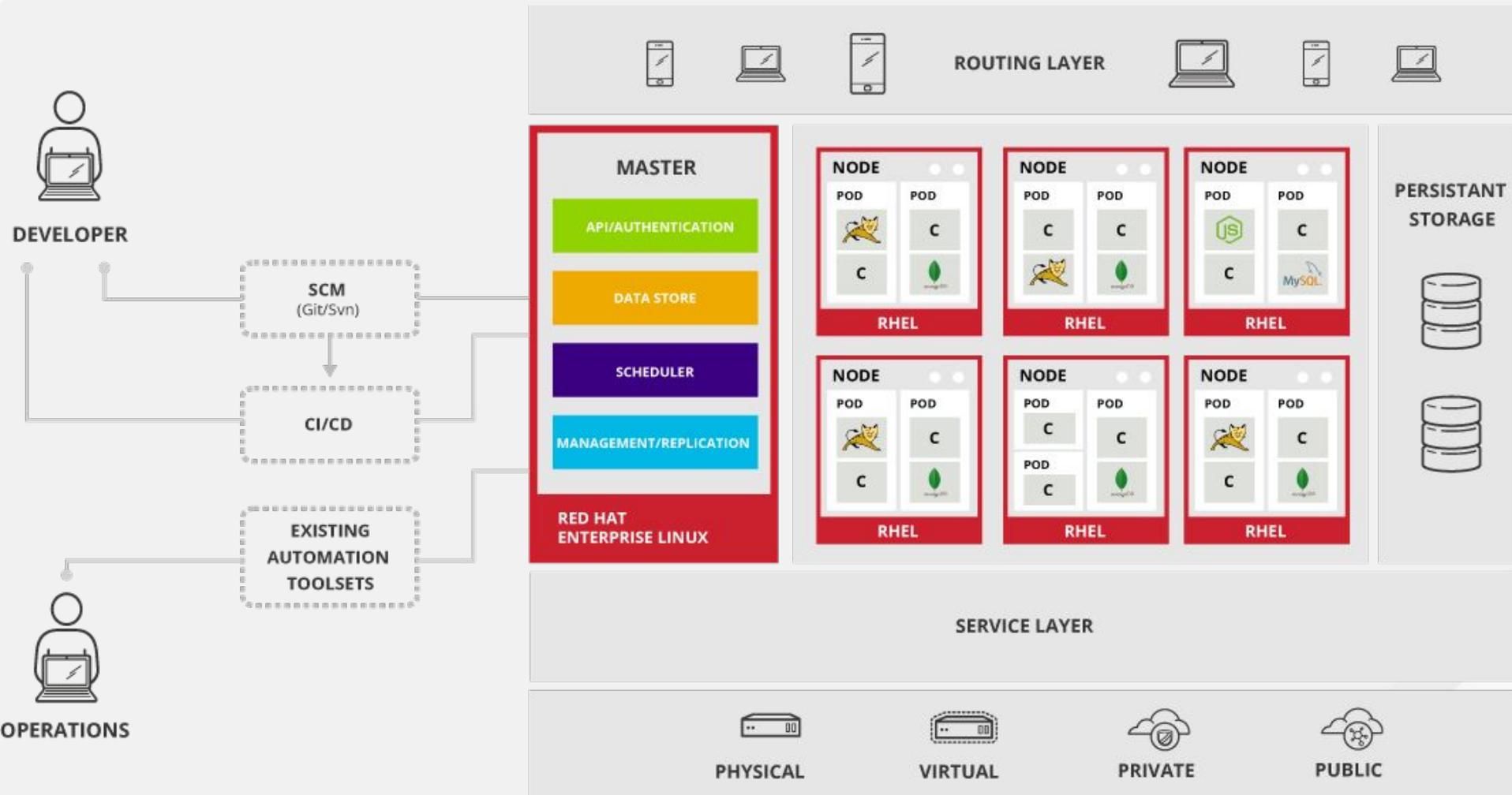|	
User Experience	OPENSHIFT® by Red Hat®
Containerized Svcs	WildFly
Orchestration	kubernetes by Google
Container	docker
Container Host	redhat® LINUX PROJECT ATOMIC

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Openshift v3 overview

Container Development Kit 2.0

Pre-built container development environment

- [A VM based on RHEL 7](#)
  - Self-supported, development-only, zero-dollar subscription ;-)
- Contains all necessary binaries - easy to setup development environment
  - Docker
  - Kubernetes
  - Openshift

Let's build something!

STI build in Openshift

Local development

Push to git

Start build in Openshift 3

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Demo app architecture

- [EAP 7 greeter quickstart](#)
  - Cluster of x instances
  - Replicated Infinispan cache
- PostgreSQL

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