





Agenda

Red Hat Team

Trusted Software Factory

Disconnected OpenShift Installs

Workshop

- Deploy a Container
- Build an Image from Source Code
- Develop and Manage your Running Applications
- Automate Image Builds
- Fault-Tolerant Application Platforms
- CI/CD Pipelines in OpenShift
- Advanced Software Updates Blue/Green Deployments

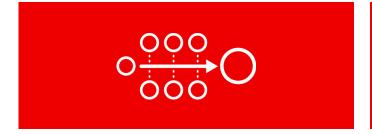


Trusted Software Factory



Cloud native app development

Three-part methodology







PROCESSES

TECHNOLOGY

CULTURE

- 1. Adopt agile processes to quickly experiment and iterate.
- 2. Automate what you can. Build testing into the pipeline.
- 3. Create transparency and share successes.

- Connect legacy and cloud-native apps with a container platform.
- 2. Select the right frameworks, tools, and runtimes.
- 3. Deploy across hybrid cloud environments.

- Establish a culture of innovation.
- Collaborate across dev, ops, test, security, and stakeholders.
- 3. Learn new techniques and mentor others.



Benefits of cloud native application development

SUCCESS METRICS



What: Time from code commit to deployment.

Discussions:

Microservices, Automation



What: Time to recover from a critical error.

Discussions:

Stateless Prod Environment



What: The rate at which new features/fixes hit prod.

Discussion:

Microservices, DevOps



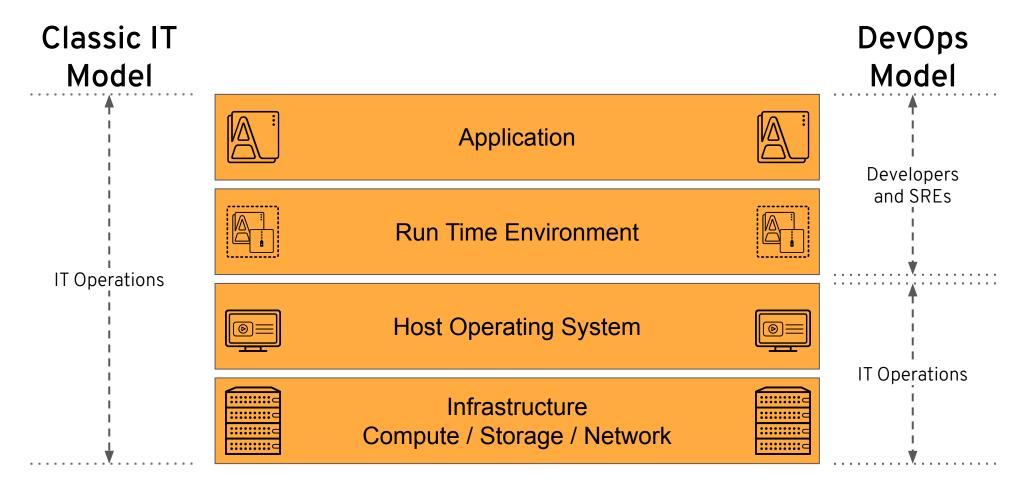
What: Reduce errors in prod due to new features/fixes.

Discussion:

Test driven dev, Automation

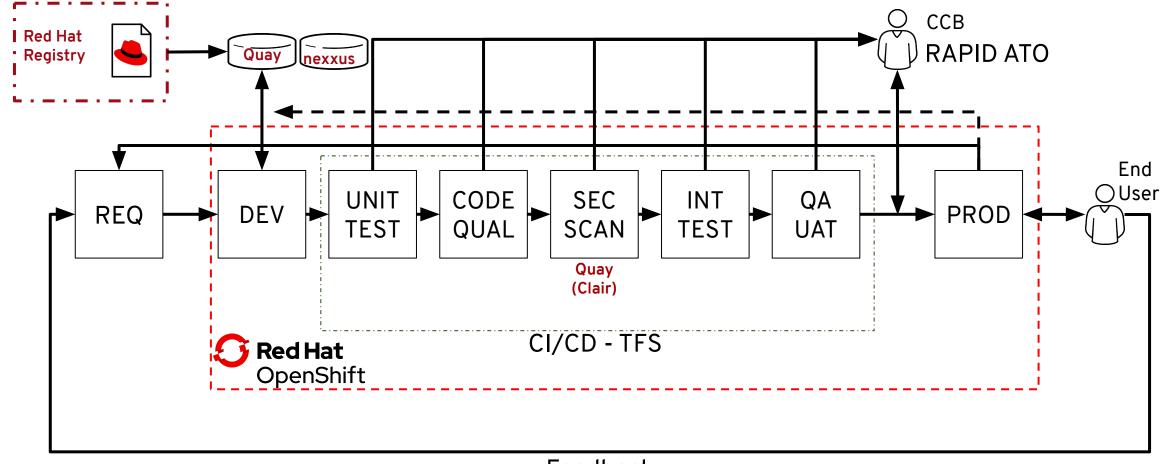


Shared responsibility model





Trusted software factory



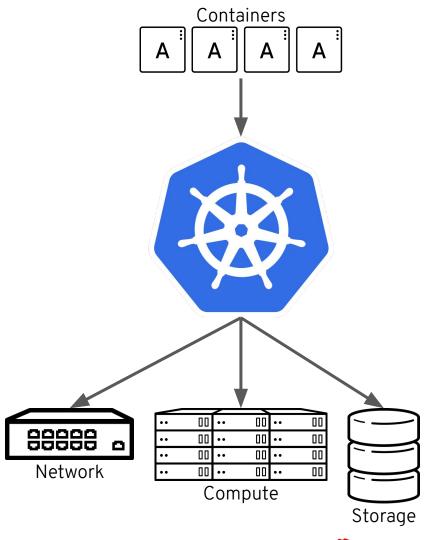


What is Kubernetes

Containers at data center scale

- Developed by Google for internet scale
- Resource Manager
- Automated infrastructure

Kernel for a data center automation platform





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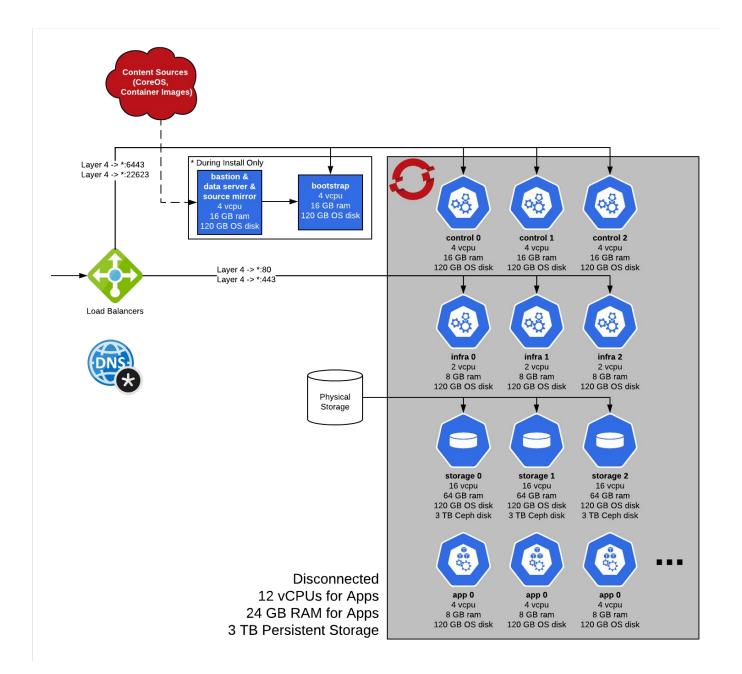
Kubernetes is a platform for building platforms. It's a better place to start; not the endgame.

Kelsey Hightower Staff Developer Advocate, Google Cloud Platform (The Kubernetes Guy)

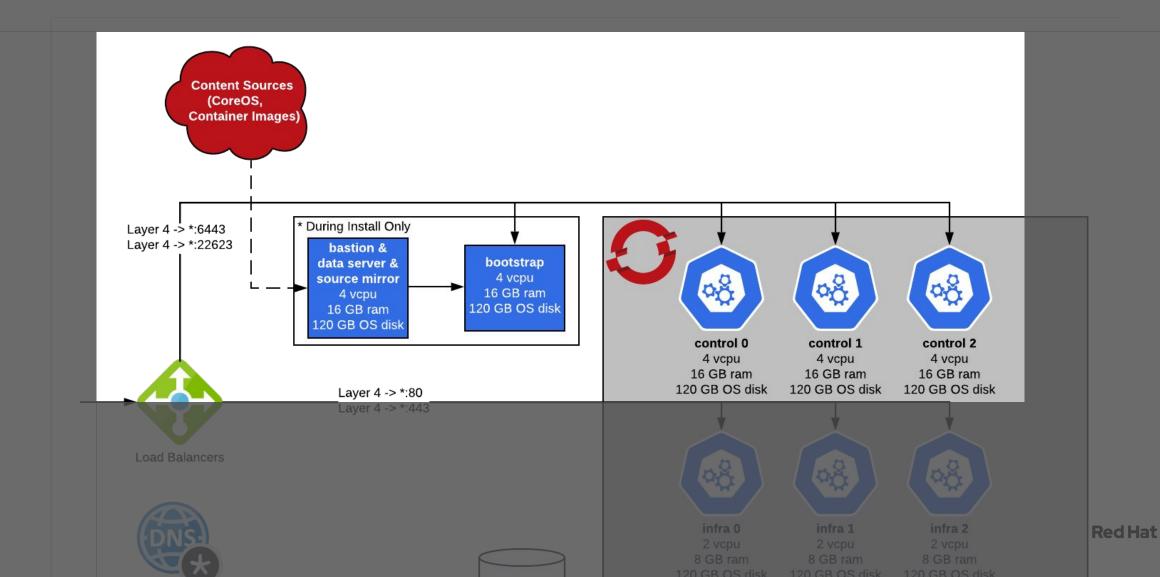


Disconnected Installs









Workshop



Defining workloads

Builds **Build ImageStream BuildConfig** (OpenShift only) (OpenShift only) (OpenShift only) **DeploymentConfig** ReplicationController (OpenShift only) **Deployment ReplicaSet** Workloads **Pods StatefulSet DaemonSet** CronJob <u>Job</u> Red Hat



THANK YOU

