Testing and Deployment Workshop

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March 20, 2021
Agenda

OKD 4 Overview

State of OKD 4

Operators and Operator Hub

OKD and Fedora CoreOS Working Groups
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OKD 4 Overview

A Community Distribution of Kubernetes

OpenShift codebase + Fedora CoreOS

okd.io
OKD 4: A Community Distribution of Kubernetes++

Automated installation, patching, and updates from the OS up

APPLICATIONS AND SERVICES
from Red Hat and community operators

PLATFORM AND CLUSTER MANAGEMENT
Kubernetes, security, monitoring, registry, etc

LINUX HOST with Fedora CoreOS

FOR HYBRID / MULTI-CLOUD DEPLOYMENTS
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  with Fedora CoreOS

- **FOR HYBRID / MULTI-CLOUD DEPLOYMENTS**
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The State of OKD
Today and Tomorrow

→ Current Stable Release 4.7
→ Community Contributions
→ Collaboration with OperatorHub and Fedora communities
→ Bespoke Operators for OKD
→ Enable early adoption of upcoming Technologies
CRC for OKD 4: Ready To Code!

- Based on CodeReady Containers
- Brings a Single Node OKD 4 cluster to your laptop or workstation
- All the goodness of OKD4 + Fedora CoreOS
- Just add code and see your cloud native apps come to life!
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Operator Pattern

Operators are a method of packaging, deploying, and managing a Kubernetes application.

Operators are controlled via Custom Resources (CR).
Operators all the way down

Cluster Version Operator
  Ensures all top-level operators are present

Kube-apiserver, kube-controller-manager, kube-scheduler, etcd
  These operators ensure core Kubernetes components are configured

Network
  Ensures CNI plugins are installed and SDN is configured

Image Registry - ensures internal registry is set up
Monitoring - ensures all component metrics are collected and displayed
Ingress - ensures router is setup
Storage - ensures CSI plugins are installed and storageclasses exist
OperatorHub

OperatorHub is a community-sourced index of optional operators, i.e:

Grafana, KEDA, Strimzi, Argo CD, Kubefed, OpenEBS, KubeVirt etc.

Operator Lifecycle Manager (OLM) takes care of operator scope (cluster-wide or namespace only), ensures it can be updated manually and manages permissions to use and install operators.

OperatorHub is integrated in OpenShift console, so developers can install operators via self-service interface.
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Join us in a Working Group!
OKD Working Group

Slack
#openshift-dev on kubernetes.slack.com
#general on openshiftcommons.slack.com

Google Group
groups.google.com/forum/#!forum/okd-wg

Bi-weekly Video Conference Meetings
apps.fedoraproject.org/calendar/okd

Repositories
github.com/openshift/community
github.com/openshift/okd
Fedora CoreOS Working Group

**IRC**
#fedora-coreos on Freenode

**Issue Tracker**
github.com/coreos/fedora-coreos-tracker

**Discussion Forum**
discussion.fedoraproject.org/c/server/coreos

**Mailing List**
coreos@lists.fedoraproject.org

**Weekly Meetings**
apps.fedoraproject.org/calendar/CoreOS/
Resources

okd.io

docs.okd.io

github.com/openshift-okd

github.com/openshift/community

github.com/code-ready
THANK YOU