



# Testing and Deployment Workshop

Diane Mueller  
Vadim Rutkovsky  
Charro Gruver  
Christian Glombek

March 20, 2021

# Agenda

OKD 4 Overview

State of OKD 4

Operators and Operator Hub

OKD and Fedora CoreOS Working Groups

# Agenda

## **OKD 4 Overview**

State of OKD 4

Operators and Operator Hub

OKD and Fedora CoreOS Working Groups



## OKD 4 Overview

okd

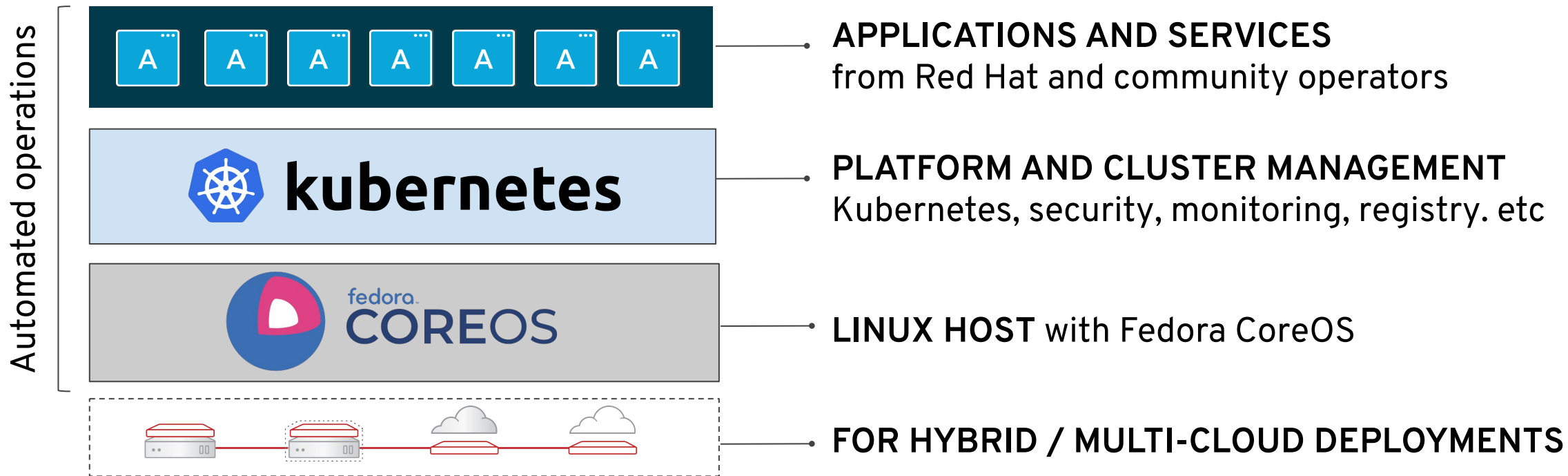
A Community Distribution of Kubernetes

OpenShift codebase + Fedora CoreOS

[okd.io](https://okd.io)

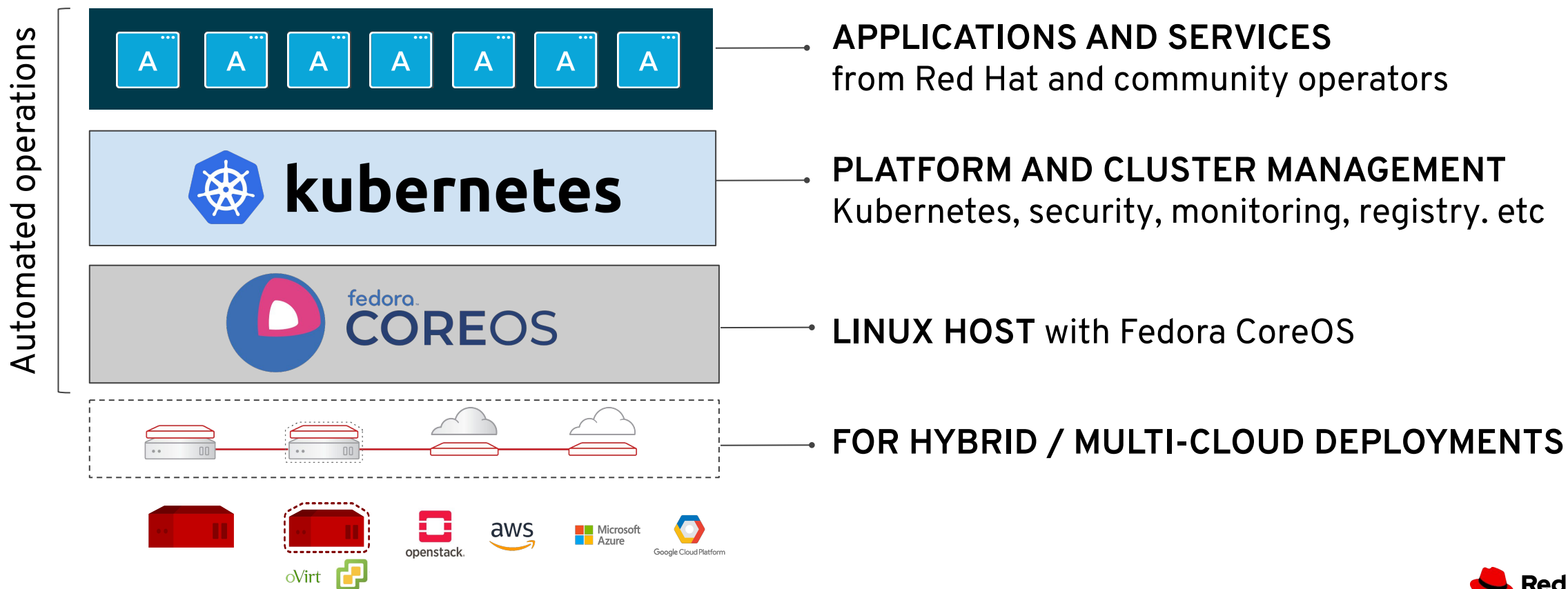
# OKD 4: A Community Distribution of Kubernetes++

Automated installation, patching, and updates from the OS up



# OKD 4: A Community Distribution of Kubernetes++

Automated installation, patching, and updates from the OS up



# Agenda

OKD 4 Overview

**State of OKD 4**

Operators and Operator Hub

OKD and Fedora CoreOS Working Groups

# 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!

# Agenda

OKD 4 Overview

State of OKD 4

**Operators and Operator Hub**

OKD and Fedora CoreOS Working Groups

# Operator Pattern



## OPERATOR SDK

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.

# Agenda

OKD 4 Overview

State of OKD 4

Operators and Operator Hub

**OKD and Fedora CoreOS Working Groups**

# OKD and Fedora CoreOS Working Groups

**Join us in a Working Group!**

# OKD Working Group



## Slack

**#openshift-dev** on [kubernetes.slack.com](https://kubernetes.slack.com)

**#general** on [openshiftcommons.slack.com](https://openshiftcommons.slack.com)

## Google Group

[groups.google.com/forum/#!forum/okd-wg](https://groups.google.com/forum/#!forum/okd-wg)

## Bi-weekly Video Conference Meetings

[apps.fedoraproject.org/calendar/okd](https://apps.fedoraproject.org/calendar/okd)

## Repositories

[github.com/openshift/community](https://github.com/openshift/community)

[github.com/openshift/okd](https://github.com/openshift/okd)



# Fedora CoreOS Working Group



## IRC

**#fedora-coreos** on Freenode

## Issue Tracker

[github.com/coreos/fedora-coreos-tracker](https://github.com/coreos/fedora-coreos-tracker)

## Discussion Forum

[discussion.fedoraproject.org/c/server/coreos](https://discussion.fedoraproject.org/c/server/coreos)

## Mailing List

[coreos@lists.fedoraproject.org](mailto:coreos@lists.fedoraproject.org)

## Weekly Meetings

[apps.fedoraproject.org/calendar/CoreOS/](https://apps.fedoraproject.org/calendar/CoreOS/)

# Resources

[okd.io](https://okd.io)

[docs.okd.io](https://docs.okd.io)

[github.com/openshift/okd](https://github.com/openshift/okd)

[github.com/openshift/community](https://github.com/openshift/community)

[github.com/code-ready](https://github.com/code-ready)

# okd

## THANK YOU



[linkedin.com/company/Red-Hat](https://www.linkedin.com/company/Red-Hat)



[facebook.com/RedHatinc](https://www.facebook.com/RedHatinc)



[youtube.com/user/RedHatVideos](https://www.youtube.com/user/RedHatVideos)



[twitter.com/RedHat](https://twitter.com/RedHat)