



# Deep Dive: Operator Framework

Sebastien Pahl  
Director of Engineering at OpenShift

Diane Mueller  
Director, Community Development, Red Hat

KubeCon '18

# What is an Operator?

# What is an Operator?

- An operator is a pattern for building kubernetes native applications
  - Leverages and extends the kubernetes API (usable with kubectl)
  - Runs on kubernetes as containers
- Purposely built for a specific application
  - Operational knowledge baked in and automated
    - handling upgrades from one version to another
    - handling complex failure recovery scenarios
    - scaling a stateful application up and down
  - Best suited for complex and stateful services (but not only!)
  - Example: a prometheus operator specifically designed for it

# OPERATORS ACROSS THE INDUSTRY



...and many more

<https://github.com/operator-framework/awesome-operators>



**OPERATOR  
FRAMEWORK**



# OPERATOR FRAMEWORK

- **Operator SDK** - Allows developers to build, package and test an Operator based on your expertise without requiring all the knowledge of Kubernetes API complexities
- **Operator Lifecycle Manager** - Helps you to install, and update, and generally manage the lifecycle of all of the Operators (and their associated services) running across your clusters
- **Operator Metering** - Enable usage reporting for Operators and resources within Kubernetes

# Demo

# Where to get started?

- <https://github.com/operator-framework>
- <https://github.com/operator-framework/getting-started>
- <https://commons.openshift.org/sig/operators.html>
- [#kubernetes-operators](#) on the kubernetes slack
- <https://groups.google.com/forum/#!forum/operator-framework>



# Kubecon sessions about operators

Thursday, December 13 • 9:51am - 9:56am

[Keynote: Maturing Kubernetes Operators - Rob Szumski, Principal Product Manager for OpenShift, Red Hat](#)

Thursday, December 13 • 4:30pm - 5:05pm

[Collecting Operational Metrics for a Cluster with 5,000 Namespaces - Rob Szumski & Chance Zibolski, Red Hat](#)

Friday, December 14 • 9:00am - 1:00pm

~~[Kubernetes Operator Framework Workshop \(Additional registration required\)](#)~~

**SOLD OUT**

**Questions?  
&  
Thank you!**