



MATURING KUBERNETES OPERATORS

A rapidly maturing space for the third round of Kubernetes growth

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KubeCon '18

KUBERNETES ADOPTION PHASES

1. Stateless apps

ReplicaSets
Deployments

2. Stateful apps

StatefulSets
Storage/CSI

3. Distributed systems

Data rebalancing
Autoscaling
Seamless upgrades

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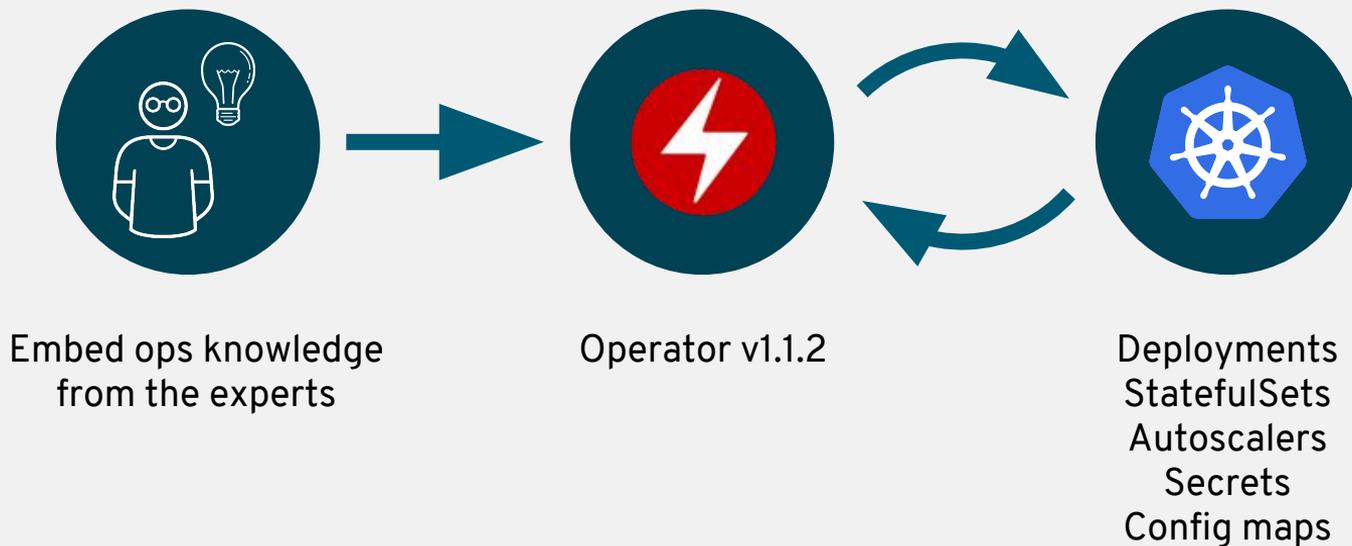
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WHAT IS AN OPERATOR?



OPERATORS FOR ALL



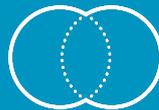
Flexible app
architectures



No reinvention
of core concepts



Uniform deploy
and debug



Truly hybrid



OPERATOR FRAMEWORK



OPERATOR
SDK

Build



OPERATOR
LIFECYCLE MANAGER

Run



OPERATOR
METERING

Operate

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

OPERATORS ACROSS THE INDUSTRY



...and many more

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

SELF-SERVICE FOR ENGINEERS

OPENSIFT CONTAINER PLATFORM Rob Szumski

Project: production Add

Cluster Service Versions

Cluster Service Versions are installed per namespace from Catalog Sources. For more information, see the [Operator Lifecycle Manager documentation](#) . Or [Filter Cluster Service Version](#)
create an Operator and Cluster Service Version using the [Operator SDK](#) .

NAME	NAMESPACE	DEPLOYMENT
MongoDB 0.3.2 provided by MongoDB, Inc	production	mongodb-enterprise-operator
Prometheus Operator 0.22.2 provided by Red Hat	production	prometheus-operator

```
apiVersion: mongodb.com/v1
kind: MongoDBReplicaSet
metadata:
  name: example
  namespace: production
spec:
  members: 3
  version: 4.0.2
  persistent: false
  project: example
  credentials: my-secret
```

FULL CONTROL FOR ADMINS

OPENSIFT CONTAINER PLATFORM

Project: all projects

Subscriptions

[Create Subscription](#)

NAME	NAMESPACE	STATUS	CHANNEL	APPROVAL STRATEGY
SUB amq-streams-fzsq9	NS staging	Up to date	preview	Automatic
SUB couchbase-enterprise-7qn82	NS rob-dev	Up to date	preview	Automatic
SUB etcd-x9fpg	NS tony-dev	Up to date	alpha	Automatic
SUB federationv2-kqr4	NS rob-dev	Up to date	alpha	Automatic
SUB mongodb-enterprise-g6s54	NS staging	Up to date	preview	Automatic
SUB mongodb-enterprise-vqfbt	NS test	Up to date	preview	Automatic
SUB mongodb-enterprise-wfg6x	NS production	Up to date	preview	Automatic
SUB prometheus-9zp4t	NS staging	Up to date	preview	Automatic
SUB prometheus-b54fp	NS test	Up to date	preview	Automatic
SUB prometheus-plwxx	NS production	Up to date	preview	Automatic

TRY IT OUT



<https://github.com/operator-framework/getting-started>



<https://commons.openshift.org/sig/operators.html>

Thursday 4:30 p.m.

**Using Operator Metering with
5,000 namespaces**

Friday 9 a.m.-1 p.m.

**Building your first Operator
workshop**

SOLD OUT