

EVERYWHERE

Redis in Dev, Test, and Prod

with the

# OpenShift Service Catalog

[bit.ly/redis-devtestprod](https://bit.ly/redis-devtestprod)

Weds, April 25th 4:00-4:45 pm

redisconf18

#Redis #RedisConf

pres  
red  
home

presented by @ryanj, Developer Advocate at Red Hat



brought to you by



*flashback to 2014*

# The Kubernetes Guestbook example A Classic

See:

- K8s tutorials
- pull #7, June 6th 2014

## typical update cycle:

```
cd redis-app-specifications  
git pull  
kubectl apply -f .
```

- pros: multi-container spec, first "stateful" example?
- cons: destructive re-create, admin party

introducing...

# the Open Service Broker

[www.openservicebrokerapi.org](http://www.openservicebrokerapi.org)

# Everyone's Service Catalog

*"The Open Service Broker API project allows developers, ISVs, and SaaS vendors a single, simple, and elegant way to deliver services to applications running within cloud native platforms"*

Works with: [Kubernetes](#), [OpenShift](#), [Cloud Foundry](#)



available on...

# 2017 Octoverse Report

 *Most-discussed project(s) on GitHub in 2017!*

<http://octoverse.github.com>

Kubernetes Community - Top of the Open Source Charts in 2017

available on

# Kubernetes

- is: **an ops tool**; a collection of APIs for managing container-based workloads
- is not: **a PaaS**

available on

# OpenShift

- includes, extends: Kubernetes
- adds: multi-tenant security, PaaS features, a "template" broker

# Agenda

Delivering Redis in:

1. Dev
2. Test
3. Production

with the OpenShift Service Broker



Dev

demo: iterative development with Redis (Ephemeral)

<https://github.com/ryanj/redisconf-2018#dev-demos>

demo: image promotion via BuildConfig, DeploymentConfig & ImageStream



demo: early access to feedback from local replication and rollout testing (pre-commit)



Test

# Services and data sets that meet your specific performance criteria

Select from a catalog of available back-end services, configurations, and data sets:

- small or large datasets
- dummy / test data
- snapshots of production data?

demo: production-like testing - immutable infra (w/ config,  
volumes & pvcs)

<https://github.com/ryanj/redisconf-2018#test-demos>

demo: recovery and failover testing - scale up and show  
autorecovery of web tier; show zero-downtime deployments;  
rollout testing; rollback testing



# Production

demo: NOT FOR USE IN PRODUCTION!

<https://github.com/ryanj/redisconf-2018#production-demos>

# Headless Services

Make external / legacy services discoverable via the Catalog, and at Runtime

RedisCloud or Redis Enterprise?



## **Telepresence**

Proxy production-sized data services into smaller scale environments (like Minikube or Minishift)

# Open Extensibility

Cloud-Native solutions targeting your specific use-cases and performance criteria

# Open Service Broker API

Expand your Service Catalog by designing your own API-compliant Service Brokers, or borrow from the growing list of options:

- [Kubernetes Service Catalog](#)
- [AnsibleServiceBroker / AutomationBroker](#)
- [DIY MariaDB Broker example](#)
- [OpenShift Template Broker](#)
- [Helm Chart Broker](#)
- [CloudFoundry Spring Cloud](#)

# Take aways

1. The Open Service Broker & Service Catalog provide a great way to deliver containerized Redis "as-a-Service" on popular cloud-native platforms
2. Use the Open Service Catalog with OpenShift's Template Broker to offer targeted use-cases for leveraging Redis in Dev, Test, and Production environments
3. Expand your Catalog offering by adding API-compliant Brokers to meet your needs

# More Ways to Extend the Platform

- Custom Resource Definitions
- custom controllers
- CRDs+Controllers  $\mapsto$  Operators

# Resources

1. Today's example repo and demo scripts
2. Join the conversation in the [Kubernetes Service Catalog SIG](#)
3. [OpenShift.com](#) / [learn.openshift.com](#)

EVERYWHERE

# Thank You!

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