EVERYWHI

Redis in Dev, Test, and Prod

with the

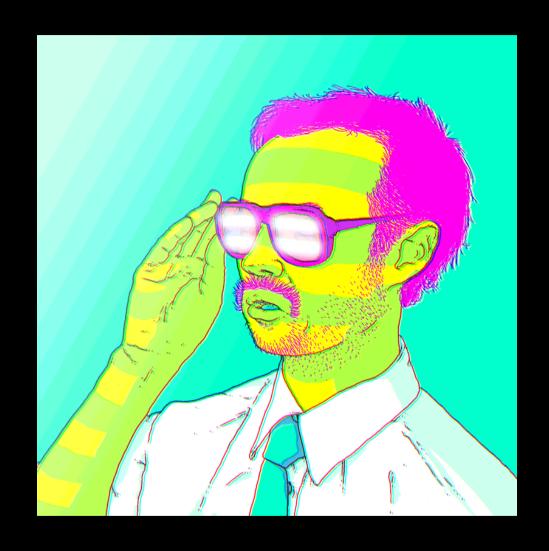
OpenShift Service Catalog

bit.ly/redis-devtestprod Weds, April 25th 4:00-4:45 pm





presented by @ryanj, Developer Advocate at Red Hat



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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

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: mult-tenanant security, PaaS features, a "template" broker

Agenda

Delivering Redis in:

- 1. Dev
- 2. Test
- 3. Production

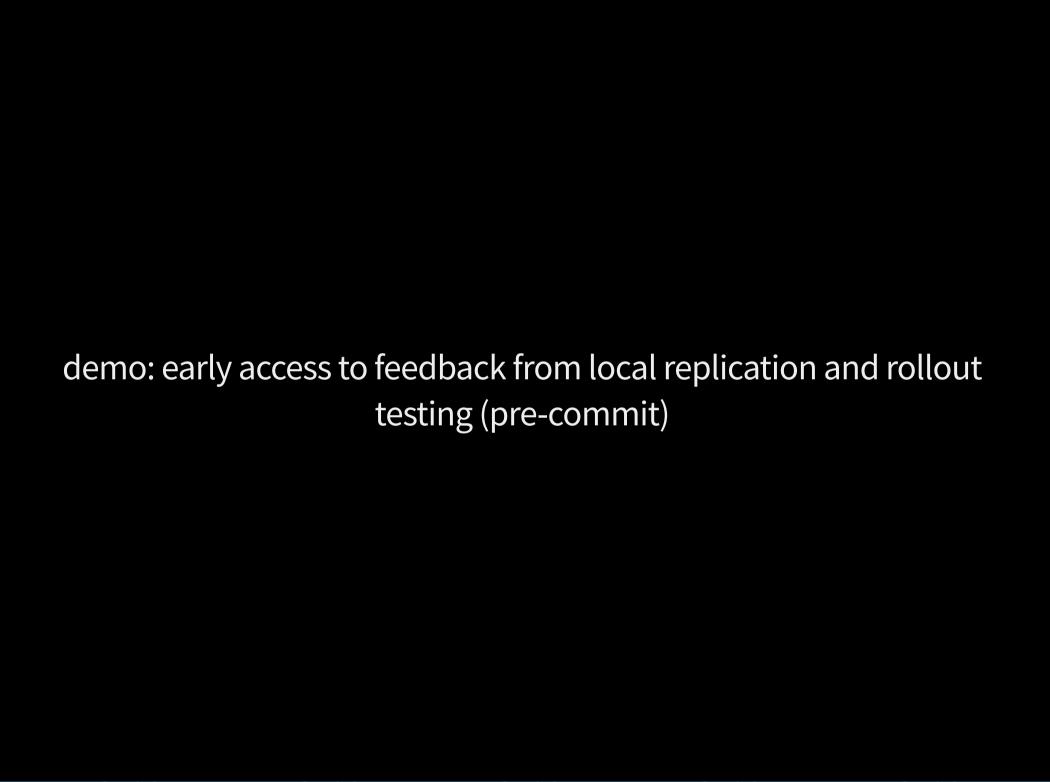
with the OpenShift Service Broker





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

demo: image promotion via BuildConfig, DeploymentConfig & ImageStream





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 cloudnative 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 → 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

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Thank You!

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