



Red Hat



Microsoft Azure

Monoliths to microservices: App Transformation

Hands-on Technical Workshop



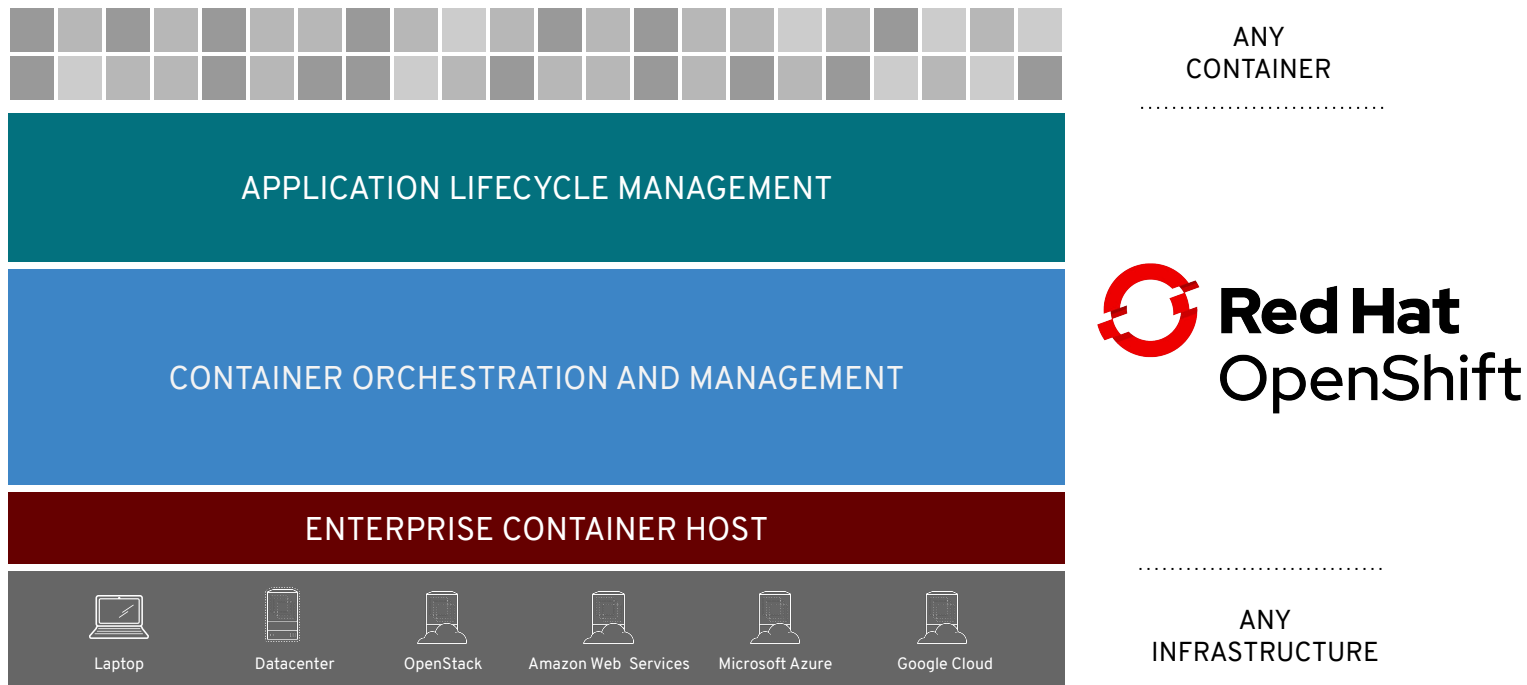
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A developer introduction to OpenShift

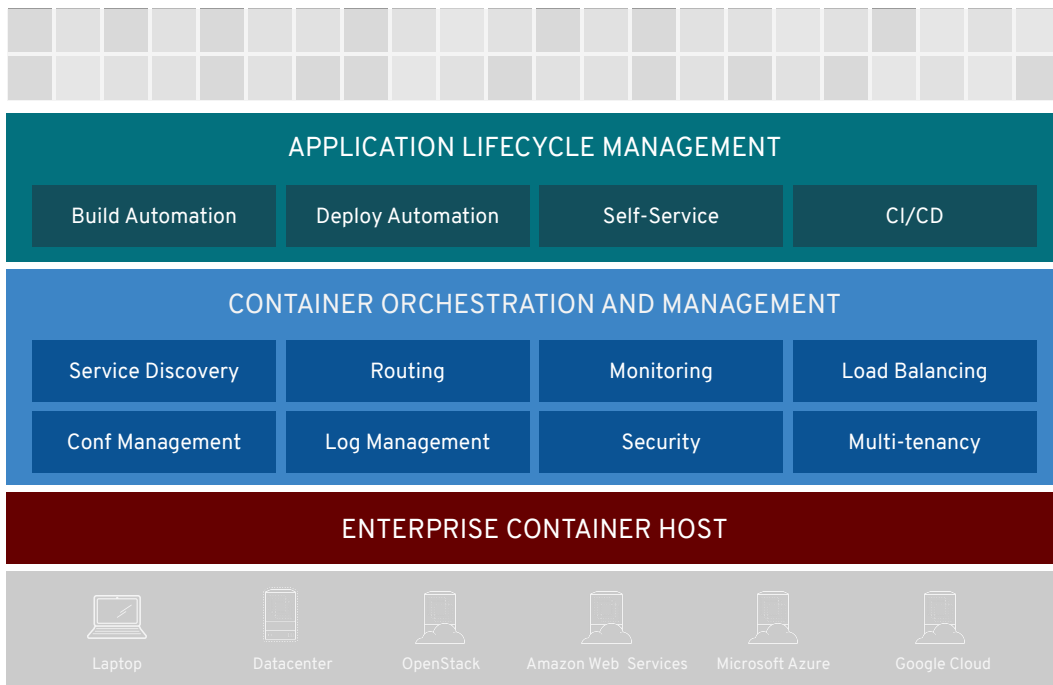


A secure and enterprise-grade container application platform based on Kubernetes for traditional and cloud-native applications

Cloud-native capabilities with Red Hat OpenShift



Cloud-native capabilities with Red Hat OpenShift



ANY
CONTAINER



ANY
INFRASTRUCTURE

A container is the smallest compute unit

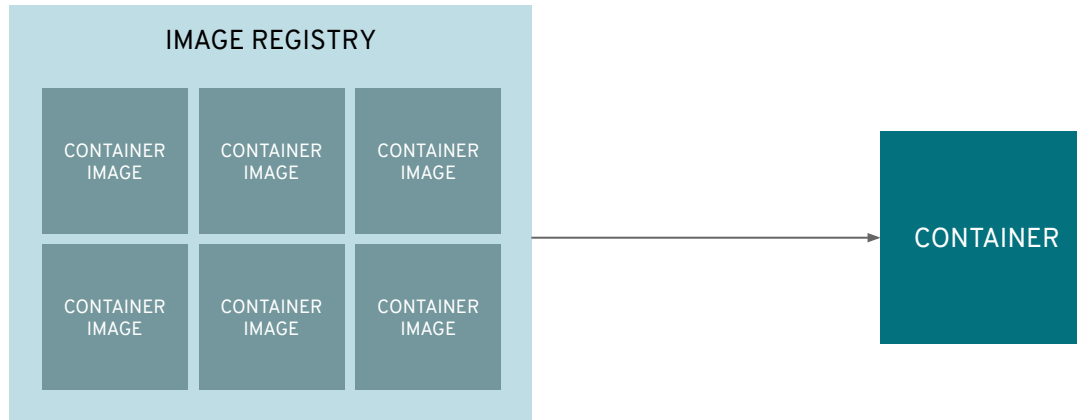


CONTAINER

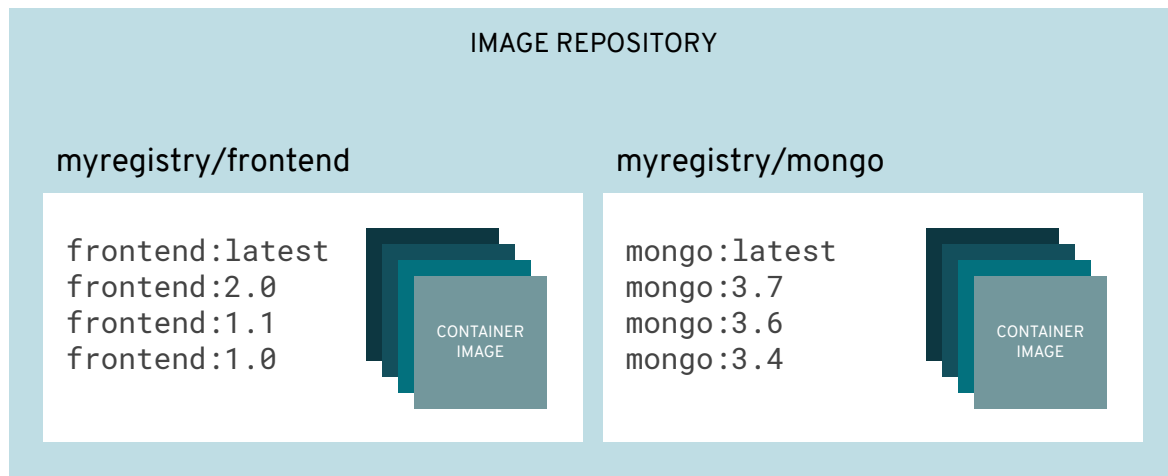
containers are created from container images during a
build



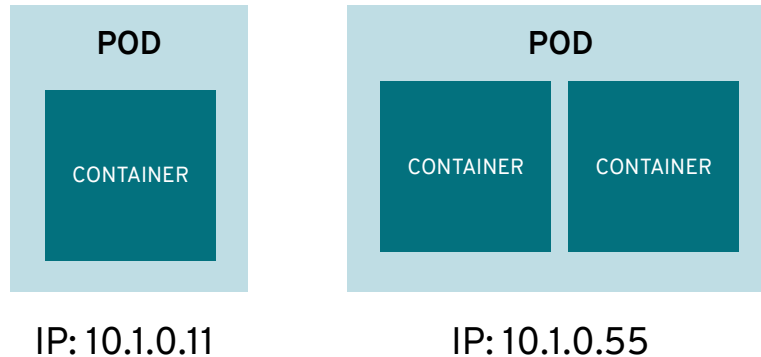
container images are stored in an image registry



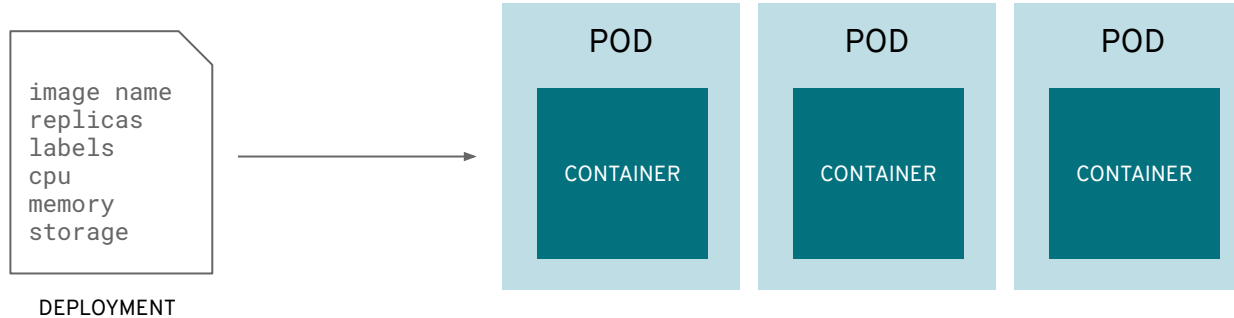
an image repository contains all versions of an image in
the image registry



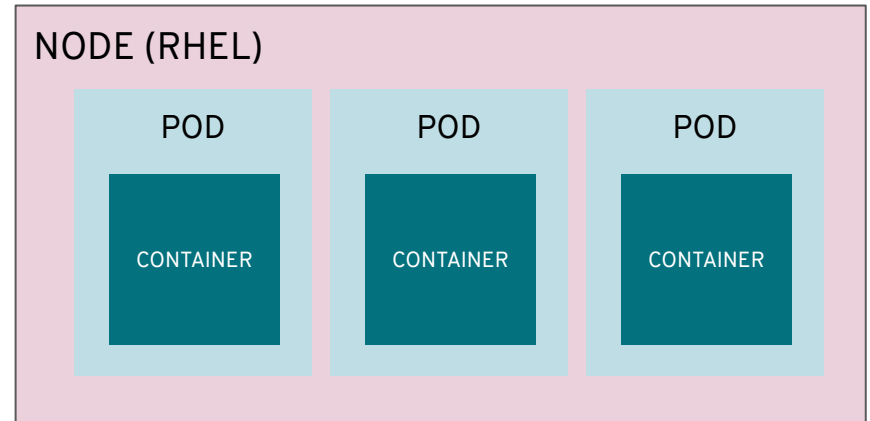
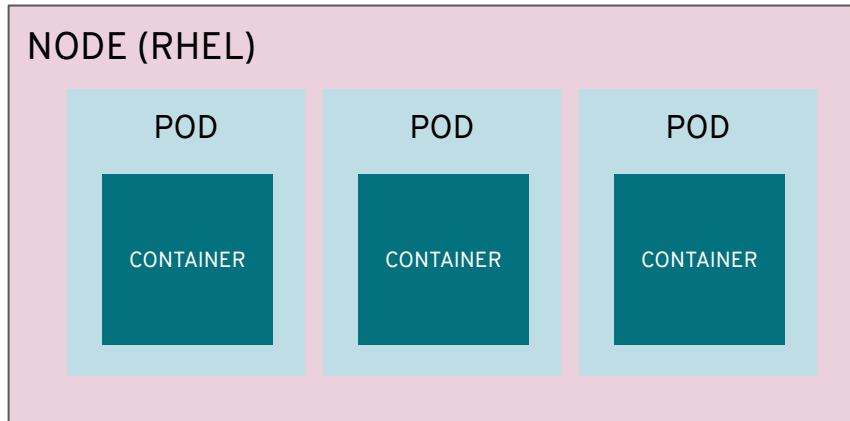
containers are wrapped in pods which are units of deployment and management, and share a common network address



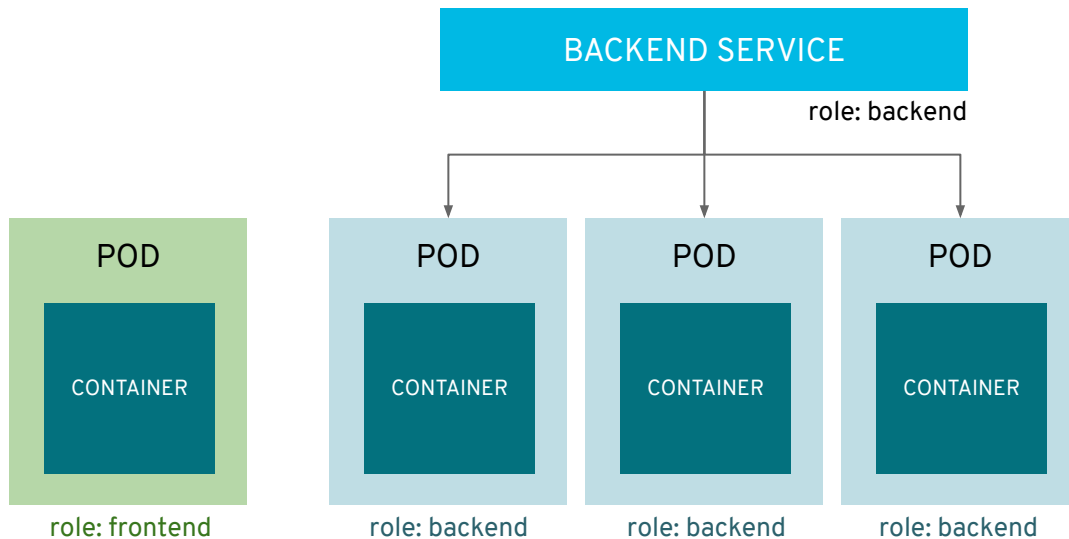
pods configuration is defined in a **deployment**



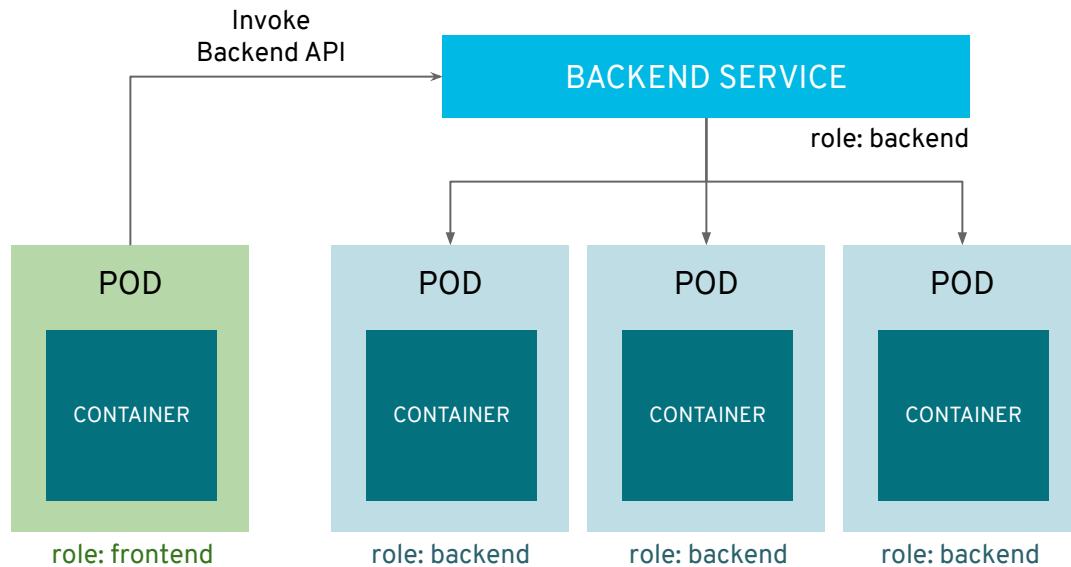
pods are deployed to and run on nodes



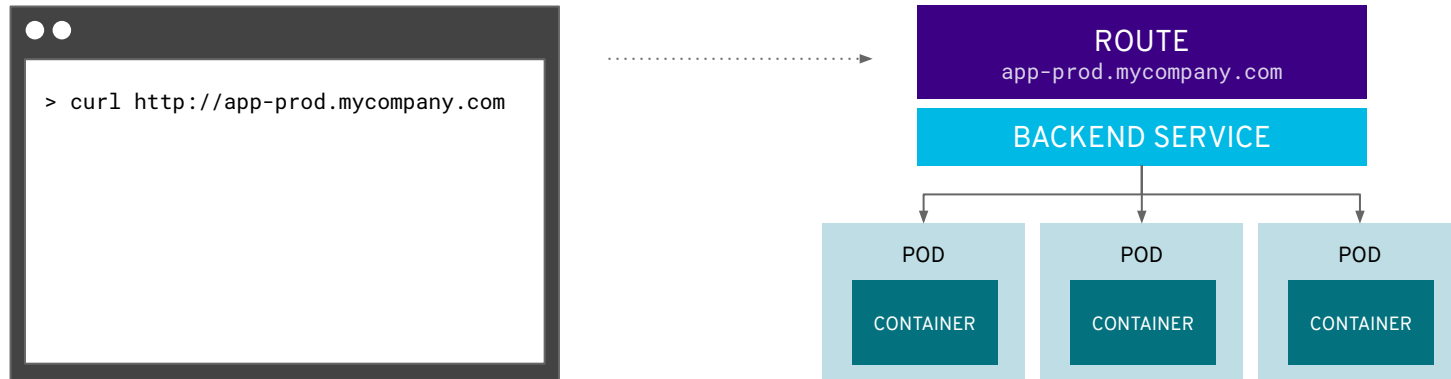
services provide internal load-balancing and service discovery across pods



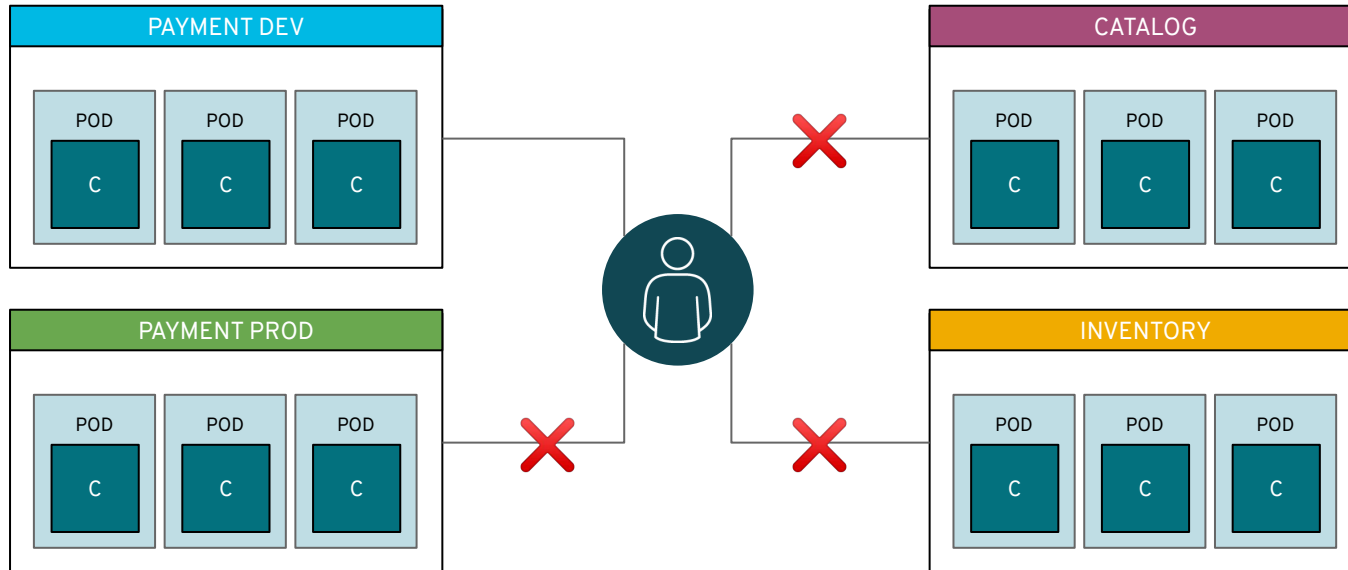
apps can talk to each other via services



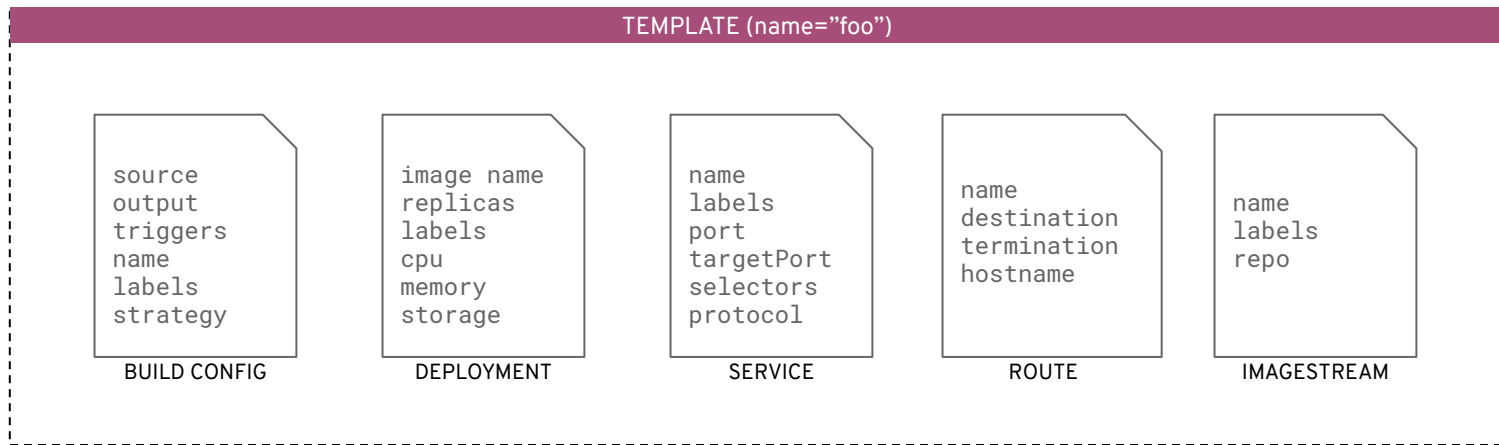
routes add services to the external load-balancer and
provide readable urls for the app



projects isolate apps across environments, teams, groups
and departments



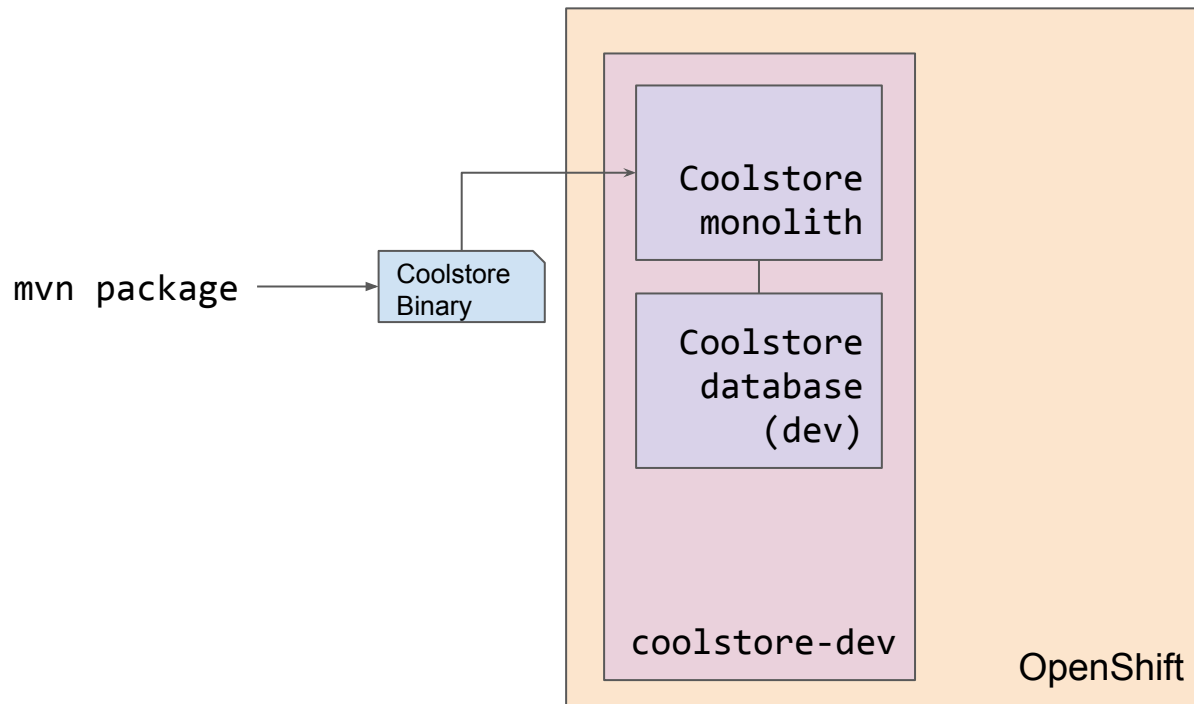
templates define a blueprint for an application that can be instantiated within a project



\$ oc new-app foo

Lab: Developer introduction to OpenShift

Current state



Goal for lab

In this lab you will learn:

- Important OpenShift concepts for developers
- How OpenShift makes developers and architects happier
- How to do efficient round-trip development:
 - Separate **dev** from **prod** environments
 - Quick deployments using **rsync** / port-forwarding
 - Promoting apps using **CI/CD Pipelines**

LAB: DEVELOPER INTRO TO OPENSIFT

WEB: bit.ly/RH-MS-ARO-lab-guides

SLIDES (PDF): bit.ly/RH-MS-ARO-lab-slides

SCENARIO 2

A DEVELOPER INTRODUCTION TO OPENSIFT

Wrap-up and discussion

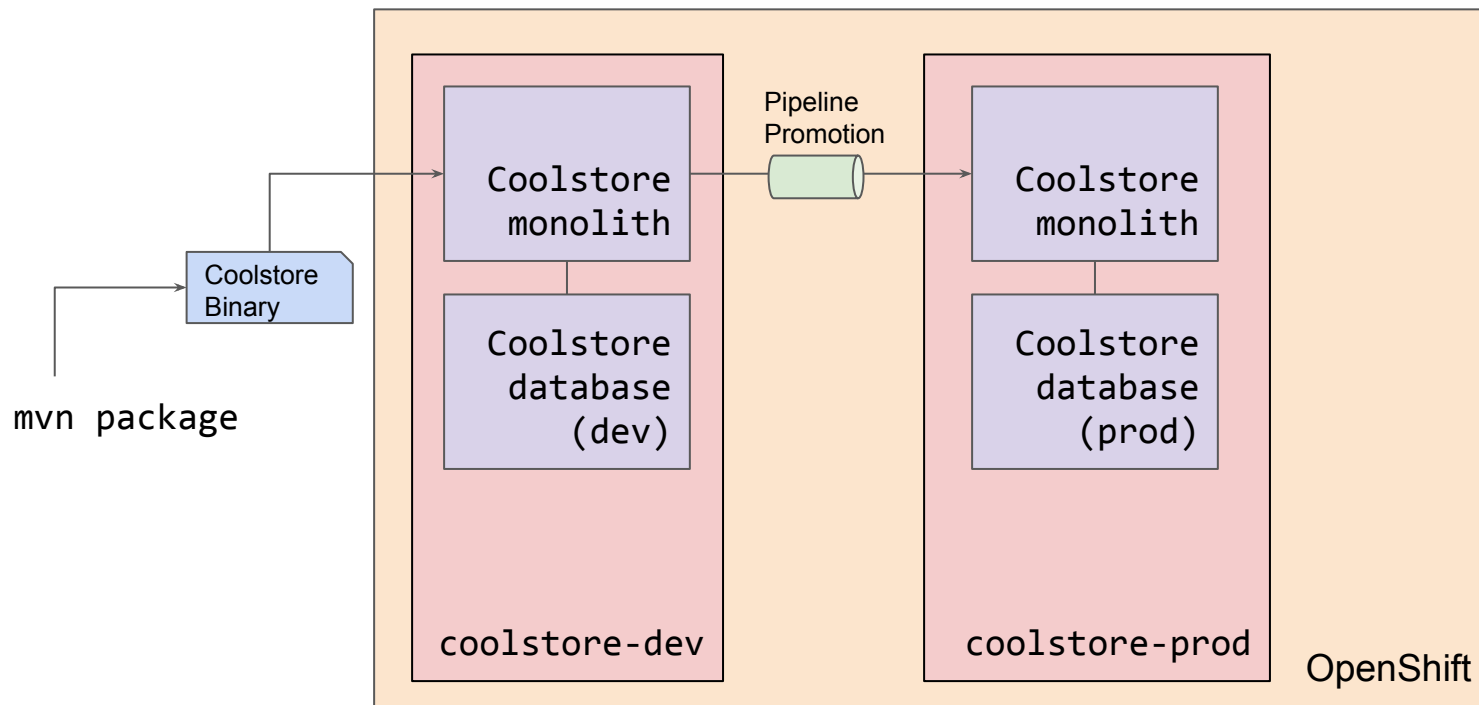
Result of lab

In this lab you learned how to:

- Do quick deployments with `oc rsync`
- Create a production environment separate from dev
- Promote tested/verified builds between environments using OpenShift pipeline builds

You should now have two projects (dev and prod) running the same CoolStore app! In the next lab we will begin the process of breaking the monolith up into microservices.

Desired result of scenario 3



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Our Interactive Learning Scenarios provide you with a pre-configured OpenShift® instance, accessible from your browser without any downloads or configuration. Use it to experiment, learn OpenShift and see how we can help solve real-world problems.

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Thank you



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