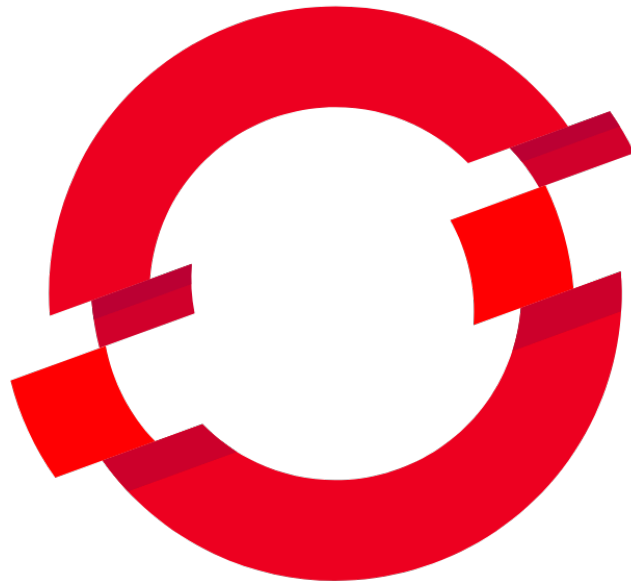


OpenShift Overview

Red Hat OpenShift is an
enterprise-ready
Kubernetes container
platform

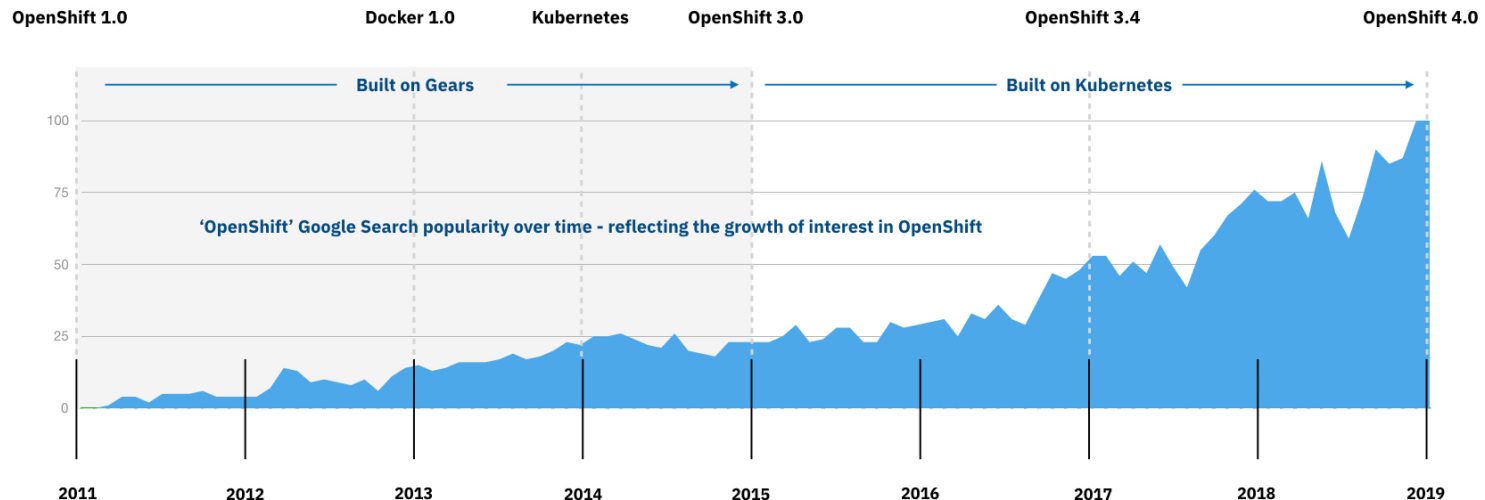
OpenShift key points

- OpenShift is Red Hat's Kubernetes platform
- Runs on RHEL (Red Hat Enterprise Linux)
- Provides built-in security for container-based applications
 - Role-based access controls
 - Security-Enhanced Linux (SELinux)-enabled isolation
- Supports a hybrid cloud architecture
 - OpenShift runs on Amazon Web Services, Azure, Google Cloud Platform, VMware, and more
- Current latest release: v4.1
- IBM Cloud uses v3.11
- v3 uses Docker, v4 uses CRIO



OPENSHIFT

OpenShift history: v1 – v4



Linux, building on Red Hat's heritage and deep expertise in Linux and the reliability of **Red Hat Enterprise Linux** which served as the foundation for OpenShift 3

RedHat and Docker announced a collaboration around

Fedora RedHat Enterprise Linux and OpenShift

IBM begin contributing code to the Docker Open Source Project

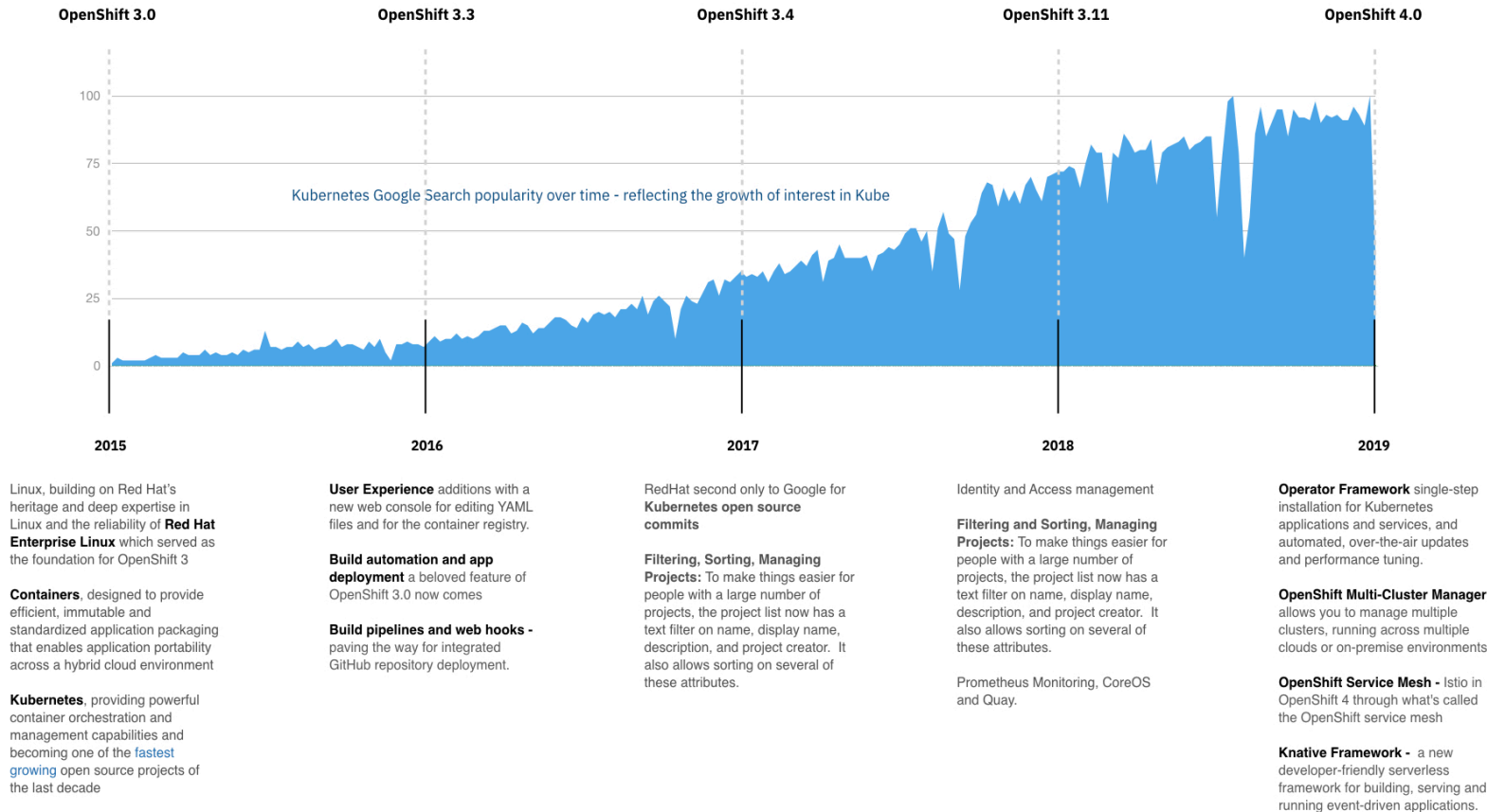
Kubernetes (κυβερνήτης, Greek for "governor", "helmsman" or "captain")^[9] was founded by Joe Beda, Brendan Burns and Craig McLuckie,^[6] who were quickly joined by other Google engineers including Brian Grant and Tim Hockin, and was first announced by Google in mid-2014.^[7] Its development and design are heavily influenced by Google's Borg system.

IBM contributing code to the Kubernetes Open Source Project

Kubernetes for the Enterprise

includes Kubernetes core services, along with Prometheus, Grafana, Elasticsearch, software defined networking, storage, registry and other components that make up the OpenShift Kubernetes platform.

OpenShift history: v3 – v4



Container runtime



A lightweight, OCI-compliant container runtime

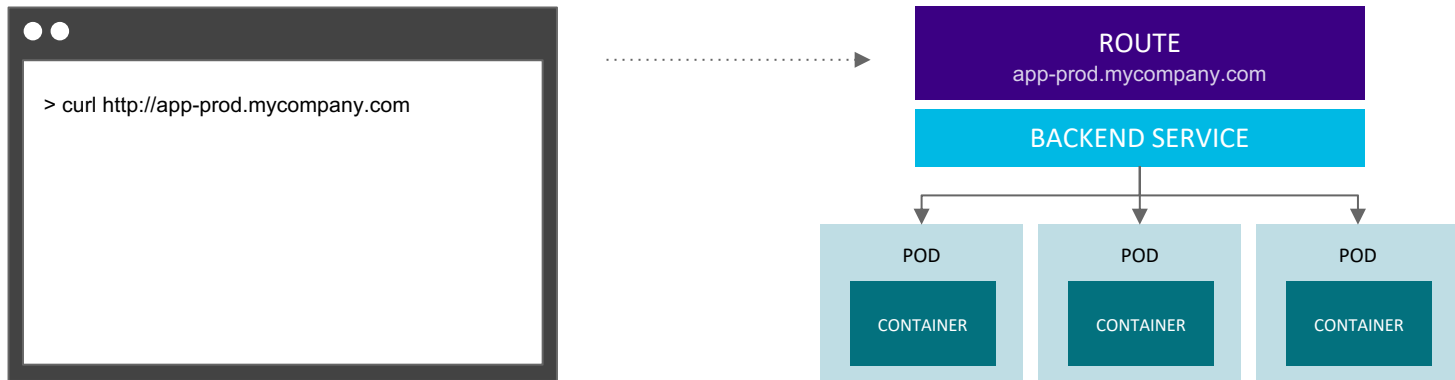
Minimal and Secure
Architecture

Optimized for
Kubernetes

Runs any OCI-compliant
image (including docker)

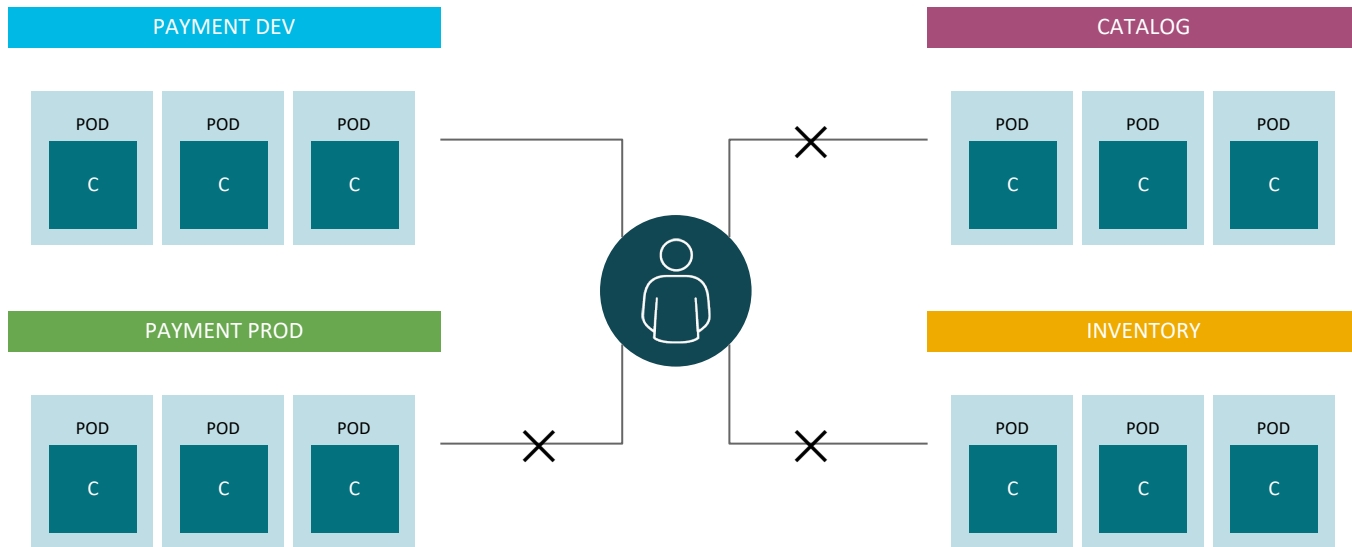
Routes

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

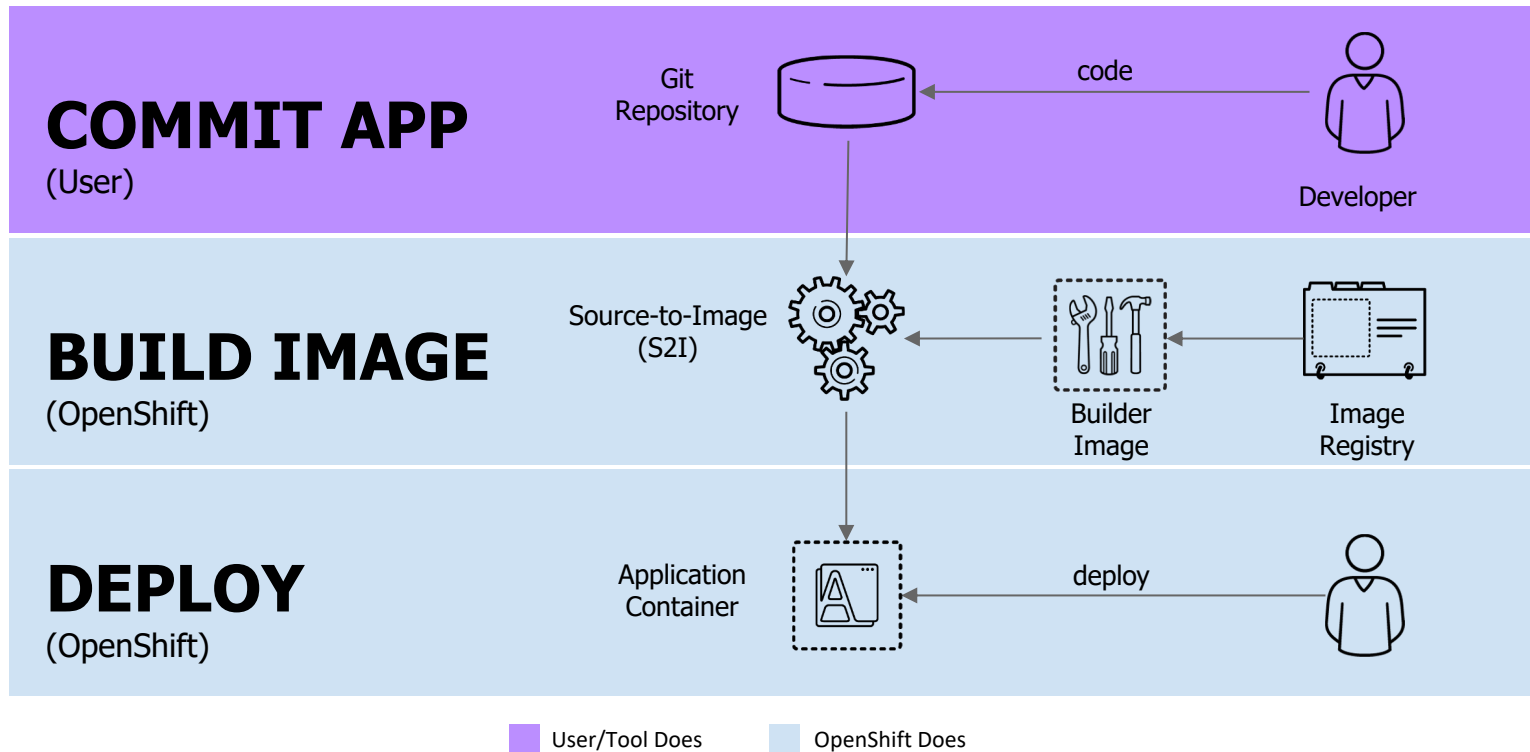


Projects extend k8s namespaces

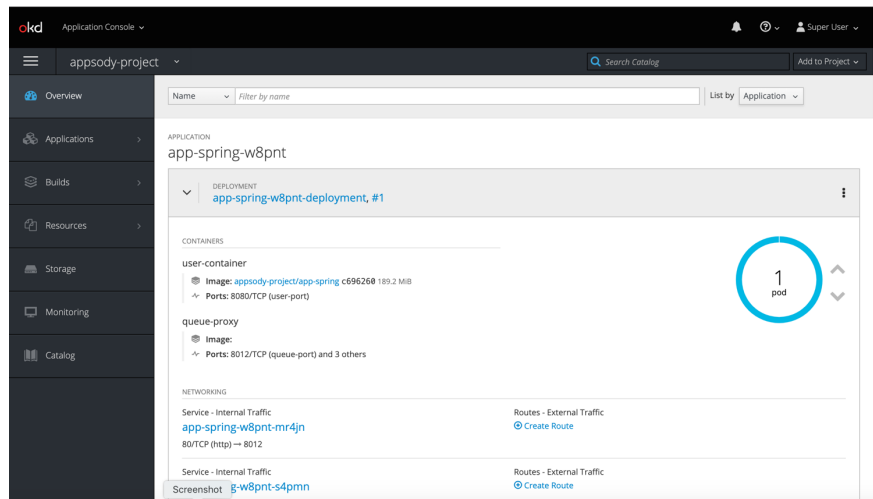
projects isolate apps across environments,
teams, groups and departments



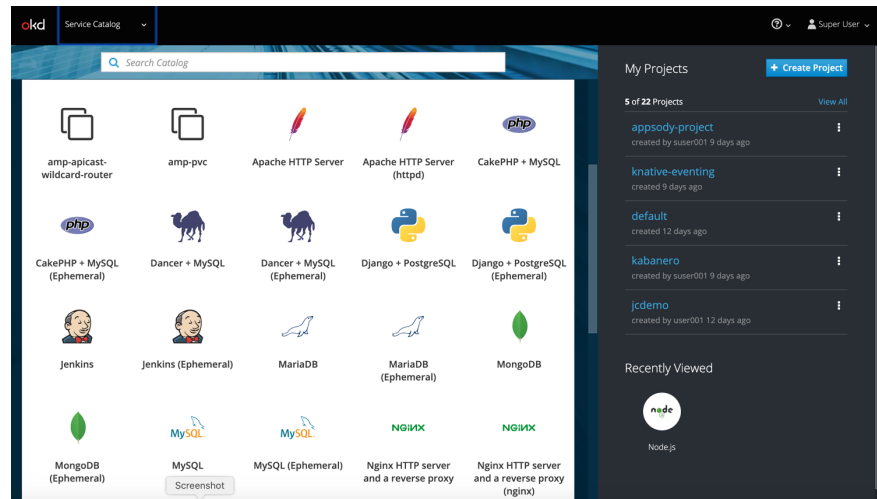
Source-to-Image



Web Console

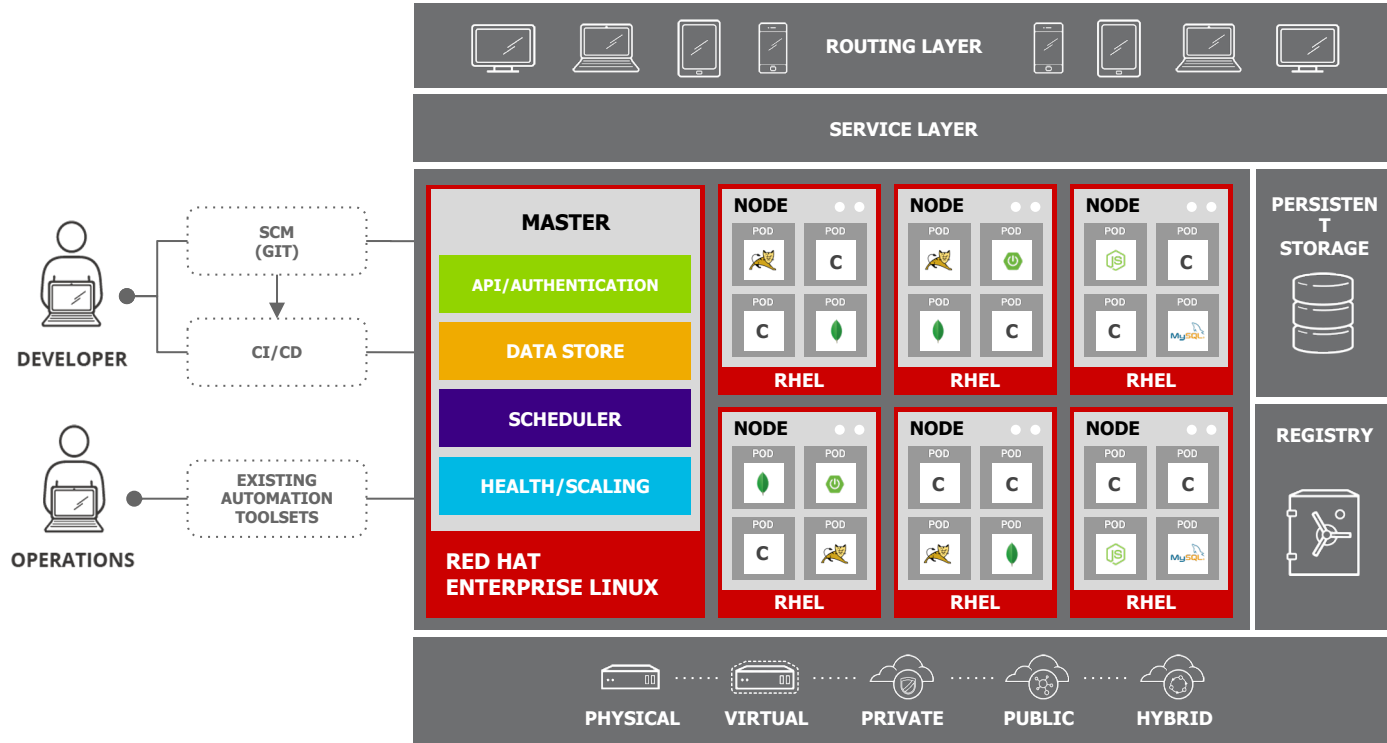


Application dashboard



Service Catalog

OpenShift Architecture



IBM