

OpenShift introduction

WW Developer Advocacy Team

IBM Developer



- Projects vs Products
- OpenShift Overview
- OpenShift Features



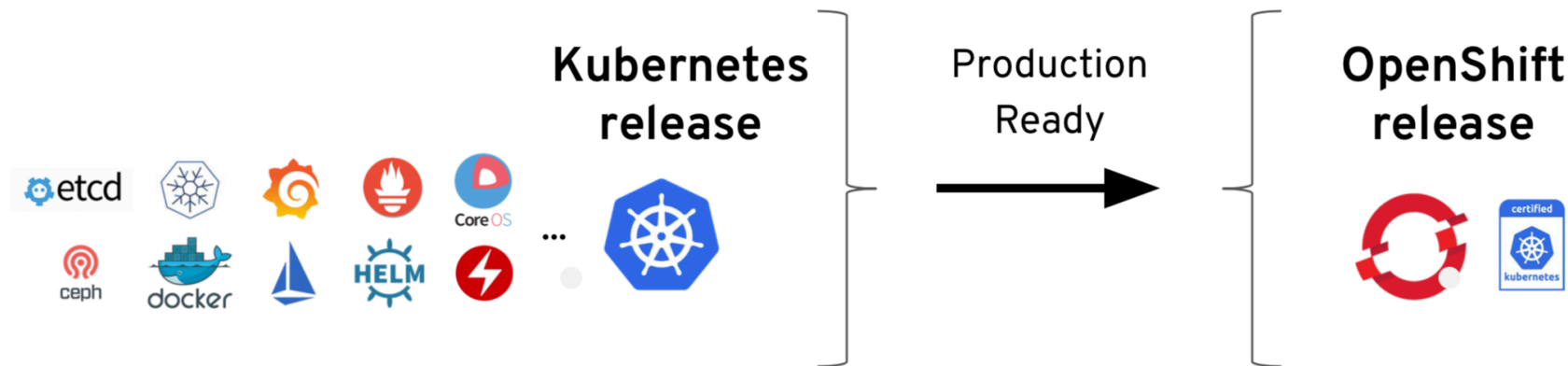
Projects vs. Products



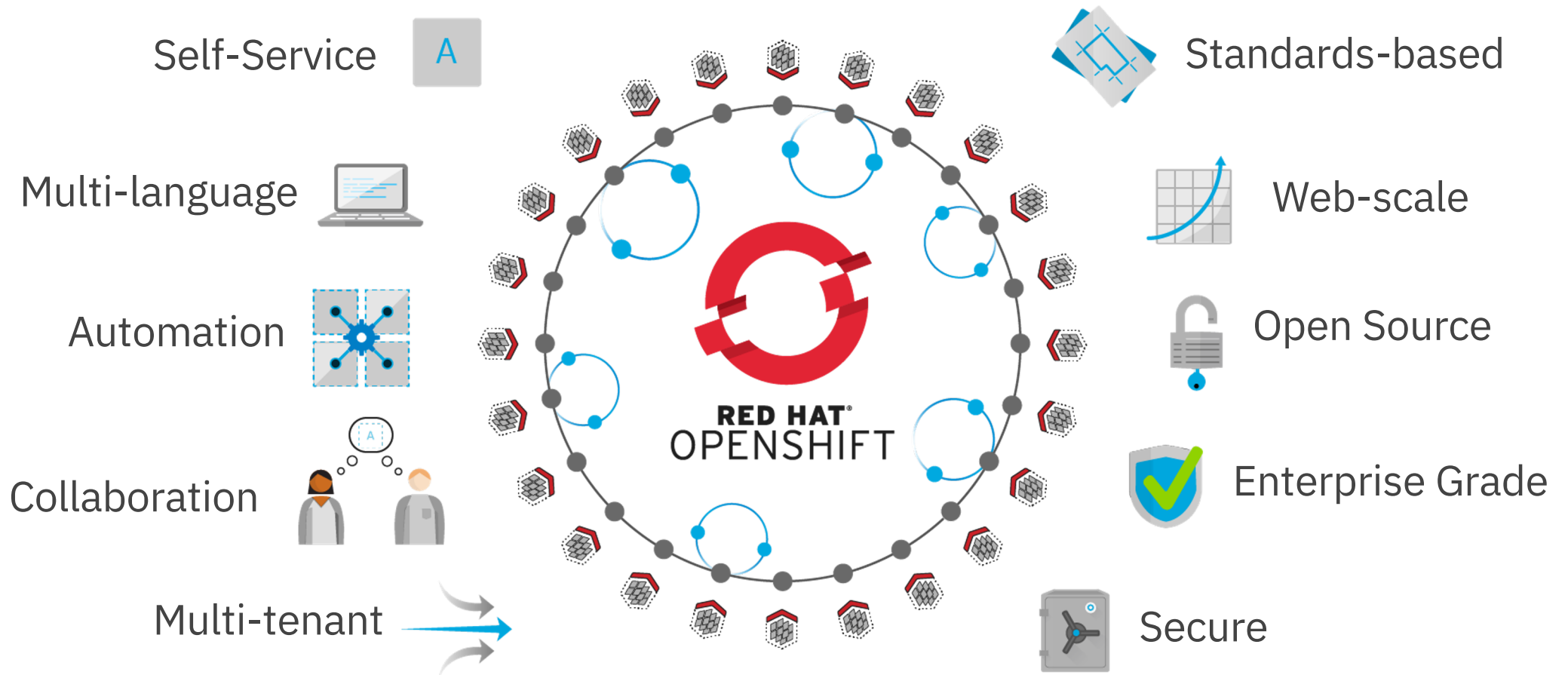
| Production-Grade Open Source Project |
|---|
| quarterly minor releases, no Long Term Support |
| community support |
| platform certification: (AKS, EKS, GKE, IKS) |
| core framework / limited security |
| platform or user responsible to integrate beyond core |

| Production-Grade Open Source based Product |
|--|
| quarterly releases, support for major release 3+ years |
| enterprise support |
| ecosystem certification: platform and app containers |
| k8s core plus abstractions / dashboard / security |
| opinions and integration of common features |

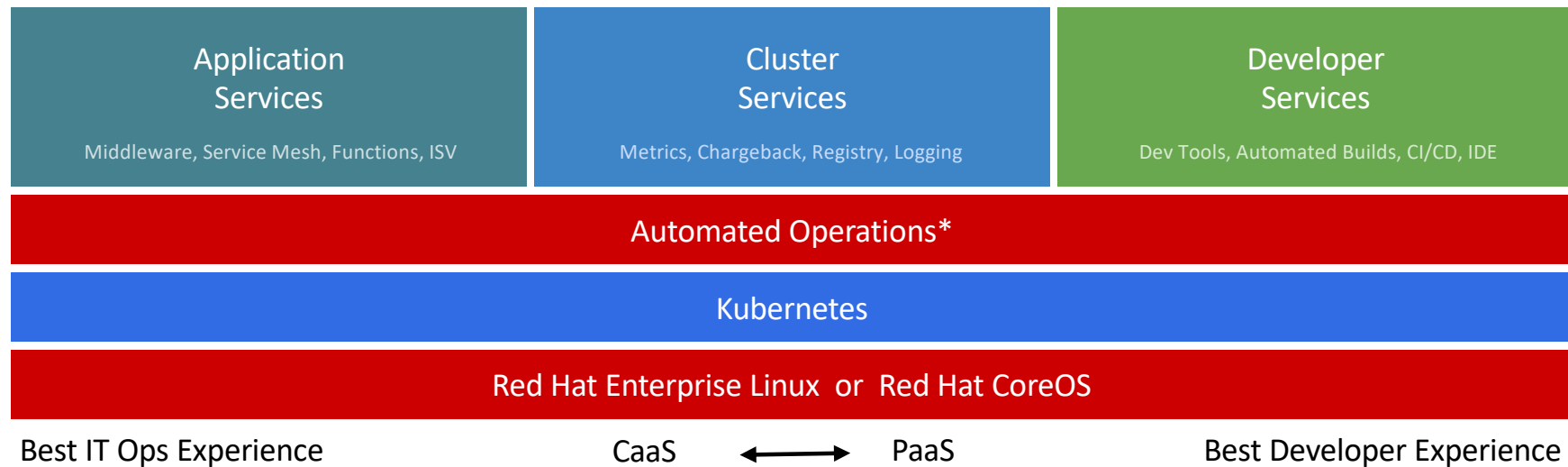
OpenShift is trusted enterprise Kubernetes



- Hundreds of defect and performance fixes
- 200+ **validated** integrations
- Certified container ecosystem
- 9-year enterprise life-cycle management
- Red Hat is a leading Kubernetes contributor since day 1

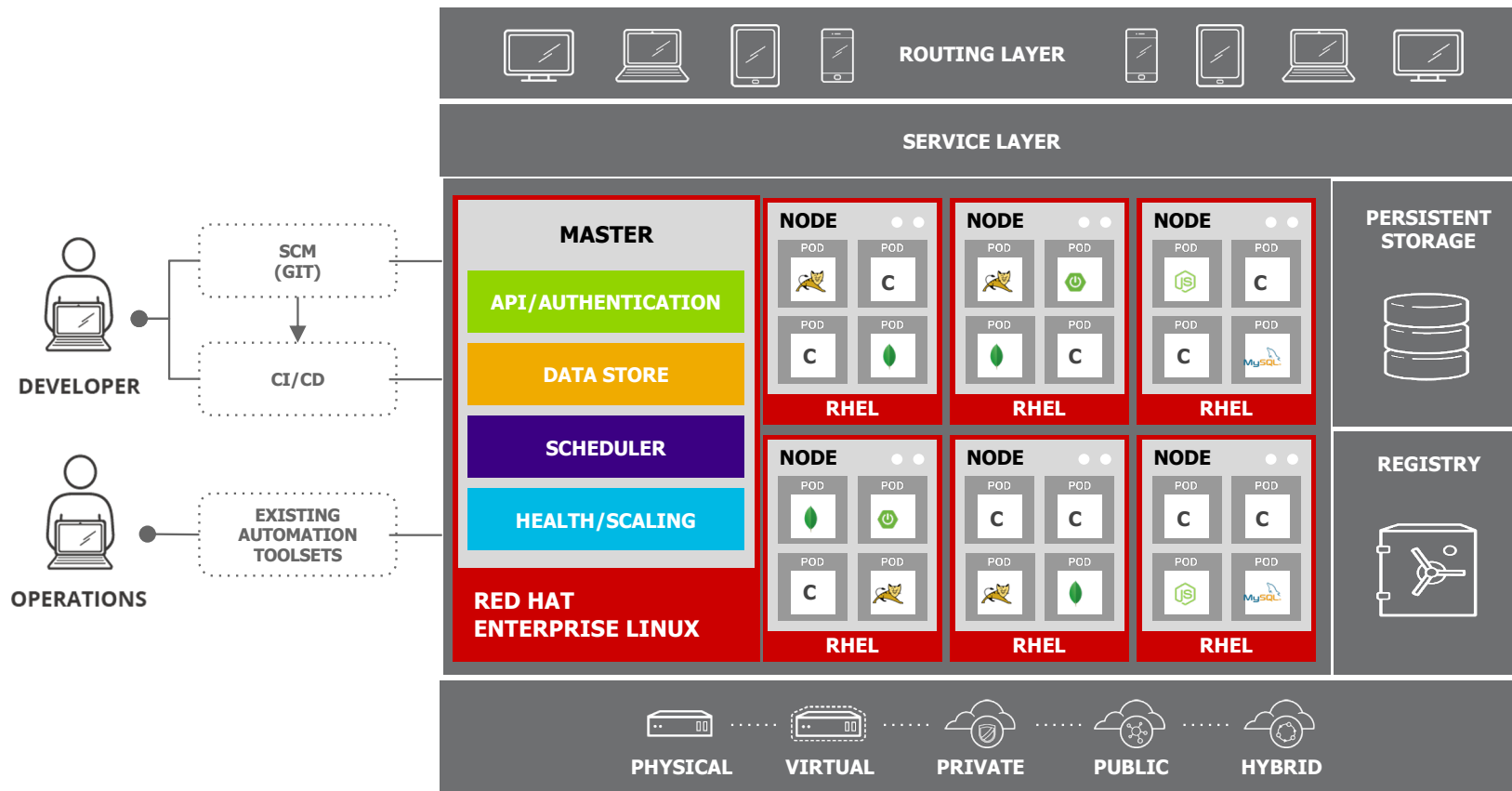


OpenShift Container Platform



*coming soon

OpenShift Architecture



Container runtime



A lightweight, OCI-compliant container runtime

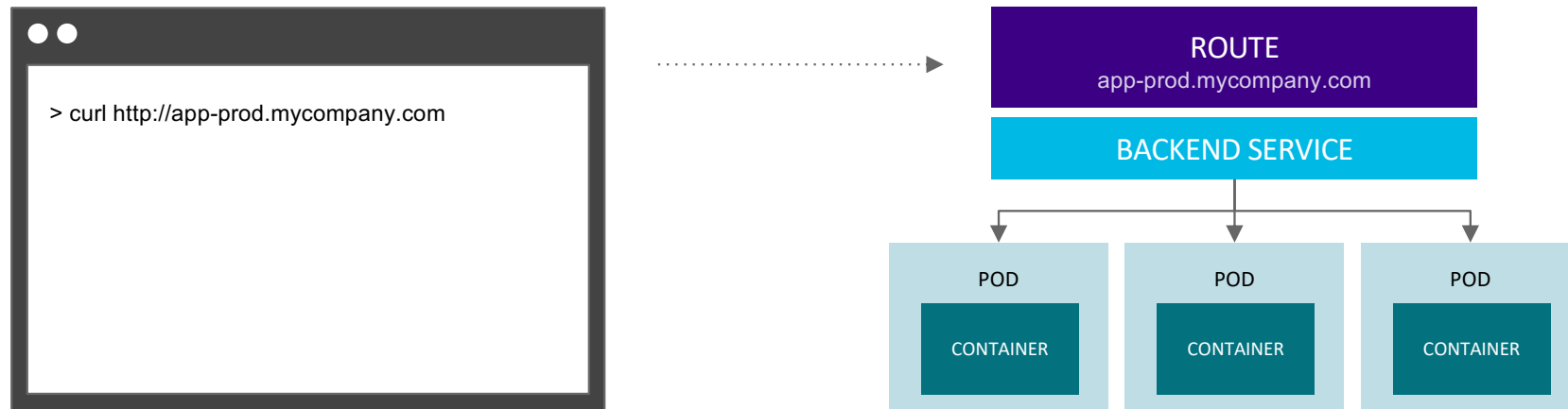
Minimal and Secure
Architecture

Optimized for
Kubernetes

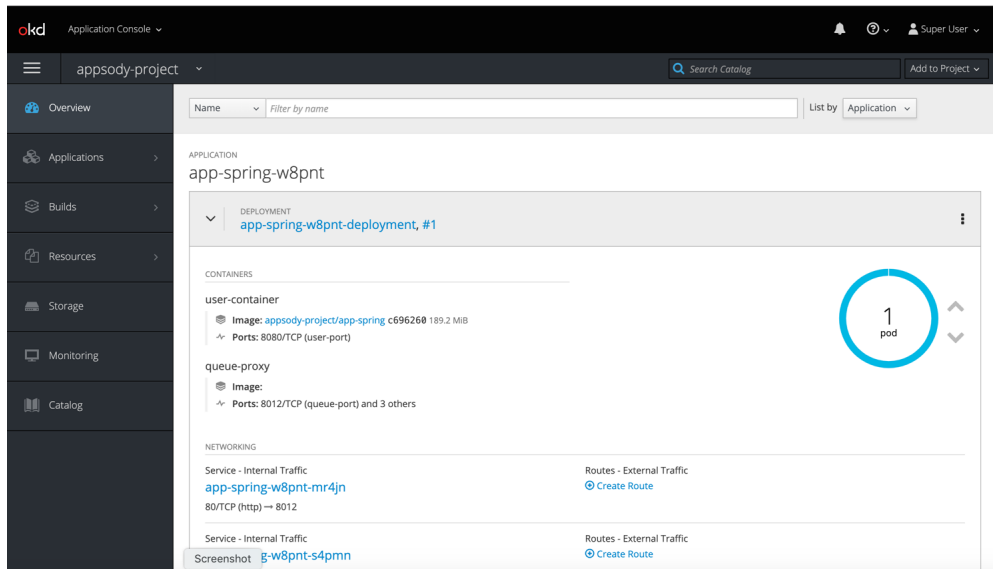
Runs any OCI-compliant
image (including docker)

Routes

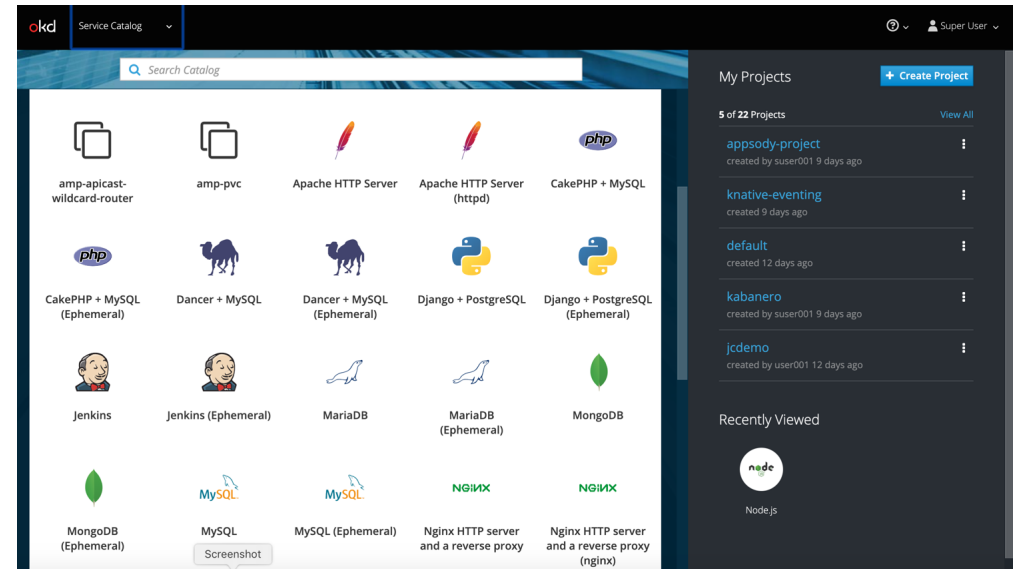
routes add services to the external load-balancer and provide readable urls for the app



Web Console



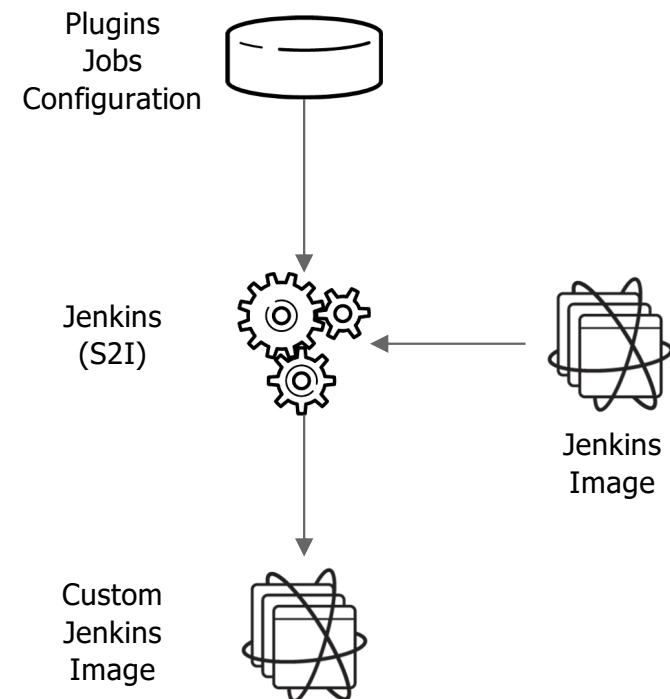
Application dashboard



Service Catalog

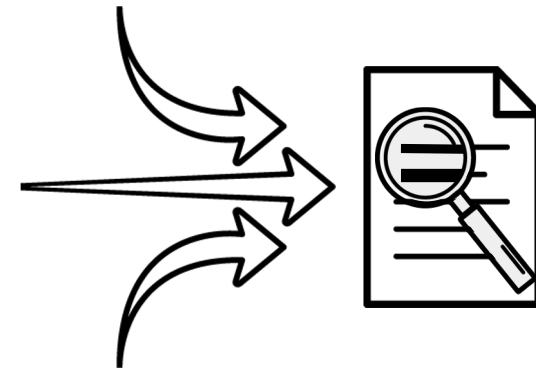
Jenkins-as-a-Service

- Certified Jenkins images with pre-configured plugins
 - Provided out-of-the-box
 - Follows Jenkins 1.x and 2.x LTS versions
- Jenkins S2I Builder for customizing the image
 - Install Plugins
 - Configure Jenkins
 - Configure Build Jobs
- OpenShift plugins to integrate authentication with OpenShift and also CI/CD pipelines
- Dynamically deploys Jenkins slave containers



Log management with EFK

- EFK stack to aggregate logs for hosts and applications
 - **Elasticsearch:** a search and analytics engine to store logs
 - **Fluentd:** gathers logs and sends to Elasticsearch.
 - **Kibana:** A web UI for Elasticsearch.
- Access control
 - Cluster administrators can view all logs
 - Users can only view logs for their projects
- Ability to send logs elsewhere
 - External elasticsearch, Splunk, etc



Source-to-Image

