Cloud Pak for Data
Introduction

Contents

Cloud Pak for Data uses some thing with the best of IBM Data/AI and open source tools

Projects vs. Products

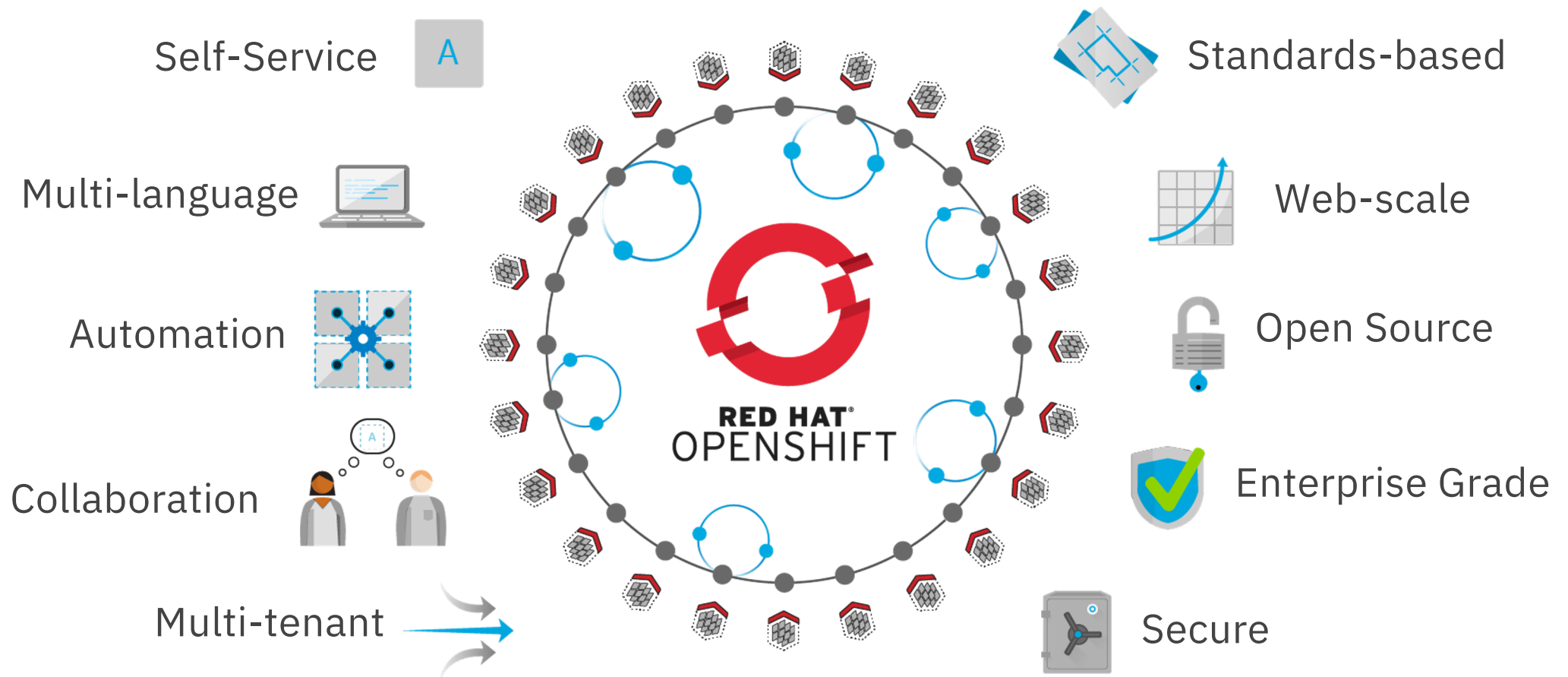| Production-Grade Open Source Project |
|---|
| quarterly minor releases, no Long Term Support |
| community support |
| platform certification: (AKS, EKS, GKE, IKS) |
| core framework / limited security |
| platform or user responsible to integrate beyond core |

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

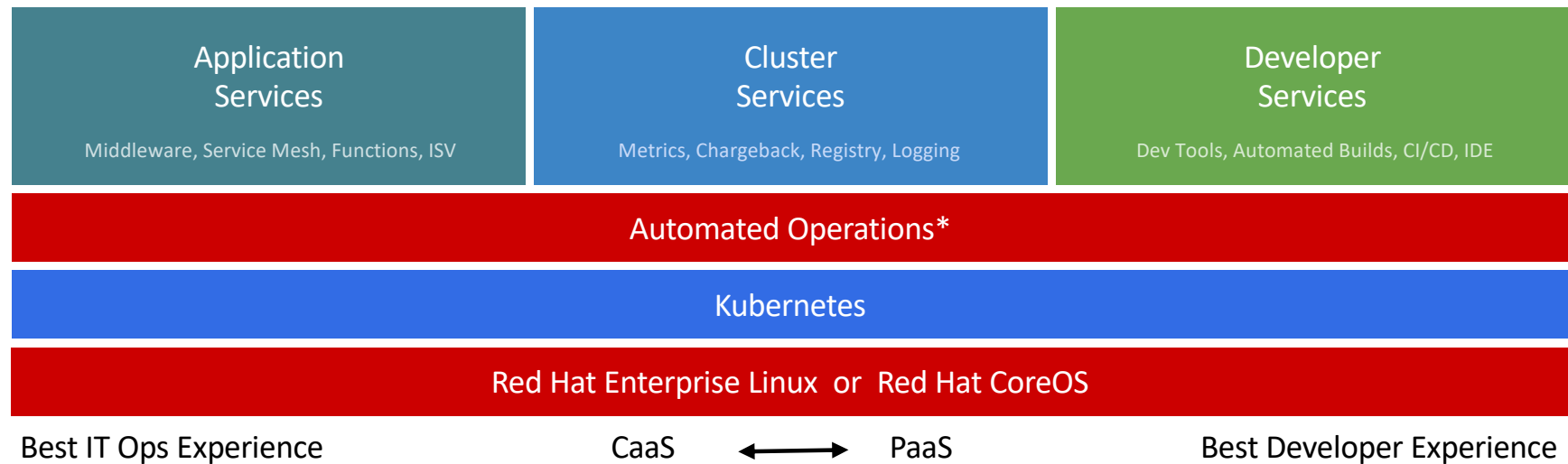# OpenShift is trusted enterprise Kubernetes
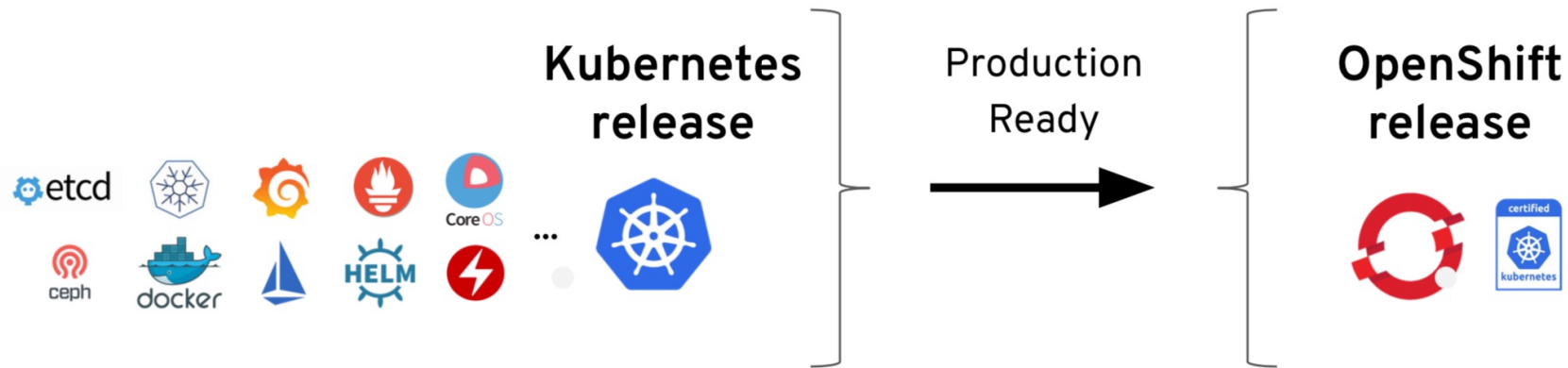
- Hundreds of defect and performance fixes
- 200+ validated integrations
- Certified container ecosystem
- 9-year enterprise life-cycle management
- Red Hat is a leading Kubernetes contributor since day 1

Self-Service

Multi-language

Automation

Collaboration

Multi-tenant

Standards-based

Web-scale

Open Source

Enterprise Grade

Secure

RED HAT®
OPENSHIFT

OpenShift Container Platform

Application Services	Cluster Services	Developer Services
Middleware, Service Mesh, Functions, ISV	Metrics, Chargeback, Registry, Logging	Dev Tools, Automated Builds, CI/CD, IDE

Automated Operations*

Kubernetes

Red Hat Enterprise Linux or Red Hat CoreOS

Best IT Ops Experience   CaaS ⟵⟶ PaaS   Best Developer Experience
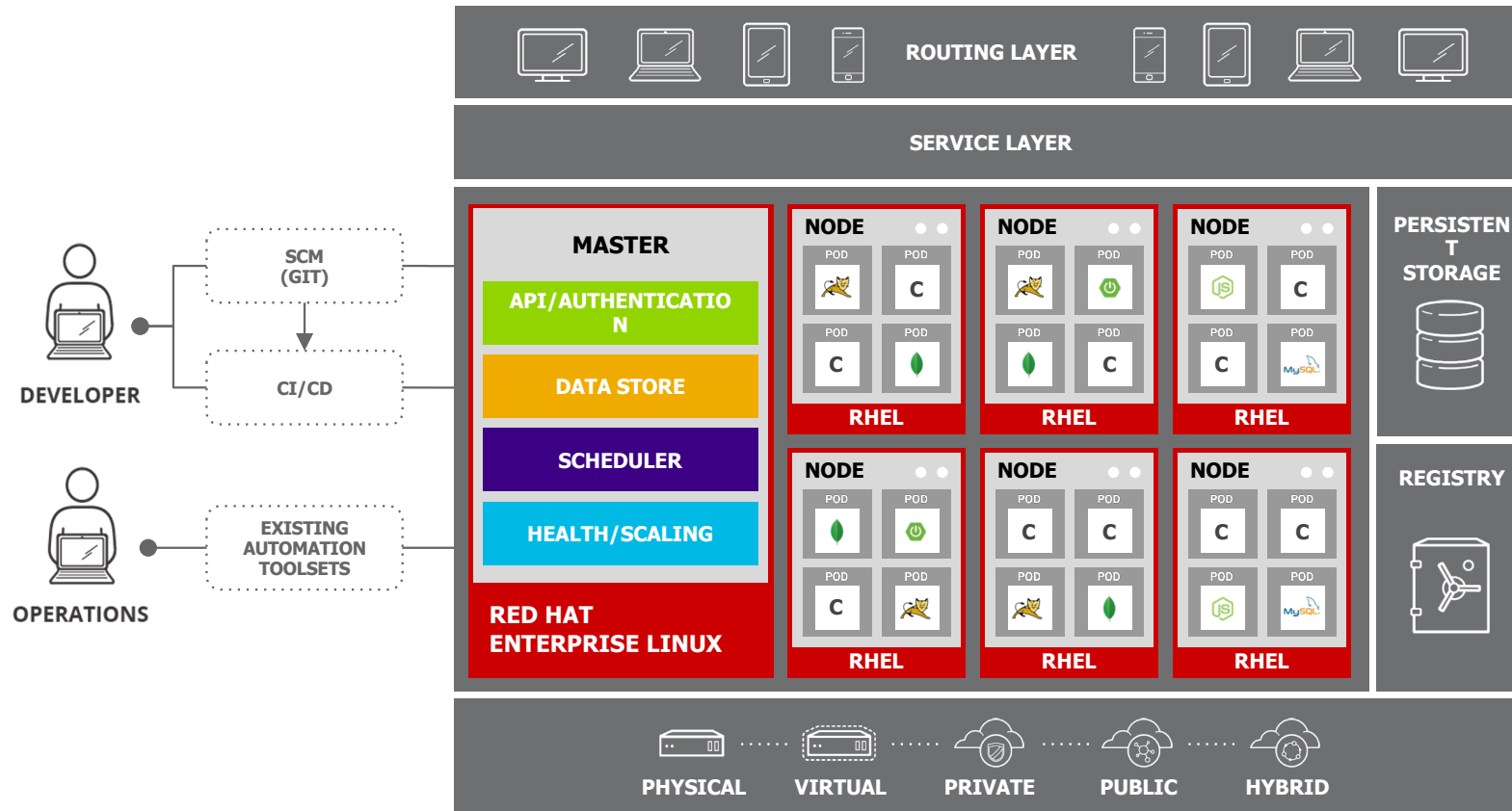
*coming soon

OpenShift Architecture

Container runtime

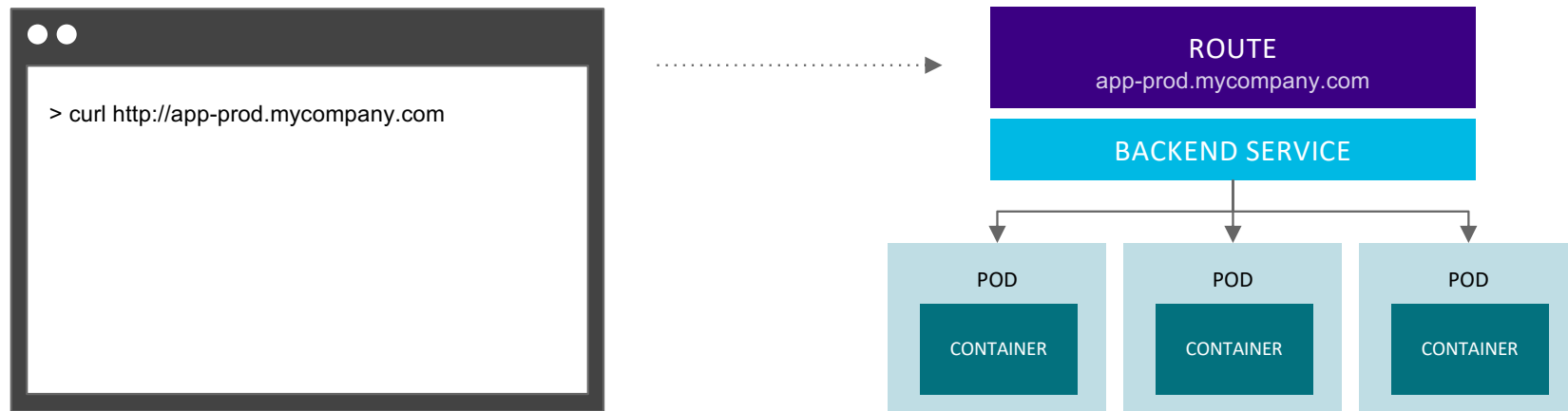A lightweight, OCI-compliant container runtime

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

> curl http://app-prod.mycompany.com

ROUTE
app-prod.mycompany.com

BACKEND SERVICE

POD

CONTAINER

POD

CONTAINER

POD

CONTAINER

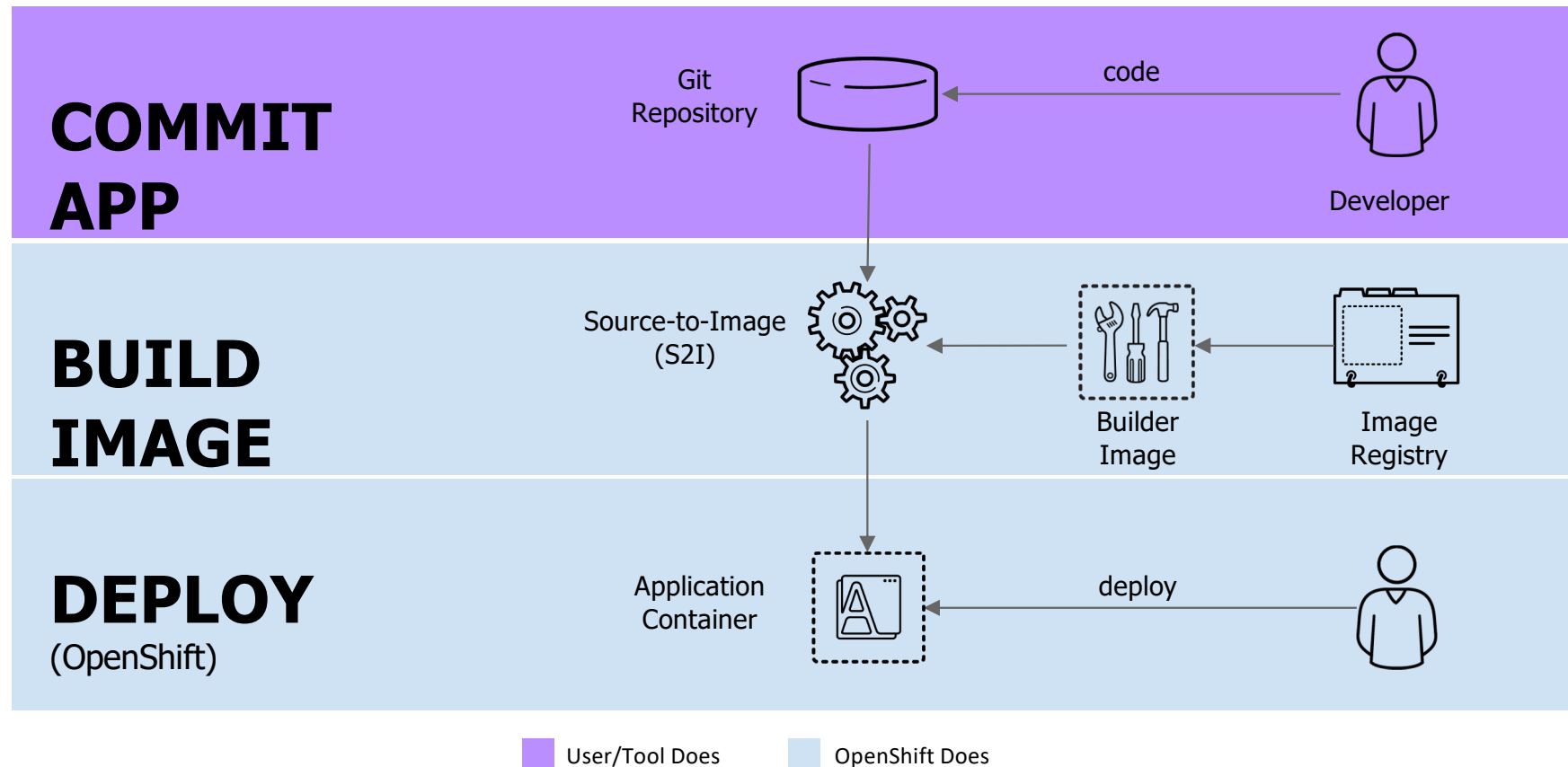# Projects – extends k8s namespaces

projects isolate apps across environments, teams, groups and departments

Source-to-Image

|		
COMMIT APP	Git Repository	code ← Developer
BUILD IMAGE	Source-to-Image (S2I)	Builder Image ← Image Registry
DEPLOY (OpenShift)	Application Container	deploy

User/Tool Does   OpenShift Does
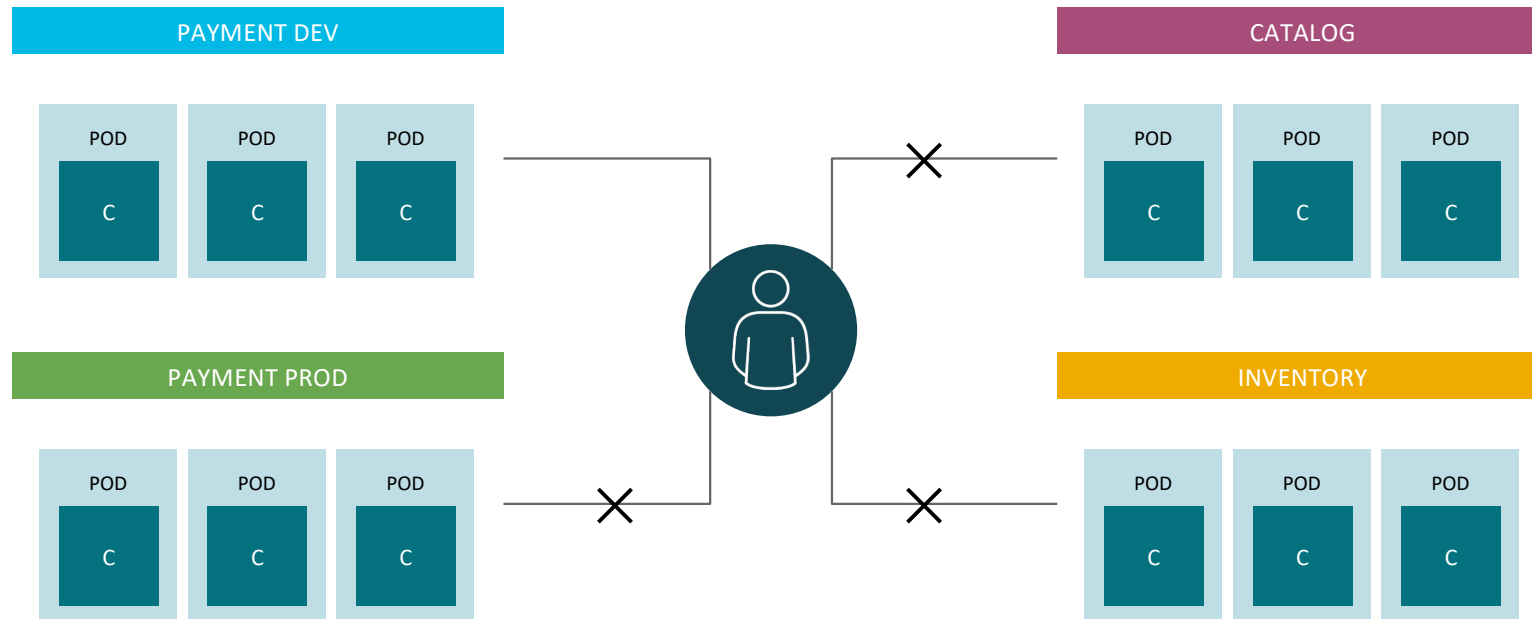
Jenkins-as-a-Service

- 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

Plugins
Jobs
Configuration

Jenkins
(S2I)

Jenkins
Image

Custom
Jenkins
Image
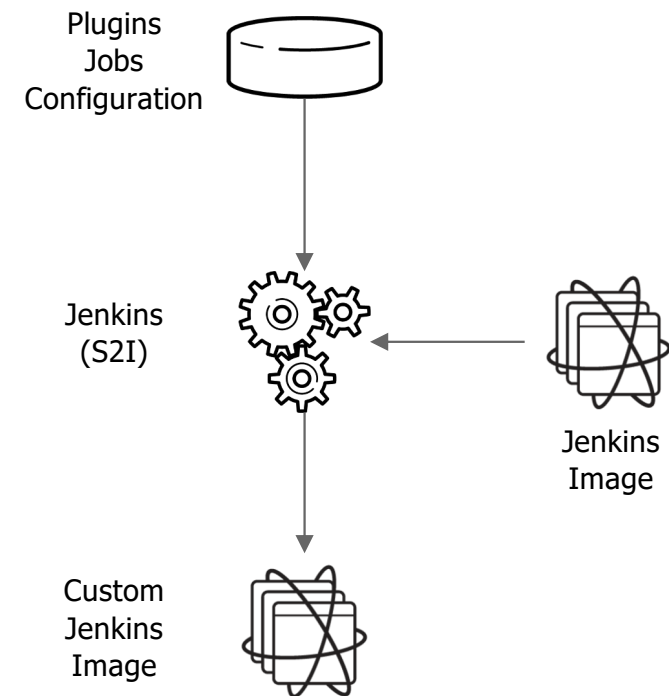
Web Console
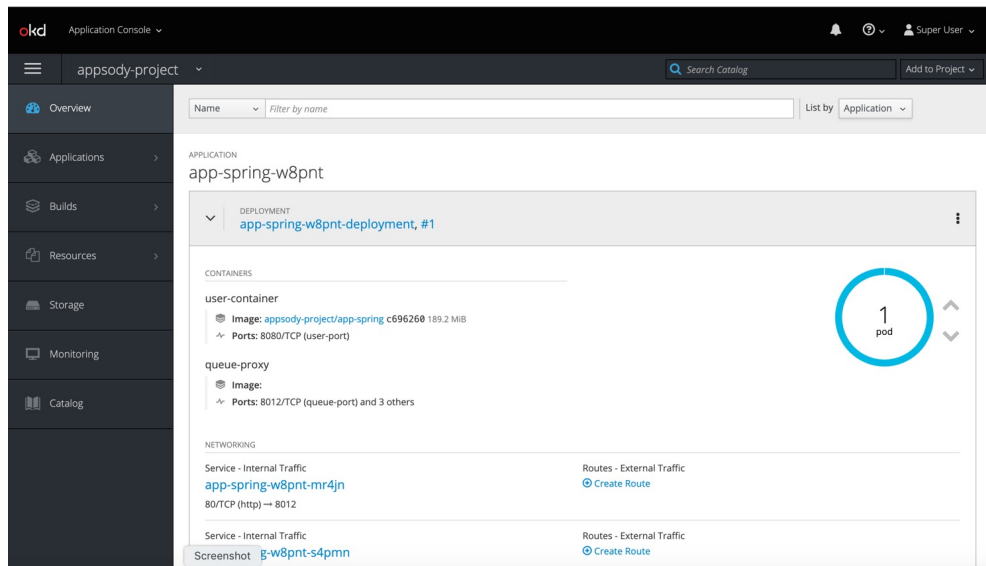
Application dashboard
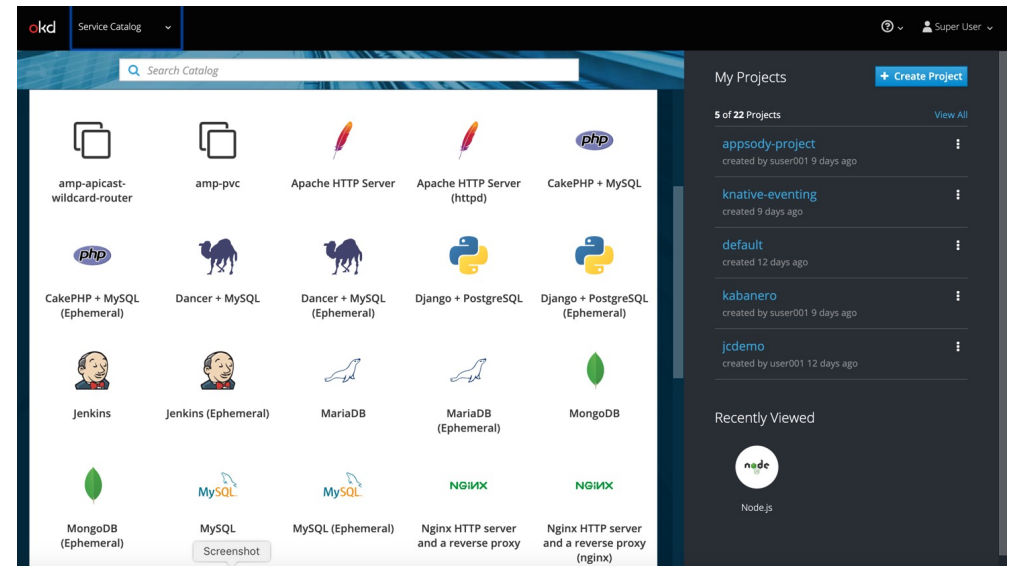
Service Catalog

IBM Cloud Paks

A faster, more secure way to move your core business applications to any cloud through enterprise-ready containerized software solutions

IBM containerized software
Packaged with Open Source components,
pre-integrated with the common operational services,
and secure by design

**Container platform
and operational services**
Logging, monitoring, security,
identity access management

Red Hat
OpenShift

IBM **Cloud**
aws
Azure
Google Cloud
Edge
Private
Systems

Complete yet simple
*Application, data and AI services,
fully modular and easy to consume*
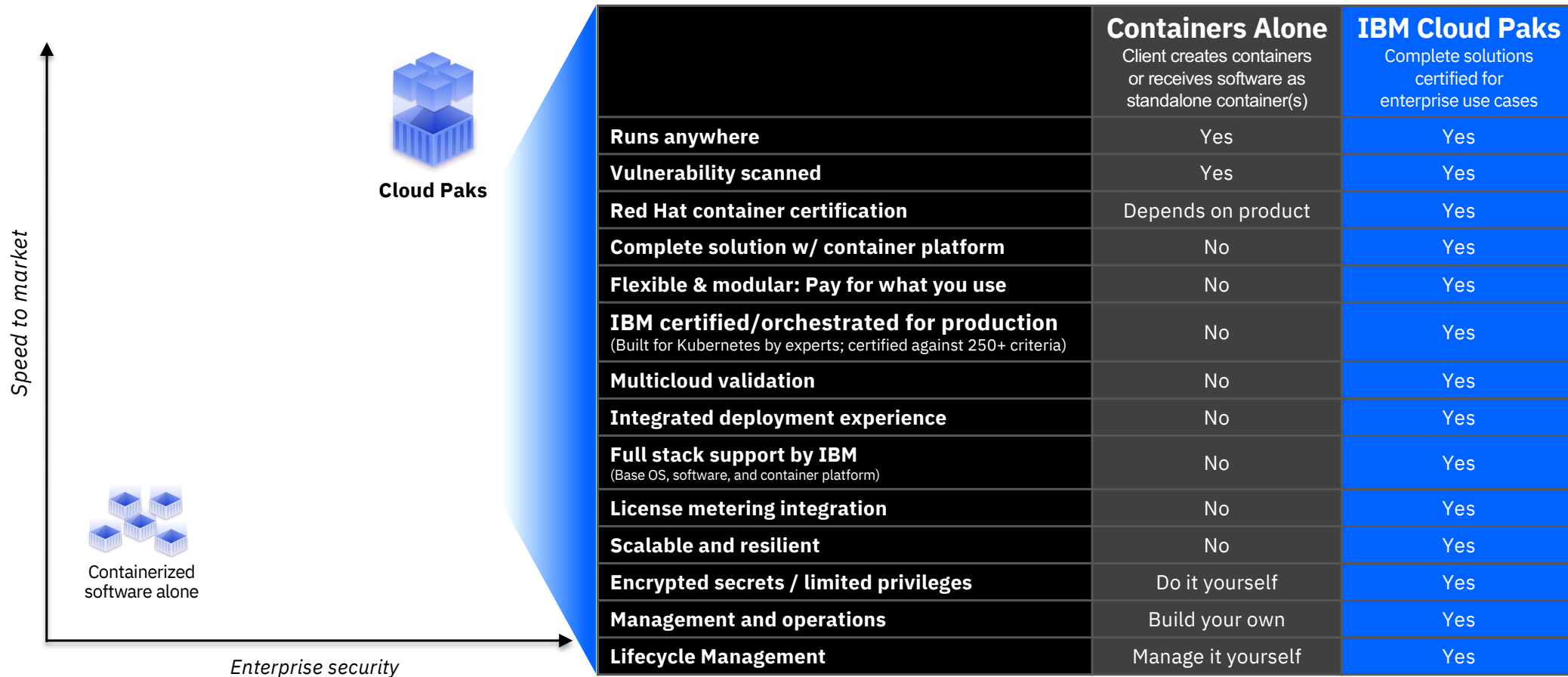
IBM certified
*Full software stack support, and ongoing
security, compliance and version compatibility*

Run anywhere
*On-premises, on private and public clouds,
and in pre-integrated systems*

IBM Certified and production ready

Speed to market (vertical axis label)

Enterprise security (horizontal axis label)

Cloud Paks

Containerized software alone

	Containers Alone Client creates containers or receives software as standalone container(s)	IBM Cloud Paks Complete solutions certified for enterprise use cases
Runs anywhere	Yes	Yes
Vulnerability scanned	Yes	Yes
Red Hat container certification	Depends on product	Yes
Complete solution w/ container platform	No	Yes
Flexible & modular: Pay for what you use	No	Yes
IBM certified/orchestrated for production (Built for Kubernetes by experts; certified against 250+ criteria)	No	Yes
Multicloud validation	No	Yes
Integrated deployment experience	No	Yes
Full stack support by IBM (Base OS, software, and container platform)	No	Yes
License metering integration	No	Yes
Scalable and resilient	No	Yes
Encrypted secrets / limited privileges	Do it yourself	Yes
Management and operations	Build your own	Yes
Lifecycle Management	Manage it yourself	Yes

Organized by Capability