Strategies for OpenShift Application Onboarding

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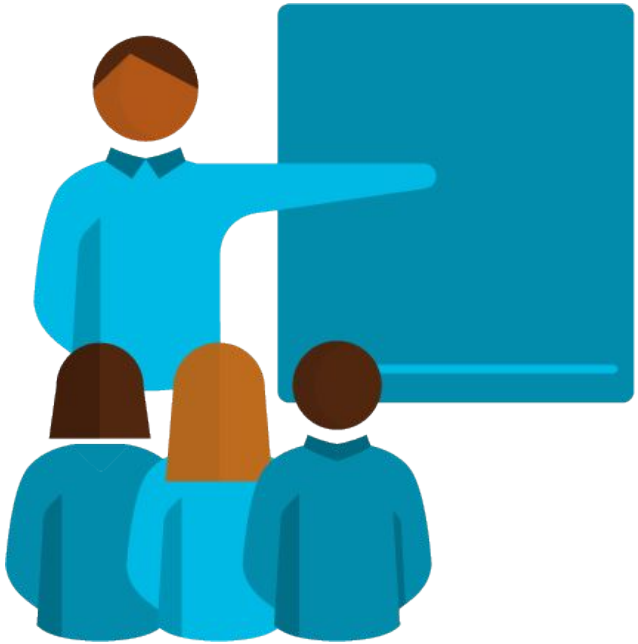


AGENDA

- Strategy Overview
- Where to Begin
- Refactoring your dev process
- Refactoring you team

BEFORE WE BEGIN...

STRATEGY OVERVIEW

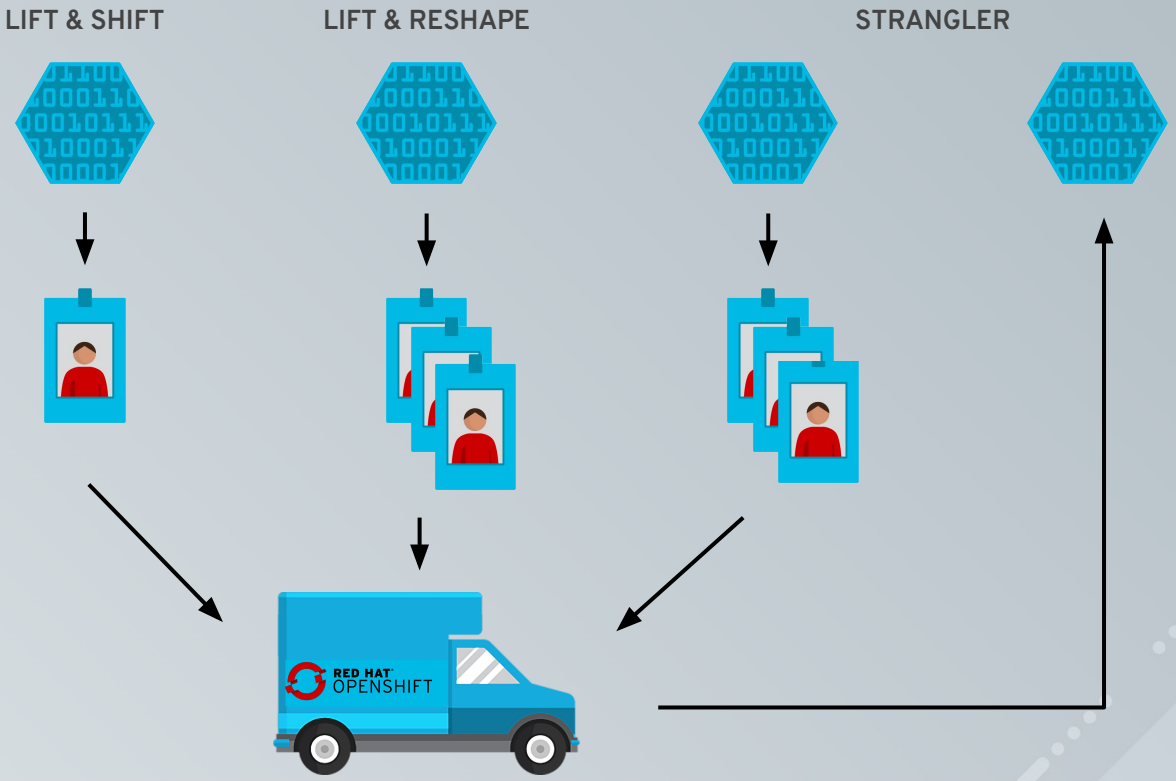
WHY ?

FASTER SERVICE DELIVERY

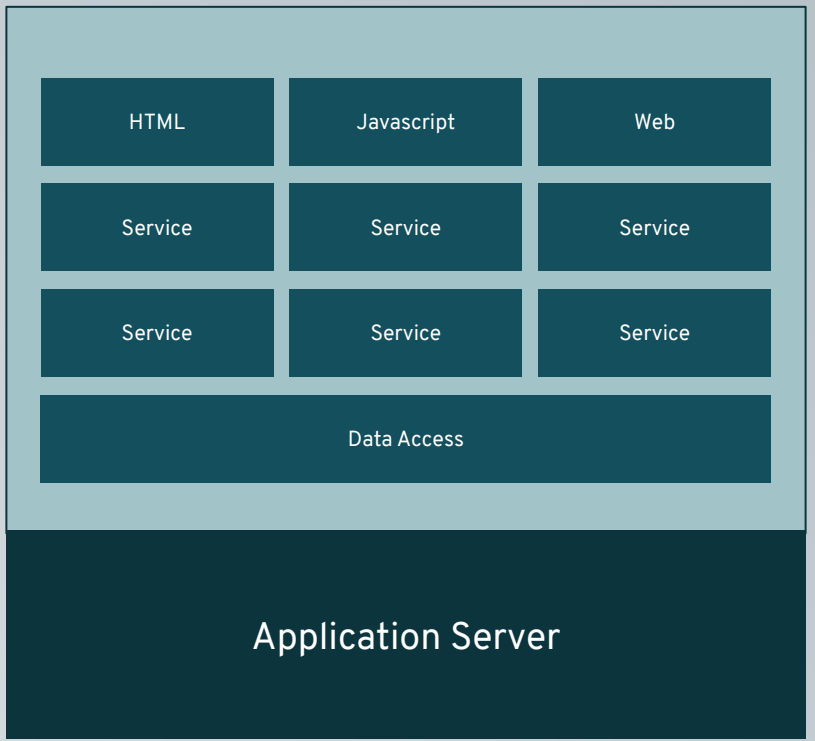
INCREASE SERVICE QUALITY

REDUCE RISK OF DELIVERY

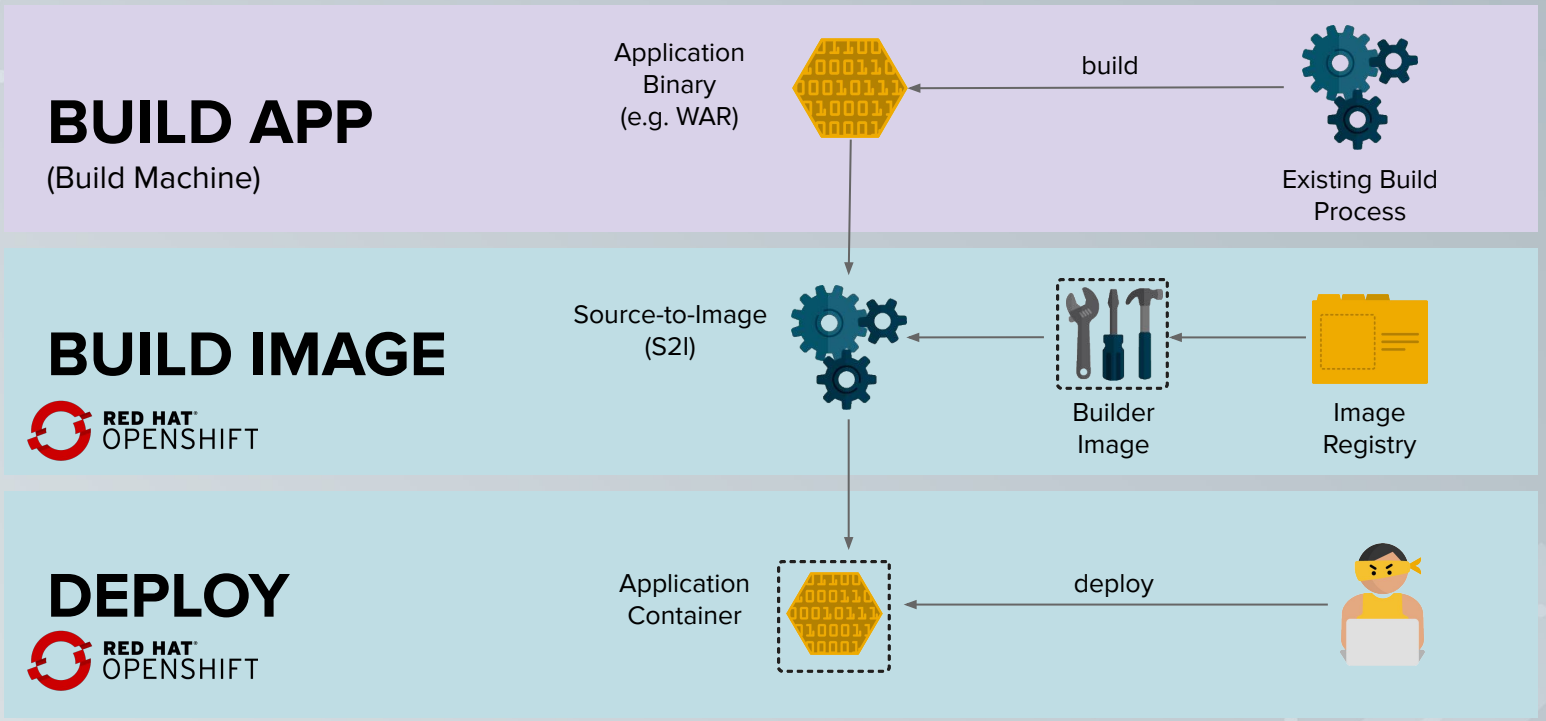
AT A GLANCE



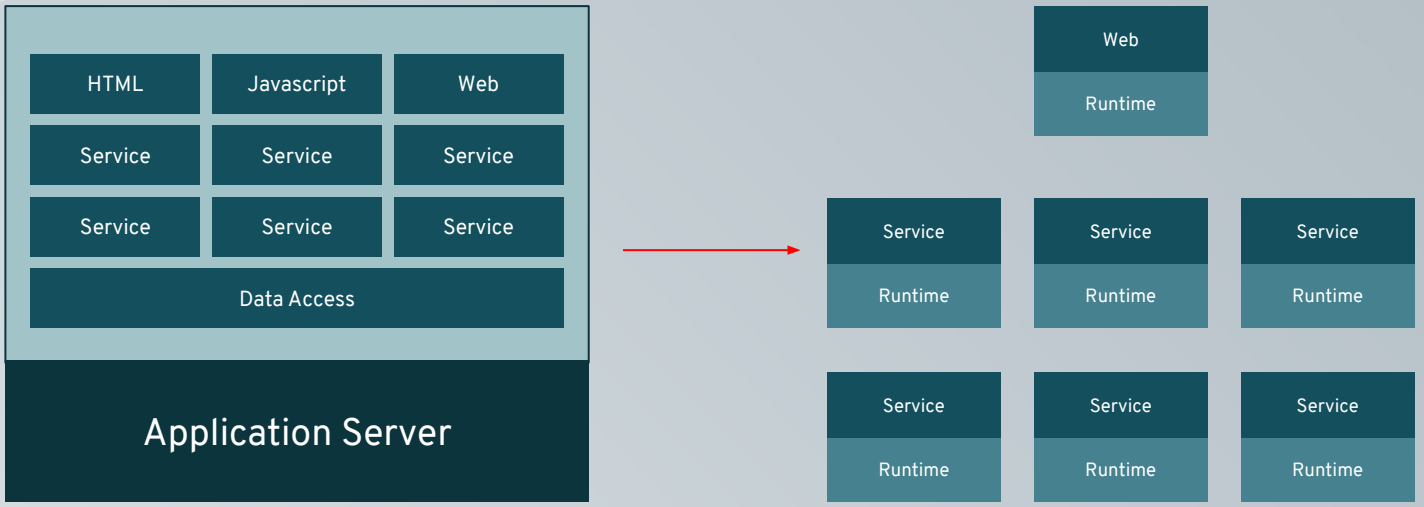
MONOLITHIC APPS



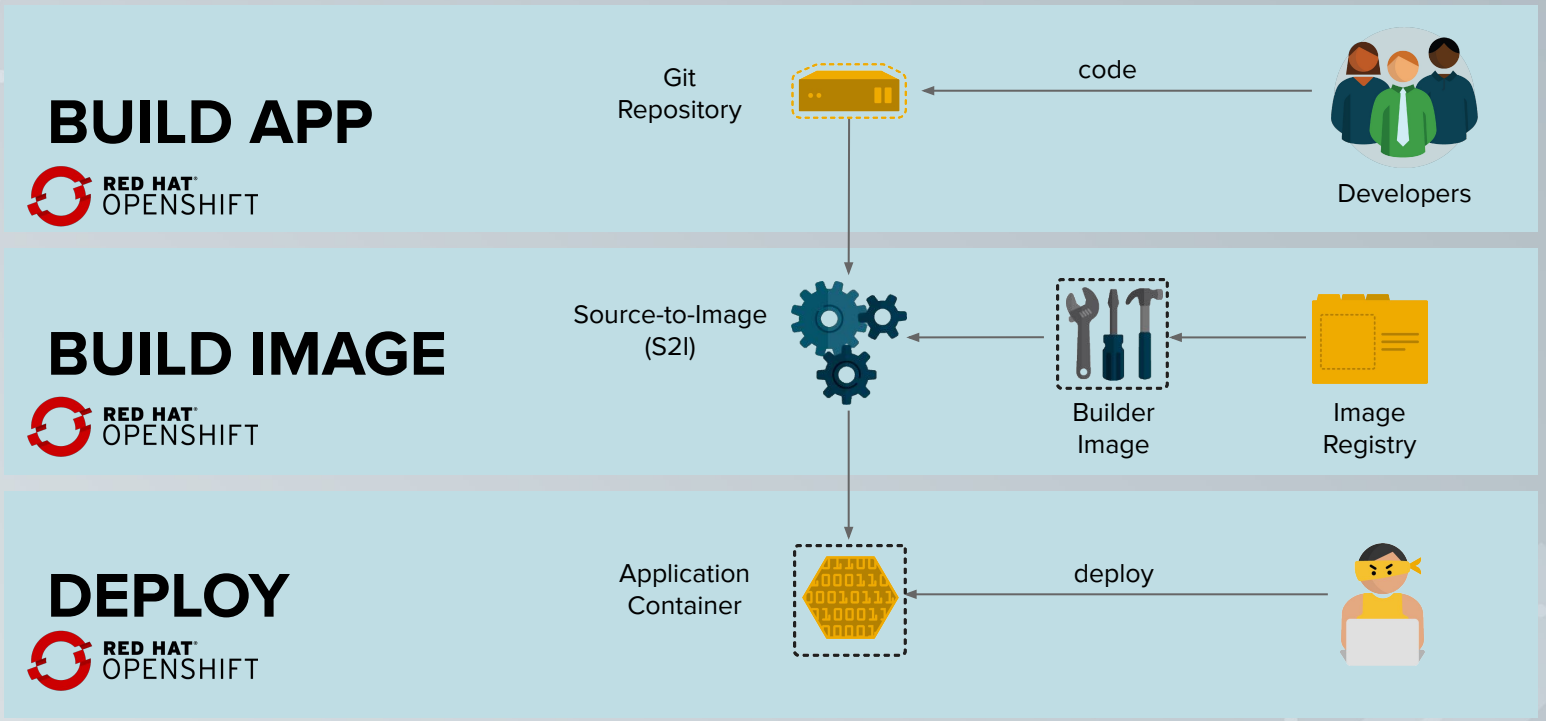
LIFT & SHIFT


BUILD APP
(Build Machine)
Application Binary (e.g. WAR)
build
Existing Build Process
BUILD IMAGE
RED HAT OPENSHIFT
Source-to-Image (S2I)
Builder Image
Image Registry
DEPLOY
RED HAT OPENSHIFT
Application Container
deploy

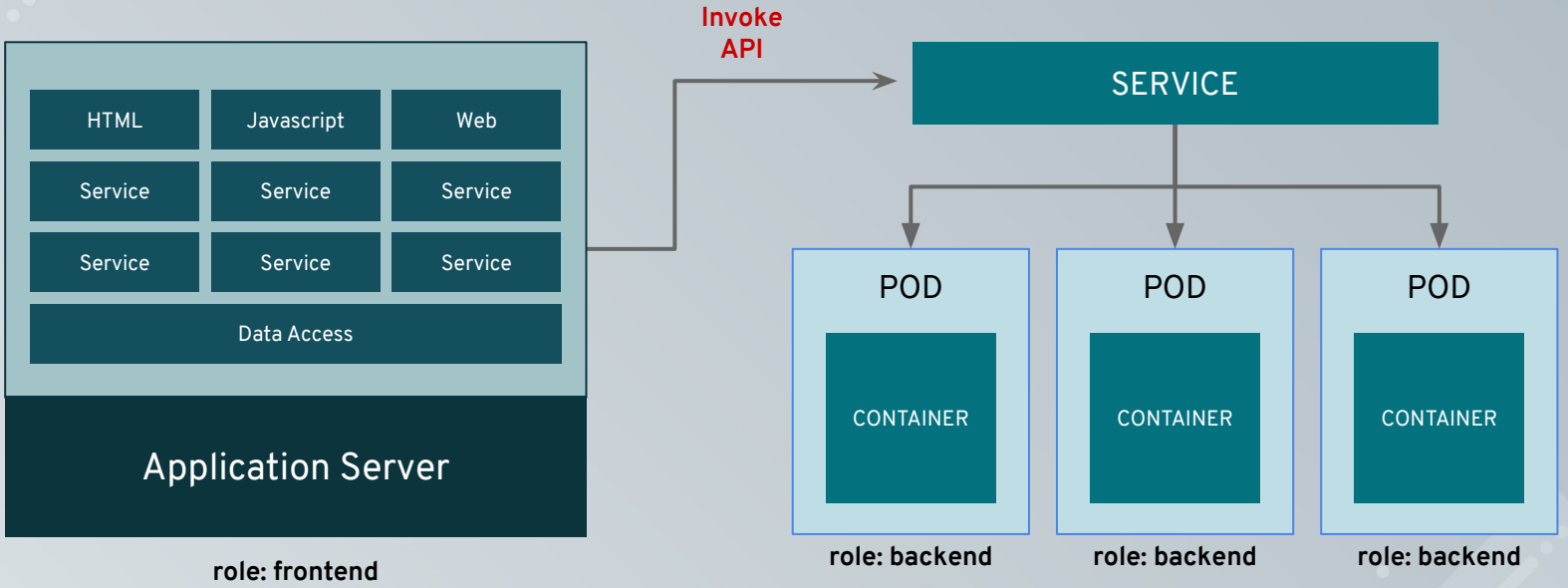
MICROSERVICES APPS



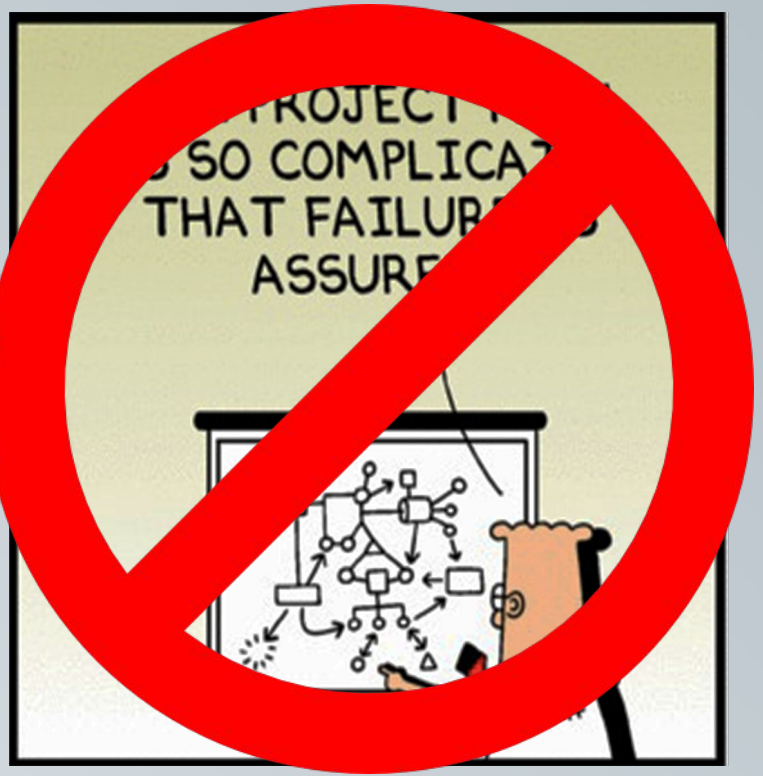
LIFT & RESHAPE



STRANGLER APPS



WHERE TO BEGIN…


PROJECT
SO COMPLICA
THAT FAILUR
ASSURE

3 STEP APP ASSESSMENT

STEP 1: ANALYZE & PRIORITIZE APPLICATION TECHNOLOGIES

STEP 2: CONSIDER BUSINESS PRIORITIES

STEP 3: CONSIDER THE PEOPLE ON YOUR TEAMS

STEP 1: APP TECHNOLOGIES

Weed out application type that are a bad fit for onboarding

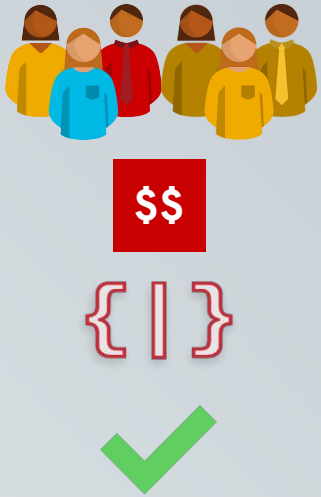
MAINFRAME	🔴 NOT A CANDIDATE
DESKTOP APPS	🔴 NOT A CANDIDATE
COTS (NOT APPLICATION SERVERS)	🟠 HOLD
DATABASES	🟠 HOLD
SOURCE CODE YOU OWN, DEPLOY, AND MAINTAIN (JAVA, .NET, PHP, PYTHON, NODE)	🟢 GO

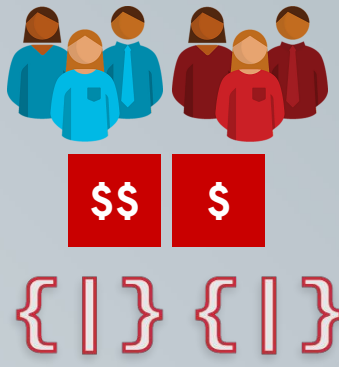
STEP 2: BUSINESS PRIORITIES

Identify which applications provide more business value

STEP 3: PEOPLE & TEAMS

Look for teams with enthusiasm and commitment to be early adopters





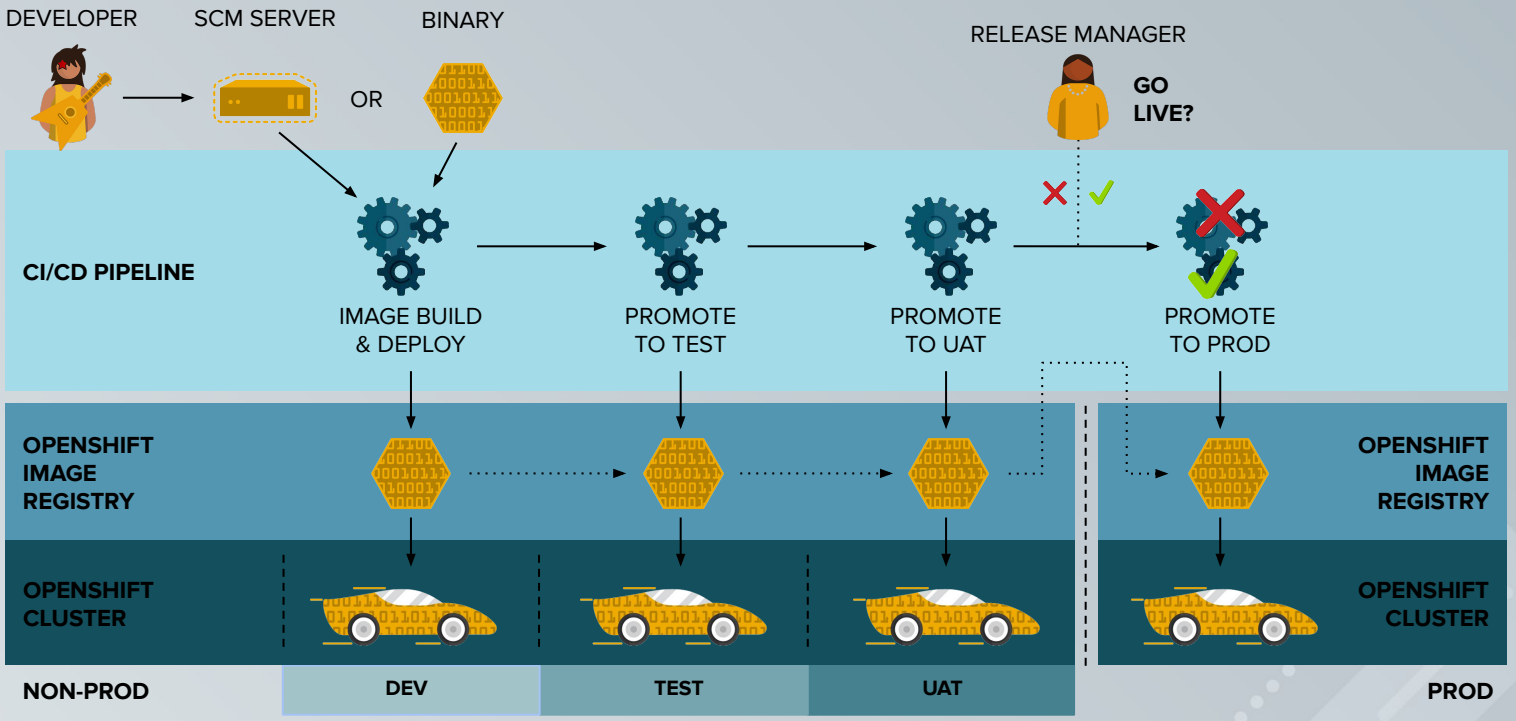
IN SUMMARY

Existing Application

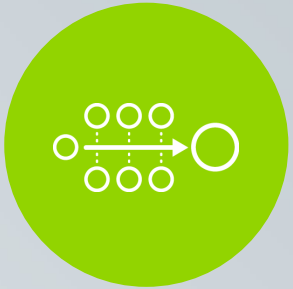
RETAIN	Keep and don't touch for now.
RETIRE	Decommission end-of-life application.
REHOST (Lift & Shift)	Package existing application in a container with as few changes as possible.
REPLATFORM (Lift & Reshape)	Change the underlying platform (runtime, framework, middleware, operating system).
REFACTOR (Extend / Rewrite)	Redesign code to take advantage of the new platform (extend, strangle, rewrite).
REPURCHASE (Drop & Shop)	Replace by Commercial off-the-shelf (COTS) or Software-as-a-Service (SaaS).

REFACTORING YOUR DEV PROCESS

CI/CD WITH OPENSHIFT



CI/CD + OPENSHIFT =

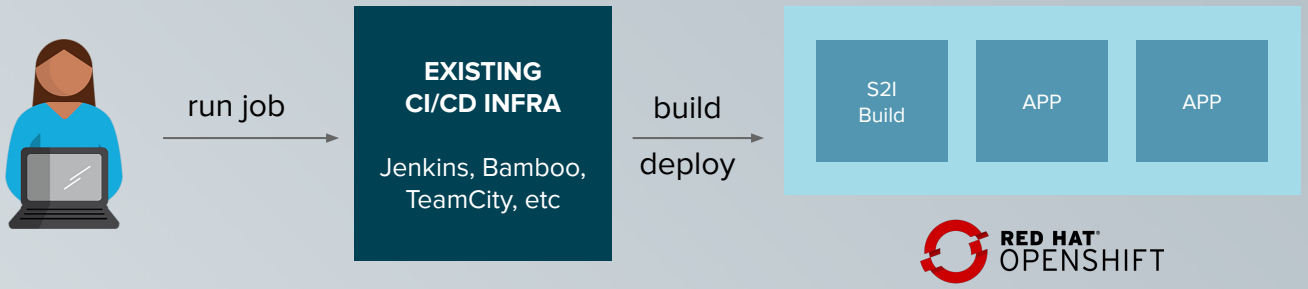


EXISTING CI/CD
DEPLOYS TO OPENSHIFT

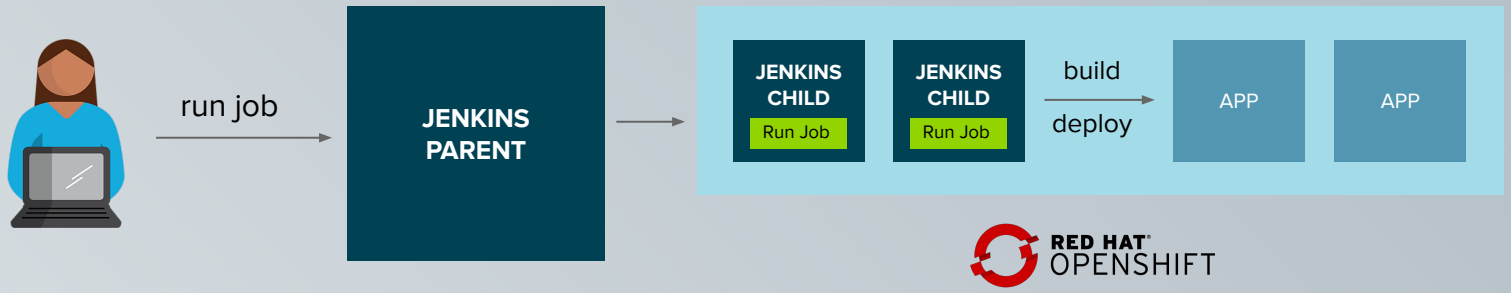
HYBRID JENKINS INFRA
WITH OPENSHIFT

JENKINS-AS-A SERVICE
ON OPENSHIFT

EXISTING STRATEGY

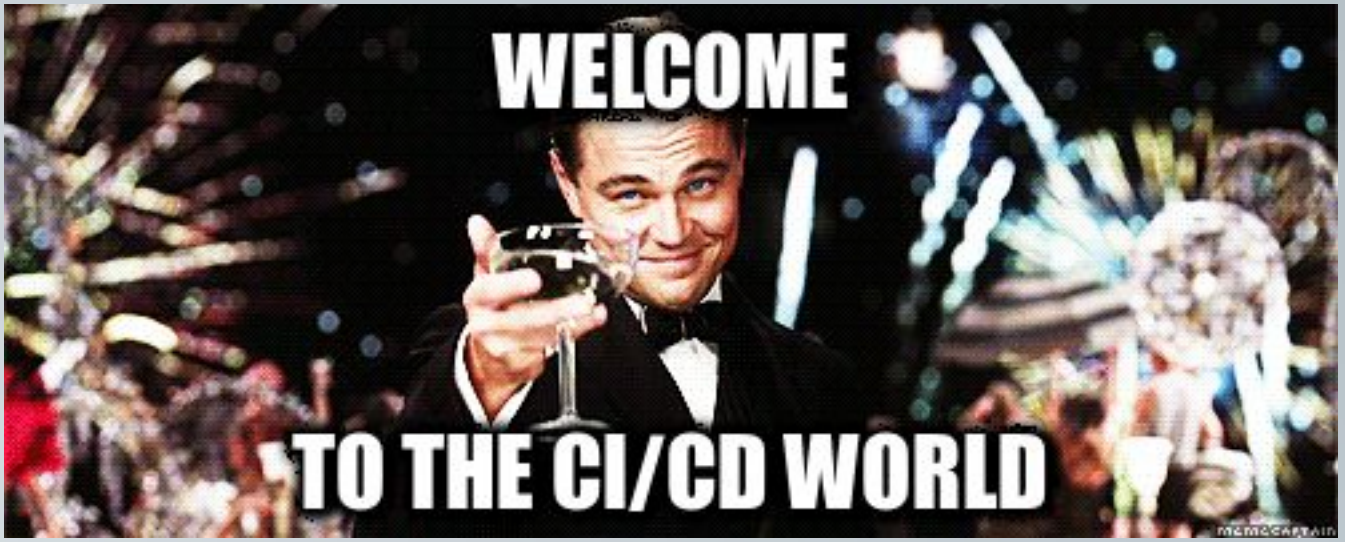


HYBRID STRATEGY



JENKINS AS A SERVICE STRATEGY

JENKINS PIPELINES IN OPENSHIFT WEB CONSOLE


WELCOME
TO THE CI/CD WORLD

REFACTORING YOUR TEAM

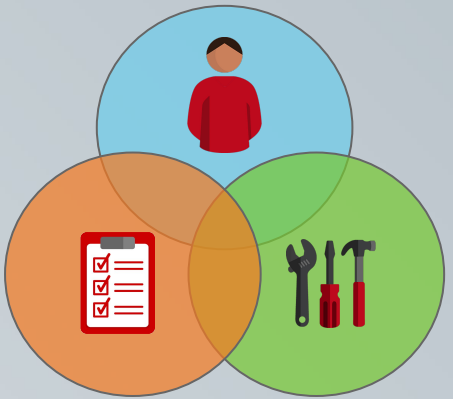
STOP THROWING WORK OVER THE WALL

OpenShift and CI/CD will allow you to ship faster
… as long as your team doesn't slow you down

A MOVE TOWARD DEVOPS

People

- Cultural paradigm shift
- Cross-training of skills
- Collaboration of teams



Process

- Agile methodologies
- Continuous feedback loops
- Appropriate error resolutions

Technology

- Automate manual process
- Standardize software versioning, patch levels, and provisioning mechanisms
- Notifications and proactive software and hardware monitoring

START A DEVOPS REVOLUTION WITH OPENSHIFT

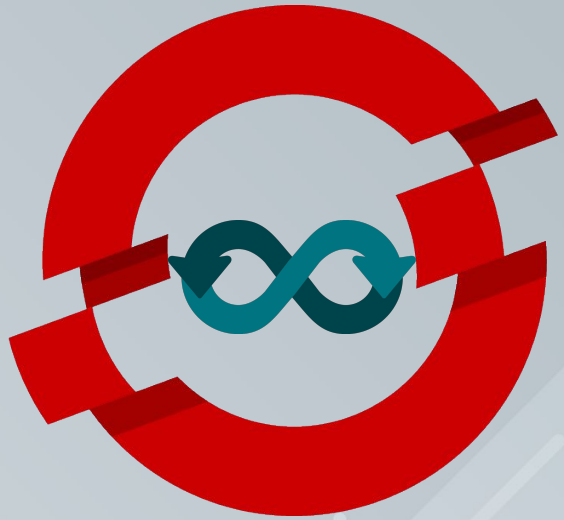
Incorporating DevOps practices with OpenShift leads to evolving existing processes and improving performance

Culture

- Break downs silos
- Achieve greater transparency

Architecture

- Rethink the composition of applications
- Better manage environment consistency



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Q & A

WANT TO LEARN MORE?

Monoliths in OpenShift: Application onboarding strategies for containers

Speakers: Ryan Goodson, Justin Goldsmith

Thursday 1:45-2:30 PM

JOIN US IN THE RED HAT CONSULTING **DISCOVERY SESSION THEATER**

LOCATED IN THE **CUSTOMER SUCCESS ZONE** IN THE **ECOSYSTEM EXPO**

DISCOVERY SESSION THEATER

TUESDAY

7:45 - 8:30 PM - **4 ways to jump start an open source & agile automation culture**

WEDNESDAY

10:15-11:00 AM - **Day-in-the-Life: Designing Software for Open Innovation Labs**

11:15-12:00 PM - **How Volkswagen used microservices & automation to develop self-service solutions**

12:15-1:00 PM - **Container adoption at scale: Metrics-driven framework and other lessons learned**

3:15-4:00 PM - **The road to RHEL 8: Best practices for optimizing your operating system**

4:15-5:00 PM - **Adoptando RHEL 8: Las mejores practicas para optimizar tu Sistema Operativo** ES

5:15-6:00 PM - **A DevOps survival guide: Small changes lead to big results**

6:15-7 PM - **Digital Nudge: How automation, machine learning, A.I., and more shape our digital decisions**

THURSDAY

10:45-11:30 AM - **OpenShift DevSecOps: Making your enterprise more secure for tomorrow, today**

11:45-12:30 PM - **To the Edge and Beyond: Network Automation for Telecommunications**

12:45-1:30 PM - **People first, digital second: Using open principles to drive transformation at Heritage Bank**

1:45-2:30 PM - **Monoliths in OpenShift: Application onboarding strategies for containers**

FEEDBACK