World Wide Technology

Application Ingress Automation with F5 in an OpenShift Environment

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Technical Solutions Architect

Agenda

OpenShift/K8s Refresher

- Overview
- The Challenges

F5 and OpenShift

- Container Ingress Services
- Architecture & How it Works

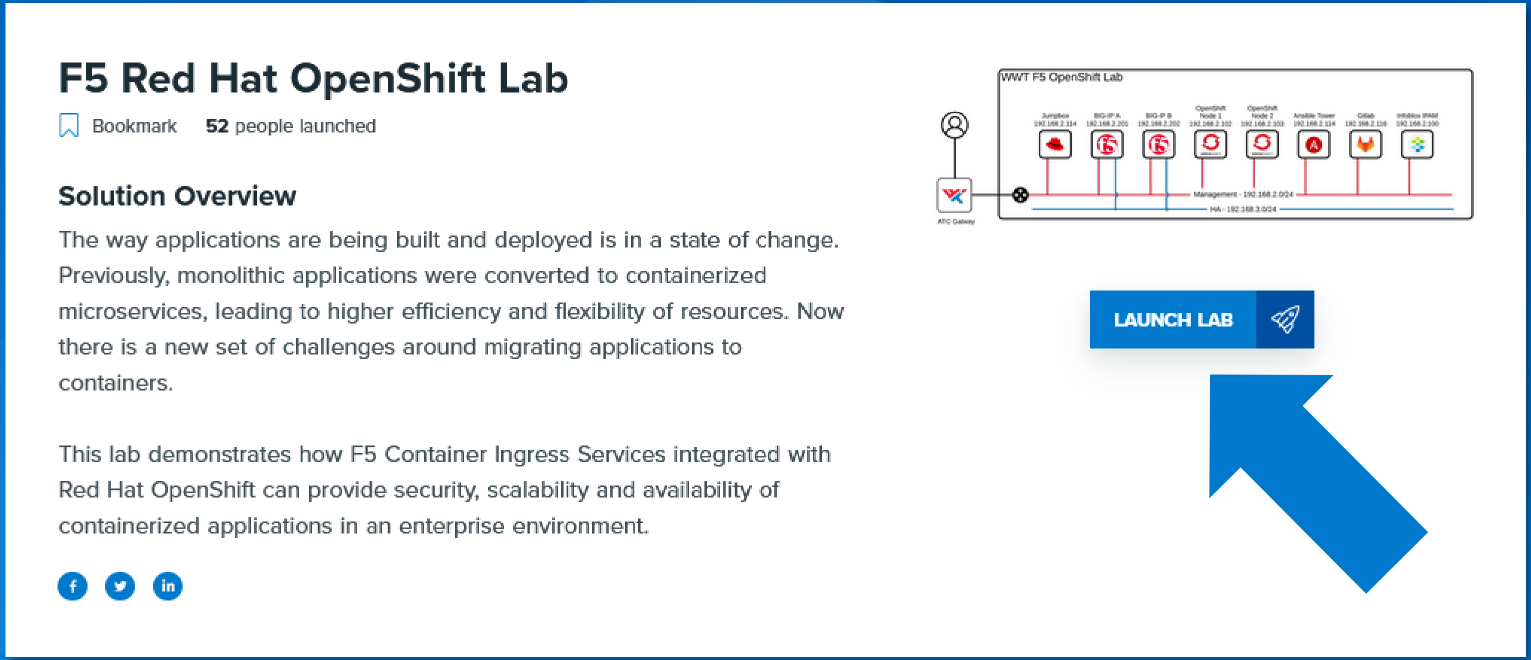
Demo

WWT Resources

Where to find us

WWT Platform & WWT ATC - https://www.wwt.com/

Explore ➡ Networking ➡ Application Delivery Controllers



F5 Red Hat OpenShift Lab

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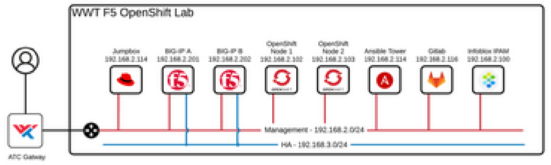
Solution Overview

The way applications are being built and deployed is in a state of change. Previously, monolithic applications were converted to containerized microservices, leading to higher efficiency and flexibility of resources. Now there is a new set of challenges around migrating applications to containers.

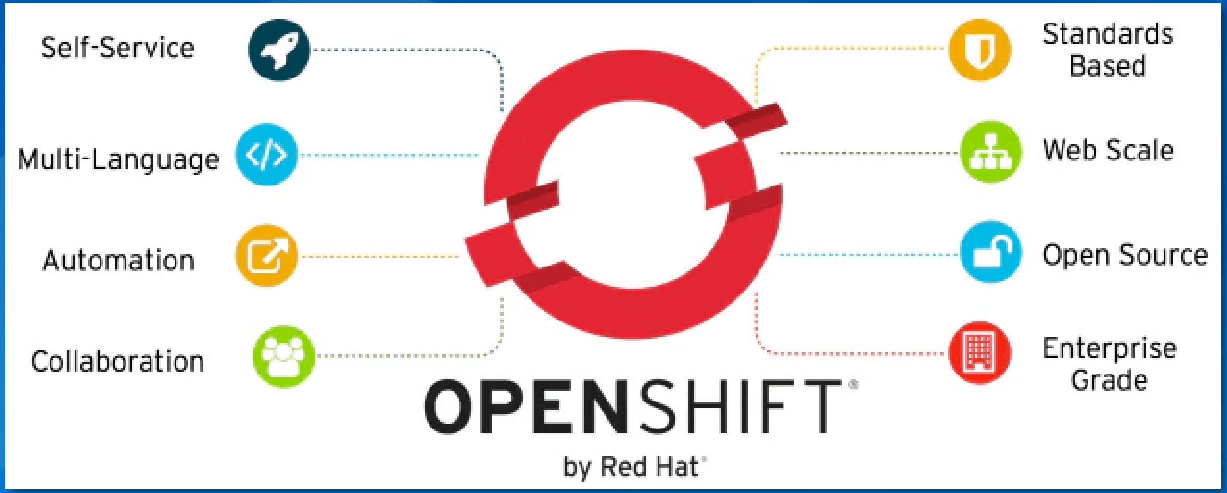
This lab demonstrates how F5 Container Ingress Services integrated with Red Hat OpenShift can provide security, scalability and availability of containerized applications in an enterprise environment.

LAUNCH LAB


WWT F5 OpenShift Lab
Jumpbox 192.168.2.114
BIG-IP A 192.168.2.201
BIG-IP B 192.168.2.202
OpenShift Node 1 192.168.2.102
OpenShift Node 2 192.168.2.103
Ansible Tower 192.168.2.114
Gitlab 192.168.2.116
Infoblox IPAM 192.168.2.100
Management - 192.168.2.0/24
HA - 192.168.3.0/24
ATC Gateway

OpenShift Refresher

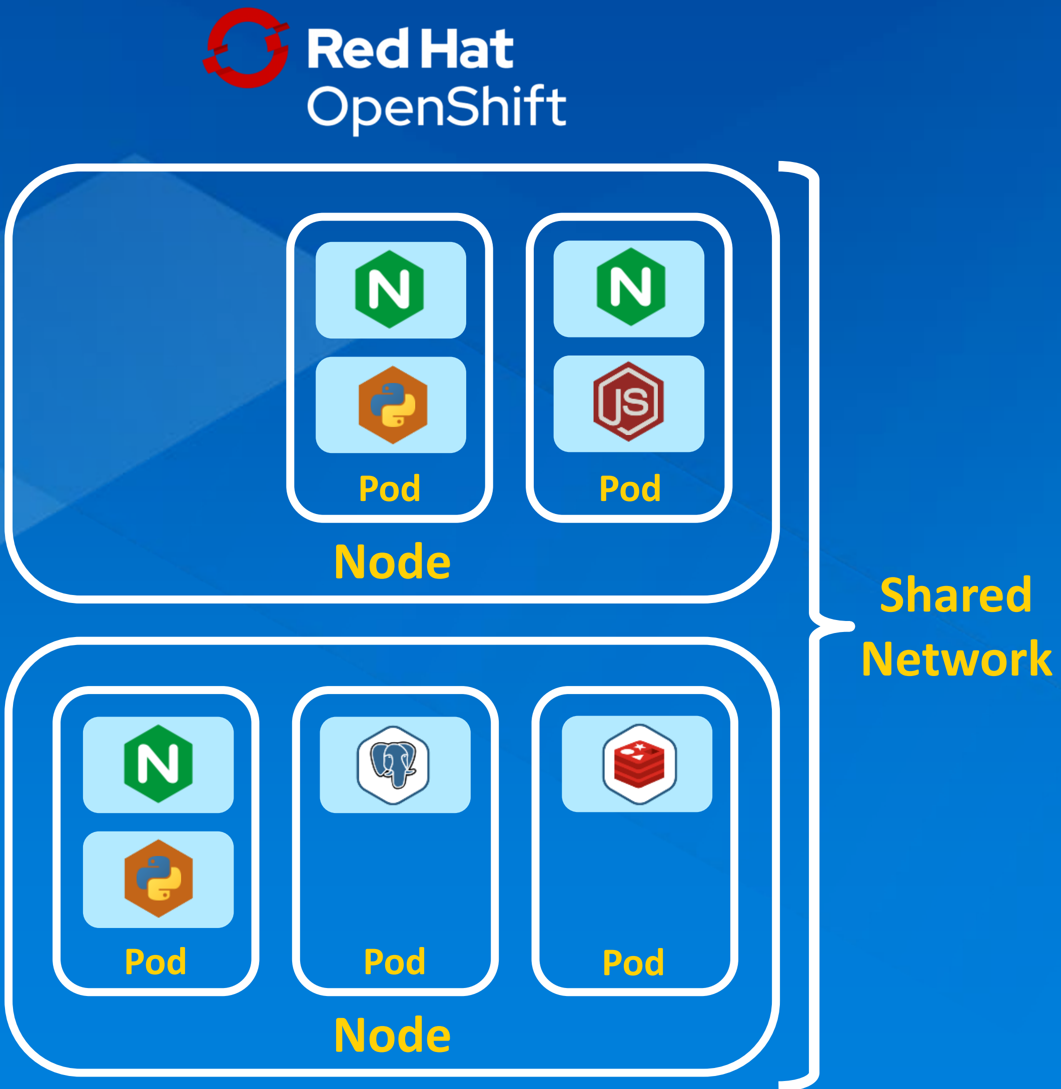
Red Hat OpenShift is an enterprise-ready Kubernetes container platform with full-stack automated operations to manage hybrid cloud and multicloud deployments.



OpenShift Refresher

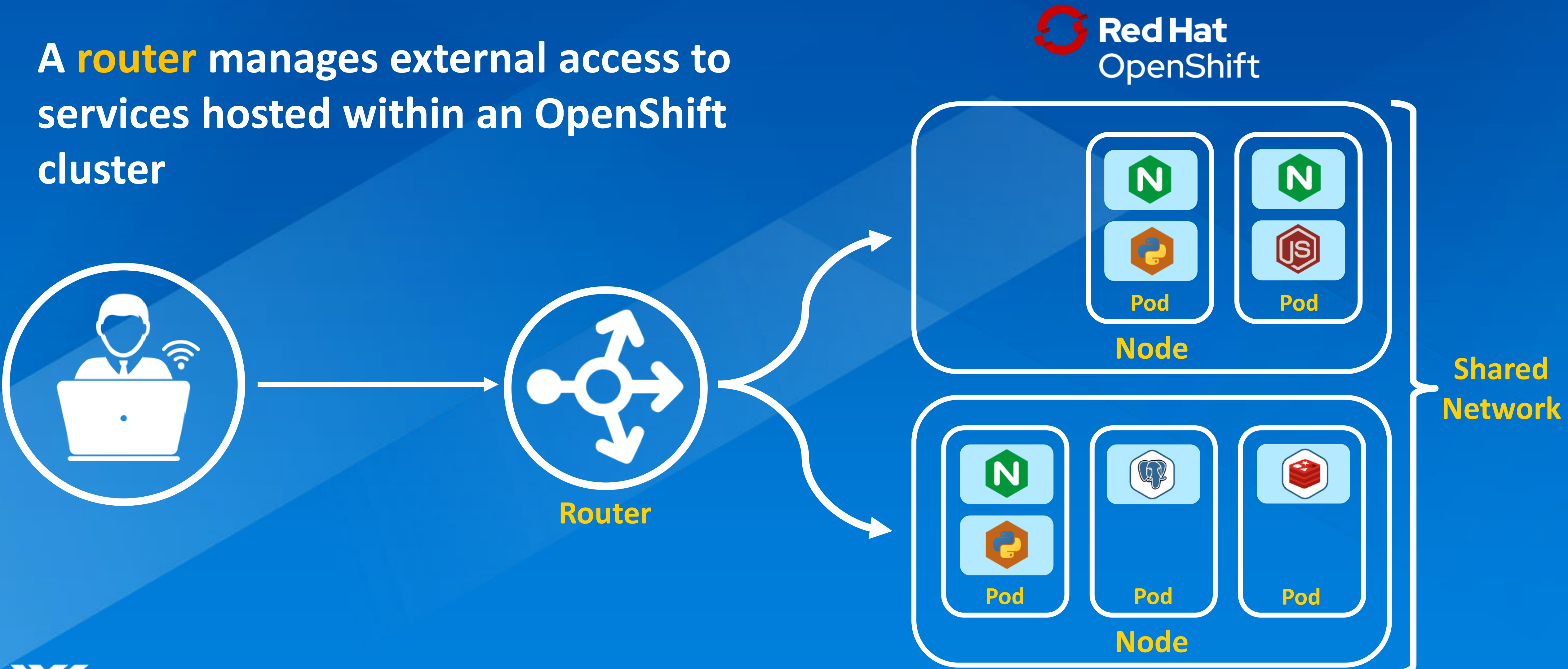
A **node** is a worker machine in Kubernetes and provides the runtime environment for containers

A **pod** is one or more closely related containers deployed to one host

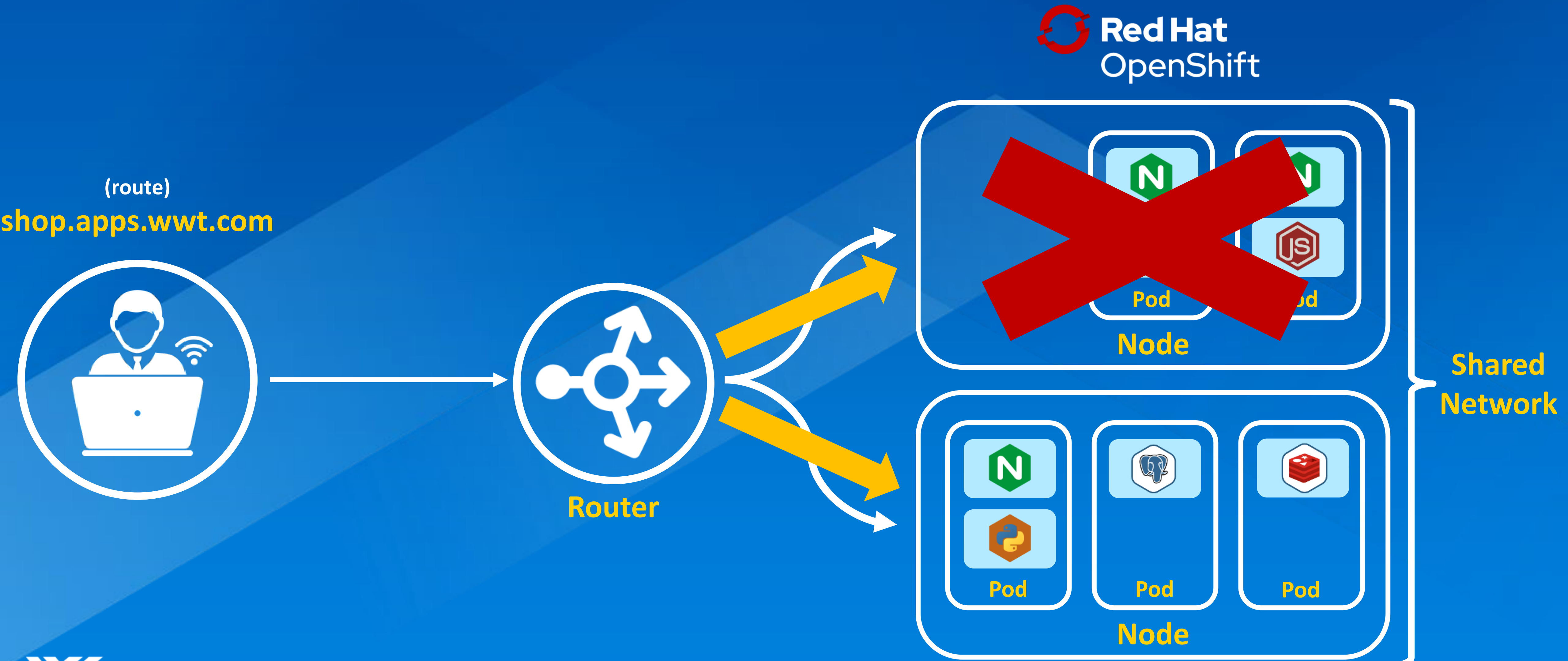


OpenShift Refresher

A **router** manages external access to services hosted within an OpenShift cluster

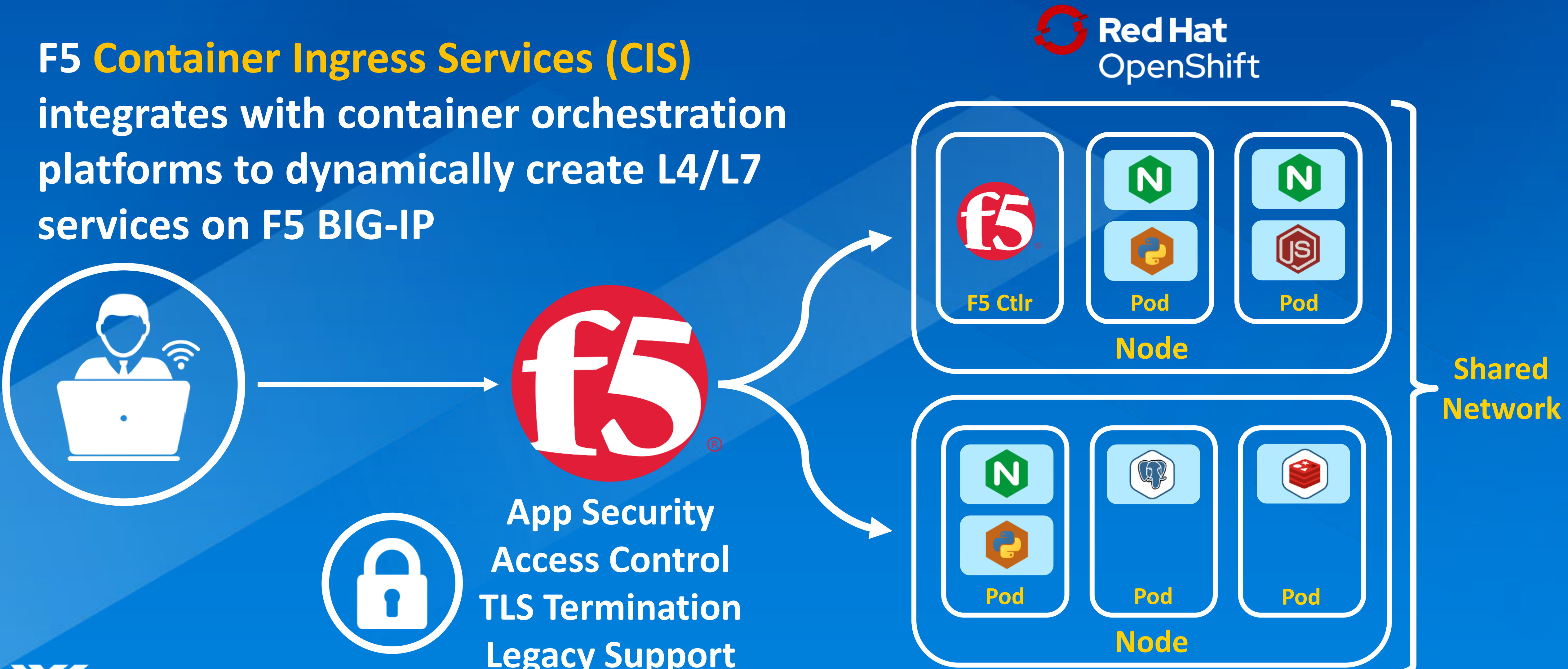


OpenShift Refresher

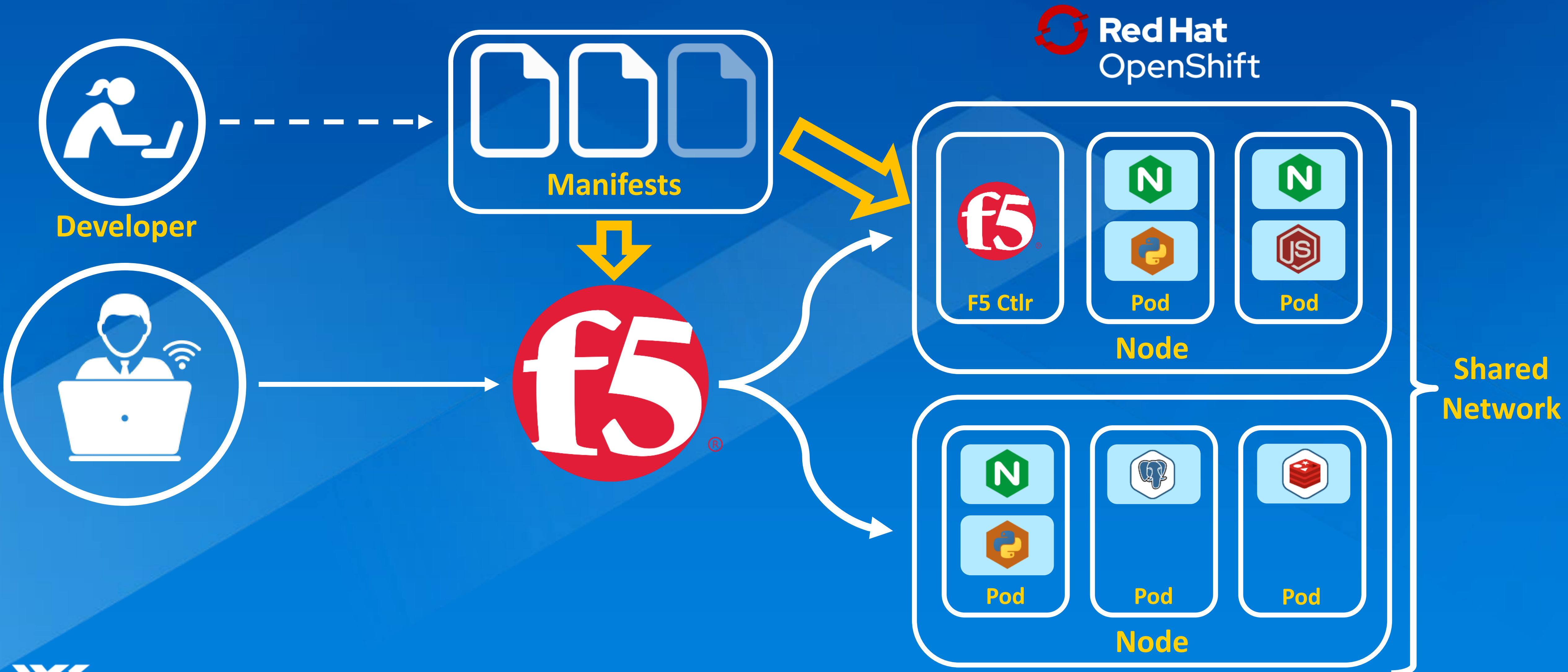


Container Ingress Services

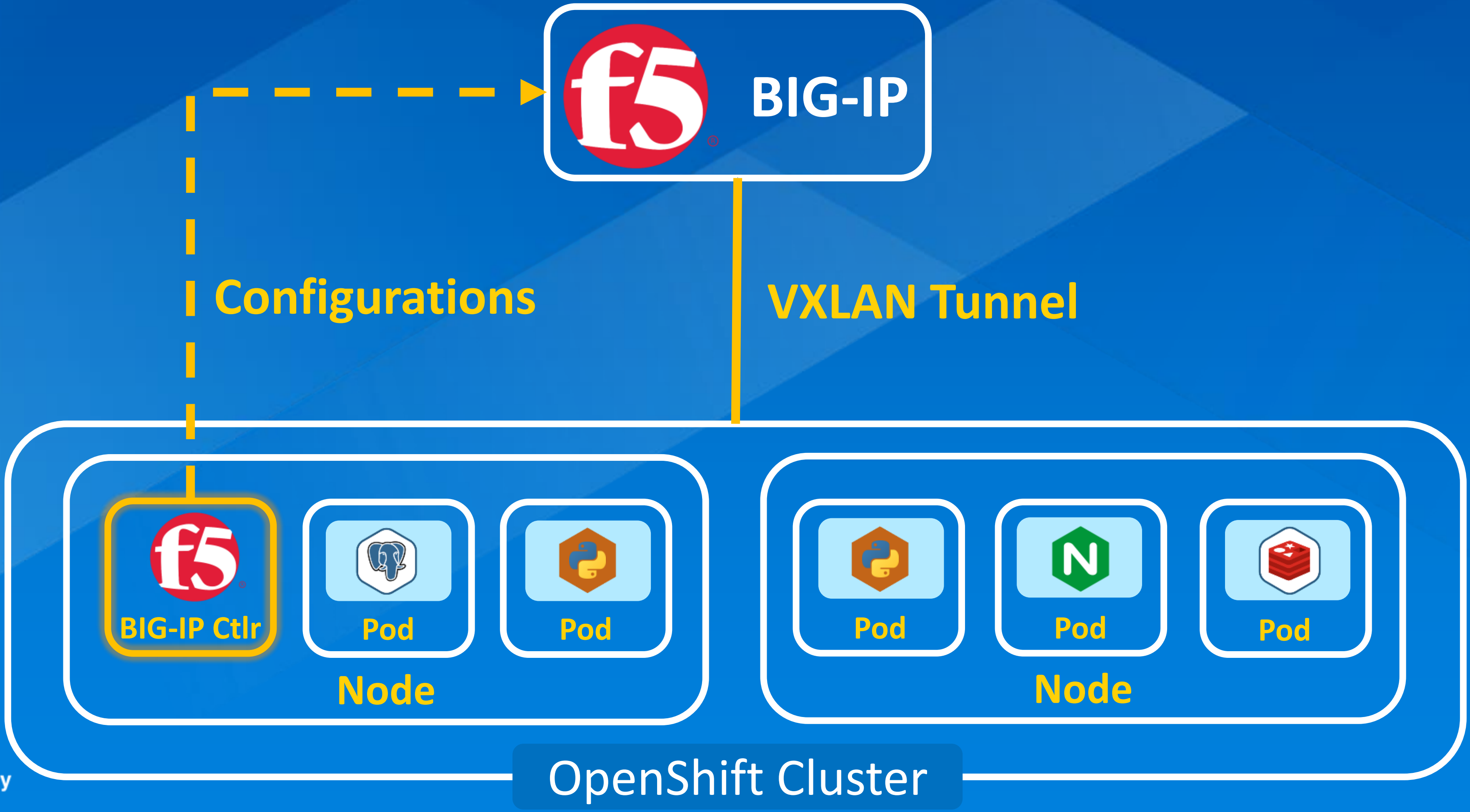
F5 Container Ingress Services (CIS) integrates with container orchestration platforms to dynamically create L4/L7 services on F5 BIG-IP



Simplified Deployments



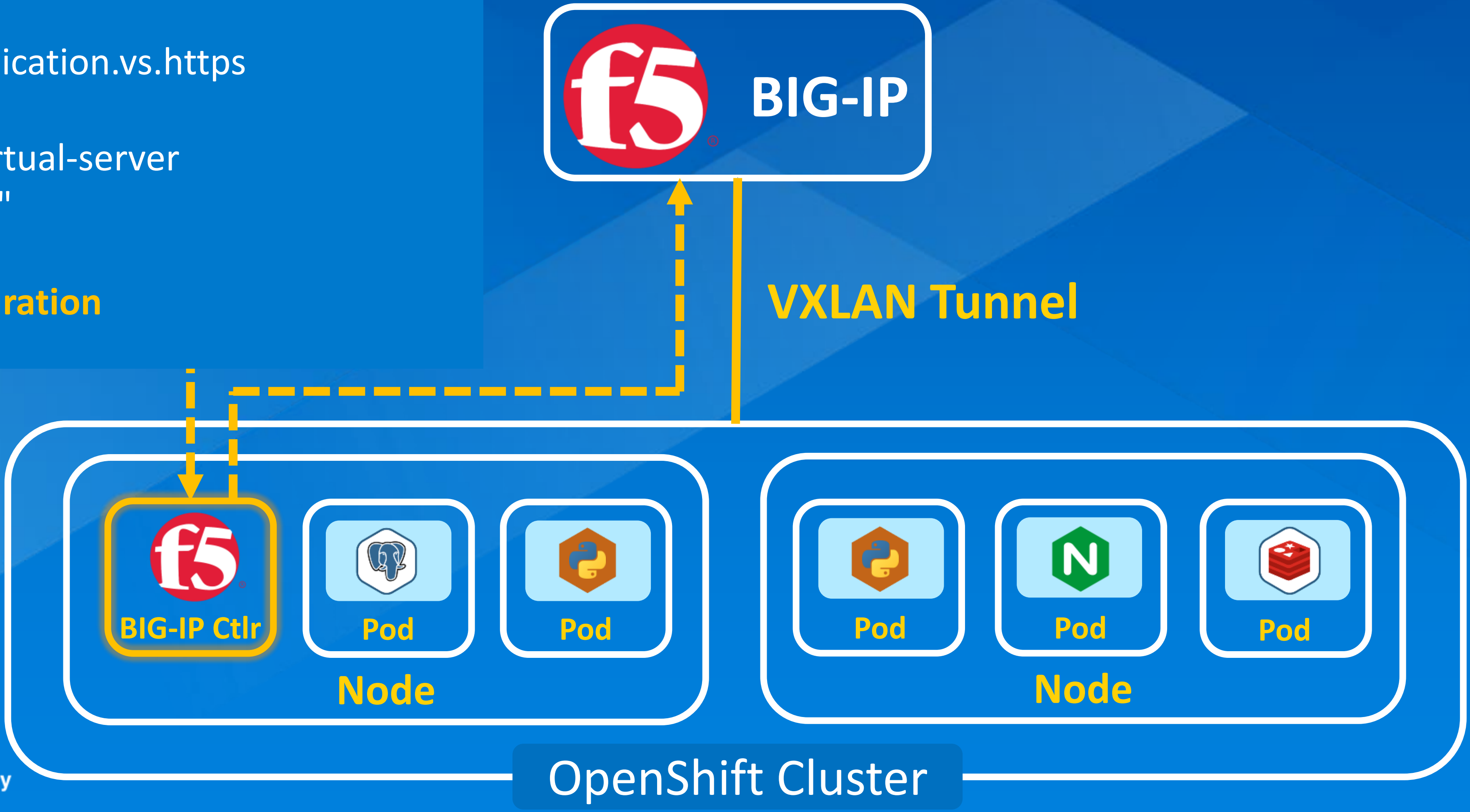
CIS Components



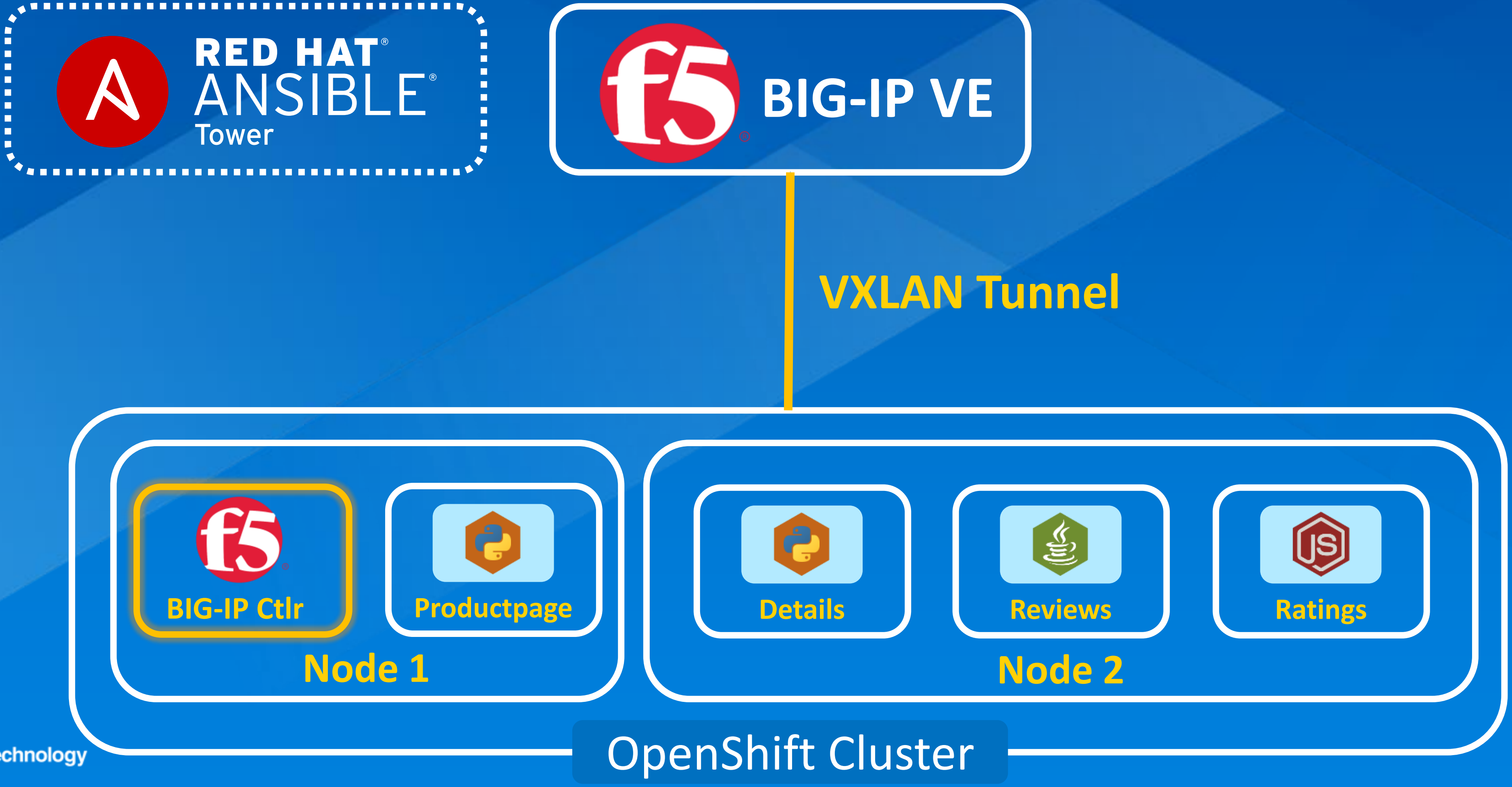
CIS Components

Configmap

```
kind: ConfigMap
apiVersion: v1
metadata:
  name: application.vs.https
  labels:
    f5type: virtual-server
    as3: "true"
data:
  F5 Configuration
```



Demo


RED HAT ANSIBLE Tower
BIG-IP VE
VXLAN Tunnel
BIG-IP Ctlr
Productpage
Node 1
Details
Reviews
Ratings
Node 2
OpenShift Cluster

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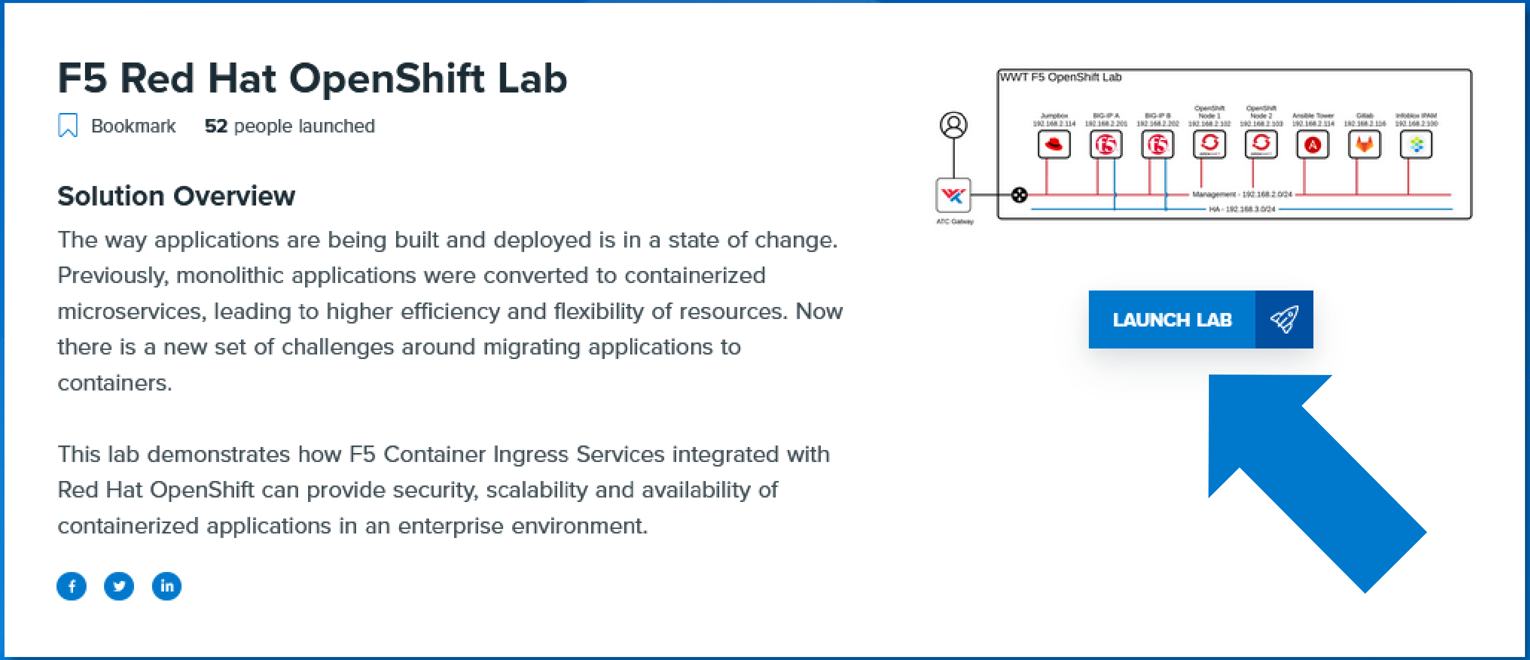

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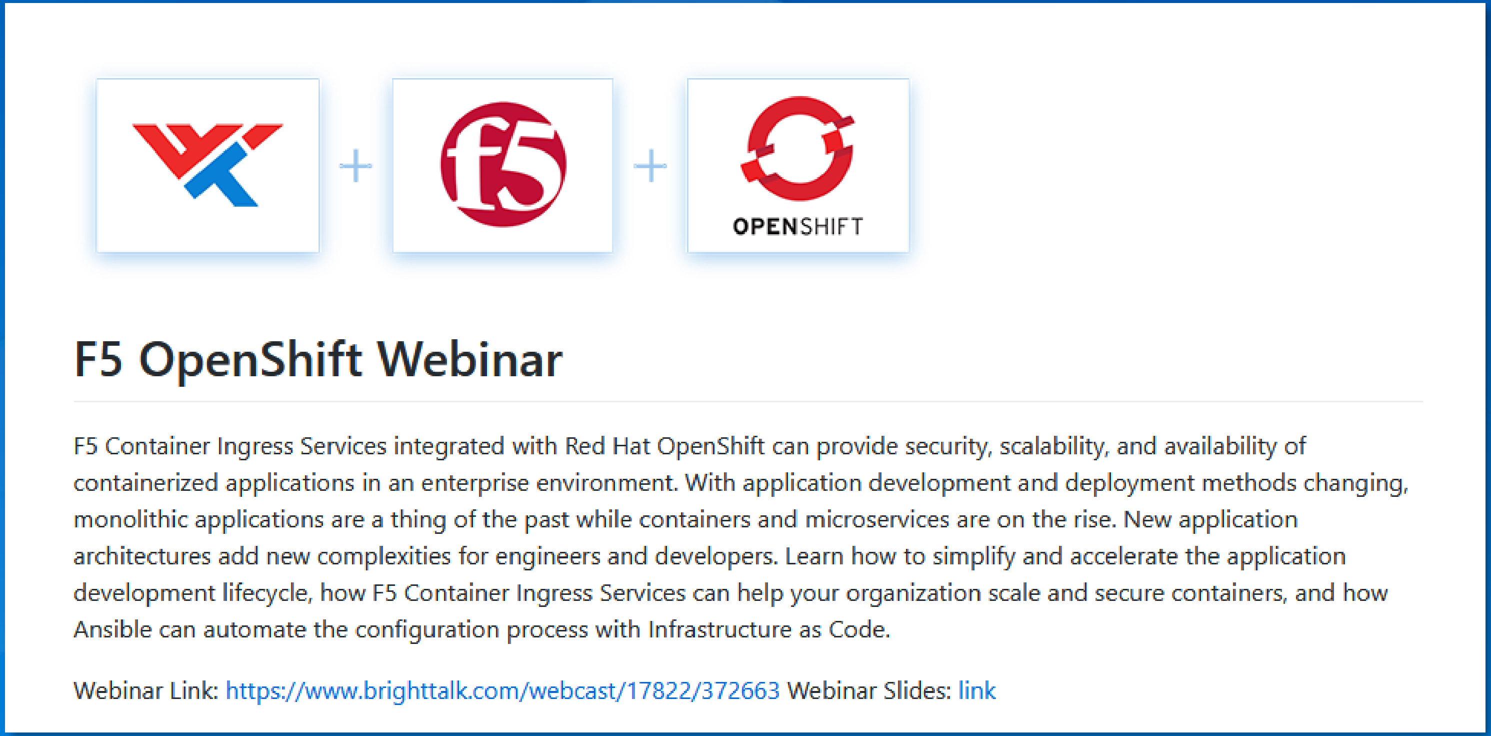
github.com/tylerhatton/f5-openshift-webinar



F5 OpenShift Webinar

F5 Container Ingress Services integrated with Red Hat OpenShift can provide security, scalability, and availability of containerized applications in an enterprise environment. With application development and deployment methods changing, monolithic applications are a thing of the past while containers and microservices are on the rise. New application architectures add new complexities for engineers and developers. Learn how to simplify and accelerate the application development lifecycle, how F5 Container Ingress Services can help your organization scale and secure containers, and how Ansible can automate the configuration process with Infrastructure as Code.

Webinar Link: https://www.brighttalk.com/webcast/17822/372663 Webinar Slides: link

Questions?

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