oc whoami

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Multi - Cloud
The Goal

- Deliver a Multi-Cloud web application architecture, using F5 BIG-IP, DNS, F5 BIG-IP Controller for OpenShift, and F5 Aspen Mesh – Istio.

- Deploy OpenShift Clusters and F5 Infrastructure with Ansible Tower running on premises, in Azure, and in AWS.
Space

Reality

Soul

Mind

Time

Power
ELIMINATE HALF OF ALL MONOLITHIC APPS

WITH A SNAP OF THE FINGERS
BIG-IP DNS
Ansible Tower
Microsoft Azure
TMSH2iApp
OpenShift Container Platform
iRulesLX
AWS

RHEL Atomic Host
On Premises Private Cloud
Multi-Cloud
BIG-IP Controller for OpenShift
iApps
Enterprise eCommerce app

Aspen Mesh - F5 Incubation of an Istio Service Mesh
Head Start
(Ansible Demo)
Applications

OpenShift
RHEL Atomic

Ansible Tower

BIG-IP VE

BIG-IP Controller for OpenShift
Ansible Playbook
Dynamic Application Services

Build
Deployed

Click

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Demo 1
Architecture
Applications & Infrastructure
Data Plane

Azure (dc-azr)
- BIG-IP LTM
- Routing Virtual IPs
- Gateway Pool Members
- OpenShift Cluster
- BIG-IP Controller
- Aspen Mesh
  - Gateway Service
  - Inventory Service
  - Cart Service

On Prem (dc-onp)
- BIG-IP LTM
- Routing Virtual IPs
- Gateway Pool Members
- OpenShift Cluster
- BIG-IP Controller
- Aspen Mesh
  - Gateway Service
  - Web UI Service
  - Catalog Service
  - Pricing Service

AWS (dc-aws)
- BIG-IP LTM
- Routing Virtual IPs
- Gateway Pool Members
- OpenShift Cluster
- BIG-IP Controller
- Aspen Mesh
Failover
(BIG-IP Ingress Demo)
Demo 2
Istio & Service Mesh
Istio

Istio Control Plane

- Jaeger
- Pilot
- Mixer
- Auth

Istio Data Plane

- Envoy
- Service
- POD

Applies security, route rules, policies and reports traffic telemetry at the pod level
Aspen Mesh
Service Mesh

Before Service Mesh

Favorites
- Python
- Flask
- OpenTracing Flask
- kingpin
- Lemur
- OpenSSL 110d

Reviews
- Node.js
- http.createServer
- Zoologist
- Express RL
- OpenSSSL 102I

Titles
- Java
- Spring
- OpenTracing
- Spring
- disco-java
- Ribbon

After Service Mesh

Favorites
- Python
- Node.js
- Flask
- http.createServer
- OpenTracing
- Spring

Reviews
- Service Mesh
- Service Mesh
- Service Mesh

Titles
- Service Mesh
- Service Mesh
- Service Mesh
Service Mesh
Native Advanced L7 Policy

User's OpenShift Cluster

A
Envoy

C
Envoy

B
Envoy

Mixer

Agent

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ASPN MESH

Hosted SaaS Platform

Visual Insights Dashboard

Logging and Tracing

Customizable alerts and events

Security and Authentication

Service and Support
Istio
(Aspen Mesh Demo)
Demo 3
Partnership
Red Hat and F5

Red Hat is the leader in providing open source software for enterprises

F5 helps customers scale, secure, and deploy apps on any private or cloud platform

Technology

Assurance
Enterprise-grade certainty.

Expertise
Experience you can trust.

Innovation
Competitive advantage.
F5 & Red Hat Partnership: Better Together

Certified OpenStack Solutions
OpenShift Integration
Upstreamed Ansible Modules

Partnering to drive customer satisfaction
Wrap Up
● Automation is table stakes
  ○ Always keep you automation lock step with your architecture and design
  ○ Write your roles to be versatile making good use of variables

● Multi-Cloud is here
  ○ Cost, failover, running services where best suited
  ○ Apps must be multi-cloud able.

● Istio based Aspen Mesh delivers consistency
  ○ Across cloud environments
  ○ Across multiple frameworks and languages
Q&A

- https://github.com/aspenmesh
- https://github.com/f5networks/k8s-bqip-ctrl
- https://github.com/f5devcentral/f5-tmsh2iapp
- http://clouddocs.f5.com/containers/v2/openshift/

F5 and Red Hat landing page: https://f5.com/redhat
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