Easily provision BIG-IP on Azure Red Hat OpenShift
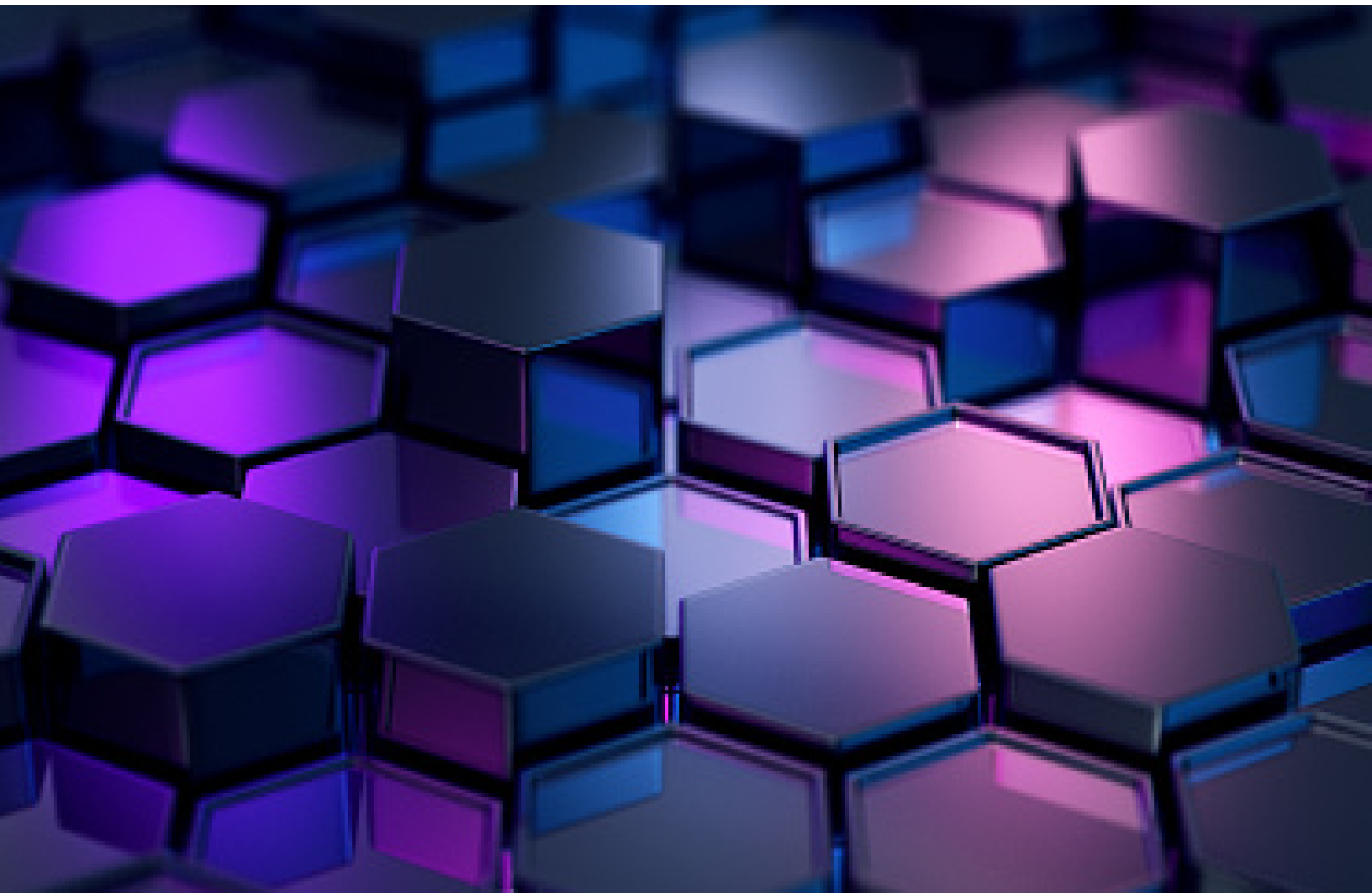
Overview

BIG-IP® Virtual Editions® (VEs) for Microsoft Azure, integrated with Microsoft Managed Red Hat OpenShift, enable you to take advantage of the elasticity of the public cloud while continuing to manage and secure critical applications the same way you do when they're hosted on premises. Whether you want to move your applications entirely to the Azure cloud, use a hybrid private-public cloud network, or deploy a multi-cloud architecture, BIG-IP VEs for Microsoft Azure can help increase efficiency, optimize performance, and bolster security. These same high levels of BIG-IP-enabled management and security can easily be extended to Red Hat OpenShift on Azure.

Red Hat OpenShift on Azure

While Red Hat OpenShift can be deployed and operated on-premises or in the cloud (public or private), for many enterprises the optimal way to take advantage of this platform is through Microsoft Azure. Azure Red Hat OpenShift is jointly engineered and jointly operated by Microsoft and Red Hat, and most important for many users, jointly supported as well. In this way, Microsoft and Red Hat accelerate the transformation to OpenShift in the cloud by removing friction around provisioning, operating, and securing OpenShift clusters.

One important way this joint solution removes friction is with a straightforward, well-documented process for deploying clusters. Infrastructure managers who follow these instructions can create a standard OpenShift deployment like the one shown here in about 35 minutes.
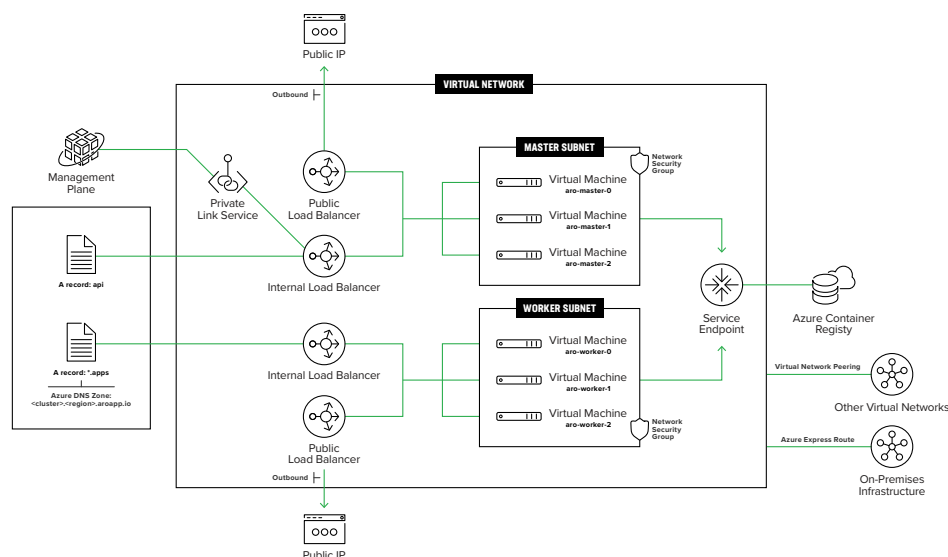

Figure 1: Azure Red Hat OpenShift with private endpoints

Jointly developed, co-engineered solution

• Maintain a single agreement with Red Hat and Microsoft, requiring no separate contract or subscription.

Smooth integration with F5 BIG-IP

• Easily deploy BIG-IP virtual editions (VE) and container ingress services (CIS)

• Count on BIG-IP capabilities (LTM, DNS, AFM, APM, ASM) to help secure your network, apps, and data and to optimize performance for Azure applications.

F5 BIG-IP SUPPORTS, SECURES, AND SCALES LARGE AZURE RED HAT OPENSHIFT DEPLOYMENTS.

BIG-IP ON AZURE RED HAT OPENSHIFT GETS IN ON THE "FRICTIONLESS" GAME

F5 and Microsoft deliver a best-of-breed joint solution for adopting Zero Trust cybersecurity across all of an organization's applications—including on-premises "classic" applications as well as enterprise applications deployed to Azure Red Hat OpenShift. F5 BIG-IP provides these services using container ingress services (CIS) to help scale applications and services across clusters and sites. In addition, F5® BIG-IP® offers advanced access and security control for the traffic going into or out of an OpenShift cluster to ensure consistent policy enforcement and end-to-end compliance in any cloud.

F5 also provides administrators the necessary tools to greatly ease configuration and management of the Azure Red Hat OpenShift deployment. Instead of using the previously mentioned guidance provided by Microsoft, F5 users can take advantage of an easy-to-use template to provision an Azure Red Hat OpenShift cluster while simultaneously configuring BIG-IP to provide advanced application delivery and security capabilities. This entire process can be accomplished in about 35 minutes and leaves the user with a deployment like the one shown here.
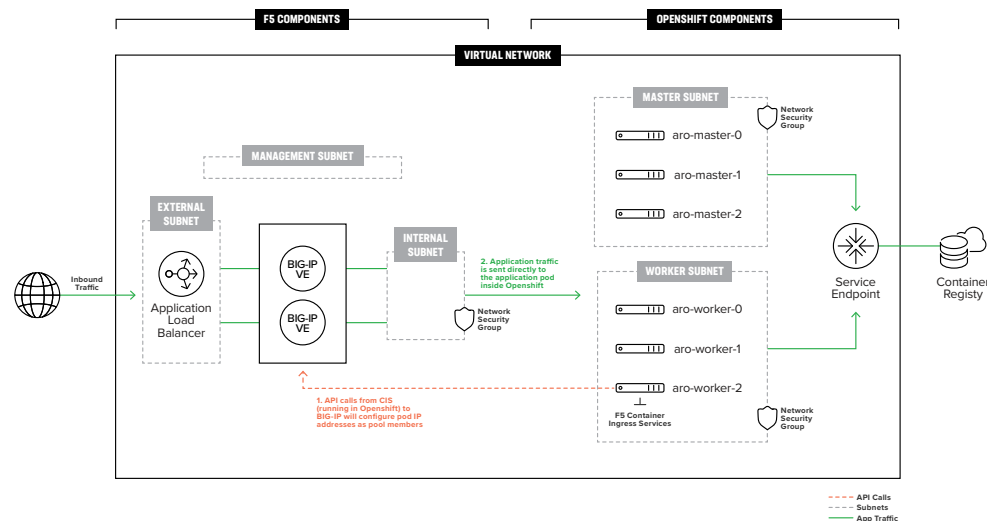

Figure 2: Azure Red Hat OpenShift with F5 BIG-IP VEs and CIS

Deployment can be accomplished in six simple steps, using a template and step-by-step guidance provided by F5:

1. Add three subnets for the F5 BIG-IP virtual machine (VM)

2. Deploy F5 VMs into those subnets using this ARM template

3. Add BIG-IP to the OpenShift network following these instructions

4. Install CIS in OpenShift following these instructions

5. Deploy an app into OpenShift

   • Include a Route resource that is detected by CIS (or configmap, ingress, etc.)

   • CIS then populates the app's pod IP addresses as pool members in BIG-IP

6. Create a DNS record so your app is accessible via BIG-IP

Learn more

• Introducing Azure Red Hat OpenShift on OpenShift 4

• F5 BIG-IP VE in Azure Marketplace