

Creating a Kubernetes Cluster with Jenkins X and Importing App

This lesson provides the link to gists that you can use to create a Kubernetes cluster with Jenkins X and also lists the instructions for importing the application.

We'll cover the following

- Create a new cluster and install Jenkins X
 - GKE
 - EKS
 - AKS
- Install Jenkins X in an existing serverless cluster
- Importing the application

If you kept the cluster from the previous chapter, you could skip this section only if you were doubting my choice of VM sizes and make the nodes bigger than what I suggested. Otherwise, we'll need to create a new Jenkins X cluster.

Create a new cluster and install Jenkins X

We've been using the same cluster specifications for a while now. No matter the hosting vendor you chose in the past, if you created the cluster using my instructions, it is based on nodes with, at most two available CPUs. We'll need more. Even if your cluster is set to autoscale, increasing the number of nodes will not help since one of the Istio components we'll use requires at least two CPUs. Remember, even if you do have nodes with two CPUs, some computing power is reserved for system-level processes or Kubernetes daemons, so a two CPU node does not result in two CPUs being available.

We'll need to create a cluster with bigger nodes. The gists listed below will do just that. Those related to AKS, EKS, and GKE now have nodes with four CPUs. If you are using your own cluster hosted somewhere else, the Gists are the same, and I will assume that the nodes have more than two available CPUs.

On top of all that, if you are using GKE, the gist now contains the command that installs **Gloo** which we explored in the previous chapter, and it sets the team deployment type to **knative**.



All the commands from this chapter are available in the [17-progressive-delivery.sh](#) Gist.

The new gists are as follows.

GKE

Create a new serverless **GKE** cluster with Gloo: [gke-jx-serverless-gloo.sh](#)



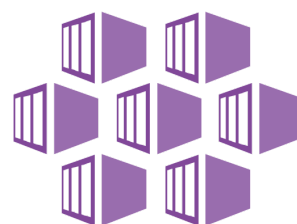
EKS

Create a new serverless **EKS** cluster: [eks-jx-serverless.sh](#)



AKS

Create a new serverless **AKS** cluster: [aks-jx-serverless.sh](#)



Install Jenkins X in an existing serverless cluster

Use the [jx-install](#) command to install Jenkins X in an existing serverless cluster.

Use an **existing** serverless cluster: [install-serverless.sh](#)

Importing the application

Now that we have a cluster with Jenkins X, we'll create a sample application.

```
jx create quickstart \  
  --filter golang-http \  
  --project-name jx-progressive \  
  --batch-mode
```



Now we can start exploring deployment strategies in the next lesson, serverless being the first in line.