

Administering Azure Kubernetes Service (AKS) Clusters

Integrating Cisco Container Platform with Azure Kubernetes Service (AKS) allows you to deploy and run containerized applications on the Azure cloud.

This chapter contains the following topics:

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Prerequisites for Configuring AKS Clusters

The prerequisites for configuring AKS clusters are as follows:

Azure User Account Requirements

The following roles are necessary for your Azure user account that you want to use with Cisco Container Platform:

- An **App administrator** within the directory
- An **Owner** within the Azure subscription

You can contact your Azure administrator to set up these roles for your Azure account.

Creating Resource Groups

A resource group is a logical grouping of the resources that are required to deploy Cisco Container Platform on Azure. They allow you to manage your resources efficiently.

- **Step 1** Log in to the Microsoft Azure portal.
- **Step 2** From the left navigation pane, click **All services** > **Resource groups**.
 - The **Resource groups** pane is displayed.
- **Step 3** Click **Add** to create a new resource group.

- **Step 4** In the Create an empty resource group pane, specify the following information:
 - a) In the **Resource Group name** field, enter a unique name.
 - b) From the **Subscription** drop-down list, choose a subscription type.
 - c) From the **Resource group location** drop-down list, choose the region in which you want to create your AKS cluster.

Note Not all regions support AKS. Ensure that you select a supported region. Currently, Cisco Container Platform supports only the **eastus** and **westus** regions.

For more information on a resource group, refer to Resource Group Overview.

Creating AKS Clusters

Before you begin

• Ensure that you have added your Azure provider profile.

For more information, see Adding Azure Provider Profile.

- Ensure that your Azure account that is used with Cisco Container Platform has the necessary roles.
 - For more information, see Azure User Account Requirements, on page 1.
- Ensure that you have created the necessary resource groups in your Azure account.

For more information, see Creating Resource Groups, on page 1.

- **Step 1** From the left pane, click **Clusters**, and then click the **Azure** tab.
- Step 2 Click NEW CLUSTER.
- **Step 3** In the **Basic Information** screen, specify the following information:
 - a) From the INFRASTUCTURE PROVIDER drop-down list, choose the provider related to the appropriate Azure account.
 - b) From the AZURE REGION drop-down list, choose an appropriate AKS region.
 - **Note** Not all regions support AKS. Ensure that you select a supported region. Currently, Cisco Container Platform supports only the **eastus** and **westus** regions.
 - c) In the KUBERNETES CLUSTER NAME field, enter a name for your cluster.
 - d) In the **KUBERNETES VERSION** field, choose the kubernetes version for your cluster.
 - **Note** Not all Kubernetes versions are supported in all Azure regions. Ensure that you select an available Kubernetes version.
 - e) Click NEXT.
- **Step 4** In the Cluster settings screen, specify the following information:
 - a) In the **NODE POOL NAME** field, enter an alphanumeric name for the primary node pool of your cluster.
 - b) In the RESOURCE GROUP NAME field, enter the name of the resource group that you have created in your Azure account.

For more information on creating a resource group, see Creating Resource Groups, on page 1.

- c) Click NEXT.
- **Step 5** In the **Node Configuration** screen, specify the following information:
 - a) From the **WORKER INSTANCE TYPE** drop-down list, choose an instance type for your cluster.
 - b) In the WORKER COUNT field, enter an appropriate number of worker nodes.
 - c) In the **POD CIDR** field, enter the desired CIDR value.
 - **Note** This is an optional field. So you can leave the field empty or leave the default as is.
 - d) In the **SERVICE CIDR** field, enter the desired CIDR value.
 - **Note** This is an optional field. So you can leave the field empty or leave the default as is.
 - e) Click NEXT.
- **Step 6** In the **Summary** screen, review the cluster information, and then click **FINISH**.

Cluster creation can take up to 20 minutes. You can monitor cluster creation status on the Clusters screen.

Deleting AKS Clusters

Before you begin

Ensure that the AKS cluster that you want to delete is not currently in use, as deleting a cluster removes the containers and data associated with it.

- **Step 1** From the left pane, click **Clusters**, and then click the **Azure** tab.
- **Step 2** From the drop-down list displayed under the **ACTIONS** column, choose **Delete** for the cluster that you want to delete.
- **Step 3** Click **DELETE** in the confirmation dialog box.

Upon deleting an AKS cluster, it takes about 15 minutes for the cluster resources to be released.

Deleting AKS Clusters