

Microsoft Azure Administrator: Create and Configure Containers

CREATE AND CONFIGURE AZURE CONTAINERS



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Course Coverage of Certification Objectives



Create and Configure Azure Containers

- Configure sizing and scaling for Azure Container Instances
- Configure container groups for Azure Container Instances

Create and Configure Azure Kubernetes Service

- Configure storage for AKS
- Configure scaling for AKS
- Configure network connections for AKS
- Upgrade an AKS cluster



Exercise Files

Slides

Code

Links to Resources

Securing Microsoft Azure Networks
by Michael Teske

This course provides a fundamental understanding of Azure network security services, resources, and features to help you better secure your Azure environment. Along the way, you'll learn Microsoft's best practices and their role in your journey.

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Table of contents | Description | Transcript | **Exercise files** | Discussion | Learning Check | Recommended

These exercise files are intended to provide you with the assets you need to create a video-based hands-on experience. With the exercise files, you can follow along with the author and re-create the same solution on your computer. We find this to be even more effective than written lab exercises.

[Download exercise files](#)

Course author
 Michael Teske
Michael Teske is an Author Evangelist with Pluralsight helping people build their skills toolkit. Michael has 20+ years of experience in the IT Ops industry including 17 of those years as an IT...

Course info

Level	Beginner
Rating	★★★★★
My rating	★★★★★
Duration	1h 30m
Released	28 May 2019

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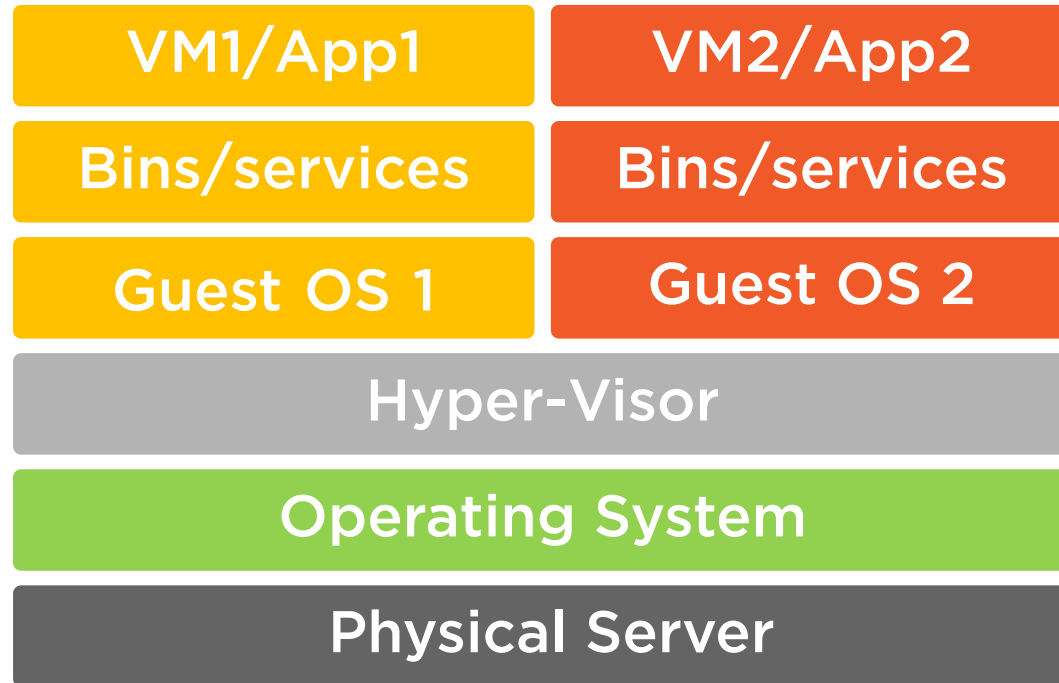


Azure Container Instances

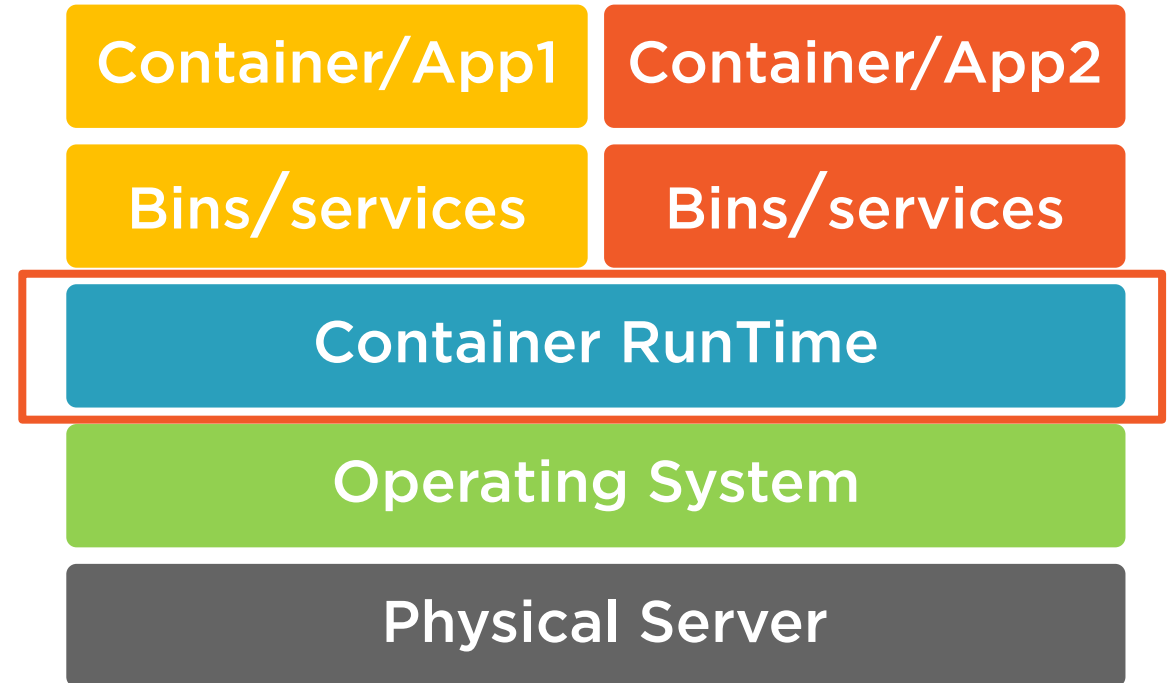


What is a Container?

Virtual Machines



Containers



Benefits of Container Instances



Faster startup



Custom sizes



Per second billing



Persistent storage



Security through isolation



Linux and Windows



Core Concepts



Azure Container Instances allows you to run multiple containers without managing servers



Image source is the source from which the image is pulled. Can create and upload custom images to your registry



Registries are the location of images, can be Azure Container Registry, Docker Hub, or other container registry



Restart policies include *always*, *on failure* and *never*



Creating Azure Container Instances



Creating Azure Container Instances

[Dashboard](#) > [Container instances](#) >

Create container instance

[Basics](#) [Networking](#) [Advanced](#) [Tags](#) [Review + create](#)

Azure Container Instances (ACI) allows you to quickly and easily run containers on Azure without managing servers or having to learn new tools. ACI offers per-second billing to minimize the cost of running containers on the cloud.
[Learn more about Azure Container Instances](#)

Project details

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription * ⓘ

Resource group * ⓘ [Create new](#)

Container details

Container name * ⓘ ✓

Region * ⓘ

Image source * ⓘ ☒ Quickstart images
☐ Azure Container Registry
☐ Docker Hub or other registry

Image * ⓘ

Size * ⓘ [Change size](#)

[Review + create](#) [< Previous](#) [Next : Networking >](#)



Creating Azure Container Instances

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Subscription * ⓘ

ps-course-development

Resource group * ⓘ

ps-course-rg

[Create new](#)

Container details

Container name * ⓘ

demo-container ✓

Region * ⓘ

(US) Central US

Image source * ⓘ

☒ Quickstart images
☐ Azure Container Registry
☐ Docker Hub or other registry

Image * ⓘ

microsoft/aci-helloworld (Linux)

Size * ⓘ

1 vcpu, 1.5 GiB memory, 0 gpus
[Change size](#)

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Creating Azure Container Instances

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Create container instance

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Choose between three networking options for your container instance:

- **'Public'** will create a public IP address for your container instance.
- **'Private'** will allow you to choose a new or existing virtual network for your container instance. This is not yet available for Windows containers.
- **'None'** will not create either a public IP or virtual network. You will still be able to access your container logs using the command line.

Networking type ☒ Public ☐ Private ☐ None

DNS name label ⓘ .centralus.azurecontainer.io

Ports ⓘ

Ports	Ports protocol	
80	TCP	🗑️
<input type="text"/>	<input type="text" value="⌵"/>	

[Review + create](#) [< Previous](#) [Next : Advanced >](#)



Creating Azure Container Instances

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Create container instance

Basics Networking **Advanced** Tags Review + create

Configure additional container properties and variables.

Restart policy ⓘ On failure ▼

Environment variables

Key	Value
<input type="text"/>	<input type="text"/>

Command override ⓘ

Example: ["/bin/bash", "-c", "echo hello; sleep 100000"]

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```
# Create a resource group
```

```
az group create --name ps-course-rg --location centralus
```

```
# Create and deploy container
```

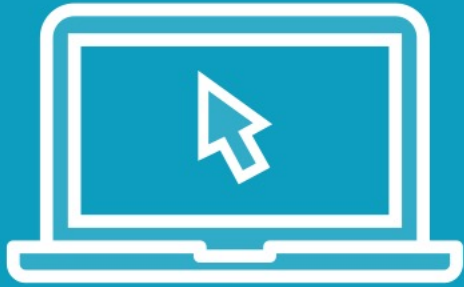
```
az container create --resource-group ps-course-rg --name mycontainer \  
--image mcr.microsoft.com/azuredocs/aci-helloworld --dns-name-label az104-demo \  
--ports 80 --restart-policy Always
```

Creating an Azure Container Instance

Azure CLI



Demo



Create Azure Container Instance



Azure Container Groups



Azure Container Groups



Collection of containers on the same host

Currently supports only Linux container instances

Deployment options:

- Resource Manger template
- YAML file



Azure Container Groups



Update containers in a group by redeploying the group

Modified properties that requires container deletion:

- OS type
- CPU, memory or GPU
- Restart policy
- Network profile



Deploying Container Group with ARM Template

```
# Create a resource group
```

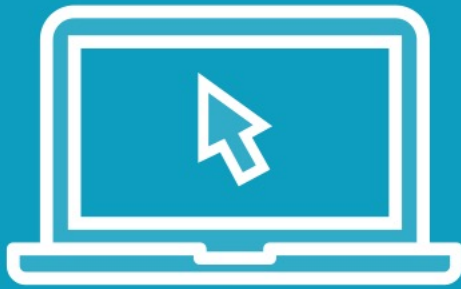
```
az group create --name container-rg --location centralus
```

```
# Create and deploy Azure Container group from template
```

```
az deployment group create --resource-group container-rg --template-file azuredeploy.json
```



Demo



Deploy a container group



Up Next: Create and Configure Azure Kubernetes Service

