Enterprise Computing Solutions - Education Services

TRAINING OFFERING

You can reach us at:

Arrow ECS, Nidderdale House, Beckwith Knowle, Harrogate, HG3 1SA

Email: educationteam.ecs.uk@arrow.com
Phone: 0870 251 1000

VMware vSphere with Tanzu: Deploy and Manage [V7]

CODE:	LENGTH:	PRICE:
VMW_VSKDM7	24 Hours (3 days)	£2,110.00

Description

During this 3-day course, you focus on deploying and managing VMware vSphere® with Tanzu. You learn about how vSphere with Tanzu can be used to orchestrate the delivery of Kubernetes clusters and containerized applications in a vSphere environment.

Objectives

By the end of the course, you should be able to meet the following objectives:

- • Describe vSphere with Tanzu and use cases in on-premises environments
- • Deploy vSphere with Tanzu
- • Describe VMware Tanzu Mission Control
- • Describe the VMware NSX® networking requirements for vSphere with Tanzu.
- • Describe vSphere with Tanzu on NSX-T Data Center
- • Describe vSphere with Tanzu on vSphere Distributed Switch
- • Create and manage vSphere with Tanzu namespaces
- • Deploy and run container applications on vSphere with Tanzu
- • Deploy and configure Harbor
- • Describe the VMware Tanzu™ Kubernetes Grid™ service
- • Deploy a Tanzu Kubernetes Grid cluster
- • Deploy and run container applications on a Tanzu Kubernetes Grid cluster
- • Describe the vSphere with Tanzu lifecycle
- • Use logs and CLI commands to monitor and troubleshoot vSphere with Tanzu

Audience

Experienced system administrators and system integrators responsible for designing and implementing vSphere with Tanzu

Prerequisites

This course requires completion of the following courses:

- • VMware vSphere: Install, Configure, Manage OR VMware vSphere: Optimize and Scale

AND

- • VMware NSX-T Data Center: Install, Configure, Manage

Experience working at the command line is helpful.
This course requires that a student be able to perform the following tasks with no assistance or guidance before enrolling in this course:

- • Create VMware vCenter Server

® objects, such as data centers and folders
- • Create a virtual machine using a wizard or a template
- • Modify a virtual
machine’s hardware
- • Migrate a virtual machine with VMware vSphere
® vMotion®

- • Migrate a virtual machine with VMware vSphere Storage vMotion
- • Configure and manage a vSphere DRS cluster with resource pools
- • Configure and manage a VMware vSphere

® High Availability cluster

If you cannot perform all of these tasks, VMware recommends that you complete one of the prerequisite courses before enrolling in VMware vSphere with Tanzu: Deploy & Manage.

Programme

1 Course Introduction

- • Introductions and course logistics
- • Course objectives

2 Introduction to Containers and Kubernetes

- • Describe virtual machines and containers
- • Describe container hosts
- • Describe container engines
- • Describe Dockerfile
- • Describe container images
- • Describe image registry
- • Describe the purpose and functionality of Kubernetes
- • Describe YAML manifest files
- • Explain pods
- • Explain Replica Sets
- • Explain services
- • Explain deployments
- • Explain network policies

3 Introduction to vSphere with Tanzu

- • Introduce the Cloud Native Computing Foundation
- • Introduce the VMware Tanzu

™ portfolio

- • Describe the purpose and functionality of vSphere with Tanzu
- • Describe the capabilities of vSphere with Tanzu
- • Describe the components of vSphere with Tanzu
- • Contrast vSphere with Tanzu to traditional Kubernetes
- • Describe the requirements for vSphere with Tanzu
- • Describe the NSX components required for vSphere with Tanzu
- • Describe the network topology of vSphere with Tanzu
- • Explain the networking requirements of vSphere with Tanzu
- • Compare NSX networking objects with Kubernetes networking objects
- • Describe the kubectl command line interface

4 vSphere with Tanzu Core Services

- • Explain the architecture of the vSphere with Tanzu core services
- • Describe the use cases of vSphere with Tanzu
- • Enable vSphere with Tanzu
- • Deploy Harbor Registry
- • Describe a vSphere with Tanzu namespace
- • Describe resource quotas
- • Explain authentication and authorization to vSphere with Tanzu
- • Create a namespace
- • Use kubectl to interact with vSphere with Tanzu
- • Describe using kubectl pod deployment
- • Explain scaling a pod deployment
- • Explain deleting pods
- • Use kubectl to deploy a pod
- • Use kubectl to scale a pod
- • Describe a Container Storage Interface
- • Explain VM Storage Policies and Persistent Volumes
- • Monitor Cloud Native Storage
- • Create a Persistent Volume
- • Describe the NSX Container Plugin
- • Explain Supervisor Cluster Network Topology
- • Explain Container Objects in NSX

- • Describe Kubernetes Services
- • Describe Kubernetes Network Policies
- • Describe vSphere with Tanzu on vSphere Distributed Switch
- • Describe Harbor Image Registry
- • Explain Harbor integration with vSphere with Tanzu
- • Enable Harbor
- • Push container images to Harbor
- • Deploy containers from Harbor

5 VMware Tanzu Kubernetes Grid service

- • Introduce Kubernetes Cluster API
- • Explain Tanzu Kubernetes Grid service
- • Describe the use cases for Tanzu Kubernetes Grid clusters
- • Describe enabling Tanzu Kubernetes Clusters
- • Deploy a Tanzu Kubernetes Cluster
- • Scale a Tanzu Kubernetes Cluster
- • Explain the life cycle of Tanzu Kubernetes Clusters

- • Deploy pods to a Tanzu Kubernetes Cluster
- •
  Describe monitoring of Tanzu Kubernetes Clusters

6 Monitoring and Troubleshooting

- • Describe the monitoring tools for vSphere with Tanzu
- • Describe the troubleshooting tools for vSphere with Tanzu
- • Describe VMware vRealize

® Operations Manager™ integration
- • Describe VMware Tanzu Mission Control
- • Describe the integration between vSphere with Tanzu and VMware Tanzu Mission Control
- • Describe vCenter Server events
- • Describe vSphere with Tanzu events
- • Describe gathering vSphere with Tanzu support log bundles

7 vSphere with Tanzu Life Cycle

- • Introduce Kubernetes version
- • Explain Kubernetes release cadence
- • Describe vSphere with Tanzu life cycle
- • Describe NSX component life cycle
- • Describe vSphere with Tanzu Certificate Management

Session Dates

On request. Please Contact Us

Additional Information

This training is also available as onsite training. Please contact us to find out more.