Enterprise Computing Solutions - Education Services

# TRAINING OFFERING

**Du kan nå oss her**

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# VMware vSphere with Tanzu: Deploy and Manage [V7]

| CODE: | LENGTH: | PRICE: |
|---|---|---|
| VMW_VSKDM7 | 24 Hours (3 days) | kr27,000.00 |

## 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

Ved forespørsel. Vennligst kontakt oss

## Tilleggsinformasjon

Denne treningen er også tilgjengelig som trening på stedet. Kontakt oss for å finne ut mer.