Enterprise Computing Solutions - Education Services

TRAINING OFFERING

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VMware vSphere with Tanzu: Deploy, Configure, Manage [V8.0]

CODE:	LENGTH:	PRICE:
EDU-VMW-VSTDCM8	24 Hours (3 days)	$2,775.00

Description

During this three-day course, you focus on deploying and managing VMware vSphere® with VMware Tanzu® in a VMware vSphere® 8 environment. You learn how vSphere with Tanzu provides services to deploy and manage virtual machines, vSphere Pods, Supervisor Services, and VMware Tanzu® Kubernetes Grid™ clusters. You will also gain experience with day 2 operations and life cycle management of a vSphere with Tanzu environment.

Objectives

Upon completing this course, the learner will be able to meet these overall objectives:

- Describe how vSphere with Tanzu fits in the VMware Tanzu® portfolio
- Describe the vSphere with Tanzu concepts and architecture
- Describe vSphere with Tanzu on VMware NSX®
- Describe vSphere with Tanzu on VMware vSphere® Distributed Switch™
- List the load balancer solutions supported by vSphere with Tanzu
- Describe the vSphere with Tanzu storage components
- Deploy and manage Supervisors
- Describe vSphere Pod capabilities and components
- Deploy and configure Contour as a Supervisor Service
- Deploy and configure ExternalDNS as a Supervisor Service
- Deploy and configure Harbor as a Supervisor Service
- Deploy and manage Tanzu Kubernetes Grid workload clusters
- Deploy and manage virtual machines using the VM Service
- Deploy applications in a vSphere with Tanzu environment
- Perform a backup using Velero
- Use the vSphere UI and CLI to monitor the health of the vSphere with Tanzu environment
- Use logs and CLI commands to troubleshoot the vSphere with Tanzu environment

Audience

The primary audience for this course is as follows:

- vSphere administrators and platform operators who are responsible for deploying and managing workloads and services in vSphere with Tanzu.

Prerequisites

The knowledge and skills that the learner should have before attending this course are as follows:

- Experience deploying and managing vSphere
- Understanding of Kubernetes and the Kubernetes cluster architecture
- Attending one of the following courses is recommended:
- VMware vSphere: Install, Configure, Manage
- Kubernetes Fundamentals and Cluster Operations

Program

Module 1: Course Introduction
• Introductions and course logistics
• Course objectives
Module 2: Introduction to Containers and Kubernetes
• Differentiate between containers and virtual machines
• Identify the parts of a container system
• List the steps in a basic Docker workflow
• Explain the importance of Kubernetes
• Identify the basic architecture of Kubernetes
• Describe a basic Kubernetes workflow
Module 3: Introducing vSphere with Tanzu
• Describe vSphere with Tanzu
• Describe Tanzu Kubernetes Grid
• Describe VMware Tanzu® Mission Control
• Describe VMware Tanzu® for Kubernetes Operations
• Explain the purpose of vSphere with Tanzu
• Identify the capabilities of vSphere with Tanzu
• Describe the vSphere with Tanzu Supervisor
• Identify the components of the vSphere with Tanzu Supervisor
• Describe vSphere Namespaces
• Describe the Supervisor Services
• Describe the VM Service
• Describe Tanzu Kubernetes Grid clusters
Module 4: vSphere with Tanzu Infrastructure
• Discuss storage concepts for vSphere with Tanzu
• Describe storage policies
• Describe content libraries
• Explain the Container Storage Interface plug-in functionalities
• Discuss storage for Tanzu Kubernetes Grid clusters
• Describe the vSAN Direct datastore for vSphere with Tanzu
• Identify the two network stacks available for vSphere with Tanzu deployments
• List the VDS components that vSphere with Tanzu supports
• List the NSX components that vSphere with Tanzu supports
• Outline the supported load balancer solutions by vSphere with Tanzu
Module 5: vSphere with Tanzu Architecture
• Describe the Supervisor architecture
• List the different options for deploying the Supervisor
• Outline the requirements for deploying a Supervisor
• Outline the licensing requirements for the Supervisor
• Describe vSphere Namespaces
• List vSphere Namespace resources and Kubernetes object limits
• Define content libraries and VM images
• Explain VM classes
• Describe Kubernetes CLI Tools for vSphere
• List the different types of authentication available in vSphere with Tanzu
• Explain vSphere privileges
• Explain roles and permissions in vSphere Namespaces
• Explain Tanzu Kubernetes Grid RBAC
• List the Tanzu Kubernetes Grid authentication methods
• List the vSphere with Tanzu services and workloads
• Identify the supportability for vSphere with Tanzu services and workloads based on the Supervisor deployment types
Module 6: vSphere with Tanzu Workloads and Services
• Describe the characteristics of vSphere Pods
• Identify the capabilities of vSphere Pods
• List the components of vSphere Pods
• Explain the concept of Supervisor Services
• Describe the Supervisor Services catalog and its available services
• Discuss how to add Supervisor Services and manage their life cycle
• Describe Tanzu Kubernetes Grid clusters
• List the components of Tanzu Kubernetes Grid
• List the options for deploying Tanzu Kubernetes Grid workload clusters
• List the different types of Tanzu Kubernetes Grid workload clusters
• Outline the requirements for deploying a Tanzu Kubernetes Grid workload cluster
• Describe the VM Service
• Explain the use cases of the VM Service
• List the VM Service parameters

• Outline the requirements for deploying a VM using the VM Service

Module 7: Day 2 Operations

• Explain how to view Kubernetes namespace events
• List the ways to monitor vSphere Pod, Tanzu Kubernetes Grid cluster, and VM performance and utilization
• Describe vSphere with Tanzu control plane certificate management
• Describe load balancer certificate management
• Describe the prerequisites and steps for updating vSphere with Tanzu
• Describe the Supervisor updates
• Describe the vSphere Namespace updates
• Describe the update process of Tanzu Kubernetes Grid clusters
• List the steps to back up the vSphere with Tanzu components
• Explain how to back up a Supervisor
• Define Velero Plugin for vSphere and standalone Velero
• Identify the steps to install Velero on workload clusters
• Explain how to back up and restore vSphere with Tanzu workloads with the Velero CLI
• Describe the various vSphere with Tanzu logs
• Explain how to generate a vSphere with Tanzu support bundle
• Explain how to use SSH to connect to Supervisor control plane nodes

Session Dates

On request. Please Contact Us

Additional Information

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