Enterprise Computing Solutions - Education Services

# TRAINING OFFERING

**Sie erreichen uns hier**

Freistädterstraße 236, A-4040 Linz

Email: education.ecs.at@arrow.com
Phone: +43 1 370 94 40 - 34

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

| CODE: | LÄNGE: | PREIS: |
|---|---|---|
| VMW_VSKDM7 | 24 Hours (3 Tage) | €2,250.00 |

## Description

Dieses dreitägige Seminar konzentriert sich auf die Bereitstellung und Verwaltung von VMware vSphere® mit Tanzu. Sie lernen, wie vSphere mit Tanzu verwendet werden kann, um die Bereitstellung von Kubernetes-Clustern und containerisierten Anwendungen in einer VMware vSphere®-Umgebung zu koordinieren.

## Lernziel

Nach Abschluss dieses Seminars haben die Teilnehmer*innen Wissen zu folgenden Themen:
- 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

## Zielgruppe

erfahrene Systemadministrator*innen und Systemintegrator*innen, die für das Entwerfen und Implementieren von vSphere mit Tanzu verantwortlich sind.

## Voraussetzungen

Dieses Seminar erfordert den Besuch folgender Seminare:
- VMware vSphere: Install, Configure, Manage ODER VMware vSphere: Optimize and Scale

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

Erfahrung in der Kommandozeile ist hilfreich.
Für dieses Seminar muss der Teilnehmer*innen in der Lage sein die folgenden Aufgaben ohne Unterstützung oder Anleitung auszuführen:
- 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

## Inhalt

Course Introduction
- Introductions and course logistics
- Course objectives

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

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

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

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

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

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

## Kurstermine

Auf Anfrage. Bitte kontaktieren Sie uns

## Zusätzliche Information

Diese Schulung ist auch als Vor-Ort-Schulung verfügbar. Bitte kontaktieren Sie uns, um mehr zu erfahren.