

# VMware Telco Cloud Platform for Radio Access Network: Install, Configure, Manage V1.5



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This three-day, hands-on training course provides you with the advanced knowledge, skills, and tools to achieve competency in operating and troubleshooting the VMware Telco Cloud Platform-RAN™ environment. In this course, you are introduced to the VMware Telco Cloud Platform-RAN infrastructure, deployment options, and procedures. You also deploy Kubernetes clusters and understand the detailed configuration settings of management and workload clusters. You onboard and instantiate network functions and network services using hands-on lab exercises.

In addition, you are presented with various types of technical problems in VMware Telco Cloud Platform-RAN, which you will identify, analyze, and solve through a systematic troubleshooting process.

### Kursinhalt

- Course Introduction
- Day 0 Operations: VMware Telco Cloud Platform-RAN Overview and Installation
- Day 1 Operations: Infrastructure Automation
- Day 1 Operations: Containers as a Service
- Day 1 Operations: Network Functions and Network Services
- Day 2 Operations: Platform Life Cycle Management
- Day 2 Operations: Troubleshooting
- Day 2 Operations: API Management

**E-Book** Sie erhalten englischsprachige Unterlagen von VMware als E-Book.

### Zielgruppe

- Telco cloud system administrators and telco network operations engineers
- Professionals who work with telco or enterprise and datacenter networks
- Designers and operations engineers who manage telco workloads

### Voraussetzungen

Before taking this course, you should have completed the Telco Cloud Automation Fundamentals and Telco Cloud Platform for Radio Access Network (TCP-RAN) Foundations courses.

You should also have the following understanding or knowledge:

- Good understanding of VMware products like vSphere and VMware Tanzu™ Kubernetes Grid
- Knowledge of and working experience with network functions virtualization, including:
  - ETSI NFV framework, virtualized network functions, and related Interfaces
  - Kubernetes, Helm, cloud-native network functions, CSI, and CNI

### Dieser Kurs im Web



Alle tagesaktuellen Informationen und Möglichkeiten zur Bestellung finden Sie unter dem folgenden Link: [www.expertech.ch/go/VTRA](http://www.expertech.ch/go/VTRA)

### Vormerkung

Sie können auf unserer Website einen Platz kostenlos und unverbindlich für 7 Tage reservieren. Dies geht auch telefonisch unter 06074 4868-0.

### Garantierte Kurstermine

Für Ihre Planungssicherheit bieten wir stets eine große Auswahl garantierter Kurstermine an.

### Ihr Kurs maßgeschneidert

Diesen Kurs können wir für Ihr Projekt exakt an Ihre Anforderungen anpassen.

| Training               | Preise zzgl. MwSt. |
|------------------------|--------------------|
| Termine in der Schweiz | 3 Tage             |
| Online Training        | 3 Tage CHF 2.415,- |
| Termine auf Anfrage    |                    |

Stand 26.04.2024



# Inhaltsverzeichnis

## VMware Telco Cloud Platform for Radio Access Network: Install, Configure, Manage V1.5

### 1 Course Introduction

- Introduction and course logistics
- Course objectives

### 2 Day 0 Operations: VMware Telco Cloud Platform-RAN Overview and Installation

- Describe day 0, day 1, and day 2 operations
- Describe day 0 operations for VMware Telco Cloud Automation
- List the day 0 requirements for Telco Cloud Automation functionality
- Describe the VMware Telco Cloud Automation architecture
- Describe the VMware Telco Cloud Automation control plane architecture
- List the VMware Telco Cloud Automation deployment options
- List the steps to perform VMware Telco Cloud Automation deployment
- List the steps to perform VMware Telco Cloud Automation control plane integration with vSphere
- Describe VMware Telco Cloud Automation control plane scaling
- Describe the vSphere Architecture
- List the key VMware components that are part of vSphere
- Describe the key use cases for vSphere

### 3 Day 1 Operations: Infrastructure Automation

- Describe infrastructure automation
- List the use cases of infrastructure automation
- Describe the requirements of infrastructure automation
- Describe provisioning with and without infrastructure automation
- List the benefits of infrastructure automation
- List challenges of infrastructure automation
- Describe the infrastructure requirements of infrastructure automation
- Describe the infrastructure automation domains
- Describe the process to identify the infrastructure automation domains
- Configure an infrastructure for infrastructure automation
- List the steps to deploy an infrastructure using infrastructure automation
- List the steps to validate infrastructure deployment

### 4 Day 1 Operations: Containers as a Service

- Describe the role of containers in VMware Telco Cloud Platform-RAN

- Describe the benefits and challenges of containers
- List the container use cases
- Describe the Kubernetes architecture
- List the roles of nodes and clusters
- Describe the supporting components of Kubernetes
- Compare Kubernetes to Tanzu Kubernetes Grid
- List the key features of Tanzu Kubernetes Grid
- Describe the architecture of Tanzu Kubernetes Grid
- List the steps to create a Kubernetes cluster template
- Describe the process for deploying node pools and groups
- List the steps to instantiate a cluster
- List CaaS scale options
- List upgrade operations
- Describe how advanced features like Air Gap are supported

### 5 Day 1 Operations: Network Functions and Network Services

- Describe the role of a network service
- Describe the types of network functions
- List the type of descriptors
- Describe the requirements of a descriptor
- Describe the role of TOSCA
- Describe how TOSCA is used to create descriptors
- Explore the basics of the TOSCA structure
- Examine the types of descriptors
- Describe the role of onboarding
- List the steps to onboard a virtual network function
- List the steps to onboard a cloud-native network function
- Examine the results of the onboarding process
- Describe the role of Harbor
- Explain how to list the contents of a Harbor platform
- List the steps to interface with a Harbor platform
- List the steps to instantiate a virtual network function
- List the steps to instantiate a cloud-native network function
- Examine the results of the instantiation process
- List the steps to instantiate a network service
- Examine the results of the instantiation process

### 6 Day 2 Operations: Platform Life Cycle Management

- Explain the life cycle stages in VMware Telco Cloud Automation control plane
- Explain the life cycle stages in VMware Telco Cloud Automation
- Define an upgrade schedule
- Define workflows
- Describe how upgrade schedules are used to manage

life cycle events for the VMware Telco Cloud Automation control plane

- Describe how upgrade schedules are used to manage life cycle events for VMware Telco Cloud Automation
- Describe network function life cycle management events
- Execute healing
- Perform a termination
- Execute workflows
- Perform an upgrade
- Describe network service life cycle management events
- Execute network service healing
- Set up network service monitoring
- Perform a network service termination

### 7 Day 2 Operations: Troubleshooting

- Identify the features of the VMware Telco Cloud Platform for RAN dashboards
- List the components of the VMware Telco Cloud Platform for RAN dashboards
- Explain the features of fault management in VMware Telco Cloud Platform
- Describe the use of fault management in VMware Telco Cloud Platform for network functions
- Describe the use of performance management in VMware Telco Cloud Platform for network functions
- Describe the use of logs in VMware Telco Cloud Platform
- Troubleshoot using VMware Telco Cloud Platform logs
- List the key CLI tools that can be used for troubleshooting
- List the steps to identify common network function deployment problems
- Examine key troubleshooting scenarios

### 8 Day 2 Operations: API Management

- Define the VMware Telco Cloud Automation API
- Explain the API architecture
- Describe the use cases for VMware Telco Cloud Automation API
- Explain how to configure an external REST API
- Describe how to request security tokens for implementation
- Explain how to implement commands through external systems using APIs

