

# **Containers and Microservices in Telecom**

# TPR1025d | On-Demand | 5G Core | Expanded

**Course Duration:** 4 hours

This training provide high-level technical overview of containers and microservices along with their applications and their implementations used in the industry.

## **Intended Audience**

A high-level technical overview to personnel involved in product management, marketing, planning, design, engineering, and operations.

# **Objectives**

After completing this course, the student will be able to:

- Differentiate between light weight and heavy weight virtualization
- Illustrate the container management components
- Sketch microservice architecture and its relevance to containers
- Identify the key container lifecycle management concepts
- Step through the examples of uses of microservices

## **Course Prerequisites**

Welcome to SDN and NFV - Foundations

## Outline

- 1. Server Host Virtualization
- 1.1 Server Virtualization
- 1.2 Virtual Servers Challenges and Examples
- 1.3 5G Containerized Network Functions

Exercise: Knowledge Checks

- 2. Containers
- 2.1 What is a Container?
- 2.2 Role of Docker
- 2.3 Container Security
- 2.4 Open Container Initiative (OCI)

Exercise: Knowledge Checks

- 3. Container Orchestration
- 3.1 Container Management
- 3.2 Kubernetes Overview
- 3.3 Kubernetes Operations

Exercise: Knowledge Checks

- 4. Microservice Architecture
- 4.1 Microservices
- 4.2 Software Decomposition

Exercise: Knowledge Checks

Putting it all together

**Final Assessment** 

