



# Welcome to Telco Cloud Part 1: Virtualization and Orchestration

NWV\_141d | On-Demand | 5G Core | ⚙️

Course Duration: 1 hour

Telecom operators are on the cusp of a multitude of network and business transformation choices. This course (part of multi-part series) provides a high level view of the impact and benefits of the telco cloud infrastructure, the benefits of virtualization, and needs of orchestration. It provides concrete examples of approaches of virtualizations and related orchestrators considered in Telecom networks.

## Intended Audience

This course is designed for a broad audience of personnel working in the Telecom industry.

## Objectives

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

- Identify the need for Cloud and Virtualization in Telecom networks
- Identify approaches of virtualization and compare Virtual Machines and Containers
- List the needs and benefits of Orchestrators such as OpenStack and Kubernetes

## Course Prerequisites

No Prerequisites

## Outline

1. Cloud Computing and Virtualization in Telco
    - 1.1 What and why Virtualization?
    - 1.2 Needs for Telco Cloud
    - 1.3 Private, Public, and Hybrid Clouds in Telco Network
  2. Approaches of Virtualization
    - 2.1 Compare VMs and Containers
    - 2.2 VNFs and CNFs
    - 2.3 A real world example – Virtualization
  3. Need for Orchestrator
    - 3.1 Cloud orchestration
    - 3.2 Role of OpenStack for VMs
    - 3.3 Role of Kubernetes for Containers
- Putting it all together  
Final assessment