

Course Outline of Cisco Service Provider 5G Technologies Foundations (SPMBL100)

Mobile Network Fundamentals

- 5G Key Use Cases
- Examining Mobile Network Components

Enabling Technologies for 5G

- Introduction to 5G NR Characteristics
- Cloud Radio Access network (RAN)

Cisco 5G NSA Solution

- 5G NSA Basics
- 5G NSA StarOS Configurations

Cisco 5G Converged SDN Transport Architecture

- Cisco 5G Transport Ready Devices
- Application Awareness and Network Slicing with Segment Routing

Cisco NFV Infrastructure, Cisco Virtualized Network Functions (VNFs), Cisco VIM, and Cisco ESC

- NFVI and SDN Architecture Overview
- Cisco VIM Pod Configurations

Cisco Service Provider Automation and Orchestration

- Telemetry Basics
- ZTP Fundamentals

Cisco Ultra Cloud Core

- Cisco Ultra Cloud Core Basics
- Kubernetes and Docker Fundamentals

5G Ready Distributed DC with Cisco ACI

- Cisco ACI in Telco Data Centers
- 5GC Deployment

Mitigating Threats in 5G

- Introduction to 5G Cybersecurity Risks
- Mitigating 5G Cybersecurity Risks

Lab Outline:

- Investigating the EPC and xHaul Device Operations
- Deploying Cisco Ultra Gateway Platform with CUPS
- Configuring the EPC for 5G NSA
- Network Slicing with Segment Routing
- Deploying a VNF using Cisco ESC
- Using ZTP and Telemetry
- Using Cisco Crosswork Optimization with NSO
- Deploying the Cisco SMI and Cisco Ultra Cloud Core