Cisco Service Provider 5G Technologies Foundations (SPMBL100)

Category: Networking & Security | **Vendor:** Cisco

Duration: 32.00 hours (4 days) **26.0 CPD Hours** **Rating:** ⭐ 4.6 (5,878 reviews)

Course Information

Delivery Format: Instructor Led - Online

Course Overview

The Cisco Service Provider 5G Technologies Foundations (SPMBL100) v1.0 course introduces mobile network components, basic 5G concepts, and features of 5G technology including faster data speeds, higher device capacity, and improved user experience. You will examine the mobile packet core solutions, 5G transport architecture, and Cisco® automation and orchestration tools used in 5G networks. You will also learn about the Cisco 5G Non-standalone (NSA) and the Cisco Ultra Cloud Core 5G standalone (SA) platform solutions, the Cisco 5G converged Software-Defined Networking (SDN) transport architecture, and Cisco edge computing solutions. You will study the Cisco Network Function Virtualization (NFVI) architecture, Cisco Network Services Orchestrator (NSO), and Cisco Elastic Services Controller (ESC). You will learn how 5G is distributed with Telco Data Center (DC) with Cisco Application Centric Infrastructure (Cisco ACI®). And finally, Zero-Touch Provisioning (ZTP), Cisco Crosswork™, and the Cisco 5G security architecture will also be presented.

How you'll benefit

This course will help you:

- Use the higher data speeds of 5G to access data more quickly and accommodate every device with increased capacity
- Learn how 5G technology delivers lower latency, higher device capacity, and a more uniform user experience

About This Course

The Cisco Service Provider 5G Technologies Foundations (SPMBL100) v1.0 course introduces mobile network components, basic 5G concepts, and features of 5G technology including faster data speeds, higher device capacity, and improved user experience. You will examine the mobile packet core solutions, 5G transport architecture, and Cisco® automation and orchestration tools used in 5G networks. You will also learn about the Cisco 5G Non-standalone (NSA) and the Cisco Ultra Cloud Core 5G standalone (SA) platform solutions, the Cisco 5G converged Software-Defined Networking (SDN) transport architecture, and Cisco edge computing solutions. You will study the Cisco Network Function Virtualization (NFVI) architecture, Cisco Network Services Orchestrator (NSO), and Cisco Elastic Services Controller (ESC). You will learn how 5G is distributed with Telco Data Center (DC) with Cisco Application Centric Infrastructure (Cisco ACI®). And finally, Zero-Touch Provisioning (ZTP), Cisco Crosswork™, and the Cisco 5G security architecture will also be presented.

How you'll benefit

This course will help you:

- Use the higher data speeds of 5G to access data more quickly and accommodate every device with increased capacity
- Learn how 5G technology delivers lower latency, higher device capacity, and a more uniform user experience

Who Should Attend

- Customer support engineers
- Field engineers
- Network engineers
- Network consulting engineers

Prerequisites & Entry Requirements

General Prerequisites:

Before enrolling in this course, you should have knowledge in the following areas:

- Knowledge of general networking concepts
- Experience working with command-line interface (CLI)-based network devices
- Basic understanding of Multiprotocol Label Switching (MPLS)
- Familiarity with service provider architectures

The following Cisco course may help you meet these prerequisites:

- Implementing and Administering Cisco Solutions (CCNA)
- Understanding Cisco Service Provider Network Foundations (SPFNDU)

Learning Outcomes

Upon successful completion of this course, participants will be able to:

After taking this course, you should be able to:

- Describe mobile network architecture basics
- List enabling technologies for 5G and describe 5G key use cases
- Perform basic operations on a Cisco 5G NSA mobile packet core
- Describe the Cisco 5G Converged SDN Transport Architecture
- Describe Cisco NFVI and perform basic operations using Cisco ESC and Cisco Virtualized Infrastructure Manager (VIM)
- Describe Cisco service provider automation and orchestration solutions to deploy and manage 5G network functions
- Describe the Cisco Ultra Cloud Core architecture and deploy the Cisco SMI
- Explain the 5G ready distributed Telco DC with Cisco ACI solution
- Describe the Cisco 5G security architecture

Detailed Course Outline

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

Skills You Will Learn:

After taking this course, you should be able to:

- Describe mobile network architecture basics
- List enabling technologies for 5G and describe 5G key use cases
- Perform basic operations on a Cisco 5G NSA mobile packet core
- Describe the Cisco 5G Converged SDN Transport Architecture
- Describe Cisco NFVI and perform basic operations using Cisco ESC and Cisco Virtualized Infrastructure Manager (VIM)
- Describe Cisco service provider automation and orchestration solutions to deploy and manage 5G network functions
- Describe the Cisco Ultra Cloud Core architecture and deploy the Cisco SMI
- Explain the 5G ready distributed Telco DC with Cisco ACI solution
- Describe the Cisco 5G security architecture

Frequently Asked Questions

Q: What delivery options are available for Cisco Service Provider 5G Technologies Foundations (SPMBL100)?

We offer multiple delivery formats:

- Live Instructor-Led Classroom Online (Virtual/Live Online)
- Traditional Instructor-Led Classroom Training (ILT)
- On-site delivery at your offices anywhere in United Kingdom
- Private dedicated courses customized for your team

Q: How many CPD hours does this course provide?

The 4-day Cisco Service Provider 5G Technologies Foundations (SPMBL100) course provides up to 26.0 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the Cisco Service Provider 5G Technologies Foundations (SPMBL100) training?

The training takes place over 4 day(s), with each day lasting approximately 32.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for Cisco Service Provider 5G Technologies Foundations (SPMBL100)?

Yes, we provide corporate training, dedicated training, and closed classes for Cisco Service Provider 5G Technologies Foundations (SPMBL100). Training can take place anywhere in United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online allowing teams from across United Kingdom or internationally to attend.

Q: What related terms do people search for?

Popular related searches include: Cisco Service Provider 5G Technologies Foundations, Cisco Service Provider, SPMBL100

Q: Why choose Nexus Human for Cisco Service Provider 5G Technologies Foundations (SPMBL100)?

Nexus Human is recognized as one of the leading training providers. Our trainers have won multiple awards including:

- Small Firms Best Trainer Award
- National Training Partner of the Year (Ireland) - Multiple Years
- Global Top 30 Instructor Awards (2012, 2019, 2021)
- Tech Excellence Award Nominations
- Learning Performance Institute (LPI) External Training Provider Sponsor 2024

Q: Are there any discount codes available?

Yes! Use discount code **PENPAL5** when booking your Cisco Service Provider 5G Technologies Foundations (SPMBL100) training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.

Nexus Human

Professional Training & Development

Email: info@nexushuman.com

Website: www.nexushuman.com

Phone: +353 1 889 8700 (Ireland) | +44 20 8142 8961 (UK)

© 2026 Nexus Human. All rights reserved. This brochure was generated on 13/11/2026.