Network Slicing Architecture and Operations

5G_207x | Expert-Led Live | 5G Core | Expert
Course Duration: 1 day

Network slicing is one of key components that provide logical virtual network slices to support diversified services like mobile broadband, massive IoT, and ultra-reliable low latency services by leveraging the technology of 5G, SDN and NFV. This course describes Network slicing across 5G Core, RAN and Transport networks, its operation and deployment. The course provides an insight into operational aspects for Network Slicing and how slice information is specified and used in various network procedures.

Intended Audience

A medium-level technical course for personnel involved in product management, marketing, planning, design, engineering, and operations

Objectives

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

- List examples of 5G usage scenarios and their unique needs
- Define how slicing is applied to the 5G RAN, 5G Core and the transport network
- Illustrate the relationship between network slices, data networks and QoS
- Describe how slice information is used during NF selection and PDU Session setup procedures
- Explain the Life-cycle Management of Network slice

Course Prerequisites

5G Core Network Overview

Outline

1. 5G Services and Network Slicing
1.1 5G Usage Scenarios
1.2 Why Network Slicing needed?
1.3 What is a Network slice?
1.4 Standardized Network slices

2. Network Slicing in 5G
2.1 Core network functions and slicing
2.2 Segment routing Transport network
2.3 Radio Access network
2.4 Orchestration and Slice Management

3. Defining Network Slices
3.1 Subscriber Profile
3.2 DNNs and QoS
3.3 NF Registration and Discovery

4. Network Slicing Procedures
4.1 UE Registration
4.2 PDU Session establishment
4.3 Session establishment
4.4 Roaming and Network Slicing

5. Network Slicing Deployment
5.1 Network Slice Management Framework
5.2 Life Cycle Management
5.3 Configuration Management
5.4 Performance and Assurance
5.5 Use cases

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