

Technology Primer: Network Slicing in 5G



4.4/5 "Great overview with good visual diagrams."

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 SDN and NFV. This course provides an overview of Network slicing across Core, RAN and Transport networks in 5G, its operation and deployment. The course also provides an insight into how Network slicing in 5G works better as compared to techniques used in 4G LTE.

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:

- List examples of 5G usage scenarios and their unique needs
- Define a Network Slice and describe how slicing is applied across 5G networks
- Describe the limitations of Network slicing in 4G LTE networks
- Describe the procedures involved to operate a Network slice
- Explain the Life-cycle Management of Network slice

Prerequisites

- Technology Primer: 5G Services and Architecture (Instructor Led)
- Technology Primer: Cloud and Virtualization (Instructor Led)

Required Equipment

- None

Course Outline

1. What and Why

- 1.1 5G Usage Scenarios
- 1.2 Needs of Service Provider
- 1.3 What is Network slice?
- 1.4 Network Slicing today and its limitations
- 1.5 Network slicing in 5G

2. Network Slicing in 5G Networks

- 2.1 Core network
- 2.2 Transport network
- 2.3 Radio Access network
- 2.4 Cloud Infrastructure (Multi-Tenancy)

3. Network Slicing Operation

- 3.1 Selection of Network slice by UE
- 3.2 Registration
- 3.3 Session establishment

4. Network Slicing Deployment

- 4.1 Network Slice Management Framework
- 4.2 Life Cycle Management
- 4.3 Configuration Management
- 4.4 Performance and Assurance