5G Core Network Signaling and Operations Part 1: 5G Core Network Essentials

5G_217d | On-Demand | 5G Core | Expanded
Course Duration: 4 hours

This is the first course in a six-course set of self-paced courses encompassing 5G Core Network Signaling and Operations. In this course, you will learn about the network functions that make up the 5G Core Network and how they evolve from 4G network functions. This course includes an overview of the key network functions supporting both mobility management and session management as well as functions necessary to support network slicing and charging. Learning is reinforced by participants building a 5G Core network using our learning application as well as both SME-guided and student exercises.

Intended Audience

5G Core Network engineering, operations, and performance related job functions

Objectives

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

- Describe the Network Functions (NF) of the 5G core network and their roles in the 5GC
- Explain Network Slicing in 5G networks
- Identify key functions supporting network slicing and charging

Course Prerequisites

5G Core Network Overview

Outline

1. 5G Core Network Functions
1.1 5G Architecture: AMF, AUSF, UDR, UDM
1.2 5G Architecture: SMF, UPF, PCF, NEF
1.3 Functions that are new to 5G
Exercise: Build a 5G Core network architecture
Exercise: 5G architecture operations overview

2. Network Slicing and the NSSF
2.1 Introduction to Network Slicing
2.2 Network Slicing Architecture in 5G
2.3 Network Slice Selection Function
Exercise: Network Slicing review

3. Charging and the CHF
3.1 5G Charging Architecture
3.2 Charging Control Function

Assessment

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