



# 5G Core Network Signaling and Operations Part 6: Mobility and 4G Interworking

**5G\_222d | On-Demand | 5G Core | Expanded**

**Course Duration:** 4 hours

This is the sixth course in a six-course set of self-paced courses encompassing 5G Core Network Signaling and Operations! In this course, you will learn about both connected and idle mobility in 5G SA as well as the fundamentals of interworking operations between the 5G core and the LTE EPC. You will explore the signaling for handovers in 5G be they between cells on the same gNB or on different gNBs as well as the signaling for both idle and inactive modes in 5G. Finally, you will gain an understanding of handovers between an LTE network and a 5G network.

## Intended Audience

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

## Objectives

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

- Explain both inter-gNB and intra-gNB handovers
- Describe idle mode, inactive mode and paging in 5G
- Summarize interworking between 4G and 5G

## Course Prerequisites

[5G Core Network Overview](#)

## Outline

### 1. Xn and N2 Handovers

#### 1.1 Xn handover

#### 1.2 Xn handover with UPF insertion

#### 1.3 N2 Handover

Exercise: Xn and N2 handover signaling

### 2. Idle Mode and Paging in 5G

#### 2.1 Idle mode in 5G

#### 2.2 Idle mode and paging

Exercise: RRC idle signaling

### 3. LTE Interworking

#### 3.1 LTE Interworking

#### 3.2 5G to 4G handover

Exercise: Interworking handover exercise

### 4. Exploring the Signaling

#### 4.1 Idle mode and paging

#### 4.2 Xn and N2 handover

#### 4.3 LTE Interworking

#### 4.4 5G to 4G handover signaling

Assessment