



# 5G (SA) RAN Signaling and Operations Part 6: Handover and Idle Mode

**5G\_216d | On-Demand | 5G Access | Expanded**

**Course Duration:** 4 hours

This is the sixth course in a six-course set of self-paced courses encompassing 5G SA RAN Signaling and Operations! In this course, you will learn about mobility in a 5G standalone network. You will explore beam switching and handover for connected devices as well as cell reselection for devices with an idle or inactive cell connection. Each course in this six-course set can stand on its own or can be combined with other courses as necessary to meet your learning objectives.

## Intended Audience

5G RAN and device engineering, operations, and performance related job functions

## Objectives

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

- Step through the connected mode handovers based on Xn interface
- Identify various handover events and related measurement parameters and reports
- Step through the Idle and Inactive mode mobility and related procedure
- Explore RRC signaling messages and parameters for connected and Idle mode handovers

## Course Prerequisites

[5G NR Air Interface](#)

## Outline

1. Connected Mobility Operations
  - 1.1 Beam Management - Switching, Failures, Recovery
  - 1.2 Xn based handoversExercise: Xn handover messaging flow  
Exercise: Measurement configuration  
Exercise: Measurement reports  
Exercise: Handover execution and completion

2. Idle and Inactive Mode Operations
  - 2.1 Idle mode in 5G
  - 2.2 RRC Idle and Inactive mode operations
  - 2.3 Systems Information and Cell reselection criteriaExercise: Idle mode messaging flow  
Exercise: Inactivity operation flow

Assessment