Cisco Service Provider Mobility Intermediate LTE (LTE200)

What you’ll learn in this course
The Cisco Service Provider Mobility Intermediate LTE (LTE200) course shows you how to manage, monitor, and configure the Cisco® Aggregation Services Router (ASR 5000) and Cisco ASR 5500 and Virtual Packet Core (VPC), and how to build the required services to support a Long-Term Evolution (LTE)/Secure Agile Exchange (SAE) public mobile LAN network. The course focuses on 3rd Generation Partnership Project (3GPP) standards and how the ASR is configured to support 4G entities, such as Mobility Management Entity (MME), Serving Gateway (SGW), and PDN Gateway (PGW). You learn how to build and monitor single-subscriber call flows with default and dedicated bearers on the systems. The course demonstrates troubleshooting techniques for the entire LTE/SAE packet core.

Course duration
- Instructor-led training: 2.5 days in the classroom with hands-on lab practice

How you’ll benefit
This course will help you:
- Manage, monitor, and configure the Cisco ASR 5000 and ASR 5500 and Virtual Packet Core (VPC)
- Build the required services to support an LTE/SAE public mobile LAN network
- Gain working knowledge of 3rd Generation Partnership Project (3GPP) standards and how the ASR is configured to support 4G entities, such as Mobility Management Entity (MME), Serving Gateway (SGW), and PDN Gateway

Who should enroll
- Network engineers
- Network consulting engineers
- Customer support engineers
- Field engineers

How to enroll
- For private group training, visit Cisco Private Group Training.

Technology areas
- Enterprise networking
- Service provider
Course details

Objectives
After taking this course, you should be able to:

- Deploy a basic service configuration for an MME
- Build a basic service configuration for an SGW
- Build a basic service configuration for a PGW
- Monitor the system for subscriber sessions
- Perform basic debugging of attachment failure
- Monitor subscriber bearers, attach a request through the system, see how resources for each service are dedicated, and detect the flows as they traverse the switching fabric

Prerequisites
Before taking this course, you should have a thorough understanding of IP routing and networking protocols, and a basic working knowledge of applicable 3GPP network operations.

Bring a laptop or notebook computer with the following:

- Terminal emulation program (such as PuTTY available at https://www.chiark.greenend.org.uk/~sgtatham/putty/) capable of Telnet or Secure Shell (SSH)
- 10BASE-T or 100BASE-T Ethernet interface

Outline
- Evolved Packet Core (EPC) Overview
- MME Service Administration
- SGW Function, Operation, Configuration
- PGW Configuration
- Configuring Gateway GPRS Support Node (GGSN) Collocated Services

Lab outline
- Configuring Contexts and Interfaces
- Configure MME
- Configure the SGW Service
- Configure the PGW Service
- Configure GGSN Service