Learning Services

Cisco Training on Demand

ASR 5000 LTE-PGW System Administration and Configuration (ASR5KLTE-PGW) Version 1.1

Overview
The ASR 5000 LTE-PGW System Administration and Configuration Version 1.1 Cisco® Training on Demand course provides detailed instruction on how to configure, administer, manage, and monitor the Cisco ASR 5000 Series to function as a packet data network (PDN) gateway (PGW) in a 4G Long-Term Evolution (LTE) network environment. The course also focuses on the role that the PGW plays in the network, to include how it acts as the interface between the LTE network and other PDNs, such as the Internet or SIP-based IP Multimedia Subsystem (IMS) networks.

The course instructs system administrators about configuring and managing high-performance throughput, call transaction rates, packet processing, and significant memory resources that are required for mobile broadband. In addition, the system administrator learns how to configure the PGW to serve as the anchor point for network mobility, implement policy and charge enforcement function (PCEF), manage quality of service (QoS), and provide deep-packet inspection and lawful packet interception in 4G networks.

Interested in purchasing this course in volume at discounts for your company? Contact ctod-sales@cisco.com.

Duration
The ASR 5000 LTE-PGW System Administration and Configuration Training on Demand course consists of 1 module with 18 lessons, totaling more than 5 hours of video instruction along with 3 hands-on lab exercises.
Target Audience

This course is designed for network engineers, network consultants, customer support personnel, and field engineers who are responsible for the planning, configuration, and management of the ASR 5000.

Objectives

After completing this course, you should be able to:

- Review the hardware and software architecture of the ASR 5000 chassis
- Use the StarOS command line interface (CLI) for chassis management, monitoring, and configuration
- Perform initial system configuration including creating administrative users, hardware redundancy, and remote management functions
- Understand PDN contexts and multiple PDN contexts
- Perform basic service configuration for a PGW
- Implement management functions, such as threshold crossing alarms and hardware-software monitoring

Course Prerequisites

Before taking this course, you should have working knowledge and skills about the following:

- IP routing and networking protocols
- Applicable 3rd Generation Partnership Project (3GPP) network operation

Course Outline

- ASR 5000 LTE-PW System Administration and Configuration Introduction
- Lesson 1: Getting Started with 4G, Part 1
- Lesson 1: Getting Started with 4G, Part 2
- Lesson 2: ASR 5000 PGW 4G Implementation
- Lesson 3: Command Line Interface
- Lesson 4: ASR 5000 Hardware Overview, Part 1
- Lesson 4: ASR 5000 Hardware Overview, Part 2
- Lesson 5: ASR 5000 Software Architecture, Part 1
- Lesson 5: ASR 5000 Software Architecture, Part 2
- Lesson 6: Initial System Configuration
- Lesson 7: Configuring System and Management Parameters
- Lesson 8: Configuration Terminology
- Lesson 9: LTE Configuration for the PGW, Part 1
- Lesson 9: LTE Configuration for the PGW, Part 2
- Lesson 10: Multiple PDN Connections
- Lesson 11: IP Pool Management
- Lesson 12: IP Routing Protocols
- Lesson 13: Interchassis Session Recovery
Labs Outline

This course contains three hands-on virtual lab exercises. The topology for all labs is shown in Figure 1.

Figure 1. Topology for All Labs in ASR5KLTE-PGW Course

The labs included in this course are:

- Lab 1: Exploring the CLI
- Lab 2: Configuring LTE PGW Access on the ASR 5000
- Lab 3: Multi-PDN Calling

Instructor: Bob DiCastro

Bob DiCastro has nearly 30 years of networking industry experience and has completed the master’s program at Tulane University Freeman School of Business. He’s been helping Cisco customers for more than 20 years. DiCastro has spent the last 10 years as a lecturer and as a technical trainer, delivering cellular mobility training around the world. DiCastro lives in Massachusetts where he continues to develop course content and deliver complex curricula to talented professionals looking to transform their careers.

Supported Configurations

Cisco Training on Demand videos are supported on PCs, Macs, and tablets using one of the following browsers, or later: Mozilla Firefox 30, Google Chrome 35, and Apple Safari 6. The labs are supported on PCs and Macs, but not on tablets.

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