

## APZ 212 60 Operation and Maintenance



LZU 108 7561 R1A

### Description

The APZ 212 60 is an essential part of the AXE system, especially as a new platform for the MSC, MSC-servers, HLR and Telephony Softswitch applications.

Through practical exercises the participants will gain experience in handling the APZ 212 60 by checking its operational states, feeling how the APZ 212 60 reacts in different situations like a system backup or reloading procedures, and extracting of system logs that can be further used for troubleshooting.

### Learning objectives

On completion of this course the participants will be able to:

#### 1 Describe the APZ 212 60 in an overview level

- 1.1 Explain the APZ Evolution
- 1.2 Explain the basic APZ concepts
- 1.3 Explain the APZ 212 60 architecture overview
- 1.4 Indicate the capacity and characteristics of different APZ versions
- 1.5 Discuss the key features of the APZ 212 60
- 1.6 Recognize the APZ subsystems and functions

#### 2 Demonstrate use of the APZ 212 60 Hardware

- 2.1 Identify the hardware structure of the APZ 212 60 on cabinet level
- 2.2 Describe the APZ 212 60 on subrack level
- 2.3 State the functions of the APZ 212 60 boards CPUB, MAUB and RPBI-S
- 2.4 State the functions of the eGEM magazine, SCB-RP/4 board and Fan Unit
- 2.5 Explain the CDU panel indications
- 2.6 Distinguish the major physical, logical interfaces and manageability functions in the APZ 212 60
- 2.7 Recognize the APZ 212 60 from the functional point of view
- 2.8 Explain RPB-E and IPonCP features

#### 3 Demonstrate use of the Operation Handling concepts of APZ 212 60

- 3.1 Describe the main aspects affecting operation handling
- 3.2 Differentiate the APZ 212 60 operational states (CP, MAU, RPH)
- 3.3 Execute the backup procedure in the APZ 212 60
- 3.4 Use the Hardware Configuration Table information
- 3.5 Load the APZ 212 60 Central Processor
- 3.6 Describe the booting procedure of the APZ 212 60 CP



**4 Demonstrate use of the Fault handling concepts of the APZ 212 60**

- 4.1 List the hardware fault recovery processes
- 4.2 Repair hardware faults in APZ 212 60 Hardware
- 4.3 List the Software Fault recovery process
- 4.4 Extract restart information in case of CP Software faults
- 4.5 Differentiate between PLEX Engine fault recovery and PLEX fault recovery
- 4.6 Use the Central Log Handler in APZ 212 60

**5 Discriminate the key features in the software structure of APZ 212 60**

- 5.1 Describe the APZ 212 60 software structure.
- 5.2 Explain how the APZ Virtual Machine operates within Plex Engine
- 5.3 Describe the Program Control in AXE
- 5.4 Explain how the ASA Compiler operates within Plex Engine
- 5.5 Examine the memory lay out of APZ 212 60
- 5.6 Explain the Program Execution Platform
- 5.7 Identify where the APZ 212 60 Plex Engine software is stored in APG43
- 5.8 Explain the Function Change of Middleware and Firmware

**Target audience**

The primary target audience for this course is : System Technicians and System Engineers.

**Prerequisites**

Successful completion of the following courses:

WCDMA AXE Operation LZU 108 5024/1 or

GSM AXE Operation LZU 108 5024/2 or

AXE Operation and Configuration LZU 108 6145

**Duration and class size**

The length of the course is 2 days and the maximum number of participants is 8.

**Learning situation**

This course is based on theoretical and practical instructor-led lessons given in both classroom and in a technical environment using APZ 212 60 equipment and tools (WinFiol, ALEX), which can also be accessed remotely.