

GSM AXE Operation



LZU 108 5024/2 R5A

Description

How the AXE system structure knowledge can facilitate your daily activities? Don't you know how to configure routes and devices because you are not familiar with operational routines? Many customers do face this situation too.

This course will teach you how to operate the functions of the AXE 810 switch common to all AXE810 applications of a network. When finishing the course the students will have a deeper understanding of operation and configuration activities in AXE810 exchanges in an efficient way.

The practical parts will be performed either in a real exchange, on SEA environment or in a Remote Lab (RTL) with realistic exercises.

Learning objectives

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

1 Recognize the AXE 810 product structure and the documentation used

- 1.1 Identify the market position for AXE.
- 1.2 Recognize the product structure of AXE.
- 1.3 Recognize the BYB 501 building practice on an overview level.
- 1.4 Identify the main parts of the command code.
- 1.5 Use different parameter variants of standard AXE commands.
- 1.6 Interpret different printouts generated by the system.
- 1.7 Handle WinFIOL to communicate with AXE.
- 1.8 Handle the AXE library as an aid.

2 Differentiate between the RPs types used in the system

- 2.1 Handle the RPs on a basic level.
- 2.2 Define EMs controlled by the RPs.
- 2.3 Configure the databases used when defining RPs.

3 Identify the structure of the Group Switch GS890

- 3.1 Operate the Group Switch GS890.
- 3.2 Configure the different parts of the group switch.
- 3.3 Administer the clock function.
- 3.4 Discuss how the network synchronization is dealt with in AXE.
- 3.5 Explain the SNT, DIP and SDIP concepts.
- 3.6 Configure SNTs , DIPs and SDIPs.



4 Implement the necessary exchange data to connect routes and devices

- 4.1 Configure hardware for new routes.
- 4.2 Define routes and devices.
- 4.3 Connect and disconnect devices.
- 4.4 Modify Size Alteration Events on request from a work order.

5 Manage Signaling in AXE810 systems

- 5.1 Identify basic signaling concepts.
- 5.2 Explain the differences between CAS and CCS signaling systems.
- 5.3 State the structure of the CCS.
- 5.4 Define a signaling system no. 7 (SS7) in AXE up to the MTP.

6 Make use of CPs in the APZ 212 family regarding their structure and functionalities

- 6.1 Handle the CPs on a basic level.
- 6.2 Operate the System Backup functions.

7 Correlate the main Analysis tables in AXE

- 7.1 Define data in the (Pre) B-Number Analysis table and check the result.
- 7.2 Define data in the Route Analysis table and check the result.
- 7.3 Analyze End-of-Selection Analysis table using commands.
- 7.4 Check data in Charging Analysis.

8 Operate BSC Operation functions on basic level

- 8.1 Recognize BSC specific data.
- 8.2 Describe BSC specific hardware.
- 8.3 Solve a Managed Object (MO) Fault upon alarm in the BSC.
- 8.4 Reconfigure MOs and BTs using the OSS-RC applications Cellular Network Administration and Base Station SW management.
- 8.5 Load RBS software using Base Station SW management in OSS-RC.

Target audience

The target audience for this course is:

System Technicians, System Engineers.

Prerequisites

Successful completion of the following training flow:

GSM Network Fundamentals, Blended Training

FAB 102 1465 R1A

**Duration and class size**

The length of the course is 9 days and the maximum number of participants is 8.

Learning situation

This is a task-oriented learning course based on tasks in the work process given in a technical environment using equipment and tools, which can also be accessed remotely.

Time schedule

The time required always depends on the knowledge of the attending participants and the hours stated below can be used as estimate.

Day	Topics in the course	Estimated time
1	<ul style="list-style-type: none">• Introduction and Pre-Test• MML , WinFIOL , AXE Library	6 hs
2	<ul style="list-style-type: none">• Define RP/EMs and SAEs	6 hs
3	<ul style="list-style-type: none">• Group Switch, SNT & DIP, Clock and Synchronization	6 hs
4	<ul style="list-style-type: none">• Route and Device Data	6 hs
5	<ul style="list-style-type: none">• Signaling in AXE	6 hs
6	<ul style="list-style-type: none">• APZ 212 + Backup Handling	6 hs
7	<ul style="list-style-type: none">• Analysis in AXE : B-number, Route	6 hs
8	<ul style="list-style-type: none">• Analysis in AXE : EOS, Charging	6 hs
9	<ul style="list-style-type: none">• BSC Basic Operations	6 hs