The Number Portability for GSM (G-Port) course provides students with an overview of the G-Port network architecture, GSM network components and terminology. This course identifies the purpose and function of the G-Port feature, while going through call flows for the number portability and mobile number portability environments.

Learn To:

- Describe how Message Signaling Units (MSUs) are affected by the G-Port feature.
- Describe how the MSISDN is extracted from the MSU.
- Describe how the MSISDN is conditioned for Real Time Database (RTDB) lookup.
- Describe how the SRI (Send Routing Information) response is sent to its destination.

Benefits to You

Learn about EAGLE and EPAP implementation and activation steps supporting the G-PORT feature. For reporting and troubleshooting purposes, the student will learn how to retrieve measurements for the activated G-Port service.

This course also contains optional lessons that include, but are not limited to, routing procedures such as G-Port Circular Route Prevention, G-Port SCCP Service Re-Routing, GSM MAP SRI Redirect to serving HLR, Intra Network Number Portability, G-Port for SRI Query for Prepaid, GSM SMS/MMS NP, Service Portability and optional Digit Action Features.

Skills Gained

- Locate additional detailed information in the Oracle documentation libraries used in this course
- Describe G-Port and its relevance to Mobile Number Portability
- Use the EAGLE commands for G-Port Provisioning
- Activate the G-Port feature and its options
- Describe additional features associated with G-Port

Prerequisites

- Oracle Comms EAGLE Maint and Database Administration
- Number Portability
- Oracle Comms EAGLE EPAP Administration (ITU Networks)
- GSM

Course Details

GSM Network Overview in Non-Portability Environment
Mobile Number Portability (MNP) Overview
- What Is MNP
- Three Types of Number Portability
- Key Network Elements in an NP Domain
- MNP Environment Needs
- MNP Routing Options
- High-Level Call Flow Example: Indirect Routing
- Regulator Overview

GSM Portability (G-Port) Feature with Ported-Out and Ported-In Call Flows
- GSM Mobile Number Portability Feature
- G-Port Architecture
- Which MSUs Are Affected by G-Port
- G-Port for Ported-Out DNs with Information Extracted from SCCP
- G-Port Call Flow Direct Routing for Ported-In DNs with Data Extracted from SCCP Layer
- G-Port Non-Call-Related

G-Port Configuration
- G-Port Configuration Prerequisites
- G-Port Feature Activation
- G-Port Configuration
- Data Provisioning of the Database Modules
- EPAP Provisioning Data Flow
- EPAP Provisioning Configuration
- EAGLE RTDB: Retrieve DN data

G-Port Measurements
- Primary Functions of Measurements
- Measurement Categories and Report Types
- Measurement Report Characteristics
- Measurement Documentation Layout
- Measurement Information and Procedures
- E5-OAM Integrated Measurements
- G-Port Measurements
G-Port Supplemental Features

- MNP Circular Route Prevention
- Control Feature Activation
- G-Port SCCP Service Re-Routing
- Route SRI_SM and ReportSMSDeliveryStatus for Non-local or Ported-out Subscribers Using GTT
- Digit Action Expansion and DELCCPREFIX
- Multiple Country Code
- MSISDN Truncation Support for G-Port

G-Port SRI Query for Prepaid

- G-Port SRI Query for Prepaid
- G-Port SRI Query for Prepaid Function
- G-Port SRI Query for Prepaid Feature Activation

GSM MAP SRI Redirect to Serving HLR and Intra Network Number Portability

- GSM MAP SRI Redirect to Serving HLR Feature
- GSM MAP SRI Redirect Vendor List and Examples
- GSM MAP SRI Redirect Serving HLR
- Intra Network Number Portability
- Vendor Type, Number, ID, and GRN Tables
- Intra Network Number Portability Processing Scenarios
- Intra Network Number Portability Commands
- Feature Configuration and Activation

Mobile Terminated–Based GSM SMS/MMS Number Portability

- NP Support for SMS
- MT-Based GSM SMS Number Portability
- MT-Based GSM MMS Number Portability
- MT-Based GSM SMS/MMS NP In-Network and Other Network Subscribers
- MT-Based GSM SMS NP Feature Activation
- MT-Based GSM MMS NP Feature Activation

Mobile Originated–Based GSM SMS Number Portability

- Mobile Originated–Based GSM SMS Number Portability
- Message Flow
- System Options
- Called Party is In-network Subscriber
- Other Network Subscriber
- Feature Control Requirements
- Feature Activation Procedure
MO SMS GSM NP Numbering Plan Processor (NPP)

- Numbering Plan Processor (NPP) Overview
- Mobile Originated SMS NPP Feature
- MO SMS NPP Message Processing
- NPP Processing for GSM Protocol
- Service Actions, Post NPP Processing, Conditioning Actions, and Formatting Actions
- MO SMS Additional Subscriber Data (ASD) and Generic Routing Number (GRN)
- Provisioning NPP for MO SMS Features
- MO SMS NPP Test Tool

Service Portability

- Service Portability Definition
- Service Portability Digits
- Service Portability Versus IS41 GSM Migration
- Supported Number Portability Features and Baseline Limitations
- S-Port Subscriber Differentiation and Provisioning
- SRI Query for Prepaid Without and with Service Portability
- Service Portability for Mobile-Originated SMS