



Wireless Intelligent Network (WIN) – Pre-Paid Charging (PPC)

Course Length: 2 days

Description: Wireless Intelligent Network (WIN) covers the network capability that allows ANSI-41 wireless providers to create new services. The standards that define the WIN architecture, call models, triggers and protocol are detailed. Following a brief overview of Intelligent Networking and the Basic Call State Model (BCSM), the remainder of the course will focus on WIN Pre-Paid Charging (PPC) including Stage I (procedures), Stage II (call flows) and Stage III (protocol) specifications.

Course Outline:

- **Overview of IN and IS-771** (about 1 hour)
 - ✓ Intelligent Network Conceptual Model (INCM)
 - ✓ Basic Call State Model (BCSM)
 - ✓ WIN architecture
 - ✓ PICs and DPs
 - ✓ WIN Phase I (IS-771) overview
 - ✓ Triggers
 - ✓ WIN Phase I operations
 - ✓ WIN Phase I parameters

- **WIN Pre-Paid Charging** (about 7–8 hours)
 - ✓ Overview and assumptions of Pre-Paid Charging (PPC)
 - ✓ WIN Pre-paid documentation
 - ✓ WIN PPC Stage I (Procedures)
 - ✓ Changes and Additions to the BCSM (O-BCSM & T-BCSM)
 - ✓ New triggers and detection points
 - ✓ WIN PPC Stage II (call flows)
 - Mobile registration
 - Mobile originated scenarios
 - Mobile terminated scenarios
 - Three-way calling scenarios
 - Call forwarding scenarios
 - Failure scenarios
 - Mid-call notification
 - ✓ Introduction to WIN Phase II
 - Triggers for Preferred Language (PL)
 - Advice of Charge (AOC)
 - Rejection of Undesired Annoyance Calls (RUAC)
 - Premium Rate Charging (PRC)
 - Freephone

- **WIN Protocols** (about 6–7 hours)
 - ✓ Supporting documentation
 - ✓ Structure of SCCP
 - ✓ WIN routing and GTT
 - ✓ Structure of ANSI TCAP
 - ✓ TCAP package and component types
 - ✓ National versus private definitions
 - ✓ Operation codes
 - Modified ANSI-41 operations
 - Modified Phase I (IS-771) operations
 - New PPC operations
 - ✓ Parameters
 - Modified ANSI-41 parameters
 - Modified Phase I (IS-771) parameters
 - New PPC parameters
 - ✓ Overview of WIN Phase II operations and parameters

Many exercises are provided throughout the course, reinforcing a practical understanding of the material. This gives the student practice in analyzing the call flows and the SS7 protocol used in WIN PPC thus understanding how the data being sent and received is used.

What You Will Learn: The student will gain valuable knowledge of how mobile services are accomplished using WIN standards. This includes how to analyze and decipher critical parameters within the SS7 protocol structure and the Mobile Application Part (MAP) application. You will also learn important call flow scenarios of how network entities communicate vital information in a mobile network. Additionally, you will learn major elements that make up WIN. Also the relationship between the WIN call model and switch call processing will be explored. This course will also examine the common protocols used and potential new and enhanced services. There are many exercises provided that enhance the overall instruction.

Who Will Benefit From This Course: This course is designed for individuals responsible for or involved with network planning, switch maintenance, central office engineering, interconnection, technical support or network operations. Though this course is designed for wireless providers, those involved in the wireline interconnect area might also find it beneficial.

Course Prerequisites: There are no prerequisites, though a basic understanding of mobile communications is helpful.

Instructors: All of our instructors have years of experience developing and teaching technical courses at Telcordia Technologies (Bellcore) Learning Services in Lisle, IL.. They are all SS7 certified and CompTIA CTT+ Certified Professionals.

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