



# **xSIGHT User Voice and Messaging (2G & 3G)**

(VVS0010)

## **Course Outline**

## xSIGHT User - Voice and Messaging (2G & 3G)

This two-day course provides network engineers responsible for the end to end assurance of the 2G / 3G Voice and Messaging networks with an understanding of the xSIGHT product portfolio using instructor led demonstrations of the xSIGHT products and student activities. Broken down into seven sections, the course covers the principles behind the xSIGHT portfolio, the 2G / 3G Voice and Messaging network technology and also provides analysis of the key signalling procedures in terms of initial procedures, call setup, mobility and text messaging.

### **Section 1 - xSIGHT Product Familiarization**

Duration: 1.5 hours

- Introduction to the xSIGHT Portfolio – centric to the xSIGHT products that customer has deployed
- High level capabilities of xSIGHT and product network integration
- Portal Navigation and Operation – including demonstration of xSIGHT product capabilities

### **Section 2 - Network Orientation**

Duration: 1 hour

- Network Architecture and Interfaces – orientation with the key elements and interfaces supporting 2G / 3G voice and messaging

### **Section 3 - Initial Procedures**

Duration: 2.5 hours

- Demonstration of the Location Update on 2G / 3G network using PE Mobility, CEA and Session Trace
- End to end synopsis of identities encountered in the network and picked up by xSIGHT
- Synopsis of events leading up to the attach process
- Complete breakdown of both the 2G / 3G Location Update procedure
- Using xSIGHT to discover common failure scenarios
- KPI Analysis centric to IMSI Attach
- Selecting and exploring in greater detail the most common failure scenarios
- Using xSIGHT PE Mobility to identify underperforming network elements involved in the Location Update

### **Section 4 - Call Setup**

Duration: 3.5 hours

- Demonstration of 2G / 3G mobile originated and terminated call setup using a combination of PE Mobility, CEA and Session Trace
- Complete breakdown of the 2G mobile originated call setup procedure
- Complete breakdown of the 2G mobile terminated call setup procedure
- Complete breakdown of the 2G mobile originated call setup procedure
- Complete breakdown of the 2G mobile terminated call setup procedure
- Using xSIGHT to discover common failure scenarios
- Selecting and exploring in greater detail the most common failure scenarios
- Using xSIGHT PE Mobility to identify underperforming network elements involved in the call setup procedures

### **Section 5 - Mobility in the Circuit Core**

Duration: 1.5 hours

- Demonstration of the Handover and RNC Relocation
- Complete breakdown of the Inter BSC Handover procedure
- Complete breakdown of the RNC Relocation procedure in a 3G network
- Using xSIGHT to discover common failure scenarios

- Using xSIGHT PE Mobility to identify underperforming network elements involved in the Inter BSC Handover and RNC Relocation procedures

### ***Section 6 - Text Messaging***

Duration: 1.5 hours

- Demonstration of the mobile originated and terminated text messaging using a combination of PE Mobility, CEA and Session Trace
- Brief outline of the architecture involved in, and the different protocols utilized for, the delivery of SMS over both 2G / 3G networks
- Using xSIGHT to discover common failure scenarios
- Using xSIGHT PE Mobility to identify underperforming network elements involved in the transfer of SMS messages

### ***Section 7 - xSIGHT Session Trace***

Duration: 0.5 hour

- Demonstration of how a Session Trace search is configured and executed
- Showing the key stages associated with configuring a search in xSIGHT Session Trace
- Key techniques used in Session Trace in order to customize the displaying of results

