



Training  
Services

## Next Generation Comms Data Analysis

Training Overview

UK Version

Version 2.3

Course Code: FA017

January 2019



Forensic Analytics  
Communications Data Experts

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## Course Overview

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**Duration:** 2 days

**Intended audience:** communications, intelligence and cell site analysts, SPoCs and front-line investigators

**Maximum participants per delivery:** 20

**Course description:** This course has been designed to introduce participants to the concepts and techniques required to process (or 'cleanse') communications billing records generated by newer types of comms technology – GPRS, 4G, 5G, VoLTE, VoWiFi and others

**Pre-requisites:** existing experience of traditional CDRs and comms data cleansing is an advantage but isn't a pre-requisite

**Course objectives:** to provide participants with a detailed overview of the structure and meaning of communications billing record formats related to modern cellular services and also to have an understanding of network technologies that underlie those services

**Course resources:** Electronic course manual, Exercise handouts, Anonymised call data example

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### Course content:

#### Day 1

- Communications Data & Cell Site Analysis Overview
- Cellular Networks overview – 2G/3G/4G/5G
- Capturing Usage & Billing Data
- Nodes Responsible for Billing Data
- Live Trace Techniques
- IP & Data Networks
- IP – addressing, packets & routers
- IP Operation
- The Internet
- Internet Service Models
- Secure P2P applications
- NAT - Network Address Translation
- IPAR – IP Address Resolution
- Network Generations
- 4G/5G Voice Options
- VoLTE & VoWiFi
- The IMS
- OTT – Internet-based communications
- Smart Devices – Apple Watch
- 5G – 2020 and beyond
- Future CDRs – multiple extra data sources

#### Day 2

- Communications Data Types & Forensic Techniques
- Communications Data Analysis Process
- CDRs – types of CDR that can be requested
- Typical CDR Data Fields
- GPRS CDR overview & Issues
- UK CSP GPRS Data
- Suggested Phrases for UK CSP GPRS Data
- CSP Calling Apps
- VoLTE & VoWiFi
- VoLTE
- SRVCC [1]
- WiFi Calling – VoWiFi
- PS-PS Transfer
- VoLTE & VoWiFi Summary – UK networks
- DDRs & Signalling Records
- International Gateway and Interconnect Data
- Roaming Data
- Device Downloads
- Changing Face of Comms Data Analysis
- Call Obfuscation
- Call Obfuscation Techniques
- MSISDN Spoofing
- IMEI Tumblers
- PGP Phones
- Hardened Phones
- Calling Number Obfuscation

## Price & Booking

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### Pricing

For 'open' deliveries, this course costs £400 per delegate per day (excluding VAT, travel, accommodation, etc) but including lunch each day.

**The per person delivery fee will be charged as a multiple of £400 x number of days + VAT.**

**e.g. £1,200+VAT for the 3-day version, etc**

We offer substantial discounts on these prices for 'closed' courses, delivered at the customer's premises.

*The quoted prices include electronic versions of the course material, printed copies of course material can be provided but there is an extra cost for this, please enquire for pricing.*

### Accommodation

To be booked by attendees as it is not included in the course fees.

The Premier Inn Letchworth Garden City Hotel, Station Rd, Letchworth is located approx 0.5 miles from The Pixmore Centre and The Broadway Hotel & Carvery, Broadway, Letchworth is located approx 1 mile away.

### Terms & conditions

Full details of our training Terms & Conditions are available on request.

In general, we will require a PO (Purchase Order) number for the full course fees from each customer before a training event can be confirmed. We may require part or full payment in advance in some circumstances.

Unless otherwise agreed, all intellectual property rights, including copyright, patents and design related to any training material supplied shall belong to and remain vested in Forensic Analytics (or in the copyright holder identified on any training material supplied by Forensic Analytics).

### Course delivery location

This course will be delivered at:

Forensic Analytics Ltd  
The Pixmore Centre  
Pixmore Avenue  
Letchworth SG6 1JG

*Closed courses may be delivered at the customer's premises or chosen venue. Open courses may be delivered at other locations depending upon requirements.*



### Booking & queries

Please contact us at:  
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