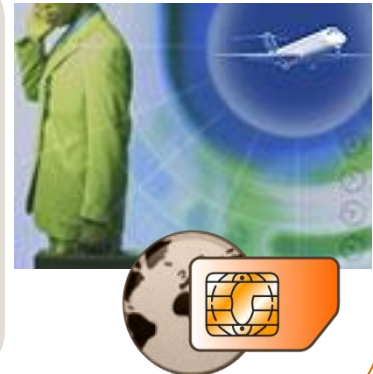


# Understanding Steering of Roaming & Inbound Traffic-increase Solutions

Gain a detailed insight into steering techniques to optimise your roaming traffic & costs

With roaming revenues representing 20 to 30% of profits, Mobile Network Operators have challenges to deploy user-friendly solutions for traffic redirection and to develop convenient solutions attracting new roaming. Roaming revenues can be maximized with SS7, SIM/OTA-based traffic redirection and innovative services.

This seminar will explain how to optimize steering of roaming via the different technologies, with real-life examples of existing solutions



## At the end of the training you will

- > Assess the impact of steering efficiency on your roaming costs
- > Get a clear view on how steering of roaming works
- > Understand the different techniques of traffic steering solutions and market trends
- > Understand the impact of steering via demos

## Who should attend

- > International Roaming Manager & Team
- > Steering Product Manager
- > SIM - OTA Manager
- > Network Interconnect teams
- > IT & System Engineers...

### Pre-requisites:

- > A basic knowledge of GSM networks would be useful

This course is held in English

## Key topics

- |                                  |             |
|----------------------------------|-------------|
| > PLMN (Preferred Networks)      | > IOT       |
| > SIM & OTA                      | > QoS       |
| > Smart Roaming (Toolkit)        | > VLR/HLR   |
| > Steering of Roaming            | > GLR       |
| > SS7 Probing & active solutions | > UDV / RNA |



## Day 1

### Introduction to Steering of Roaming

- > Roaming Market (History & Trends)
  - Key figures of roaming market
  - New travel patterns
  - EU regulation impacts on business
  - New trends (data roaming, blackberry usage)
- > Role of Traffic Steering in IOT negotiation
  - Revenue gain by optimising agreements, Tariff negotiation & quota
  - Impact on zone-based pricing
  - Business case for traffic steering

### How Does Network Selection Work?

- > PLMN Selection And Roaming Management
  - What is roaming, what is a PLMN, how does auto/manual handset search for networks, roaming agreements, sequences at handset start-up
- > Role of the (U)SIM
  - Standardised Roaming files & their roles
  - 2G versus 3G
  - Data roaming
  - Post-issuance management of Roaming files
- > Handset role & limitations
  - How handset interacts with SIM card roaming files
  - Different Handset behaviour due to Standards implementations or releases (Release 99)
  - Attaching & Detaching to networks
  - Refreshing Files which have been modified (OTA or Toolkit)

### Traffic Steering Solutions

- > OTA campaigns
  - Intro to OTA process
  - Massive PLMN update campaigns (frequency, optimisation...).
  - Real life experience/examples
- > SIM applet
  - SIM Toolkit Applet (Smart Roaming)
  - Refresh mechanisms & limitations – handset support of refresh
  - Real life experience/examples
- > SS7 steering
  - Intro to SS7 & MAP
  - SS7 solutions: UDV or RNA – pros and cons
- > OTA steering
  - Real-time OTA
  - OTA reselection
  - Roaming applet
  - Future : Refresh for steering (release 8)
- > Combined Solutions
  - Combined SIM, OTA & SS7 solution for optimized traffic steering
  - Operator already equipped – pros & cons

## Day 2

### Intelligent Border Roaming & National Roaming

- > Concept
- > Details

### Inbound Roaming

- > Introduction
  - Definition Outbound / Inbound roaming*
  - Some key figures (examples of revenue to be gained or lost)*
  - WhySolutions – main concepts (GLR, Cell Leakage Identifier - LID)*
  - Standards*
  - Legal aspects & directives*
- > GLR Details
- > Business case example

### “Anti SoR”

- > Anti-steering techniques
- > GSMA latest policy

### How to Protect your Steering Against “Anti SoR”

- > Overview on how to detect and prove anti-steering
- > Detection of Anti-Steering
- > PLMN
- > Steering policy changes

### Concrete examples of how to deploy & Use Traffic Steering Solutions

- > Case studies
- > Optimising operation
- > Best Practices

### Other Roaming Strategies

- > Revenue-based steering
- > Future trends, including how steering will work in LTE
- > ...