

Essential voice over 5G New Radio

A 3 day training course



Description

This course is designed to give students a technical introduction to the technologies and architectures involved in 5G voice over New Radio (NR) and the possible deployment of the IMS platform to support it.

We will investigate the need for EPS fallback option and voice deployments in both Non-Standalone & Standalone scenarios.



Key outcomes

By the end of the course delegates will be able to:

- ✓ Describe voice services in a NSA environment
- ✓ Describe voice services in standalone environment
- ✓ Explain automotive eCall
- ✓ Explain emergency call scenarios
- ✓ Explain voice services in a NR-eNB
- ✓ Explain voice services with RAT fallback



Training approach

This structured course uses Instructor Led Training to provide the best possible learning experience. Small class sizes ensure students benefit from our engaging and interactive style of teaching with delegates encouraged to ask questions throughout the course. Quizzes follow each major section allowing checking of learning.



Details

Who will benefit?

Technical staff working in mobile communications

Prerequisites

Essential 5G

Duration: 3 days

Customer rating: New Course

Generic training



Generic training complements product specific courses covering the complete picture of all relevant devices including the protocols "on the wire".

"Friendly environment with expert teaching that teaches the why before the how."
G.C. Fasthosts

Small class sizes



We limit our maximum class size to 8 delegates; often we have less than this. This ensures optimal interactivity between delegates and instructor.

"Excellent course. The small class size was a great benefit..."
M.B. IBM

Hands On training



The majority of our courses use hands on sessions to reinforce the theory.

"Not many courses have practice added to it. Normally just the theoretical stuff is covered."
J.W. Vodafone

Our courseware



We write our own courses; courseware does not just consist of slides and our slides are diagrams not bullet point text.

"Comprehensive materials that made the course easy to follow and will be used as a reference point."
V.B. Rockwell Collins

Customise your course



Please contact us if you would like a course to be customised to meet your specific requirements. Have the course your way.

"I was very impressed by the combination of practical and theory. Very informative. Friendly approachable environment, lots of hands on."
S.R. Qinetiq

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Course content

An introduction

- Quality of Service requirements specific to voice
- The concept of the IMS platform
- Voice over LTE (VoLTE)

Voice call aspects in 5G

- Voice over NR
- Voice over LTE EPS fallback
- CSFB
- Deployment scenarios for 5G voice
- Enhanced voice services

Network interworking requirements to support voice services

- The N6 interface
- The S5 interface
- The N26 interface
- Home subscriber server
- Policy control function

Registration procedure

- Registration procedure with voice aspects
- 5G IMS support
- SIP registration
- Authentication
- Addressing
- PDU Session establishment for VoNR
- SMS in 5G
- Emergency

Call procedures

- A selection of call flows diagrams to explain the process for voice over NR

What our customers say

"Absolutely brilliant, very knowledgeable and helpful trainer would recommend to teach anyone. Kept me interested 100% of the time which is very impressive as this does not happen often, if at all!"

O. B. Network Rail

"The best technical course I've been on!"

L. W. Fujitsu Telecoms Europe

"Very well thought out and structured course. Would recommend 100%. Lots of equipment, good quality."

A.R. Unipart

"Course content is interesting. Relevant to current systems and presented well."

S.S-T. Arqiva

