

5G for broadband access

A 2 day training course



Description

This course is designed to give the delegate an explanation of the technical requirements, solutions and benefits of deploying 5G Fixed Wireless Access as a broadband solution.



Key outcomes

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

- ✓ Explain how 5G Fixed Wireless Access (FWA) can be used as a broadband solution.
- ✓ Compare and contrast 5G and other broadband solutions.
- ✓ Contrast FWA mobile only operators versus converged operators.
- ✓ Recognise the CPE required for 5G broadband access.



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?

Anyone working with broadband or 5G

Prerequisites

Essential 5G

Duration: 2 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

5G possible deployments

Non-Standalone (NSA) integration with a 4th generation core network, Standalone (SA) deployment and how the core network is being software defined. Microservices in a 5G Core, AMF, SMF, UPF, UDM, AUSF, UDR, NEF, NSSF, NRF, theory of Slicing in 5G, vertical tenants.

5G New Radio concept

High-level overview of OFDMA technologies, 5G numerologies, supporting FWA in 5G NR, use of mmWave.

Competing technologies

Fibre to the Home (FTTH), WiMAX Broadband, ADSL variants, Coax – DOCSIS.

Operator incentives and drivers

Government connectivity incentives, FWA infrastructure landscape, 3GPP ecosystem, drivers influencing FWA market. Three FWA segments: Small & medium enterprises, typical geographical areas within segments.

FWA deployments

FWA for a mobile-only operator, ease of implementation and integration into existing ecosystem, FWA for a converged operator, ease of use of existing converged mobile/fixed services, shared/integrated BSS.

Customer Premise Equipment

Types of CPE, Indoor/outdoor CPE, CPE performance and evolution, the CPE ecosystem and typical capabilities.

Spectrum availability

Acquire but under deployed spectrum, new bands and radios, mmWave availability, densification.

Use cases and deployed solutions

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

