

Essential WiMAX

A 2 day training course



Description

Broadband wireless access is an emerging technology area. This course looks at WiMAX, where it can be used, how it works and the alternative technologies.



Key outcomes

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

- ✓ Describe WiMAX.
- ✓ Explain how WiMAX works.
- ✓ Compare and contrast WiMAX with alternative broadband access technologies.



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 wishing to know more about WiMAX.

Prerequisites

None

Duration: 2 days

Customer rating: ★★★★★

Generic training



Generic training compliments 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

Essential WiMAX

Course content

Introduction

What is WiMAX? WiMAX applications, The Internet, Internet access choices, wireless broadband access, WiMAX benefits.

Security

MAC privacy sublayer, network access authentication, AAA, 802.1x, key exchange and privacy.

WiMAX overview

Spectrums, LOS vs. non-LOS, bit rates, modulation, mobility, channel bandwidth, cell radius.

WiMAX alternatives

WiMAX vs. 3G, WiMAX vs. 802.20.

WiMAX standards

The WiMAX forum, IEEE, ETSI, HIPERACCESS, HIPERMAN, 802.16, 802.16-2004, 802.16a, 802.16e, 802.16f.

WiMAX architecture

Subscriber Stations (SS), Indoors, outdoors, antennas, Radio Base Stations (BS), LOS, Non LOS BackHaul, Point to multipoint, mesh support.

Physical layer

10 – 66GHz, TDMA, TDD, FDD, 2 –11 GHz, SC2, OFDM, OFDMA, QPSK, QAM, Radio Link Control (RLC), uplink, downlink.

MAC layer

Traffic types (continuous, bursty), QoS, service types. MAC operations, connection oriented, frame structure, addressing. Convergence sublayers, service specific, common part, profiles (IP, ATM). Bandwidth request-grant, ARQ, Management messages.

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

