

Total H.248 for engineers

A 2 day training course



Description

A course focusing purely on the H.248 protocol. Anyone working through the ITU standards documents can testify to the need of a training course to explain how H.248 really works. This course already assumes knowledge of other VoIP protocols and starts by positioning H.248 in relation to the other protocols. The course then looks at H.248 architectures and concepts before analysing H.248 messages and call flows



Key outcomes

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

- ✓ Describe what H.248 is.
- ✓ Recognise where H.248 fits in relation to other VoIP protocols.
- ✓ Explain how H.248 works.
- ✓ Analyse H.248 packets.



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 with H.248.

Prerequisites

Definitive VoIP for engineers

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

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Course content

What is H.248?

Review of VoIP protocols: RTP, RTCP, SIP, SDP, H.323. The PSTN and SS7. Where H.248 fits into the picture. H.248 history. MGCP. The IETF. Megaco. ITU standards. H.248v1, v2, v3.

H.248 architectures

Media Gateways, Media Gateway Controllers, Gateway Control functions, Signalling Gateways. Reference architectures: IMS/TISIPAN: IBCF, IWF, I-BGF, SPDF. MSF: S-SBG-NC, D-SBG-NC. GSMA: IPX Proxy. Softswitches.

H.248 concepts

The connection model, terminations, streams, contexts. Termination properties: descriptors, context properties. Events, signals, packages.

H.248 messages

Protocol stack, UDP, TCP. Message structure. Transactions, actions, commands. Requests, replies, acknowledgements. Sample message flows. Binary encoding, ASN syntax, Text encoding.

H.248 commands

Termination manipulation: Add, Subtract, Move, Modify. Event reporting: Notify. Management: AuditCapability, AuditValue, ServiceChange.

H.248 Descriptors

What are descriptors? Relationship with messages and commands. Basic descriptors, Descriptors composed of other descriptors. The 19 descriptors. Defaults.

H.248 Transactions

Groups of commands, transaction Ids, relationship with actions and commands. Requests and replies.

H.248 wrap up

What is a package? Basic packages. H.248 security. H.248 – SIP interoperation. H.248 interoperation with other protocols.

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

