Systems & Network Training

Total video conferencing over IP for engineers

A 3 day Hands on training course

Save on expenses. This course is also available on your premises.

Description

A current hot topic in recent years has been the provision of multimedia services over IP networks – triple play. This course investigates the characteristics of video transmission and then studies the impact on IP networks.

Key outcomes

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

- Describe the issues of video and data convergence.
- Describe techniques, which can be used in IP to provide low uniform delay.
- Evaluate video technologies.
- Design data networks, which will support video.

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. Hands on sessions are used throughout to allow delegates to consolidate their new skills.

Details

Who will benefit?
Technical staff.

Prerequisites
Introduction to data communications & networking.
TCP/IP foundation for engineers

Duration: 3 days

Customer rating: New course

Generic training	Small class sizes	Hands On training	Our courseware	Customise your course
Generic training compliments product specific courses covering the complete picture of all relevant devices including the protocols "on the wire".	We limit our maximum class size to 8 delegates; often we have less than this. This ensures optimal interactivity between delegates and instructor.	The majority of our courses use hands on sessions to reinforce the theory.	We write our own courses; courseware does not just consist of slides and our slides are diagrams not bullet point text.	Please contact us if you would like a course to be customised to meet your specific requirements. Have the course your way.
"*Friendly environment with expert teaching that teaches the why before the how.*" G.C. Fasthosts	*"Excellent course. The small class size was a great benefit..."* M.B. IBM	*"Not many courses have practice added to it. Normally just the theoretical stuff is covered."* J.W. Vodafone	*"Comprehensive materials that made the course easy to follow and will be used as a reference point."* V.B. Rockwell Collins	*"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

Review
Traditional video, digital video, video formats, MPEG, brief review of IP, Uses of video: downloading, streaming, TV, CCTV, conferencing.

Video over IP issues
Delivery methods: FTTH, ADSL, VDSL, 3G and others. Bandwidth, delay, jitter, signalling. Digitising video, CODECS, packetising video, comparison of techniques.

IP performance and QOS
IP TOS field, queuing strategies; FIFO, WFQ, custom, priority, RED. Differentiated services, diffserv.

Video over IP protocol stack
RTP, RTCP, mixers and translators, RSVP. IPv6.

Conferencing
Traditional solutions, Video conferencing over IP, point to point, multipoint, architectures, bridges.

IETF – Session Initiation Protocol
Comparison with H.323, SIP proxy, proxy server, redirect server. SDP.

Multicasting
Multicasting compared to unicasting and broadcasting, when to use and when not to use multicasting. IGMP, DVMRP, PIM.

Security
Impact of firewalls and NAT, ISMA, DRM, DTCP.

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