

Definitive IP CCTV for engineers

A 2 day **Hands on** training course



Description

This hands on course covers the technologies used in IP CCTV systems. The focus is not on operating or cabling but more advanced configuration and troubleshooting. Hands on sessions are used to reinforce the theory rather than teach specific manufacturer equipment.



Key outcomes

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

- ✓ Install IP CCTV.
- ✓ Configure IP CCTV.
- ✓ Explain how IP CCTV protocols work.
- ✓ Troubleshoot IP CCTV.



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 working with IP CCTV.

Prerequisites

None.

Duration: 2 days

Customer rating: New course

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

Introduction

What is IP CCTV? Camera types, Video, Audio, two way audio, IP CCTV software. Hands on: Installing IP CCTV.

CCTV architecture

Components, servers, storage, LANs, WANs. Centralised versus decentralised. Hands on: Using IP CCTV.

Ethernet

What is Ethernet? Ethernet cabling, Inside versus outside, hubs, switches, PoE, VLANs. Hands on: Ethernet connectivity.

Wireless

WiFi, other wireless solutions, 802.11, variations, frequencies, Access Points, bridges, repeaters. WEP, WPA, WPA2, Hands on: WiFi

Configuration

Ways to configure, IP addresses, subnet mask, default gateway, DHCP, NAT, access from the Internet. Hands on: CCTV configuration.

How IP CCTV works

TCP, UDP, IP, RTP, RTSP, SIP, PTZ, NTP, Wireshark. Port numbers. Hands on: Using Wireshark to troubleshoot IP CCTV.

Network issues with IP CCTV

Bandwidth, video resolution, compressions, codecs, frame rates, audio. QoS. One way versus two way traffic. Hands on: Analysing CCTV traffic.

Security

VPNs, Firewalls. Hands on: CCTV through a firewall.

Troubleshooting

ping, tracet, arp, ipconfig, pathping, tracet. Cable issues, switch issues, WiFi issues. CCTV issues. Hands on: CCTV troubleshooting.

Miscellaneous

Design issues, multicasting, gateways. DVR technology. Calculating storage requirements.

