

Basic IP Networking

- OSI Model – Concepts and functionality
- TCP/IP – Addressing
- Cisco Routers
- Router Interfaces & boot modes
- Routing Concepts
- Dynamic Routing - RIP and IGRP
- Redundancy
- Switching Concepts
- Switched Network security

Introduction to IMS

- General IMS concepts
- NGN
- SIP
- IMS
- Core IMS
- Application layers
- IMS control sessions
- Architecture and transport
- Case studies

Introduction to DVB

- Introduction to Digital Video Broadcasting (DVB)
- Digital Video/Audio Concepts
- MPEG-2 Transport Stream & Program Stream: PSI
- DVB Service Information (DVB-SI)
- DVB Transmission Protocols & DVB Data Broadcasting
- DVB MHP
- DVB Conditional Access
- Other DVB Standards

Mobile TV Transmission

- 2.5 GB network, GPRS, voice and data channels, broadband
- 2.75 GB network, EDGE, voice and data channels, broadband
- 3 GB network, UMTS, data channels, broadband
- 3.5 GB HSDPA, UMTS variations, broadband
- HSDPA network, broadband, applications, P2P, video conference
- UMTS and HSDPA handset, terminals, PCMCIA cards

Introduction to Web TV

- Introduction
- Web TV versus conventional IPTV systems
- Encoding systems
- Receptors
- Service platforms
- Content management
- Web TV demonstrations
- Future trends

Advanced IP Networking

- EIGRP – Enhanced IGRP
- Open Short Path First
- Border Gateway Protocol
- Cisco IOS routing features
- VLANs
- Spanning Tree protocols
- Inter-VLAN routing
- Wireless LAN
- Implementing basic services
- VoIP & IPTV
- QoS

IP Monitoring Systems

- Knowing IPTV market and technology situation
- Understanding IPTV and VoD technology and standard
- Definitions: IPTV, Video Quality, Video Quality of Service and Quality of Experience
- Knowing different factors affecting to Quality of Experience
- IPTV QoS and QoE Metric
- Monitoring demonstration

Mobile TV Platforms

- Introduction
- Global content platform
- Application servers
- Site adaptation
- Content formats
- Audiovisual formats for VoD
- Ingest systems
- Video transcoding
- Publication systems
- Video streaming servers
- Message application servers

Introduction to IPTV

- Introduction to IPTV concepts/services: Digital Video Concepts
- IPTV demonstration
- Case Studies
- IPTV Building Blocks Overview: Triple Play Services
- BSS support for IPTV products & services
- Services/applications: Portal TV, EPG, interactive applications and Middleware

IP@IPTV

- Introduction
- IP communications
- Core architecture
- Edge architecture
- In-home architecture
- IPTV services overview
- High availability for IPTV
- Managing and monitoring for IPTV
- IPTV security
- Case study

In-Home Networking

- Introduction
- Available technologies: powerline, wi-fi, coax
- Road map for in-home networking solutions and new players
- The best solution: operators & suppliers outlook
- Remote management
- Standardization efforts in the in-home networking arena

HD Concepts

- HD services: from an operator's point of view
- Reception, encoding, multiplexing HD channels: products & solutions
- Monitoring HD channels: products & solutions
- HD VoD: Content encoding products & solutions
- HD contents playout: products & solutions

Audiovisual Mobile Contents

- Handsets and services available
- Content types
- General technical characteristics
- Operational systems: brands
- Navigation systems: brands and models
- Application languages
- Terminal series - languages
- Graphic, audio, video characteristics
- Streaming reproduction and storage capabilities
- Transmission capabilities

Convergence

- Convergence services: the same contents & services on any device
- The IPTV services evolution: An HyC perspective
- IMS: making convergence possible
- IPTV ecosystems

Mobile TV Technologies

- Introduction
- Unicast TV distribution
- Broadcast TV distribution
- Broadcast and multicast TV distribution
- Other technologies
- Mobile TV functionalities in mobile TV
- Encoding technologies for mobile TV
- Comparative network technologies

PPV in DTT Models

- The current DVB regulation in Spain: is Pay TV permitted? Does it make sense?
- The Italian experience: multi CAS solution & MHP
- The Spanish market: what is needed to provide PPV services over DVB-T
- Which business models will work?
- Pay TV and PPV services in Spain: case studies

IPTV Building Blocks

- Introduction to DTV & IPTV concepts
- Digital Video Head-ends
- IP Set Top Boxes/middleware
- Triple Play Network requirements
- VoD and PVR
- CAS/DRM systems
- IPTV monitoring systems and Portal TV, EPG and interactive applications
- BSS support for IPTV products/services

Content Aggregation

- Content negotiation
- Dealing with major content providers
- Finding your way in the content world
- Operator versus content provider
- Settling agreements
- Content service marketing
- Security
- Short and long term objectives
- Direct and indirect competition

Mobile TV

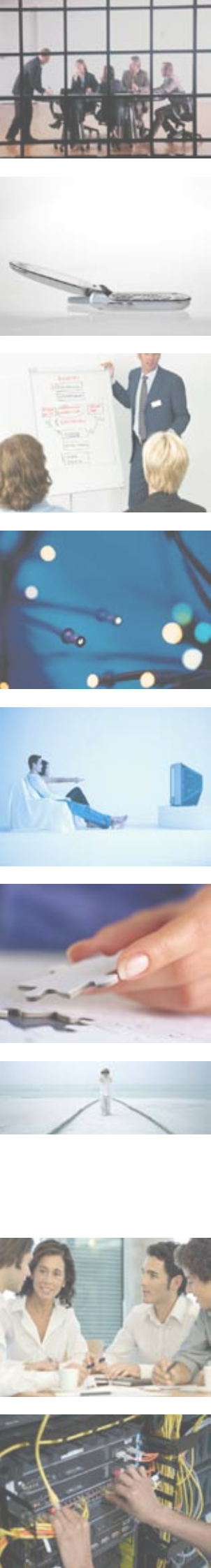
- Access Technologies and Standards
- Mobile TV
- On-Demand Streaming
- Live Broadcasting
- Protocols
- Encoding Tools
- Media Formats
- Standards-Based Formats
- Practical Laboratories

Digital TV

- Parameters and transverse principles
- Terrestrial Digital TV (comparings between DVB, ATSC and ISDB norms)
- IPTV (Head End, signals' types, distribution network, CAS, etc.)
- IPTV Monitorization

Basic IPTV

- Head End Architecture
- Middleware
- CAS/DRM
- VOD/nPVR
- IP Network



2008 calendar and location

Course/seminar	Duration	Location	Date
Basic IP	5 days	Madrid	Sep 15-19
		Viña del Mar	Dec 8-12
Advanced IP	5 days	Madrid	Oct 13-17
		Viña del Mar	Dec 15-19
Introduction to IMS	half-day	Madrid	Sep 25
	2 days	Viña del Mar	Nov 17-18
Introduction to DVB	half-day	Madrid	Oct 1
	2 days	Viña del Mar	Nov 20-21
Introduction to WebTV	1 day	Madrid	Oct 9
Mobile TV Transmission	half-day	Madrid	Oct 7
IP Monitoring Systems	half-day	Madrid	Oct 7
	1 day		Oct 22
			Nov 11
			Dec 3
Mobile TV Platforms	half-day	Madrid	Oct 28
Introduction to IPTV	half-day	Madrid	Oct 30
IP@IPTV	5 days	Madrid	Nov 3-7
In-home Networking	half-day	Madrid	Nov 6
			Nov 16
HD Concepts	half-day	Madrid	Nov 12
Audiovisual Mobile Contents	half-day	Madrid	Nov 18
Convergence	half-day	Madrid	Nov 20
Mobile TV Technologies	2 days	Madrid	Nov 25-26
PPV in DTT Models	half-day	Madrid	Nov 27
IPTV Building Blocks	2 days	Madrid	Dec 9-10
Content Aggregation	half-day	Madrid	Dec 17
Bridgetech products	1 day	Madrid	On-demand
			Oct 23
			Nov 12
			Dec 4
	2 days	Viña del Mar	Nov 10-11
			Nov 13-14
Nov 17-18			
Mobile TV	2 days	Viña del Mar	Nov 19-21
Basic IPTV	4 days	Viña del Mar	Nov 24-28
Introduction to Digital TV	2 days	Viña del Mar	Dec 2-4