

REMS Qualified Professional (RQP) Course For Emerging IP (IPv6)

COURSE SCHEDULE

- **4 day intensive course**
Either at REMS Training Facilities or at your location
- **Call +44 (0) 1727 848800** for details on all REMS courses

ON THIS COURSE YOU WILL LEARN HOW TO:

- Appreciate the technologies, protocols and applications and the role they play in the future of the Internet
- Recognise the strategic issues and direction for the Internet
- Understand Emerging IP addressing and routing, protocols, benefits and standards and how they alter the topology and architecture of networks
- Identify design considerations based on emerging technologies, customers' current infrastructure and services integration

COURSE BENEFITS:

- Recognise the strategic issues and direction for IP networks
- Comprehensive guide to IP networks
- Hands on experience of IP Network capabilities
- Provide the knowledge and skills you need to implement a IP solution

WHO SHOULD ATTEND:

- **Technical Engineers from Incumbent and Competitive Telecoms Operators, Carriers and Service Providers (ILEC and CLEC)**
- **Engineers from Internet and Application Service Providers (ISP and ASP) and large organisations wishing to deploy or support IP networks**
- **Sales, Marketing and Planning Managers wishing to understand the strategic issues and directions of IP networks plus their benefits to many organisations, large and small**
- **System and Network Administrators responsible for the installation, commissioning and maintenance of IP**
- **All delegates are meant to understand and appreciate the IP suite of protocols and traditional digital telephony networks before attending this course to achieve maximum benefit**

HANDS ON PRACTICAL

Throughout this course, under the guidance of an expert instructor, you will gain practical, hands on experience of VoIP. Exercises include:

- **Configuring IPv6**
- **Using a Mobile IP**
- **Using a VPN's**
- **Installing IPv6 Routers**
- **Establishing VoIP**

COURSE CONTENT:

- **Introduction**
What is all the fuss about?
Why is IP so important?
Current limitations of IP and the Internet
- **Emerging Physical Layer/Network Infrastructure**
Overview of xDSL, 3G Mobile (UMTS), BBWA & Cable modems
- **IPv4 Routing & IP Quality of Service (QoS)**
Routing of Packets across an IP Network, The Internet and an Intranet
QoS Options and Comparisons (FIFO, WFQ, CBQ, WRED, ToS)
RIP and Distance Vector Routing
OSPF and Link State Routing
BGPv4 and Interior vs. Exterior Autonomous System Routing
- **IPv6**
Origins and Deployment of IPv6
IPv6 Protocol Structure and Format
Difference/Benefits of IPv4 and IPv6
- **IPv6 Addressing**
Subnets, Netmasks, ICMPv6
Anycasts, Multicasts, Unicasts
- **IPv6 Routing & IP Quality of Service (QoS)**
Routing of Packets across an IPv6 Network, The Internet and an Intranet
QoS Options and Comparisons (FIFO, WFQ, CBQ, WRED, ToS)
RIPv6 and Distance Vector Routing, OSPFv6 and Link State Routing, with IDRPs for IPv6 networks
- **Mobile IP**
Terminology and concepts
Mobile IP Protocol Structure/Format
- **IP VPN's**
Relevance of VPN's, L2TP, IPsec & MPLS
- **VoIP**
Relevance of VoIP, H.323, SIP & Megaco/H.248
- **Future Developments**
What the future holds for the Internet