Telecoms Technology

A two day introductory course, widely used by Australian Commonwealth Government agencies.

Who would benefit from this course?

Those in technical and non-technical roles related to the telecoms sector. Course participants may include telecoms regulators, service providers, financial and legal staff, management staff and engineers.

Outline

This two-day introductory course provides technical and non-technical staff with a clear overview of the Internet, broadband access and the NBN, fixed voice networks, 3G and 4G mobile networks and the WWW.

The course begins by defining packet switched networks, broadband access and Internet protocols. Fixed and wireless networks are then outlined, followed by a review of Internet architecture, of how routers work, and how TCP/IP protocols underpin the Internet. The key characteristics of broadband access networks are then outlined. The first day concludes with an overview of the National Broadband Network (NBN) architecture and services.

The second day begins by examining how domain names, address resolution techniques (DNS), and routing underpin the Internet. Fixed and mobile voice networks are then examined, followed by an outline of 3G, LTE. WiMAX and emerging 4G networks. The course concludes by reviewing email, the WWW, Voice over IP and Skype. and the implications of Web 2.0.

Course Objectives

Participants completing this course should be able to:

- Understand how packet switching underpins the Internet
- Describe the key components of fixed and wireless networks
- Outline the Internet architecture and understand how it developed
- Describe what routers do, and the key role of the TCP/IP protocol
- Understand the operation of ADSL and Cable Broadband
- Describe the NBN service model and key NBN Technologies
- Describe how domain names work, and the role of DNS and routing
- List the components of fixed and mobile voice networks, and the key mechanisms behind mobile voice services
- Describe the capabilities and structure of 3G, LTE, WiMAX and emerging 4G networks
- Describe Internet services, e.g. WWW, email, VOIP, Skype, Web 2.0 and related security issues