

TELECOMS 101

TELECOM, DATACOM AND NETWORKING FOR NON-ENGINEERS

Course Objectives

- Establish a solid base in the fundamentals of telecom, datacom and networking.
- Fill in the gaps. Understand jargon and buzzwords.
- Understand mainstream technologies and solutions.
- Put a structure in place that project-specific knowledge can be built on in the future.
- Understand how it all fits together.
- Develop career-enhancing knowledge skills.

Prerequisites

None

Who should attend

- This course is ideal for non-engineers who are in need of a solid knowledge base to be more effective in dealing with technology projects and technical personnel.
- Those needing to fill in the knowledge gaps, understand the buzzwords and jargon, popular technologies like E1 and TCP/IP, and more importantly, understand the ideas behind these technologies and understand how it all fits together.
- The course is also excellent for those looking to gain employment in the Telecommunications industry.

Duration

2 Days

Part 1: Fundamentals of Telecommunications

The first part covers the Public Switched Telephone Network, equipment and call centers, the telecom business, carriers, digital voice transmission, E1, fiber and SONET backbones, and wireless ... the groundwork for understanding everything.

Objectives

- Understand telecom fundamentals:
- Telephony and the telephone network

- The telecom business
- Digital transmission systems and services
- Fundamentals of wireless.
- Fill in the gaps in your knowledge.
- Form a solid base on which to build.

Part 2: Understanding Data Communications

The second part covers datacom basics including the crucial concepts of IP packets and LAN frames; all about modems including DSL and cable modems, data over digital cellular, how digital circuits and services are provided, muxes vs. switches vs. routers, and finishes with LANs: building blocks for the Networking part.

Objectives

- Understand datacom fundamentals
- The components of a circuit
- How data is organized for transmission
- How data is actually moved from A to B.
- Get the big-picture view.
- See how carrier circuits are actually provided.
- Understand and compare different services.

Part 3: Understanding IP and Networking

The third part brings it all together with a structured discussion of networking: protocol stacks, routers, IP addresses, bandwidth-on-demand services, Voice over IP (VoIP) and IP VPNs, the Internet, and finishes with a top-down review and templates for mainstream solutions you can put to immediate use.

Objectives

- Understand networking fundamentals as well as current practical technologies, services and solutions.
- Understand protocol stacks and OSI, IP addressing and routers
- Understand carrier packet network services
- Gain an overview of Voice over IP and how VoIP connects to the PSTN.
- Understand Internet structure and operation.
- Learn technology deployment steps.