

# Course Outline



Tel: +44 (0) 118 979 4000 Fax: +44 (0) 118 979 4000

Email: [training@ptr.co.uk](mailto:training@ptr.co.uk) Web: [www.ptr.co.uk](http://www.ptr.co.uk)

## Inter-networking with Bridges, Switches & Routers

### Course Description:

Delegates attending this course will gain a good understanding of switching, bridging and routing technologies. The course builds on the PTR Introduction to Data Communications & Networking course to provide a really solid understanding of networking. This will enable delegates to understand, design or troubleshoot Inter-networks more expediently.

### Pre-requisites:

Delegates should already have had some exposure to local and wide area network concepts and terminology and have a level of knowledge equivalent to that provided by the Introduction to Data Communications & Networking course.

### Course Content:

- **Introduction to Inter-networking**
- **LAN Technologies Review**
- Overview of the 7 layer ISO model
- Definition of, and forces behind, Inter-networking
- Overview of devices and Inter-networking concepts
- Ethernet Architecture
- Token Ring Architecture
- FDDI Architecture

21a Peach Street Wokingham Berkshire RG40 1XJ

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Registered Office: Grenville Court Britwell Road Burnham Bucks SL1 8DF Company Registered No: 2442290 – VAT registration No:532 1929 56

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- **Inter-networking Devices**
  - Features of a Repeater
  - Features of a Bridge
  - Transparent Bridging and Spanning Tree
  - Source Routing
  - Features of a Switch
  - Different Switching Modes
  - VLAN Technology
  
- **Inter-networking with Routing**
  - Features of a Router
  - Network and MAC Addressing
  - Address Mapping
  - Routing Tables
  - Routing Protocols (RIP and OSPF)
  - IP Switching
  - Protocols, Routed and Non-Routed
  - Summary Bridges Vs Routers
  
- **Routing Protocol Examples**
  - OSI and TCP/IP models
  - TCP/IP Address Classes A to E
  - IP addressing and subnetting
  - Routing with RIP
  - Routing Table Examples
  - RIP Limitations
  - Routing with OSPF
  - Link State Database
  - OSPF areas
  - OSPF Implementation Considerations
  
- **Network Management (SNMP)**
  - SNMP Managers and Agents
  - GETS, SETS and TRAPS
  - Community names
  - Management Information Base (MIB)

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- **Network Management (SNMP)**
- Vendors MIBS
- RMON Devices

**Course Duration:**

**2 Days**

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