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Nota di contenuto	Front Cover; Ethernet Networking: For the Small Office and Professional Home Office; Copyright Page; Contents; Preface; What You Need to Know; Acknowledgments; Part One: Introduction; Chapter 1. Introduction; Anatomy of a Network; Network Operating Systems; What Ethernet Really Means; Types of Ethernet; Ethernet Standards; A Bit of Ethernet History; Chapter 2. How TCP/IP and Ethernet Work; Network Data Transmission; Major TCP/IP Protocols; The Ethernet MAC Protocol; Alternative Protocol Stacks; Part Two: Design and Connectivity; Chapter 3. Fast and Gigabit Ethernet Media and Standards UTP CablingFiber Optic Cabling; Fast Ethernet Standards; Gigabit Ethernet Standards; Chapter 4. Creating Network Segments; Hubs (Repeaters); Switches; Where Do You Put It? Wiring Closets, Walls, Floors, and Ceilings-Oh, My!; Appendix: Wiring RJ-45 Plugs and Connectors; Chapter 5. Connecting to the Internet; ISPs and IP Addresses; Internet Connection Protocols; Dial-up Connections; Direct Connections; Chapter 6. Routing; IP Addressing; Getting an IP Address; Domain Names and DNS; Making Routing Decisions; Router

Capabilities; Adding Routers to an Ethernet

Chapter 7. Integrating Wireless TransmissionsWireless MAC Protocol versus Ethernet MAC Protocol; Wireless Speeds and Standards; Wireless Access Points; Wireless Security Issues; Part Three: Making the Network Work; Chapter 8. Network Servers: Files, the Web, and Printers; Client-Server versus Peer-to-Peer File Sharing; Server Operating Systems; Web Servers; Print Serving; Chapter 9. Network Maintenance, Monitoring, and Control; Command-Line Tools; Sample GUI-Based Tools; Real-Time Monitoring and Packet Sniffing; Remote Control; Chapter 10.

Security Issues

Security Threats to Home and Small OfficesBasic Defenses; Advanced Defenses; Security Resources; Chapter 11. Network Design and Simulation Software; Network Design Tools; The Network Hierarchy; Simulating Network Traffic; Documenting the Network Design; Part Four: Ethernet Solution Examples; Chapter 12. Network Example 1: Professional Home Network; Chapter 13. Ethernet Example 2: Small-But-Growing Real Estate; Business Overview; Network Plans; Network Design Considerations; Chapter 14. Network Example 3: Small Law Firm; The Internet, the Backbone, and Equipment Rooms

Connecting End-User DevicesSecurity Considerations; Appendix A. Older Ethernet Standards; Thick Coaxial Cable (10BASE5); Thin Coaxial Cable (10BASE2); 10BASE-T; Appendix B. TCP and UDP Ports; Well-Known Ports; Registered Ports; Port List References; Appendix C. Products and Vendors; Glossary; Index

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## Sommario/riassunto

In a local area network (LAN) or intranet, there are many pieces of hardware trying to gain access to the network transmission media at the same time (i.e., phone lines, coax, wireless, etc.). However, a network cable or wireless transmission frequency can physically only allow one node to use it at a given time. Therefore, there must be some way to regulate which node has control of the medium (a media access control, or MAC, protocol). Ethernet is a MAC protocol; it is one way to regulate physical access to network transmission media. Ethernet networking is used primarily by networks th

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