1. Record Nr. UNINA9910784621703321 Autore Harrington Jan L Titolo Ethernet networking for the small office and professional home office [[electronic resource] /] / Jan L. Harrington Amsterdam; ; Boston, : Morgan Kaufmann Publishers/Elsevier, c2007 Pubbl/distr/stampa **ISBN** 1-281-05941-2 9786611059415 0-08-055360-5 Edizione [1st edition] Descrizione fisica 1 online resource (353 p.) Disciplina 004.6/8 Ethernet (Local area network system) Soggetti Home offices Business enterprises - Computer networks Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Includes bibliographical references and index. Nota di bibliografia 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;

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## Sommario/riassunto

In a local area network (LAN) or intranet, there are many pieces of hardare 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 tranmission media. Ethernet networking is used primarily by networks th