1. Record Nr. UNINA9910825033703321

Autore	Rackley Steve
Titolo	Wireless networking technology : from principles to successful implementation / / Steve Rackley
Pubbl/distr/stampa	Oxford, : Newnes/Elsevier, 2007
ISBN	1-280-96258-5 9786610962587 0-08-047140-4
Edizione	[1st edition]
Descrizione fisica	1 online resource (425 p.)
Disciplina	621.382
Soggetti	Wireless communication systems Telecommunication
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Front cover; Wireless Networking Technology; Copyright page; Contents; Chapter 1: Introducing Wireless Networking; Development of Wireless Networking; The Diversity of Wireless Networking Technologies; Organisation of the Book; Part I: WIRELESS NETWORK ARCHITECTURE; Chapter 2: Wireless Network Logical Architecture; The OSI Network Model; Network Layer Technologies; Data Link Layer Technologies; Physical Layer Technologies; Operating System Considerations; Summary; Chapter 3: Wireless Network Physical Architecture; Wired Network Topologies - A Refresher; Wireless Network Topologies Wireless LAN DevicesWireless PAN Devices; Wireless MAN Devices; Summary of Part I; Part II: WIRELESS COMMUNICATION; Chapter 4: Radio Communication Basics; The RF Spectrum; Spread Spectrum Transmission; Wireless Multiplexing and Multiple Access Techniques; Digital Modulation Technique; RF Signal Propagation and Reception; Ultra Wideband Radio; MIMO Radio; Near Field Communications; Chapter 5: Infrared Communication Basics; The Ir Spectrum; Infrared Propagation and Reception; Summary of Part II; Part III: WIRELESS LAN IMPLEMENTATION; Chapter 6: Wireless LAN Standards; The 802.11 WLAN Standards The 802.11 MAC Layer802.11 PHY Layer; 802.11 Enhancements; Other

WLAN Standards; Summary; Chapter 7: Implementing Wireless LANs; Evaluating Wireless LAN Requirements; Planning and Designing the Wireless LAN; Pilot Testing; Installation and Configuration; Operation and Support; A Case Study: Voice over WLAN; Chapter 8: Wireless LAN Security; The Hacking Threat; WLAN Security; WEP - Wired Equivalent Privacy Encryption; Wi-Fi Protected Access - WPA; IEEE 802.11i and WPA2; WLAN Security Measures; Wireless Hotspot Security; VoWLAN and VoIP Security; Summary; Chapter 9: Wireless LAN Troubleshooting Analysing Wireless LAN ProblemsTroubleshooting using WLAN Analysers; Bluetooth Coexistence with 802.11 WLANs; Summary of Part III; Part IV: WIRELESS PAN IMPLEMENTATION; Chapter 10: Wireless PAN Standards; Introduction; Bluetooth (IEEE 802.15.1); Wireless USB; ZigBee (IEEE 802.15.4); IrDA; Near Field Communications; Summary; Chapter 11: Implementing Wireless PANs; Wireless PAN Technology Choices; Pilot Testing; Wireless PAN Security; Summary of Part IV; Part V: WIRELESS MAN IMPLEMENTATION; Chapter 12: Wireless MAN Standards; The 802.16 Wireless MAN Standards; Other WMAN Standards Metropolitan Area Mesh NetworksSummary; Chapter 13: Implementing Wireless MANs; Technical Planning; Business Planning; Start-up Phase; Operating Phase; Summary of Part V; Part VI: THE FUTURE OF WIRELESS NETWORKING TECHNOLOGY; Chapter 14: Leading Edge Wireless Networking Technologies; Wireless Mesh Network Routing; Network Independent Roaming; Gigabit Wireless LANs; Cognitive Radio; Summary of Part VI; Part VII: WIRELESS NETWORKING INFORMATION RESOURCES; Chapter 15: Further Sources of Information; General Information Sources; Wireless PAN Resources by Standard Wireless LAN Resources by Standard

Sommario/riassunto

As the demand for higher bandwidth has lead to the development of increasingly complex wireless technologies, an understanding of both wireless networking technologies and radio frequency (RF) principles is essential for implementing high performance and cost effective wireless networks.Wireless Networking Technology clearly explains the latest wireless technologies, covering all scales of wireless networking from personal (PAN) through local area (LAN) to metropolitan (MAN). Building on a comprehensive review of the underlying technologies, this practical guide contains 'how to