1. Record Nr. UNINA9910143516003321 Autore Tan Teik-Kheong <1964-> Titolo The world wide Wi-Fi [[electronic resource]]: technological trends and business strategies / / Teik-Kheong (TK) Tan, Benny Bing Hoboken, N.J., : Wiley-Interscience, c2003 Pubbl/distr/stampa **ISBN** 1-280-54190-3 9786610541904 0-470-31835-X 0-471-47824-5 0-471-47823-7 Descrizione fisica 1 online resource (219 p.) Altri autori (Persone) BingBenny Disciplina 004.6 004.6/8 004.68 Soggetti Wireless LANs IEEE 802.11 (Standard) Local area networks industry Electronic books. Inglese Lingua di pubblicazione **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references and index. Contents; Foreword; Preface; Acknowledgments; Chapter 1 Nota di contenuto Introduction: 1.1 Past Wireless Lessons: 1.2 What Are Wireless LANs?: 1.3 The 802.11 Standards; 1.4 The Wi-Fi Alliance; 1.5 Wireless Home and Community Networks; 1.6 Public Wi-Fi Services; 1.7 Accessing the Internet Without Wires; 1.8 Mobile Internet for Always-on Communication; 1.9 Your Wi-Fi Network Has No Clothes; 1.10 Simplicity Breeds Usability; 1.11 Technologies On the Horizon; 1.12 Summary: References: Chapter 2 IEEE 802.11 Standards: 2.1 The IEEE 802.11a Task Group; 2.2 The IEEE 802.11b Task Group; 2.3 The IEEE 802.11d Task Group 2.4 The IEEE 802.11e Task Group2.5 The IEEE 802.11f Task Group; 2.6 The IEEE 802.11g Task Group; 2.7 The IEEE 802.11h Task Group; 2.8 The IEEE 802.11i Task Group; 2.9 Physical Transmission; 2.10 Sharing

Network Capacity; 2.11 Multipath Fading and Delay Spread; 2.12 Next

Generation Wireless LANs; 2.13 Throughput versus Data Rate; 2.14 Cable Replacement versus Mobility: 2.15 Wireless LAN Components: 2.15.1 Wireless Network Interface Cards; 2.15.2 Wireless Access Points; 2.15.3 Wireless LAN Switches; 2.15.4 Remote Wireless Bridges; 2.16 Wireless LAN Deployment Considerations 2.17 Roaming and Handoff2.18 Health Concerns; 2.19 Site Survey; 2.20 Wireless Analyzers; 2.21 Network Management; 2.22 Applications; 2.23 Wi-Fi Deployment; 2.23.1 Hotels; 2.23.2 Airports; 2.23.3 Restaurants and Coffee Shops; 2.23.4 Corporations; 2.23.5 Shopping Malls; 2.24 Summary; References; Chapter 3 Wi-Fi Network Security; 3.1 Introduction; 3.2 Wi-Fi Protected Access (WPA); 3.3 The Maginot Line of Wireless LAN Security: 3.3.1 The Problem: 3.3.2 Security Issues Affecting Wireless LANs; 3.4 Initial 802.11 Security Approaches; 3.4.1 Authentication; 3.4.2 Wired Equivalent Privacy (WEP) 3.4.3 WEP's Fatal Flaws3.4.4 802.1x; 3.5 Is the Problem Intractable?; 3.5.1 Wireless Networks; 3.5.2 The Need for a Unified Approach; 3.5.3 The Need for Key Management; 3.6 A Comprehensive Security Architecture for Wireless LANs; 3.6.1 Providing Improved Access Control; 3.6.2 Ensuring Link Privacy and Integrity; 3.7 Summary; References: Chapter 4 QoS Provisioning for 802.11 Wireless Home Networks; 4.1 Basics of Quality of Service (QoS) Provisioning; 4.2 QoS Provisioning in Home Wireless Networks: 4.2.1 Reserved Bandwidth: 4.2.2 Error Control; 4.2.3 Resource Allocation; 4.2.4 Traffic Shaping 4.2.5 Adaptive Applications 4.2.6 Media Compression; 4.2.7 Impact of Higher Layers: 4.2.8 Voice Traffic Support: 4.3 QoS Support at the Higher Network Layers; 4.4 QoS Support in IEEE 802.11 Wireless LANs; 4.4.1 IEEE 802.11e; 4.4.2 IEEE 802.11h; 4.4.3 IEEE 802.11i; 4.5 Case Study: Integrating 802.11 and Hybrid Fiber-Coax (HFC) Cable Networks; 4.5.1 Ongoing Initiatives; 4.5.2 An Integrated 802.11 /DOCSIS Architecture; 4.5.3 Integrated Scheduling and Fragmentation at the MAC Layer; 4.5.4 Throughput Matching; 4.5.5 Network Security and Privacy; 4.6 Summary; References; Chapter 5 Wi-Fi Hotspots 5.1 Enabling Technologies

## Sommario/riassunto

Your success guide to the next wireless revolutionThe next watershed innovation in wireless technology is here: IEEE 802.11 wireless local area networks (LANs).Recent studies from IDC indicate that the Wi-Fi wireless LAN market will likely account for ninety percent of projected LAN equipment revenues by 2005-a trend that promises to spill over into home wireless networks. Yet this amazing growth has also created confusion: Which version of 802.11 is best for vendors and end-users? What about solutions such as the a/g and a/b combinations of the 802.11 standards?In World Wide Wi-Fi