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Sommario/riassunto

Written by experts in the field, this book provides an overview of all forms of broadband subscriber access networks and technology, including fiber optics, DSL for phone lines, DOCSIS for coax, power line carrier, and wireless. Each technology is described in depth, with a discussion of key concepts, historical development, and industry standards. The book contains comprehensive coverage of all broadband access technologies, with a section each devoted to fiber-based technologies, non-fiber wired technologies, and wireless technologies. The four co-authors' breadth of knowledge is featured in the chapters comparing the relative strengths, weaknesses, and prognosis for the competing technologies. Key Features: . Covers the physical and medium access layers (OSI Layer 1 and 2), with emphasis on access transmission technology.. Compares and contrasts all recent and emerging wired and wireless standards for broadband access in a single reference.. Illustrates the technology that is currently being deployed by network providers, and also the technology that has recently been or will soon be standardized for deployment in the coming years, including vectoring, wavelength division multiple access, CDMA, OFDMA, and MIMO.. Contains detailed discussion on the following standards: 10G-EPON, G-PON, XG-PON, VDSL2, DOCSIS 3.0, DOCSIS Protocol over EPON, power line carrier, IEEE 802.11 WLAN/WiFi, UMTS/HSPA, LTE, and LTE-Advanced. Broadband Access will be of interest to broadband service providers, access network equipment vendors, regulators, telecommunications consultants, technical sales and marketing, field application engineers, and product validation and testing organizations. University students and researchers in topics related to broadband access will also find the book useful as a quick reference to a wide range of technologies.