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Sommario/riassunto

The mobile industry for wireless cellular services has grown at a rapid pace over the past decade. Similarly, Internet service technology has also made dramatic growth through the World Wide Web with a wire line infrastructure. Realization for complete wired/wireless mobile Internet technologies will become the future objectives for convergence of these technologies through multiple enhancements of both cellular mobile systems and Internet interoperability. Flawless integration between these two wired/wireless networks will enable subscribers to not only roam worldwide, but also to solve the ever increasing demand for data/Internet services. In order to keep up with this noteworthy growth in the demand for wireless broadband, new technologies and structural architectures are needed to greatly improve system performance and network scalability while significantly reducing the cost of equipment and deployment. Dr. Rhee covers the technological development of wired/wireless internet communications in compliance with each iterative generation up to 4G systems, with emphasis on wireless security aspects. By progressing in a systematic matter, presenting the theory and practice of wired/wireless mobile technologies along with various security problems, readers will gain an intimate sense of how mobile internet systems operate and how to address complex security issues. Features: . Written by a top expert in information security. Gives a clear understanding of wired/wireless mobile internet technologies. Presents complete coverage of various cryptographic protocols and specifications needed for 3GPP: AES, KASUMI, Public-key and Elliptic curve cryptography. Forecast new features and promising 4G packet-switched wireless internet

technologies for voice and data communications. Provides MIMO/OFDMA-based for 4G systems such as Long Term Evolution (LTE), Ultra Mobile Broadband (UMB), Mobile WiMax or Wireless Broadband (WiBro). Deals with Intrusion Detection System against worm/virus cyber attacks The book ideal for advanced undergraduate and postgraduate students enrolled in courses such as Wireless Access Networking, Mobile Internet Radio Communications. Practicing engineers in industry and research scientists can use the book as a reference to get reacquainted with mobile radio fundamentals or to gain deeper understanding of complex security issues.