# Wireless Network Evolution: 2G to 3G

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Prentice Hall, 2001. Book Condition: New. Brand New, Unread Copy in Perfect Condition. A+ Customer Service! Summary: (NOTE:Each chapter begins with an Introduction and concludes with a Summary and References.) I. FUNDAMENTALS OF CDMA AND ITS APPLICATIONS TO 2G SYSTEMS. 1. An Overview of Second- and Third-Generation (3G) Air Interfaces. PCS Standardization Activities in North America. Major Attributes of CDMA Systems. Market Trends of Digital Wireless Technologies. Third-Generation (3G) Systems. 2. Propagation and Path Loss Models. Free-Space Attenuation. Attenuation over Reflecting Surfaces. Effect of the Earth's Curvature. Signal Fading Statistics. Empirical Models for Path Loss. Frequency Diversity and Wideband Signals. Link Budget and Cell Coverage. Problems. 3. Direct-Sequence Spread-Spectrum (DSSS) and TIA IS-95 CDMA. The Concept of a Spread-Spectrum System. Requirements of Direct-Sequence Spread-Spectrum. Coherent Binary Phase-Shift Keying DSSS. Quadrature Phase-Shift Keying DSSS. Spreading Codes. Multipath Signal Propagation and the RAKE Receiver. Resolution of Multipath. Frame Quality and Bit Error Rate (BER) Requirements. Critical Challenges of CDMA. TIA IS-95 CDMA System. Problems. 4. Speech and Channel Coding, Spreading Codes, and Modulation. Speech Coding. Speech Codecs in European Systems. QCELP Speech Codec. Enhanced Variable-Rate Codec (EVRC). Channel Coding. Spreading Codes. Modulation. Problems. 5. Physical and Logical Channels of IS-95. Physical Channels....

## Reviews