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Nota di contenuto	Title Page; Table of Contents; About the Author; Preface; Part 1: LTE Basics and Optimization Overview; 1 LTE Basement; 1.1 LTE Principle; 1.2 LTE Services; 1.3 LTE Key Technology Overview; 2 LTE Optimization Principle and Method; 2.1 LTE Wireless Optimization Overview; 2.2 LTE Optimization Procedure; 2.3 LTE Optimization Key Point; Part 2: Main Principles of LTE Optimization; 3 Coverage Optimization; 3.1 Traffic Channel Coverage; 3.2 Control Channel Coverage; 4 Capacity Optimization; 4.1 RS SINR; 4.2 PDCCH Capacity; 4.3 PUCCH Capacity; 4.4 Number of Scheduled UEs; 4.5 Spectral Efficiency. 4.6 DL Data Rate Optimization 4.7 UL Data Rate Optimization; 4.8 Parameters Impacting Throughput; 5 Internal Interference Optimization; 5.1 Interference Concept; 5.2 DL Interference; 5.3 UL Interference; 5.4 Inter-Cell Interference Coordination; 5.5 UL IoT Control; 6 Drop Call Optimization; 6.1 Drop Call Mechanism; 6.2 Reasons of Call Drop and Optimization; 6.3 RRC Connection Reestablishment; 6.4 RRC Connection Supervision; 7 Latency

Optimization; 7.1 User Plane Latency; 7.2 Control Plane Latency; 7.3 Random Access Latency Optimization; 7.4 Attach Latency Optimization. 7.5 Paging Latency Optimization 7.6 Parameters Impacting Latency; 8 Mobility Optimization; 8.1 Mobility Management; 8.2 Mobility Parameter; 8.3 Intra-LTE Cell Reselection; 8.4 Intra-LTE Handover Optimization; 8.5 Neighbor Cell Optimization; 8.6 Measurement Gap; 8.7 Indoor and Outdoor Mobility; 8.8 Inter-RAT Mobility; 8.9 Handover Interruption Time Optimization; 8.10 Handover Failure and Improvement; 8.11 Mobility Robustness Optimization; 8.12 Carrier Aggregation Mobility Optimization; 8.13 FDD-TDD Inter-mode Mobility Optimization; 8.14 Load Balance; 8.15 High-Speed Mobile Optimization.

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Sommario/riassunto

A comprehensive resource containing the operating principles and key insights of LTE networks performance optimization LTE Optimization Engineering Handbook is a comprehensive reference that describes the most current technologies and optimization principles for LTE networks. The text offers an introduction to the basics of LTE architecture, services and technologies and includes details on the key principles and methods of LTE optimization and its parameters. In addition, the author clarifies different optimization aspects such as wireless channel optimization, data optimization, CSFB, VoLTE, and video optimization. With the ubiquitous usage and increased development of mobile networks and smart devices, LTE is the 4G network that will be the only mainstream technology in the current mobile communication system and in the near future. Designed for use by researchers, engineers and operators working in the field of mobile communications and written by a noted engineer and experienced researcher, the LTE Optimization Engineering Handbook provides an essential guide that: -Discusses the latest optimization engineering technologies of LTE networks and explores their implementation - Features the latest and most industrially relevant applications, such as VoLTE and HetNets -Includes a wealth of detailed scenarios and optimization real-world case studies Professionals in the field will find the LTE Optimization Engineering Handbook to be their go-to reference that includes a thorough and complete examination of LTE networks, their operating principles, and the most current information to performance optimization.
