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Sommario/riassunto

This extensively updated second edition of LTE Signaling, Troubleshooting, and Performance Measurement describes the LTE signaling protocols and procedures for the third generation of mobile communications and beyond. It is one of the few books available that explain the LTE signaling messages, procedures, and measurements down to the bit and byte levels; and all trace examples are taken for a real lab and field trial traces. This book covers the crucial key performance indicators (KPI) to be measured during field trials and deployment phase of new LTE networks. It describes how statistic values can be aggregated and evaluated, and how the network can be optimized during the first stages of deployment, using dedicated examples to enhance understanding. Written by experts in the field of mobile communications, this book systematically describes the most recent LTE signaling procedures, explaining how to identify and troubleshoot abnormal network behavior and common failure causes, as well as describing the normal signaling procedures. This is a unique feature of the book, allowing readers to understand the root cause analysis of problems related to signaling procedures. This book will be especially useful for network operators and equipment manufacturers; engineers; technicians; network planners; developers; researchers; designers; testing personnel and project managers; consulting and training companies; and standardization bodies. Key features: * Updated second edition includes new sections on LTE Advanced, Hybrid ARQ, Paging, CS Fallback, inter-RAT Mobility, and KPI Visualization using Geolocation * Covers the crucial key performance indicators (KPI) to be measured during field trials and deployments phase of LTE networks * Addresses network monitoring including probe-less monitoring scenarios and optimization for early analysis of LTE systems, using dedicated case examples * Systematically guides the reader through the common failure causes relating to LTE signaling, showing how to troubleshoot abnormal network behavior.
