1. Record Nr.   UNINA9910300461403321

   Autore   Venkataraman Krishnamurthy Trichy

   Titolo   4G: Deployment Strategies and Operational Implications : Managing Critical Decisions in Deployment of 4G/LTE Networks and their Effects on Network Operations and Business / / by Trichy Venkataraman Krishnamurthy, Rajaneesh Shetty

   Pubbl/distr/stampa Berkeley, CA : , : Apress : , : Imprint : Apress, , 2014

   ISBN   9781430263265
                       1430263261

   Edizione   [1st ed. 2014.]

   Descrizione fisica 1 online resource (177 p.)

   Collana   Expert's Voice In Networking

   Disciplina   621.38456

   Soggetti   Computer networks
                       Computer organization
                       Computer Communication Networks
                       Computer Systems Organization and Communication Networks

   Lingua di pubblicazione   Inglese

   Formato   Materiale a stampa

   Livello bibliografico   Monografia

   Note generali   Includes index.

   Nota di contenuto   Contents at a Glance; Contents; About the Authors; Introduction; Chapter 1: Network Planning; Dimensioning Phase; Configuration for the Site; User and Traffic Volume Estimation; Coverage and Capacity Estimation; Interface Requirement; Budget Information; Planning and Implementation Phase; Optimization Phase; Coverage Planning; Improving Coverage for a Given Service Area; Capacity Planning; Improve Capacity for a Particular Service Area; Radio Link Budget for LTE; Transmission Power; Antenna Gains; Diversity Gain; Cable and Connector Losses; Propagation Loss; LTE Band; Bandwidth Options TDD vs. FDDMIMO; Transmit Diversity Mode; Closed Loop Spatial Multiplexing; Open Loop Spatial Multiplexing; Beamforming; UE Capabilities; Cell Sizes: Femto vs. Micro vs. Macro; LTE Performance Testing; Key Performance Indicator Verification; Accessibility of KPI Testing; Retainability of KPI Testing; Integrity of KPI Testing; Availability of KPI Testing; Mobility of KPI Testing; Traffic Model Testing; Dense Urban Model; Urban Small Office Model; Urban Residential Area Model; Highway Model; Rural Large Cell Model; Overload and Capacity Testing;

Sommario/riassunto

As telecommunications operators and network engineers understand, specific operational requirements drive early network architectural and design decisions for 4G networks. But they also know that because technology, standards, usage practices, and regulatory regimes change on a continuous basis, so do best practices. 4G: Deployment Strategies and Operational Implications helps you stay up to date by providing the latest innovative and strategic thinking on 4G and LTE deployments. It evaluates specific design and deployment options in depth and offers roadmap evolution strategies for LTE network business development. Fortunately, as you'll discover in this book, LTE is a robust and flexible standard for 4G communications. Operators developing 4G deployment strategies have many options, but they must consider the tradeoffs among them in order to maximize the return on investment for LTE networks. This book will show operators how to develop detailed but flexible deployment road maps incorporating business requirements while allowing the agility that expected and unexpected network evolution require. Such road maps help you avoid costly redeployment while leveraging profitable traffic. Telecommunications experts and authors Trichy Venkataraman Krishnamurthy and Rajaneesh Shetty examine various architectural options provided by the flexibility of LTE and their effect on the general current and future capability of the designed network. They examine specific features of the network, while covering specific architectural deployment strategies through example and then assessing their implications on both near- and long-term operations as well as potential evolutionary paths. Besides helping you understand and communicate network upgrade and architectural evolution road maps (with options), you will learn: How to plan for accessibility, retainability, integrity, availability, and mobility How to

balance loads effectively How to manage the constraints arising from regulation and standardization How to manage the many disruptive factors affecting LTE networks 4G: Deployment Strategies and Operational Implications also outlines specific network strategies, which network features and deployment strategies support those strategies, and the trade-offs in business models depending on the strategies chosen. Best of all you will learn a process for proactive management of network road map evolution, ensuring that your network—and your skills—remain robust and relevant as the telecommunications landscape changes.