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Descrizione fisica	1 online resource (387 p.)
Classificazione	ZN 6560
Disciplina	621.3845/6 621.38456
Soggetti	Universal Mobile Telecommunications System Cell phone systems
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references (p. [331]-336) and index.
Nota di contenuto	UMTS motivation and context -- Standardization -- UMTS architecture and functionality -- UMTS radio interface technology : the physical layer -- Packet-switched domain : architecture and protocols -- Circuit-switched domain : architecture and protocols -- UMTS terrestrial radio access network : architecture and protocols -- User equipment : architecture and protocols -- IP multimedia subsystem : architecture and protocols -- Basic UMTS functionality -- Mobility -- Security -- Quality of service -- Session control -- Charging -- Policy control -- WLAN and other alternative access methods -- UMTS releases summary -- 4G motivation and context -- Evolution towards 4G : 3GPP -- Evolution towards 4G : non-3GPP technologies -- Beyond 4G?
Sommario/riassunto	An all-encompassing coverage on UMTS Networks including an in-depth discussion of current work on UMTS evolution and 4G . UMTS Networks and Beyond offers a comprehensive introduction to the

networking aspects of UMTS and the networks coming after UMTS. The book is unique in that it systematically compares how a particular problem, e.g. obtaining connectivity, is solved in UMTS and how the same problem is solved in a Computer Network such as the Internet. It also highlights why the respective solutions are so different. The first part of the book provides a detailed technical discussion of UMTS, including original vision, architecture, protocol stacks and overall functionality. It places UMTS in the context of its evolution of from GSM and its convergence with Computer Networks. The second part of the book discusses today's vision of 4G, and introduces upcoming networking technologies. Emphasis is on LTE / SAE as successor of UMTS; UMB, WiMAX and NGN are also discussed. The book gives an overview of what these technologies are likely to offer, of their architectures, protocols and functionality. It also discusses their differences and similarities, and whether they will qualify as 4G. Key Features: *Provides readers, particularly those with a background in IP-based networks, with a technical understanding of what UMTS does, how it works and how it is likely to evolve *Explains the differences in design between UMTS Networks and Computer Networks and discusses how these design divergences can be reconciled in the future *Shows how economic considerations shape the design of UMTS *Motivates why particular design choices are made in UMTS *Gives an in-depth introduction to LTE / SAE *Provides a detailed picture of the state of the art in 4G *Illustrates the theory with numerous tables and figures This comprehensive textbook is essential reading for advanced students and lecturers in communications systems and networking. It is also of interest to engineers and researchers in the field of UMTS and communications systems.