

Network Communications Technology

In bringing to the readers the book 5G Multimedia Communication: Technology, Multiservices and Deployment, the aim is to present current work and direction on the challenging subject of multimedia communications, with theoretical and practical roots. The past two decades have witnessed an extremely fast evolution of mobile cellular network technology. The fifth generation of mobile wireless systems has achieved the first milestone toward finalization and deployment by 2020. This is vital to the development of future multimedia communications. Also, it is necessary to consider 5G technology from the performance point of view by analyzing network capabilities to the operator and to the end user in terms of data rate, capacity, coverage, energy efficiency, connectivity and latency. The book is divided into three major parts with each part containing four to seven chapters: • Critical enabling technology • Multiservices network • Deployment scenarios The first part discusses enabling technologies, such as green communication, channel modeling, massive and distributed MIMO and ML-based networks. In the second part, different methodologies and standards for multiservices have been discussed. Exclusive chapters have been dedicated to each of the open research challenges such as multimedia operating in 5G environment, network slicing optimization, mobile edge computing, mobile video multicast/broadcast, integrated satellite and drone communication. The third part paved the way to deployment scenarios for different innovative services including integration of a multienergy system in smart cities, intelligent transportation systems, 5G connectivity in the transport sector, healthcare services, 5G edge-based video surveillance and challenges of connectivity for massive IoT in 5G and beyond systems. The book is written by experts in the field who introduced scientific and engineering concepts, covering the 5G multimedia communication areas. The book can be read cover-to-cover or selectively in the areas of interest for the readers. Generally, the book is intended for novel readers who could benefit from understanding general concepts, practitioners who seek guidance into the field and senior-level as well as graduate-level engineering students in understanding the process of today's wireless multimedia communications.

The constant advancements of wireless technologies have influenced modern business practices as well as social interaction. As a result, the continuing study of communications and networking is important to better understand existing modes of information transfer, as well as developing and managing new methods. Advancements and Innovations in Wireless Communications and Network Technologies is a collection of research and case studies which tackle the issues, advancements and techniques on wireless communications and network technologies. This book offers expansive knowledge and different perspectives useful for researchers and students alike. Recent developments in computer communications and networks have enabled the deployment of exciting new areas such as Internet of Things and collaborative big data analysis. The design and implementation of energy efficient future generation communication and networking technologies also require the clever research and development of mobile, pervasive, and large-scale computing technologies. Advances in Computer Communications and Networks: from Green, Mobile, Pervasive Networking to Big Data Computing studies and presents recent advances in

communication and networking technologies reflecting the state-of-the-art research achievements in novel communication technology and network optimization. Technical topics discussed in the book include: Data Center Networks Mobile Ad Hoc Networks Multimedia Networks Internet of Things Wireless Spectrum Network Optimization. This book is ideal for personnel in computer communication and networking industries as well as academic staff and collegial, master, Ph.D. students in computer science, computer engineering, electrical engineering and telecommunication systems.

"This book presents quality articles focused on key issues concerning the planning, design, maintenance, and management of telecommunications and networking technologies"--Provided by publisher.

This volume constitutes the second of three parts of the refereed proceedings of the First International Conference on Computer Science and Information Technology, CCSIT 2010, held in Bangalore, India, in January 2011. The 66 revised full papers presented in this volume were carefully reviewed and selected. The papers are organized in topical sections on networks and communications; network and communications security; wireless and mobile networks.

This book provides professionals with a fresh and comprehensive survey of the entire field of computer networks and Internet technology—including an up-to-date report of leading-edge technologies. TCP/IP, network security, Internet protocols, integrated and differentiated services, TCP performance, congestion in data networks, network management, and more. For programmers, systems engineers, network designers, and others involved in the design of data communications and networking products; product marketing personnel; and data processing personnel who want up-to-date coverage of a broad survey of topics in networking, Internet technology and protocols, and standards.

Simulation is a widely used mechanism for validating the theoretical models of networking and communication systems. Although the claims made based on simulations are considered to be reliable, how reliable they really are is best determined with real-world implementation trials. *Simulation Technologies in Networking and Communications: Selecting the Best Tool for the Test* addresses the spectrum of issues regarding the different mechanisms related to simulation technologies in networking and communications fields. Focusing on the practice of simulation testing instead of the theory, it presents the work of more than 50 experts from around the world. Considers superefficient Monte Carlo simulations Describes how to simulate and evaluate multicast routing algorithms Covers simulation tools for cloud computing and broadband passive optical networks Reports on recent developments in simulation tools for WSNs Examines modeling and simulation of vehicular networks The book compiles expert perspectives about the simulation of various networking and communications technologies. These experts review and evaluate popular simulation modeling tools and recommend the best tools for your specific tests. They also explain how to determine when theoretical modeling would be preferred over simulation. This book does not provide a verdict on the best suitable tool for simulation. Instead, it supplies authoritative analyses of the different kinds of networks and systems. Presenting best practices and insights from global experts, the book provides you with an understanding of what to simulate, where to simulate, whether to simulate or not, when to simulate, and how to simulate for a wide range of issues.

In recent years there has been many developments in communication technology. This has greatly enhanced the computing power of small handheld resource-constrained mobile devices. Different generations of communication technology have evolved. This has led to new research for communication of large volumes of data in different transmission media and the design of different communication protocols. Another direction of research concerns the secure and error-free communication between the sender and receiver despite the risk of the presence of an eavesdropper. For the communication requirement of a huge amount of multimedia streaming data, a lot of research has been carried out in the design of proper overlay networks. The book addresses new research techniques that have evolved to handle these challenges. Computer communications is one of the most rapidly developing technologies and it is a subject with which everyone in the computer systems profession should be familiar. Computer communications and networks is an introduction to communications technology and system design for practising and aspiring computer professionals. The subject is described from the computer system designer's point of view rather than from the communications engineer's viewpoint. The presentation is suitable for introductory reading as well as for reference. The emphasis is on practical, rather than theoretical, aspects and on technology which will become more important in the future. The majority of the subject matter applies to civil and military communications but some aspects which are unique to military applications have been included where considered significant. Computer communications is a rapidly changing and highly complex subject. Sufficient practical knowledge of the subject is not usually gained at university or college but is generally developed over a period of several years by trial and error, attending courses, reading reference books and journals; this book attempts to simplify and speed up the process by bringing together a body of information which is otherwise distributed throughout many books and journals. The information is presented in a framework which makes a wider understanding of the subject possible. Basic knowledge of communications is assumed, a general familiarity with computer systems is anticipated in later chapters, and, where relevant, theory is explained.

Teleservice is a common concept for distributed application services related to the use of telecommunication equipment, PCs, workstations and mainframes. Teleservices represent a diversity of applications related to various user and vendor cultures such as traditional telecommunications services, E-mail services, cooperative work, applications, multimedia applications, mobile services and intelligent network services. The complexity and diversity of teleservices are increasing, but of greater importance is the change in the way in which teleservices are designed, delivered and maintained. Information Network and Data Communications captures the cultural as well as the technical variety of teleservice.

We depend on information and information technology (IT) to make many of our day-to-day tasks easier and more convenient. Computers play key roles in transportation, health care, banking, and energy. Businesses use IT for payroll and accounting, inventory and sales, and research and development. Modern military forces use weapons that are increasingly coordinated through computer-based networks. Cybersecurity is vital to protecting all of these functions. Cyberspace is vulnerable to a broad spectrum of hackers, criminals, terrorists, and state actors. Working in cyberspace, these malevolent actors can steal money, intellectual property, or classified information; impersonate law-abiding parties for their own purposes; damage important data; or deny the availability of normally accessible services. Cybersecurity issues arise because of three factors taken together - the presence of malevolent actors in cyberspace, societal reliance on IT for many important functions, and the presence of vulnerabilities in IT systems. What steps can policy makers take to protect our government, businesses, and the public from those who would take advantage of system vulnerabilities? At the

Nexus of Cybersecurity and Public Policy offers a wealth of information on practical measures, technical and nontechnical challenges, and potential policy responses. According to this report, cybersecurity is a never-ending battle; threats will evolve as adversaries adopt new tools and techniques to compromise security. Cybersecurity is therefore an ongoing process that needs to evolve as new threats are identified. At the Nexus of Cybersecurity and Public Policy is a call for action to make cybersecurity a public safety priority. For a number of years, the cybersecurity issue has received increasing public attention; however, most policy focus has been on the short-term costs of improving systems. In its explanation of the fundamentals of cybersecurity and the discussion of potential policy responses, this book will be a resource for policy makers, cybersecurity and IT professionals, and anyone who wants to understand threats to cyberspace.

A comprehensive overview of the 5G landscape covering technology options, most likely use cases and potential system architectures.

"This book highlights comprehensive research that will enable readers to understand, manage, use, and maintain business data communication networks more effectively"--Provided by publisher.

"This book contains case studies, theories, and empirical research aimed to assist individuals and organizations in understanding the critical concepts of data networking and communications"--Provided by publisher.

This textbook explores all of the protocols and technologies essential to IoT communication mechanisms. Geared towards an upper-undergraduate or graduate level class, the book is presented from a perspective of the standard layered architecture with special focus on protocol interaction and functionality. The IoT protocols are presented and classified based on physical, link, network, transport and session/application layer functionality. The author also lets readers understand the impact of the IoT mechanisms on network and device performance with special emphasis on power consumption and computational complexity. Use cases – provided throughout – provide examples of IoT protocol stacks in action. The book is based on the author's popular class "Fundamentals of IoT" at Northeastern University. The book includes examples throughout and slides for classroom use. Also included is a 'hands-on' section where the topics discussed as theoretical content are built as stacks in the context of an IoT network emulator so readers can experiment.

This book identifies areas that represent new needs and opportunities for human factors research in the coming decades. It is forward-looking, problem oriented, and selectively focused on national or global problems, including productivity in organizations, education and training, employment and disabilities, health care, and environmental change; technology issues, including communications technology and telenetworking, information access and usability, emerging technologies, automation, and flexible manufacturing, and advanced transportation systems; and human performance, including cognitive performance under stress and aiding intellectual work.

This book presents state-of-the-art theories and technologies and discusses developments in the two major fields: engineering and sustainable computing. In this modern era of information and communication technologies [ICT], there is a growing need for new sustainable and energy-efficient communication and networking technologies. The book highlights significant current and potential international research relating to theoretical and practical methods toward developing sustainable communication and networking technologies. In particular, it focuses on emerging technologies such as wireless communications, mobile networks, Internet of things [IoT], sustainability, and edge network

models. The contributions cover a number of key research issues in software-defined networks, blockchain technologies, big data, edge/fog computing, computer vision, sentiment analysis, cryptography, energy-efficient systems, and cognitive platforms.

Green Communications and Networking introduces novel solutions that can bring about significant reductions in energy consumption in the information and communication technology (ICT) industry-as well as other industries, including electric power. Containing the contributions of leading experts in the field, it examines the latest research advances

The mobile market has experienced unprecedented growth over the last few decades. Consumer trends have shifted towards mobile internet services supported by 3G and 4G networks worldwide. Inherent to existing networks are problems such as lack of spectrum, high energy consumption, and inter-cell interference. These limitations have led to the emergence of 5G technology. It is clear that any 5G system will integrate optical communications, which is already a mainstay of wide area networks. Using an optical core to route 5G data raises significant questions of how wireless and optical can coexist in synergy to provide smooth, end-to-end communication pathways. Optical and Wireless

Convergence for 5G Networks explores new emerging technologies, concepts, and approaches for seamlessly integrating optical-wireless for 5G and beyond. Considering both fronthaul and backhaul perspectives, this timely book provides insights on managing an ecosystem of mixed and multiple access network communications focused on optical-wireless convergence. Topics include Fiber–Wireless (FiWi), Hybrid Fiber-Wireless (HFW), Visible Light Communication (VLC), 5G optical sensing technologies, approaches to real-time IoT applications, Tactile Internet, Fog Computing (FC), Network Functions Virtualization (NFV), Software-De?ned Networking (SDN), and many others. This book aims to provide an inclusive survey of 5G optical-wireless requirements, architecture developments, and technological solutions.

This thorough primer examines the technological aspects of networking through a practical approach. Readers will gain knowledge of local area networks (LANs), wide area networks (WANs), the Internet, wireless LANs, wireless MANs, voice over IP (VoIP), as well as asynchronous transfer mode (ATM) and network security. Introductory chapters on foundational topics, such as data communications and computer architecture give readers the knowledge base they need to understand more complex networking concepts. This book effectively utilizes a practical approach to networking rather than a strict focus on theory or math, and requires no prior background in communications technology. This text emphasizes the technology aspects of networking instead of a strict focus on theory or networking software. The topics are appropriate for introductory courses in both Electronics and Computer Science. Networking topics are covered in simple terms, with an emphasis on the practical rather than the theoretical. Undergraduate students majoring in Electronics or Computer

Science will find this to be an ideal text for the first course in computer networks. It is also appropriate for upper level courses for IS students and for students in technical colleges. (Keywords: Electronic Communication)

Network Communications Technology Cengage Learning

Overview and Goals Wireless communication technologies are undergoing rapid advancements. The past few years have experienced a steep growth in research in the area of wireless ad hoc networks. The attractiveness of ad hoc networks, in general, is attributed to their characteristics/features such as ability for infrastructure-less setup, minimal or no reliance on network planning and the ability of the nodes to self-organize and self-configure without the involvement of a centralized network manager, router, access point or a switch. These features help to set up a network fast in situations where there is no existing network setup or in times when setting up a fixed infrastructure network is considered infeasible, for example, in times of emergency or during relief operations. Even though ad hoc networks have emerged to be attractive and they hold great promises for our future, there are several challenges that need to be addressed. Some of the well-known challenges are attributed to issues relating to scalability, quality-of-service, energy efficiency and security.

A timely overview of a complete spectrum of technologies specifically designed for public safety communications as well as their deployment and management. In our increasingly disaster-prone world, the need to upgrade and better coordinate our public safety networks combined with successful communications is more critical than ever. **Fundamentals of Public Safety Networks and Critical Communications Systems** fills a gap in the literature by providing a book that reviews a comprehensive set of technologies, from most popular to the most advanced communications technologies that can be applied to public safety networks and mission-critical communications systems. The book explores the technical and economic feasibility, design, application, and sustainable operation management of these vital networks and systems. Written by a noted expert in the field, the book provides extensive coverage of systems, services, end-user devices, and applications of public-safety services and technologies. The author explores the potential for advanced public safety systems, and this comprehensive text covers all aspects of the public safety and critical communications network field. This important book: Provides an introduction to and discussion of the common characteristics of our critical communications systems Presents a review of narrowband technologies such as Project 25, TETRA, and DMR as well as the broadband technologies such as the LTE technology Focuses on the emerging technologies that can be adopted to improve our vital communications systems Discusses deployment of such technologies, including economics and finance, planning and project management Provides, in detail, the issues and solutions related to the management of such communications networks Offers a complete list of standards documents Written for professionals in the industry, academics, and

government and regulatory agencies, Fundamentals of Public Safety Networks and Critical Communications Systems offers a review of the most significant safety technologies, explores the application for advanced technologies, and examines the most current research.

Here's an easy-to-comprehend book that gives you a complete introduction to communication technologies and systems, offering you a solid understanding of the fundamentals, history and future direction of this ever-changing field. Geared towards non-technical business professionals and students, this unique resource integrates human physiology and factors, important inventors and business people, and basic technological principles to explain the key concepts and developments of modern communications.

The implementation of Enterprise Networks or e-Networking is of paramount importance for organisations. Enterprise-wide networking would warrant that the components of information architecture are organised to harness more out of the organisation's computing power on the desktop. This would also involve establishment of networks that link the various but important subsystems of the enterprise. Our firm belief is that in order to gain a competitive edge the organisations need knowledge and sound strategy. This conviction is particularly true today, considering the pressures from international competition, environmental concerns and complicated ethical issues. This book, entitled A Manager's Primer on e-Networking, negotiates the hyper dimensions of the Internet through stories from myriad of Web sites with its fluent presentation and simple but chronological organisation of topics highlighting numerous opportunities and providing a solid starting point not only for inexperienced entrepreneurs and managers but anyone interested in applying information technology in the business. I sincerely hope the book will help as well many small and medium size companies and organisations to launch corporate networking successfully in order to attain their strategic objectives. Rajiv Jayashankar, Ph. D. This book presents an overview of local access networks and discusses new emerging technologies. Underpinning much of the evolving communications technology is the local access itself, both in traditional form of copper pairs but increasingly too through the use of new fibre, radio and copper systems.

Technology has gradually transitioned from wired to wireless over the years with tons of benefits. From the Internet of Things to wireless communication, we are all witnesses of the huge benefits of wireless technologies. This book covers various subjects and highlights both the benefits and challenges of wireless technologies. Topics: * Wireless Communication Technologies * Mobile Communication Systems * Wireless technology challenges * Network Protocols * Wireless Technology Security * Features of Secure Wireless Network Security * Security Issues in Wireless Networks * Wireless Network Computer Architecture * Cellular Wireless Networks * Communication Systems and Networks * Cisco Systems * Wireless Network Applications * Wired Network Components * Wireless Network Components * Network Security

Mobile wireless communication systems have affected every aspect of life. By providing seamless connectivity, these systems enable almost all the smart devices in the world to communicate with high speed throughput and extremely low latency. The next generation of cellular mobile communications, 5G, aims to support the tremendous growth of interconnected things/devices (i.e., internet of things [IoT]) using the current technologies and extending them to be used in higher frequencies to cope with the huge number of different devices. In addition, 5G will provide massive capacity, high throughput, lower end-to-end delay, green communication, cost reduction, and extended coverage area. *Fundamental and Supportive Technologies for 5G Mobile Networks* provides detailed research on technologies used in 5G, their benefits, practical designs, and recent challenges and focuses on future applications that could exploit 5G network benefits. The content within this publication examines cellular communication, data transmission, and high-speed communication. It is designed for network analysts, IT specialists, industry professionals, software engineers, researchers, academicians, students, and scientists.

Designing for Networked Communications: Strategies and Development explains how to plan, use, and understand the products and the dynamic social processes and tasks some of the most vital innovations in the knowledge society depend upon? social as well as technological. Focusing on various forms of design, implementation and integration of computer mediated communication, this book bridges the academic fields of computer science and communication studies. *Designing for Networked Communications: Strategies and Development* uses an interdisciplinary approach, and presents results from recent and important research in a variety of forms for networked communications. A constructive and critical view of the interplay between the new electronic and the more conventional modes of communication are utilized, while studies of organizational work practices demonstrate that the use of new technologies and media is best understood and integrated into work practices. In this process of merging, both are remodelled and rearranged while being adapted to the practices and activities for which they were designed.

Packed with diagrams and illustrations, *Communications & Systems* delivers plain-English explanations of all the technical fundamentals -- and puts everything in context by addressing standards, regulations, and the real-world outlook for legacy, contemporary, and emerging technologies. In this unique overview, Ray Horak lucidly describes today's communications systems and networks -- voice, data, video, and multimedia -- and explains how they are likely to evolve and converge as we move further toward an information-based economy. Whether you're a communications pro who wants to gain some perspective or you just want to understand our increasingly wired and wireless world, this is the one book you need to see the big picture, with just the right amount of detail.

In recent years, the surge of blockchain technology has been rising due to is

proven reliability in ensuring secure and effective transactions, even between untrusted parties. Its application is broad and covers public and private domains varying from traditional communication networks to more modern networks like the internet of things and the internet of energy crossing fog and edge computing, among others. As technology matures and its standard use cases are established, there is a need to gather recent research that can shed light on several aspects and facts on the use of blockchain technology in different fields of interest. Enabling Blockchain Technology for Secure Networking and Communications consolidates the recent research initiatives directed towards exploiting the advantages of blockchain technology for benefiting several areas of applications that vary from security and robustness to scalability and privacy-preserving and more. The chapters explore the current applications of blockchain for networking and communications, the future potentials of blockchain technology, and some not-yet-prospected areas of research and its application. This book is ideal for practitioners, stakeholders, researchers, academicians, and students interested in the concepts of blockchain technology and the potential and pitfalls of its application in different utilization domains.

For an accessible and comprehensive survey of telecommunications and data communications technologies and services, consult the Telecommunications and Data Communications Handbook, which includes information on origins, evolution and meaningful contemporary applications. Find discussions of technologies set in context, with details on fiber optics, cellular radio, digital carrier systems, TCP/IP, and the Internet. Explore topics like Voice over Internet Protocol (VoIP); 802.16 & WiMAX; Passive Optical Network (PON); 802.11g & Multiple Input Multiple Output (MIMO) in this easily accessible guide without the burden of technical jargon.

Multimedia and Communications Technology is a practical explanation of the technologies that bring together existing products such as the PC, telephone and television. It is precisely this revolution that the book addresses - offering an up to date technical overview of developments in PC technology, video and audio compression, telecommunications and many other disciplines. Written as a series of tutorials, the book starts with the fundamental techniques of digital audio and video, moving on to compression techniques such as JPEG and MPEG. The delivery systems for multimedia are then covered, starting with the CD and on to telephones, local and wide area networks and ATM and ADSL. The final chapters describe how these technologies are brought together in some key applications: - video conferencing - digital video broadcasting - video on demand - interactive television Steve Heath is responsible for European Strategy and Technology Development at Motorola. He has had many years experience in computer design and has presented papers on multimedia technology at international conferences. He is a well known technical writer and has written fourteen other books for Focal Press, Newnes and Butterworth-Heinemann.

This book "Communications and Networking" focuses on the issues at the lowest

two layers of communications and networking and provides recent research results on some of these issues. In particular, it first introduces recent research results on many important issues at the physical layer and data link layer of communications and networking and then briefly shows some results on some other important topics such as security and the application of wireless networks. In summary, this book covers a wide range of interesting topics of communications and networking. The introductions, data, and references in this book will help the readers know more about this topic and help them explore this exciting and fast-evolving field.

Modern organizations are critically dependent on data communications and network systems utilized in managing information and communications, vital to continuity and success of operations. "Breakthrough Perspectives in Network and Data Communications Security, Design and Applications" addresses key issues and offers expert viewpoints into the field of network and data communications, providing the academic, information technology, and managerial communities with the understanding necessary to implement robust, secure, and effective solutions. This much-needed addition to library and professional collections offers a matchless set of high quality research articles and premier technologies to address the most salient issues in network and data communications.

The papers comprising Vol. I and Vol. II were prepared for and presented at the International Conference on Information Networking 2002 (ICOIN 2002), which was held from January 30 to February 1, 2002 at Cheju Island, Korea. It was organized by the KISS (Korean Information Science Society) SIGIN in Korea, IPSJ SIG DPE (Distributed Processing Systems) in Japan, the ITRI (Industrial Technology Research Institute), and National Taiwan University in Taiwan. The papers were selected through two steps, refereeing and presentation review. We selected for the theme of the conference the motto "One World of Information Networking". We did this because we believe that networking will transform the world into one zone, in spite of different ages, countries and societies.

Networking is in the main stream of everyday life and affects directly millions of people around the world. We are in an era of tremendous excitement for professionals working in many aspects of the converging networking, information retailing, entertainment, and publishing companies. Ubiquitous communication and computing technologies are changing the world. Online communities, e commerce, e service, and distance learning are a few of the consequences of these technologies, and advanced networking will develop new applications and technologies with global impact. The goal is the creation of a world wide distributed computing system that connects people and appliances through wireless and high bandwidth wired channels with a backbone of computers that serve as databases and object servers. Thus, Vol.

This book covers a wide range of technical issues relating to lightwave technologies using high coherence lightwaves. Electromagnetic wave

communication started when the first wireless system was invented by Marconi in 1895. However, we had to wait about one hundred years to realize a similar technology in the lightwave frequency region. The invention of lasers in 1960 and two technology innovations in 1970 -low loss silica fiber and semiconductor lasers operating at room temperature - promoted the development of fiber-optic transmission systems. The deployment of high-speed long-haul fiber-optic transmission systems has led to the formation of domestic and international trunk networks. The installed fiber cables in local loop plants provide multimedia communication services including broadband video. However, present lightwave communication systems do not fully utilize the fruitful potential of lightwaves, namely the capacity of extremely high frequency electromagnetic information carrier waves. The frequency of lightwaves used for fiber-optic transmission is about 200 THz $(2 \times 10^{14} \text{ Hz})$, and the frequency bandwidth of the fiber low loss region is about 13 THz $(2 \times 10^{13} \text{ Hz})$. Recent developments of narrow spectrum width semiconductor laser and planar optical waveguide devices offer us the possibilities for a new generation of lightwave-based communication systems. This book focuses on system aspects of the new generation lightwave communication technologies such as optical frequency division multiplexing and coherent detection. Chapter 1 overviews lightwave communication system technology. Communications networks are now dominated by Internet protocol (IP) technologies. This book comprehensively reviews the design, provision and operations of carrier-scale Internet networks. Every aspect of networking, from access to the core network to the surrounding operational support systems has been radically affected by the rapid development of IP technologies and this book presents a good balance between leading edge technology and many of the practical issues surrounding carrier-scale IP networks. This makes for essential reading for those with a technical or business interest in this rapidly changing area.

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