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Nota di contenuto	-- Foreword xv -- Acknowledgements xvii -- List of Abbreviations xix -- List of Contributors xxxi -- 1 Introduction 1 / Esa Metsala, Juha Salmelin and Erik Salo -- 1.1 Why Read This Book 1 -- 1.2 What is 'Mobile Backhaul' 2 -- 1.3 Targets and Scope of the Book 3 -- 1.4 Organization of the Book 3 -- PART I MOBILE AND PACKET NETWORKS -- 2 Mobile Backhaul and the New Packet Era 7 / Erik Salo and Juha Salmelin -- 2.1 Backhaul Network, Tiers and Costs 7 -- 2.2 Legacy Backhaul Networks 9 -- 2.3 Drivers for the MBH Network Change 10 -- 2.4 Packet Based Backhaul Networks 21 -- 2.5 Making Transition to Packet Technology Networks 22 -- 3 3GPP Mobile Systems 29 / Esa Metsala -- 3.1 3GPP 29 -- 3.2 2G 33 -- 3.3 3G 38 -- 3.4 LTE 54 -- 3.5 Summary 64 -- 4 Packet Networks 68 / Esa Metsala -- 4.1 Mobile Backhaul Application 68 -- 4.2 Standardization 73 -- 4.3 Physical

Interfaces 76 -- 4.4 PPP and ML-PPP 80 -- 4.5 Ethernet and Carrier Ethernet 83 -- 4.6 IP and Transport Layer Protocols 92 -- 4.7 MPLS/IP Applications 109 -- 4.8 Summary 123 -- 5 Backhaul Transport Technologies 128 / Jouko Kapanen, Jyri Putkonen and Juha Salmelin -- 5.1 Transport Systems 128 -- 5.2 Wireless Backhaul Technology 138 -- 5.3 Wire-Line Backhaul Technology 148 -- 5.4 Aggregation and Backbone Tiers 155 -- 5.5 Leased Line Services for Mobile Backhaul 156 -- 5.6 Summary 163 -- PART II MOBILE BACKHAUL FUNCTIONALITY -- 6 Synchronization 167 / Antti Pietilainen and Juha Salmelin -- 6.1 Cellular Networks Synchronization Requirements 167 -- 6.2 Frequency Synchronization in TDM Networks 169 -- 6.3 Frequency Synchronization in Packet Networks 172 -- 6.4 Synchronization Metrics for TDM and Synchronous Ethernet 182 -- 6.5 Packet Synchronization Fundamentals and Metrics 187 -- 6.6 Rules of Thumb for Packet Timing Network Implementation 199 -- 6.7 Time Synchronization 201 -- 6.8 Conclusions 202 -- 7 Resilience 204 / Esa Metsala -- 7.1 Introduction 204 -- 7.2 Native Ethernet and Resilience 210 -- 7.3 Carrier Grade Ethernet 214. 7.4 IP Layer 216 -- 7.5 MPLS Resilience 224 -- 7.6 Resilience in the BTS Access 231 -- 7.7 Resilience in the Controllers and the Core Interface 244 -- 7.8 Summary 247 -- 8 QoS 250 / Thomas Dei, Jouko Kapanen, Esa Metsala and Csaba Vulkan -- 8.1 End User Service, Radio Network Layers and the Transport Layer Service 250 -- 8.2 TCP and UDP as End User Transport Layer Protocols 255 -- 8.3 DSCP, Traffic Class, and Priority Bits 263 -- 8.4 Ingress and Egress Functions 275 -- 8.5 2G 281 -- 8.6 3G/HSPA 282 -- 8.7 LTE 293 -- 8.8 Summary 300 -- 9 Security 303 / Esa Metsala and Jose Manuel Tapia Perez -- 9.1 Security in 3GPP Mobile Networks 303 -- 9.2 Protection of the Backhaul 313 -- 9.3 IP Layer Protection 316 -- 9.4 IP Sec VPN Deployment 331 -- 9.5 Summary 344 -- 10 Packet Backhaul Solutions 346 / Erik Salo and Juha Salmelin -- 10.1 Creating a Packet Based MBH Solution 346 -- 10.2 MBH Solution Starting Points 347 -- 10.3 MBH Optimization Considerations 349 -- 10.4 MBH Solution Alternatives 352 -- 10.5 Outsourcing the MBH Network or Parts of it 360 -- 10.6 Selecting MBH Access Solution for a Particular Case 363 -- 10.7 From the Selected MBH Solution to Detailed Network Plans 368 -- 10.8 Summary 369 -- 11 Summary 370 / Esa Metsala and Juha Salmelin -- Index 373.

Sommario/riassunto

Comprehensive coverage of IP/MPLS/Ethernet backhaul technologies and solutions for 3GPP mobile network systems such as LTE, HSPA and GPRS Focusing on backhaul from a radio network viewpoint, Mobile Backhaul combines perspectives on mobile networks and transport network technologies, focusing on mobile backhaul specific functionalities, which are essential in building modern cost efficient packet networks for mobile systems, IP, MPLS and Carrier Ethernet. The key functions required for this process, Synchronization, Resiliency, Quality of Service and Security, are also explained. The reader benefits from a view of networking technology from a radio network viewpoint, which is specific to this application, as well from a data centre and more IT-oriented perspective. The book bridges the gap between radio and backhaul viewpoints to provide a holistic understanding. Organized into two parts, the book gives an advanced introduction to the principles of the topic before moving on to more specialized areas. Part 1 gives a network level overview, with the purpose of presenting the mobile network application, its protocols, interfaces and characteristics for the backhaul. This section also presents the key packet networking technologies that are most relevant for the radio network. Part 2 offers selected case studies in Synchronization, Resiliency, QoS and Security and gives example solutions for mobile operator owned and leased

mobile backhaul cases building on the network view given in Part 1. Both radio network experts and IP networking experts will benefit from the treatment of essential material at the borderline between the radio and backhaul technologies. Key features: <ul type="disc">. Unique view and coverage of both the radio network and the packet mobile backhaul. Includes a view into the economic motivation for a packet based mobile backhaul and discusses scenarios of a migration to the new technology. Covers 2G, 3G, HSPA, HSPA+ and LTE in radio technologies as well as MWR, Sonet/SDH, Ethernet, Carrier Ethernet, MPLS and IP in networking technologies.
