

- Acknowledgments p. xi
- About the Author p. xiii
- Introduction p. xv
- Part I Foundations of Network Analysis p. 1
- Chapter 1 Introduction to Protocol Analysis p. 3
 - A Brief History of Network Communications p. 3
 - OSI to the Rescue p. 5
 - History of TCP/IP p. 26
 - Summary p. 28
- Chapter 2 Analysis Tools and Techniques p. 29
 - Reviewing Network Management Tools p. 30
 - Protocol Analyzers--Problem-Solving Tools p. 35
 - Summary p. 65
- Part II The Core Protocols p. 67
- Chapter 3 Inside the Internet Protocol p. 69
 - Reviewing Layer 2 Communications p. 70
 - Network Layer Protocols p. 77
 - Internet Protocol Addressing p. 79
 - IP Communications p. 92
 - IP Packet Format p. 117
 - A Word about IP Version 6 p. 126
 - Summary p. 130
- Chapter 4 Internet Control Message Protocol p. 131
 - Reliability in Networks p. 132
 - Exploring the Internet Control Messaging Protocol p. 134
 - Summary p. 154
- Chapter 5 User Datagram Protocol p. 155
 - Revisiting the Transport Layer p. 156
 - UDP Header p. 157
 - UDP Communication Process p. 160
 - Case Studies in UDP Communications p. 164
 - Summary p. 174
- Chapter 6 Transmission Control Protocol p. 175
 - Introduction to TCP p. 175
 - TCP Connection Management p. 184
 - TCP Data Flow Management p. 200
 - TCP Application Analysis p. 218
 - Summary p. 229
- Part III Related TCP/IP Protocols p. 231
- Chapter 7 Upper-Layer Protocols p. 233
 - Introduction to Upper-Layer Protocols p. 233
 - Domain Name System (DNS) p. 240
 - File Transfer Protocol (FTP) p. 265
 - Hypertext Transport Protocol (HTTP) p. 278
 - Simple Mail Transport Protocol p. 294
 - Summary p. 298

- Chapter 8 Microsoft-Related Protocols p. 299
- Dynamic Host Configuration Protocol p. 299
- NetBIOS over TCP/IP p. 312
- Server Message Block p. 329
- Summary p. 368
- Appendix A What's on the Web Site p. 369
- System Requirements p. 369
- What's on the Web Site p. 370
- Standards and RFCs p. 370
- Author-Created Materials p. 371
- Applications p. 371
- Using the Flash Video Examples p. 371
- Troubleshooting p. 372
- Appendix B BSMB Status Codes p. 373
- Index p. 399