1. Record Nr. UNINA9910830319103321 Autore Iniewski Krzysztof <1960-> Titolo Network infrastructure and architecture: designing high-availability networks / / Krzysztof Iniewski, Carl McCrosky, Daniel Minoli Hoboken, New Jersey:,: Wiley-Interscience,, c2008 Pubbl/distr/stampa [Piscatagay, New Jersey]:,: IEEE Xplore,, [2007] **ISBN** 1-281-28469-6 9786611284695 0-470-25352-5 0-470-25351-7 [1st edition] Edizione Descrizione fisica 1 online resource (563 p.) Altri autori (Persone) McCroskyCarl <1948-> MinoliDaniel <1952-> Disciplina 621.382/7 621.3821 621.3827 Soggetti Optical communications Integrated circuits - Very large scale integration Data transmission systems - Design and construction 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 and index. Nota di contenuto Preface. -- Part I: Optical Transmission. -- 1. Introduction to Networking. -- 2. Filer-Optic Transmission. -- 3. Wavelength-Division Multiplexing. -- Part II: Networking Protocols. -- 4. Sonet. -- 5. TCP/IP Protocol Suite. -- 6. Protocol Stacks. -- Part III: VLSI Chips. -- 7. VLSI Integrated Circuits. -- 8. Circuits for Optical-to-Electrical Conversion. -- Part IV: Data Switching. -- 9. Physical Circuits Switching. -- 10. Time-Division-Multipleured Switching. -- 11. Packet and Cell Switching and Queuing. -- Part V: Networking. -- 12. Network Elements. -- 13. Network Design: Efficient, Survivable Networks. -- Index. Sommario/riassunto A Comprehensive, Thorough Introduction to High-Speed Networking Technologies and Protocols Network Infrastructure and Architecture: Designing High-Availability Networks takes a unique approach to the subject by covering the ideas underlying networks, the architecture of

the network elements, and the implementation of these elements in optical and VLSI technologies. Additionally, it focuses on areas not widely covered in existing books: physical transport and switching, the process and technique of building networking hardware, and new technologies being deployed in the marketplace, such as Metro Wave Division Multiplexing (MWDM), Resilient Packet Rings (RPR), Optical Ethernet, and more. Divided into five succinct parts, the book covers: . Optical transmission . Networking protocols . VLSI chips . Data switching . Networking elements and design Complete with case studies, examples, and exercises throughout, the book is complemented with chapter goals, summaries, and lists of key points to aid readers in grasping the material presented. Network Infrastructure and Architecture offers professionals, advanced undergraduates, and graduate students a fresh view on high-speed networking from the physical layer perspective.