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Nota di contenuto	Cover; Title Page; Copyright Page; Contents; Preface; Chapter 1 Basic Telephony; 1 Definition and Concept; 1.1 Telecommunication Networks; 2 The Simple Telephone Connection; 3 Sources and Sinks; 4 Telephone Networks: Introductory Terminology; 5 Essentials of Traffic Engineering; 5.1 Introduction and Terminology; 5.2 Measurement of Telephone Traffic; 5.3 Blockage, Lost Calls, and Grade of Service; 5.4 Availability; 5.5 ""Handling"" of Lost Calls; 5.6 Infinite and Finite Sources; 5.7 Probability-Distribution Curves; 5.8 Smooth, Rough, and Random Traffic; 6 Erlang and Poisson Traffic Formulas 6.1 Alternative Traffic Formula Conventions 6.2 Computer Programs for Traffic Calculations; 7 Waiting Systems (Queueing); 7.1 Server-Pool Traffic; 8 Dimensioning and Efficiency; 8.1 Alternative Routing; 8.2 Efficiency versus Circuit Group Size; 9 Bases of Network Configurations; 9.1 Introductory Concepts; 9.2 Higher-Order Star Network; 10 Variations in Traffic Flow; 11 One-Way and Both-Way (Two-Way) Circuits; 12 Quality of Service; Chapter 2 Local Networks; 1 Introduction; 2 Subscriber Loop Design; 2.1 General; 2.2 Quality of a Telephone Speech Connection; 2.3 Subscriber Loop Design Techniques

3 Current Loop Design Techniques Used in North America
3.1 Previous Design Rules; 3.2 Current Loop Design Rules; 4 Size of an Exchange Area Based on Number of Subscribers Served; 5 Shape of a Serving Area; 6 Exchange Location; 7 Design of Local Area Analog Trunks (Junctions); 8 Voice-Frequency Repeaters; 9 Tandem Routing; 10 Dimensioning of Trunks; 11 Community of Interest; Chapter 3 Switching in an Analog Environment; 1 Introduction; 1.1 Background and Approach; 1.2 Switching in the Telephone Network; 2 Numbering, One Basis of Switching; 3 Concentration and Expansion
4 Basic Switching Functions
5 Introductory Switching Concepts; 6 Electromechanical Switching; 7 Multiples and Links; 8 Definitions: Degeneration, Availability, and Grading; 8.1 Degeneration; 8.2 Availability; 8.3 Grading; 9 The Crossbar Switch; 10 System Control; 10.1 Introduction; 10.2 Interexchange Control Register; 10.3 Common Control (Hard-Wired); 11 Stored-Program Control; 11.1 Introduction; 11.2 Basic Functions of Stored-Program Control; 11.3 Evolutionary Stored Program Control and Distributed Processing; 12 Concentrators, Outside Plant Modules, Remote Switching, and Satellites
13 Call Charging: European versus North American Approaches
14 Transmission Factors in Switching; 14.1 Discussion; 15 Zero Test Level Point; 16 Numbering Concepts for Telephony; 16.1 Introduction; 16.2 Definitions; 16.3 Factors Affecting Numbering; 16.4 In-Dialing; 17 Telephone Traffic Measurement; 18 Dial-Service Observation; Chapter 4 Signaling for Analog Telephone Networks; 1 Introduction; 2 Supervisory Signaling; 2.1 E and M Signaling; 3 AC Signaling; 3.1 General; 3.2 Low-Frequency AC Signaling Systems; 3.3 In-Band Signaling; 3.4 Out-of-Band Signaling; 4 Address Signaling: Introduction
4.1 Two-Frequency Pulse Signaling

Sommario/riassunto

From the review of the Third Edition:
"A must for anyone involved in the practical aspects of the telecommunications industry."
- CHOICE
* Outlines the expertise essential to the successful operation and design of every type of telecommunications networks in use today
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