

RESEARCH PATHFINDER

AT&T DIVESTITURE & THE TELECOMMUNICATIONS MARKET

BY JOHN PINHEIRO †

INTRODUCTION

The United States Department of Justice filed an antitrust suit against the American Telephone and Telegraph Company (AT&T) on November 20, 1974. It charged that AT&T had used its dominant position in the telecommunications market to suppress competition and enhance its monopoly power. It sought the divestiture of AT&T from the Bell operating companies (BOCs: regionally dispersed companies offering local and regional services), and the divestiture and dissolution of Western Electric, AT&T's manufacturing subsidiary.

On January 7, 1982, the parties reached a settlement and AT&T agreed to divest the local exchange facilities held by the BOCs. The Justice Department agreed to release AT&T from a 1956 Consent Decree which prohibited AT&T from serving unregulated markets. Judge Harold Greene approved the settlement with some minor modifications on August 24, 1982, and the BOCs were completely divested on January 1, 1984. In his landmark decision, Judge Greene required the Justice Department to issue a triennial report examining competition in the telecommunications market.

In February 1987, the Justice Department produced its report and recommended that Judge Greene allow the regional companies to manufacture telephone equipment while offering both long-distance and electronic services—a combination of activities barred under the 1982 Consent Decree. The Justice Department argued that competition in the telecommunications industry had expanded so rapidly that the BOCs would not have an unfair advantage.

Judge Greene reached his decision in September 1987 and refused to lift the regulatory restrictions that prohibit the BOCs from providing long-distance service and making telephone equipment. Greene conflicted with the Justice Department report stating that the BOCs still have monopoly control over their local telephone networks. Although he upheld the restriction that bans BOCs from providing electronic information services, he allowed the BOCs to offer information services and enter into non-telephone businesses. In October 1987, the BOCs announced they would appeal this decision.

Revenues in the telecommunications industry are estimated to total \$186 billion in 1987, and are projected to grow by about 8% to \$201 billion in 1988. Telecommunications will certainly be one of the dominant global industries in the future and hence critical to United States international competitiveness.

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Recognizing the significance of this development, this pathfinder identifies the legal framework that controls the direction of this industry. It begins with a chronology detailing important events and a glossary of terms and abbreviations. Next, it examines the relevant case law. Along with the precedent-setting divestiture decisions, the Federal Communications Commission (F.C.C.) has rendered rulings referred to as Computer Inquiry I, II, and III. These authoritative rulings, along with Judge Greene's decisions, establish the parameters of regulation in the telecommunications industry. Additionally, this pathfinder includes annotations of significant books, articles, and other background information addressing business, economic, and public policy issues in telecommunications. Finally, the pathfinder concludes with a list of public and private organizations involved in the industry. (Note: the research in this pathfinder is current as of March, 1988.)

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I. CHRONOLOGY OF MAJOR EVENTS

The breakup of AT&T was the culmination of more than thirty years of legal wrangling between the federal government and the telephone company. The following is a brief chronology of key dates:

- 1949: Justice Department filed suit alleging that AT&T is violating the Sherman Antitrust Act and asks that Western Electric, the manufacturing arm of the Bell system, be spun off as a separate company.
- 1956: AT&T agreed to a consent decree that ends the lawsuit. The company agrees to confine its activities to common-carrier communication services and government projects. It promises to only manufacture products needed by the Bell system and agrees to make its existing patents available to anyone without charge.
- 1971: The Federal Communications Commission (F.C.C.) released its Final Decision and Order, commonly referred to as Computer Inquiry I. It regulated communications, deregulated data processing, and left "hybrid" services up to the Commission's discretion.
- 1974: Justice Department acted under the Sherman Antitrust Act and charged AT&T, Western Electric and Bell Laboratories with conspiracy to monopolize the telecommunications industry. All twenty-two of the BOCs were charged as co-conspirators.
- 1980: F.C.C. rendered its Final Decision, known as Computer Inquiry II. Although this decision was later modified and affirmed, it reclassified services as either "basic" which were regulated, or "enhanced" which were not regulated. It also imposed structural separation requirements for major carriers.
- 1982: Judge Greene finished the Modified Final Judgment (MFJ) consent decree which released AT&T from the 1956 decree's restrictions on entering new businesses. In return AT&T was required to divest itself of its twenty-two local BOCs.

- 1984: Divestiture is completed and the former telephone monopoly is broken into eight units. AT&T remains as a provider of long-distance service and the twenty-two BOCs are consolidated into seven regional holding companies (RHCs). Judge Greene requires the Department of Justice to issue a report three years later analyzing the present market and conditions.
- 1986: F.C.C. released Computer Inquiry III which revised the classification problems created by Computer Inquiry II. Accordingly, the F.C.C. required AT&T and the BOCs to develop Open Network Architecture (ONA) standards based on a set of stated principles and parameters.
- 1987: *January*
Department of Justice released its report, *The Geodesic Network: 1987 Report on Competition in the Telephone Industry*, as requested by Justice Greene in the MFJ. It recommended that the regional companies be allowed to offer both long-distance and electronic information services, and to manufacture telephone equipment.
- September*
Judge Greene rendered his decision based on the report by the Department of Justice. He eliminated some restrictions on the BOCs but refused to remove others because the BOCs still had monopoly control over local telephone networks. He allowed the regional holding companies to transmit electronic information services, while upholding the restriction that bans them from providing the content and the actual service.
- October*
Several BOCs announced that they would appeal Judge Greene's Decision.
- December*
Judge Greene ruled that the BOCs can neither design nor develop phones and other telecommunications products.
- 1988: *March*
Judge Greene ruled that the BOCs can offer information services such as electronic mail and voice messaging. He continued, however, the restriction against the seven regional companies prohibiting them from providing the content for the information services or offering electronic Yellow Pages.

II. TERMS AND ABBREVIATIONS

- ADAPSO:** Association of Data Processing Service Organizations.
- Asynchronous Protocols:** Generic means of encoding, packaging, and controlling digital signals widely used in data communications.
- Basic Services:** Services limited to the common carrier offering of transmission capacity for the movement of information including data processing, computer memory or storage, and switching techniques; this category of services was regulated under Computer Inquiry II.
- BOC:** Bell Operating Companies are the twenty-two companies that offer local and regional service and are dispersed throughout the United States. Sometimes this term is used interchangeably with RHC, which refers to the seven regional holding companies.
- Bottleneck Access:** Refers to BOCs' monopoly control over the local exchange facilities, for which there is no equivalent alternative. The MFJ dealt with this bottleneck by separating the competitive long-distance and equipment markets.
- Bypass:** The use of facilities other than the local telephone company's to interconnect customer locations to either local telephone users at large, other customer locations in the same city, or to a long-distance carrier. In the case of long-distance access, the substitution of lower priced leased lines for switched (feature group) access is also a form of bypass. Judicially, bypass exists "when a telephone customer is able to reach those with whom he wishes to communicate without the use of the facilities of a Regional [Bell Operating] Company or its equivalent in the territories serviced by independents." *United States v. Western Electric*, 673 F.Supp. 525, 537, n.45 (D.D.C. Sept. 10, 1987). The established carriers are concerned that consumers will replace public communications links with private systems, thereby decreasing demand for carrier services.
- CCLC:** Common Carrier Line Charge (vs. SLC).
- CD ROM:** Compact-disk read-only memory is a storage device utilizing technology similar to the recording industry's compact disks. It is expected to become an increasingly important

- storage medium and link in the future distribution of information.
- CEI: Comparably Efficient Interconnection, which is a standard advocated in Computer Inquiry III.
- CENTREX: Multipoint-to-multipoint system which handles voice switching for large users and provides customers ubiquitous access to all other network subscribers.
- COG: Centralized Operations Group is a group that processes, coordinates, and schedules orders for CPE interconnection.
- Common Carrier: "[A]ny person engaged as a common carrier for hire, in interstate or foreign communication by wire or radio or in interstate or foreign radio transmission of energy. . ." 47 U.S.C. § 153(h). Common carriers offer a class of services, provided by a combination of land lines, satellite and broadcast transmissions, including telephone, telegraph, facsimile, telephoto, and broadcast program transmission. They must offer transmission services at fixed rates to any interested customer, and they are regulated much like electric utilities and gas companies.
- Computer Inquiries: F.C.C. decisions regulating participants in the telecommunications industry. See cases described in Section I(A).
- CPE: Customer Premises Equipment includes equipment employed on the premises of anyone other than a carrier that is utilized to originate, route, or terminate telecommunications. It does not include equipment used "to multiplex, maintain, or terminate access lines." *United States v. Western Electric*, 673 F. Supp. at 552, n.116 (D.D.C. Sept. 10, 1987).
- CPNI: Computer Proprietary Network Information.
- CPU: Central Processing Unit is the control function or processor of a computer system. It executes computer instructions and usually consists of a logic unit, internal memory, buffers, and registers.
- Cross-subsidization: Refers to the use of revenues from one source to subsidize another business in a monopolistic manner. In the telecommunications industry, cross-subsidization typically applies to the situation where carriers (a) improperly burden ratepayers with artificially high rates by shifting costs of unregulated activities to regulated activities, and (b) later

- shift revenues earned from regulated activities to unregulated business activities to gain an anticompetitive advantage.
- DGT: Director Generale des Telecommunications, the French state-owned telephone company that also owns all videotex access points.
- DOJ: Department of Justice (see Appendix III).
- EAEA: Equal Access Exchange Areas.
- ECSA: Exchange Carrier Standards Association is a relatively new private group that develops and oversees standards.
- Enhanced Services: Services that go beyond the carrier offering of transmission capacity for the movement of information. These services were deregulated under Computer Inquiry II.
- Equal Access: The ability of long-distance carriers to connect their subscribers through BOC facilities on an equal basis.
- F.C.C.: Federal Communications Commission (see Appendix III).
- FN/SI: Feature Node/Service Interface, a standard developed by Ameritech in conjunction with Bell Communications Research.
- FTS 2000: Network which will provide voice, data, video, and dedicated transmission services to government offices throughout the United States. Currently several companies are bidding on this 10-year contract which could approach \$25 billion.
- Gateways: Facilities used to deliver videotex similar to France's Videotex access points that have the following functions: data transmission, address transmission, protocol conversion, billing management, and introductory information content.

- Geodesic Network: Doctor Huber, author of the recent Justice Department report, concludes that the exchange network is being transformed from a "pyramid" to a "geodesic" network. In a pyramid, very few switches are arranged in a vertical hierarchy, which has historically been caused by the expensive costs of switching relative to transmission. In a geodesic network the number of switches and connections between them are much greater. Consequentially, the processing and control functions are decentralized. Dr. Huber contends that a geodesic network will evolve due to the decreased costs of switching and processing brought about by technological innovation. Geodesic networks are preferred because they support many interconnected, vertically integrated providers, and hence, erode monopolistic bottleneck control. Many argue, however, that this model does not characterize the present domestic telecommunications industry, nor will it in the foreseeable future.
- GTE: General Telephone and Electronics Corporation.
- Information Services: "The offering of a capability of generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information which may be conveyed via telecommunications." *United States v. AT&T*, 552 F. Supp. 131, 229 (D.D.C. 1982), *aff'd sub nom., Maryland v. United States*, 460 U.S. 1001 (1983) (also referred to as the Consent Decree); *see* cases described in Section I(A). § 11(d)(1) of this decree prohibits the RHCs from providing information services.
- Interexchange Service: Telecommunication between a point in one LATA (or exchange area) and a point located in another exchange area. It can loosely be equated with long-distance service (although some long-distance services occur within a LATA). Interexchange service includes both facilities-based service and the resale of the service by others. It is not limited to transmission, but includes related activities such as interexchange traffic routing, the selection of interexchange carriers through least-cost routing or shared tenant service systems, and the marketing of the services of interexchange carriers.

- ISDN: Integrated Services Digital Network, a service being developed through which numerous data communications can be handled over one broad band.
- ITT: International Telephone and Telegraph.
- ITU: International Telecommunications Union is a specialized agency of the United Nations through which the nations regulate the use of the air for communications purposes.
- IXC: Interexchange Carrier.
- LAN: Local Area Network is a high speed data communications line (*e.g.*, twisted-pair cable or fiber optic) that connects data terminals, Central Processing Units, and other peripheral equipment within a particular location.
- LATA: Local Access and Transport Area is a term describing the geographic areas created by AT&T's Plan of Reorganization in which BOCs provide services. Each LATA encompasses "one or more contiguous local exchange areas serving common social, economic, or other purposes." *United States v. AT&T*, 552 F. Supp at 229.
- LEX: Local Exchange Carrier, includes all the local facilities both of a RHC as well as independents.
- LMS: Local Measured Service.
- MCI: MCI Telecommunications Corporation.
- MFJ: Modified Final Judgment or Modification of Final Judgment, portion appended to the AT&T divestiture decision in *United States v. AT&T*, 522 F. Supp. 131 (D.D.C. 1982), *aff'd sub nom., Maryland v. United States*, 460 U.S. 1001 (1983). Also referred to as the Consent Decree. See cases described in Section I(A).
- Mobile Services: Includes transportable services such as cellular radio, paging, and other mobile interexchange services.
- MSA: Market Service Area.

NARUC:	National Association of Regulatory Utility Commissioners.
NCTE:	Network Channel Terminating Equipment.
NTIA:	National Telecommunications Information Administration, Executive branch agency under the Commerce Department principally responsible for the development and presentation of domestic and international telecommunications and information policy.
NTS:	Non-Traffic-Sensitive Costs (as opposed to TS which are traffic-sensitive costs).
NTT:	Nippon Telephone and Telegraph.
OAN:	Operator Assisted Network.
OCC:	Other Common Carriers.
ONA:	Open Network Architecture standards are promulgated by the F.C.C. in its Computer III decision as an alternative to requiring structural separation between a dominant telecommunication carrier's regulated and unregulated service activities. These standards will theoretically unbundle the components of exchange services and permit the purchase of each component or "basic service element" under a tariff on an "equal access" basis.
OTP:	Office of Telecommunications Policy.
PBX:	Private Branch Exchange performs switching and processing functions forming part of an expanded network.
POP:	Point-of-presence serves as an entry point to a long-distance carrier's network. Long-distance carriers have multiple POPs within each LATA.
PUC:	Public Utilities Commission.
PTC:	Primary Toll Carrier.
RBOC:	Regional Bell Operating Company (synonymous with RHC).

- RCED: Resources, Community, and Economic Development Division.
- RHC: Regional Holding Companies are the seven companies that now own the regulated telephone companies divested by AT&T. The seven companies are Pacific Telesis Group in California and Nevada; U.S. West Inc., in the Northwest, Mountain, and Northern Plains states; Southwestern Bell Corporation in southwestern states; American Information Technologies Corporation (Ameritech) in the midwestern states; Bell Atlantic Corporation in the Mid-Atlantic region; Bell South Corporation in southern states; and NYNEX Corporation in New York and New England. (Synonymous with RBOC.)
- SLC: Subscriber Line Charge (vs. CCLC).
- Structural Separation: Requirement imposed by Computer Inquiry II requiring major carriers to provide enhanced services and CPE only through corporate affiliates fully separated from their basic services operations.
- Switches or Switching: Electronic device that takes incoming calls and routes them to outgoing facilities via local telephone lines or long-distance transmission lines. It is used to describe both a PBX in a single location and switches used at local telephone company central offices.
- TBDF: Transborder Data Flow.
- USOA: Uniform System of Accounts, established in 1935 as a means for classifying, recording, interpreting, and reporting a telephone company's financial information. The revised USOA (F.C.C. Docket 78-196) will provide only a financial accounting system.
- VAN: Value Added Network.
- VMS: Voice Message Storage involves the storage of telephone messages in the network for subsequent sending or retrieval. Examples include "advance calling" and "call answering."

Videotex: A wide variety of easy-to-use interactive data services arranging information in a text or graphic format on a video display with user input. This two-way communication service allows users to call up information, such as airline schedules or databases, and also perform transactions such as teleshopping, order entry, electronic mail, or electronic banking from home. It usually operates over telephone lines, and users can obtain access to Videotex with a dedicated terminal or a personal computer.

WATS: Wide Area Toll Service

III. CASES

The three F.C.C. Computer Inquiries, the 1982 AT&T consent decree, and Judge Greene's 1987 decision in *United States v. Western Electric* form the basis of current telecommunications industry regulations. In this section, Part A provides a detailed description and chronological listing of the principal decisions leading up to Greene's September 1987 decision. Part B then provides a detailed summary of this decision. Substantial discussion is devoted to this case, given its importance and lengthy analysis. Since this decision exhaustively examines the current issues and includes a considerable amount of background information, it provides an excellent starting point for research in this area. Following this discussion is a summary of Judge Greene's follow-up decision in December 1987. Finally, Part C examines a series of other relevant decisions.

A. Principal Cases

The 1956 Decree:

This decision prohibited AT&T from serving unregulated markets and confined AT&T's activities to common-carrier communication services and government projects. AT&T also promised to manufacture only products needed by the Bell system and agreed to make its existing patents available to anyone without charge. These guidelines were effective until the AT&T divestiture in 1982 following Judge Greene's decision in *United States v. AT&T*. *United States v. Western Electric Co.*, 13 Rad. Reg. (P&F) 2143, 1956 Trade Cas. (CCH) 71,134 (D.N.J. 1956).

Computer Inquiry I:

In Computer Inquiry I, the F.C.C. attempted to establish a regulatory framework for the provision of communications and data processing services. It adopted a three-part classification of computer and telecommunications services based on technical and functional characteristics—data processing, communications, and hybrid services. The F.C.C. decided not to regulate "data processing" services because these services were already offered on a competitive basis. "Communications" were regulated as common carrier offerings under Title II of the Communications Act. "Hybrid" services, offerings that combine "[r]emote [a]ccess data processing

and message-switching to form a single integrated service," were treated either as data processing or communications services based on F.C.C. determinations as to which characteristics predominate. The F.C.C. permitted common carriers other than AT&T and the Bell System subsidiaries to provide data processing services subject to a structural separation requirement. This requirement was designed to prevent such carriers from engaging in anticompetitive behavior such as discrimination and cross-subsidization of unregulated operations by only allowing them to provide data processing through a separate regulated subsidiary. *Tentative Decision*, 28 F.C.C.2d 291 (1970); *Final Decision and Order*, 28 F.C.C.2d 267 (1971), *aff'd sub nom.*, *GTE Service Corp. v. F.C.C.*, 474 F.2d 724 (2d. Cir. 1973); *decision on remand*, 40 F.C.C.2d 293 (1973).

Computer Inquiry II:

Significant technological and competitive developments in the telecommunications and computer industries exposed shortcomings in the F.C.C.'s definitional structure imposed in Computer I, in particular the F.C.C.'s *ad hoc* approach to evaluating the "hybrid" category. In Computer II, the F.C.C. adopted a new regulatory definitional scheme with two service categories: *basic* and *enhanced*. Basic service is limited to "the common carrier offering of transmission capacity for the movement of information." Data processing, computer memory or storage, and switching techniques can be components of a basic service if they are used solely to facilitate the movement of information. Enhanced service includes "any offering over the telecommunications network which is more than a basic transmission service." In order to maximize benefits for consumers, the F.C.C. promoted competition in the provision of enhanced services and Customer Premises Equipment (CPE). Accordingly, the F.C.C. mandated structural separation, requiring the major carriers to provide enhanced services and CPE through corporate affiliates fully separated from their basic services operations. Under the structural separation rules, AT&T's separate subsidiary was prohibited from providing basic services or owning any network or local distribution transmission facilities, while AT&T's basic services affiliates were prohibited from offering enhanced services or CPE. The F.C.C. required the separate subsidiary to obtain all transmission facilities necessary for providing enhanced services under tariff; elect separate officers; maintain separate books of account; employ separate operating, installation, and maintenance personnel; and perform its own marketing and advertising. The F.C.C. further ordered separate subsidiaries to deal with any affiliated manufacturing entity only on an arms-length basis and to utilize separate computer facilities in providing enhanced services. Moreover, the separate subsidiary was required either to develop its own software or to contract with non-affiliates for such software, except that it was permitted to obtain generic software embedded within equipment that its affiliate sold off-the-shelf to any interested purchaser. AT&T subsequently established AT&T Information Systems, Inc. as its separate subsidiary for enhanced services and CPE. *Final*

Decision, 77 F.C.C.2d 384, *modified on reconsideration*, 84 F.C.C.2d 50 (1980), *further modified on reconsideration*, 88 F.C.C.2d 512 (1981), *aff'd sub nom.*, *Computer and Communications Indus. Ass'n v. F.C.C.*, 693 F.2d 198 (D.C. Cir. 1982), *cert. denied*, 461 U.S. 938 (1983), *aff'd on second further reconsideration*, F.C.C. 84-190 (released May 4, 1984).

Disclosure Order:

In 1983, the F.C.C. promulgated an order requiring all carriers to disclose information regarding any new service or change in the network at a time reasonably before the implementation of a new service or change (the All Carrier Rule). In addition, the F.C.C. ordered AT&T to disclose to the public any network information disclosed to its separate subsidiary, all technical information concerning network services or changes in existing network services, information relating to the geographic availability of new network services, and information involving joint research and development by AT&T and its separate subsidiary leading to the design or manufacture of telecommunications products. *Computer and Business Equipment Manufacturers Association, Report and Order*, 93 F.C.C.2d 1226 (1983).

Modified Final Judgment (MFJ):

(a.k.a. "Consent Decree" or "AT&T Divestiture")

In January 1982, AT&T and the Department of Justice agreed to settle the antitrust lawsuit brought by the Department of Justice in 1974. The agreement proposed to the Court split AT&T generally into two components: (1) competitive services (long-distance and telecommunications equipment) and (2) regulated monopoly services (local telephone service). Provisions of the agreement included the following:

AT&T would divest itself of its monopoly local operating companies and would no longer provide local telephone service.

The divested BOCs would provide local service and equal access areas to all long-distance carriers (AT&T, MCI, etc.).

AT&T would keep its competitive long-distance service, its manufacturing arm, Western Electric, and its research and development unit, Bell Laboratories.

The 1956 Consent Decree would be repealed, allowing AT&T to keep its patents and provide unregulated services and equipment.

The rationale behind the divestiture was that a company providing both regulated monopoly services and competitive services has the incentive either to limit access to its rivals or to discriminate against its rivals in the competitive markets for access to AT&T monopoly services. Also, profits from the monopoly services could be used to subsidize its competitive activities. Such cross-subsidization would be unfair to rivals in the competitive markets and local telephone subscribers, who would have to pay more than they should for service. *United States v. AT&T*, 522 F. Supp. at 131.

BOC Separation Order:

In this order the divestiture court concluded that the BOCs should be required to provide CPE, enhanced services, and cellular services subject to a form of structural separation. It concluded that structural separation provided protection against improper cost-shifting that accounting safeguards alone could not provide. In addition, the court found that structural separation would alleviate concerns about potential BOC anticompetitive practices in enhanced services markets by requiring the BOCs to enter such markets on identical terms and conditions as other suppliers. Policy and Rules Concerning the Furnishing of Customer Premises Equipment, Enhanced Services and Cellular Communications Equipment by the BOCs, CC Docket 83-115, *Report and Order*, 95 F.C.C.2d 1117 (1984), *aff'd sub nom.*, *Illinois Bell Telephone Co. v. F.C.C.*, 740 F.2d 465 (7th Cir. 1984), *aff'd on reconsideration*, F.C.C. 84-252, 49 Fed. Reg. 26056 (1984), *aff'd sub nom.*, *North American Telecommunications Association v. F.C.C.*, 772 F.2d 1282 (7th Cir. 1985).

Computer Inquiry III:

By 1985 it was clear that Computer II's definitional dichotomy—classifying services either as basic (regulated) or enhanced (deregulated)—was sadly deficient. In Computer III, the F.C.C. declared AT&T and the BOCs responsible for developing “specific network designs” to implement Comparably Efficient Interconnection (CEI) while incorporating principles including: transparency, choice, equivalence, cost/pricing, unbundling, information disclosure, ISDN, and new services. The F.C.C. established a February 1988 deadline for the creation of a comprehensive “open network architecture” (ONA) standard which would replace the separate subsidiary requirements of Computer Inquiry II. Each ONA plan is approved subject to a public review period and compliance with accounting and other safeguards. Until the ONA standard is in place, a carrier must file a CEI tariff for each enhanced service it wishes to introduce. The CEI plan must include descriptions of the basic service elements used to support the enhanced service as well as interconnection and transmission rates. The commission also established CEI parameters including interface functionality, unbundling of basic services, technical equivalence, availability, and transport costs. Amendment of Sections 64.702 of the Commission's Rules and Regulations, *Report and Order*, 2 F.C.C.2d 280 (1986).

Joint Cost Order:

Under this order, each Regional Holding Company (RHC) is required to adopt a cost manual in accordance with cost allocation standards. Its purpose is to ensure that carriers engaged in both regulated and unregulated activities will not improperly burden ratepayers or gain an anticompetitive advantage by assigning costs of unregulated activities to regulated activities. *Separation of Costs of Regulated Telephone Service from Nonregulated Activities*, 104 F.C.C.2d 59 (1986); *RBOC Petition for Reconsideration of the Order*, 62 Rad. Reg. (P&F) 163 (1987). See F.C.C. News Release, Report

No. DC-723, Mimeo No. 1246 (Dec. 23, 1986) (Notice of Proposed Rule Making).

B. The 1987 Greene Decision: *United States v. Western Electric*

The 1987 Greene decision is organized into ten sections: Background, Standard for Removal of Restrictions, Interexchange Services, Manufacturing, Information Services, Regulation, Current Anticompetitive Activities & Public Policy, Information Transmission, Non-Telecommunications Services, and Conclusion. *United States v. Western Electric*, 673 F.Supp. 525 (D.D.C. Sept. 10, 1987). Each of these sections in the opinion is summarized below. (Note: this opinion was written by United States District Court Judge Harold B. Greene, and is referred to in this pathfinder as the "1987 Greene decision.") Following these sections is a discussion of Judge Greene's December 1987 and March 1988 decisions regarding the meaning of the term "manufacture," issues relating to enforcement of the decree, and the provision of information services. *United States v. Western Electric*, 675 F. Supp. 655 (D.D.C. Dec. 3, 1987); *United States v. Western Electric*, No. CA 82-0192, slip op. (D.D.C. Mar. 7, 1988).

1. Background

In the introductory portion of the opinion, the court provided a fairly useful description of the events that led up to this decision. While the introduction is a helpful place to begin research in this area, it is not a comprehensive background source.

2. Standard for Removal of Restrictions

Under section VIII(C) of the MFJ (see discussion of the Modified Final Judgment in Part A), the restrictions imposed on the RHCs (Regional Holding Companies) shall be removed upon a showing that there is no substantial possibility that the company can use its monopoly power to impede competition in the market it seeks to enter. The burden of proof was placed upon those requesting a removal of the restriction and consisted of a two-part test: (1) whether RHCs have a monopoly of an essential facility, the local switches and circuits; and (2) whether there is a substantial possibility that these companies have the incentive and the ability to use this monopoly power to impose competition in the particular line of business they now seek to enter. The court concluded that because the RHCs have retained control of the local bottlenecks, they are typically the only service providers for parties seeking transmission through local regional markets. The court based its conclusion, in part, on the statistically low incidence of bypass. It reasoned that the exchange monopoly controlled by the RHCs continues because of the economic and technological infeasibility of alternative local distribution techniques. While it will be difficult to maintain a monopoly over local switching in the long term, the court did not remove this restriction based on the RHC's current control over local bottlenecks.

3. *Interexchange Services*

Under section II(D)(1) of the MFJ, RHCs are prohibited from providing "interexchange telecommunication services." The court refused to remove this restriction, stating that "[o]nly when a practical and economically-sound method is found for large-scale bypass or for connecting local customers by different methods—as microwaves and satellites were ultimately found to be feasible for handling long-distance traffic—can the Regional [Bell Holding] Companies' local monopoly be regarded as eroded."

4. *Manufacturing*

Section II(D)(2) of the MFJ, as amended by section VIII(A), prohibited the RHCs from manufacturing or providing telecommunication products or manufacturing Customer Premises Equipment (CPE). The court held that no changes have occurred within the last three years that warrant removal of this restriction. This conclusion was based on the following facts: (1) RHCs maintain an ironclad hold on the local exchanges; (2) they collectively account for purchases of 70% of the national output of telecommunications equipment; (3) if the restrictions are lifted, the RHCs may be expected to buy from their own manufacturing units; (4) no measures can counteract this situation; (5) removing this restriction would allow the manufacturing sector to become monopolistic. Therefore, the court surmised that lifting the restrictions would allow the RHCs to foreclose nearly 70% of the equipment market, which would be further aggravated if the RHCs acted in concert. Finally, the court felt a removal of the restriction would extinguish or substantially curtail the healthy competitive domestic market that has emerged within the last three years.

5. *Information Services*

Section II(D)(1) of the MFJ prohibited RHCs from providing "information services" and a related provision of section VIII(D) prohibited AT&T from providing electronic publishing services for seven years from the date of the original MFJ decree. The court reaffirmed that the removal of the information services restriction would have to await "significant technological or structural changes" that would substantially reduce the dependence of information service providers on the local exchange networks. It reasoned that competition would be foreclosed because of the economic infeasibility of alternative local distribution technologies on a substantial scale.

6. *Regulation*

In this section, the court addressed the argument that the F.C.C. regulations will adequately solve the antitrust problems presented. The court concluded that the need for court-imposed restrictions is even greater today because many of the current operations of the RHCs occur in unregulated markets. This conclusion was supported by six findings. First, the F.C.C. was historically unable to prevent or remedy major anticompetitive abuses by the Bell System achieved through activities of its local affiliates.

Second, regulatory measures could not "approach even remotely" the effectiveness of a decisive court decree. Third, the court could only rely on regulation following a showing of substantial improvement in the regulatory language and practice. Fourth, recent changes have weakened regulations governing telecommunication carriers. Fifth, the F.C.C. has adopted a deregulation mentality and "[a] regulated body that is committed in principle to as little regulation as possible can hardly be cited . . . in support of the proposition that it will probably regulate more vigorously and more effectively than its predecessors which wanted to engage in tight regulation and operated in a general government environment that regarded strict regulation as a positive goal." Finally, the court argued that the budget and manpower of the F.C.C. has decreased significantly. Hence it is even less capable of regulating the industry than before. The court then discussed three other related factors: cross-subsidization, interconnection, and network design information. It found that previous regulatory programs did not succeed in preventing cross-subsidization. Furthermore, the Joint Cost Order which was initiated to prevent cross-subsidization cannot be relied upon. Concerning interconnection, the court held that the ONA proposal adopted by Computer Inquiry III has not been defined fully nor adopted or tested in the real world. Hence, the court contended that it is impossible to evaluate its effectiveness in preventing discrimination in interconnection. Finally, with regard to network design information, the F.C.C. regulations currently require disclosure of information regarding introduction of new network services or charges in existing network services as well as marketing information. The court stated that this regulation has been significantly relaxed such that RHCs are now able to use network information to design new equipment or a CPE device as soon as the information is finalized by the network planners. Hence, significant potential for monopolistic behavior still exists.

7. Regional Company Activities & Public Policies

In this section, the court addressed the current anticompetitive activities by discussing individual companies and statistical analysis. The court was persuaded by the statistic that RHCs had a total income from telephone operations paid by ratepayers of almost \$13 billion while sustaining a loss from other activities amounting to \$1/2 billion during the period examined. The court stated that these figures suggest that a rise in local telephone rates during the past several years may be due to the cross-subsidization (or diversion) of ratepayers' money to finance losses from other subsidiaries. It then articulated other relevant public policies including ratepayer protection, the Congressional mandate of universal service, and First Amendment considerations.

8. Transmission of Information Services

The court denied requests for removing the restriction on RHCs from controlling the content of information services. After examining the wide

network of Videotex services available in France and other similar foreign services, it had no definitive answer whether the transmission of information services by RHCs would impede competition. Thus, it exempted RHCs from part of the information restrictions, permitting the RHCs to transmit information services without controlling the content.

9. *Non-Telecommunication Services*

Section II(D)(3) of the MFJ prohibited RHCs from providing any other product or service that is not a natural monopoly service actually regulated by tariff, except exchange telecommunication and exchange access service. In other words, it prohibited the BOCs from participating in "unrelated businesses" in which they might be able to obtain improper competitive advantages by leveraging their control over local monopolies. Previously, the RHCs were able to petition for removal and obtain a "waiver" if the unrelated business (1) is operated as a separate subsidiary, (2) obtains its own debt financing on its own credit, (3) limits total estimated net revenue to under 10% of the companies' total net revenue, and (4) applies the established monitoring and visitorial provisions. The court ruled that these restrictions may safely be removed pursuant to section VIII(C) of the MFJ. While the problem of cross-subsidization remains, on balance the court found that removal would promote competition.

10. *Conclusion*

The court in the 1987 Greene decision identified three goals underlying its analysis and conclusions: (1) establishing fair competition, (2) providing universal service and reasonable rates for those who cannot otherwise afford telephone service, and (3) encouraging innovation to the end that the full benefits of a sophisticated telecommunications industry are made available to all segments of the American public. It refused to remove most of the restrictions imposed by the Modified Final Judgment because of potential anticompetitive consequences. It did, however, repeal the "catchall" restriction that prohibited the entry of the RHCs into non-telecommunication markets. In addition, it lifted the restriction prohibiting RHCs from transmitting information services while leaving the restriction prohibiting RHCs from controlling the content of information services.

United States v. Western Electric, 675 F. Supp. at 655.

Judge Greene clarified the meaning of the term "manufacture" in section II(D)(2) of the decree. In April of 1985 AT&T filed with the Department of Justice requests for enforcement of the decree's prohibition on Regional Company manufacturing of telecommunications equipment and customer premises equipment. The DOJ refused to enforce this provision unless a Regional Company was actually fabricating equipment. Judge Greene attacked the DOJ's lack of enforcement efforts and declared that manufacturing includes both fabrication and product design and development. He indicated that the evidence underlying the decree strongly suggests that the Bell

System used its local monopoly position to disadvantage and drive out of business competing manufacturers of equipment primarily through discrimination and cross-subsidization at the design and development stages. Therefore, at this time the Regional Companies were prohibited from designing, developing, or fabricating telecommunications products and customer premises equipment.

United States v. Western Electric, No. CA 82-0192, slip op. (D.D.C. Mar. 7, 1988).

Judge Greene ruled that the BOCs can offer information services such as electronic mail and voice messaging that are provided by other vendors. These voice storage and retrieval services, for example, will enable the local phone system to act as an answering machine. Judge Greene continued, however, the restriction against the seven regional companies prohibiting them from providing the content for the information services or offering electronic Yellow Pages.

C. Other Cases

In this section, part 1 includes a summary of other cases. These cases were selected because they were decided within the past few years and are relevant to the issues decided in the 1987 Greene decision. Following these summaries, part 2 contains some research suggestions.

1. Summary of Recent Cases

United States v. Western Electric Co., 797 F.2d 1082 (D.C. Cir. 1986).

The District of Columbia Circuit Court of Appeals held that the restrictions of the consent decree (MFJ) did not violate the due process rights of the RHCs. In addition, the court held that the decree did not prohibit RHCs from providing exchange telecommunication services outside of their respective geographic regions.

Western Union Telegraph Co. v. F.C.C., 815 F.2d 1495 (D.C. Cir. 1987).

Under the *Sierra-Mobile* doctrine (Communications Act of 1934, 47 U.S.C. §§ 202, 205), the F.C.C. has power to prescribe changes in contract rates when it finds them to be unlawful, and to modify other provisions of private contracts when necessary to serve the public interest. In regard to this doctrine the circuit court held that the F.C.C. has the power to prescribe changes in contract rates when it finds them to be unlawful and to modify other provisions of private contracts when necessary to serve the public interest. The court also held that final revised rates for leasing special access facilities did not comply with the six-months-notice requirements.

Western Union Intern., Inc. v. F.C.C., 804 F.2d 1280 (D.C. Cir. 1986).

The court held that it is within the expertise of the F.C.C. to evaluate the cogency of technical economic data in determining the public interest. Thus, the F.C.C.'s judgment regarding the most effective

regulatory tools to apply in a particular situation is entitled to considerable judicial deference.

In re Long Distance Telecommunications Litigation, 647 F. Supp. 78 (E.D. Mich. 1986).

In this case the court ruled that the F.C.C. had primary jurisdiction over an action against two providers of nationwide long-distance telecommunications service, and the F.C.C. could determine whether charges and practices of providers were reasonable even though the complaint alleged a state law cause of action. 47 U.S.C. §§ 151-155, 201, 201(b) (1982).

Southern Bell Tel. & Tel. Co. v. F.C.C., 781 F.2d 209 (D.C. Cir. 1986).

The court upheld the F.C.C.'s use of remaining life depreciation rates which base depreciation on the actual remaining life of the asset. The court reasoned that accelerated methods of depreciation could potentially exacerbate the bypass problem in the short run by significantly increasing local carrier expenses, causing increased rates. It stated that the F.C.C.'s reliance on state commission assessments of local competitive conditions and the effect of higher rates in each state is reasonable and consistent with the Communications Act. 47 U.S.C. § 220(i). In addition, the F.C.C. generally has authority to set aside threshold requirements for telephone company applicants seeking waivers or variances from generally applicable rules. The F.C.C.'s only obligation when changing its policies as applied to telephone companies is to provide an explanation at the time of the change.

Bell Telephone Co. of Penn. v. F.C.C., 761 F.2d 789 (D.C. Cir. 1985).

The F.C.C.'s rejection of a retroactive increase in rates charged to other common carriers for exchange network facilities used in interstate access was arbitrary when the only basis for rejecting the tariff was the fact that it was retroactive. Since retroactive rate increases had been approved for the fourth year of the interim agreement, a conforming tariff could have been filed for the fifth year if the decision on fourth year rates had been timely issued. 47 U.S.C. § 203(c).

RCA Global Communications, Inc. v. F.C.C., 758 F.2d 722 (D.C. Cir. 1985).

Small carriers which are exempt under the Record Carrier Competition Act (47 U.S.C. § 609) can validly differentiate between rates charged to customers who used the carrier's network for both domestic and international components of an overseas transmission and the rate charged when another company provided service to or from the carrier's international switch. This holds notwithstanding a claim that the price differential violated a section of the Act which prohibits "unjust or unreasonable" price discrimination in the provision of "like communication service," because to hold otherwise would effectively nullify the small carrier exemption. 47 U.S.C. §§ 151-155, 202(a), 222(c)(1)(B).

North American Telecommunications Ass'n v. F.C.C., 772 F.2d 1282 (7th Cir. 1985).

A F.C.C. order which permitted RHCs and their equipment subsidiaries to submit joint bills to their customers for telephone service and equipment during the four-year period following divestiture was reasonable and within F.C.C. discretion. The F.C.C. order also permitted employees of RHCs who installed basic, single-line telephone service for home or businesses, to install and maintain single-line telephone equipment. Finally, the F.C.C. could require RHCs to submit plans of capitalization for F.C.C. approval, in order to make sure that equipment subsidiaries of companies were not undercapitalized and that companies were not subsidizing equipment subsidiaries in violation of a prior F.C.C. order.

Louisiana Public Service Com'n v. F.C.C., 106 S.Ct. 1890 (1986).

The United States Supreme Court held that the F.C.C.'s ability to pre-empt inconsistent state regulations, under the Communications Act of 1934 (47 U.S.C. § 151) and under the Supremacy Clause of the United States Constitution (Art. VI, cl. 2) is limited by 47 U.S.C. § 152(b). Therefore, the F.C.C. is forbidden to prescribe depreciation practices and charges in the context of ratemaking for intrastate service. Even though 47 U.S.C. § 220 deals expressly with the F.C.C.'s authority over depreciation, it does not automatically pre-empt state depreciation regulation for intrastate ratemaking, because the meaning of § 220 is not sufficiently straightforward as to override the command of § 152(b).

Eagle v. American Tel. and Tel. Co., 769 F.2d 541 (9th Cir.), cert. denied, 106 S.Ct. 1465 (1985).

A \$381 million refund the telephone company was required to pay the ratepayers due to rate overcharges did not injure minority shareholders by depreciating the value of their stocks. If the telephone company had avoided a refund by adopting an accelerated depreciation method of accounting for rate-making, the consequent tax benefit would have flowed through to ratepayers and the company would not have collected an offsetting amount in utility rates. Therefore, minority shareholders could not maintain an action under California law against majority shareholders for breach of fiduciary duty.

Yakima Valley Cablevision, Inc. v. F.C.C., 794 F.2d 737 (D.C. Cir. 1986).

Cable companies brought a petition for review of orders of the F.C.C. dismissing requests for declaratory rulings regarding the legality of certain state and local taxes imposed on earnings of cable companies. The court held that the F.C.C. may change enforcement policy retroactively, but such a decision must be justified and is subject to judicial review. 5 U.S.C. § 706(2)(A) (1982). The court concluded that the F.C.C.'s unreasonable failure to explain its decision not to address disputes over franchise fees was arbitrary and capricious.

GTE Service Corp. v. F.C.C., 782 F.2d 263 (D.C. Cir. 1986).

The Court of Appeals is required to give substantial deference to decisions of the F.C.C., particularly where the F.C.C. has determined that a particular course of conduct is or is not in the public interest.

Cellular Mobile Systems of Pennsylvania, Inc. v. F.C.C., 782 F.2d 182 (D.C. Cir. 1985).

Applicants for nonwire line cellular telephone licenses sought review of a F.C.C. decision granting a license to one applicant. The court upheld the F.C.C.'s conduct. In reviewing a decision of the F.C.C. based on insufficient detail in competing proposals, the Court of Appeals cannot invalidate a determination as arbitrary, capricious, or unsupported if the decision embodied a considered and sufficiently articulated judgment and was founded upon substantial evidence in the record.

Steele v. F.C.C., 770 F.2d 1192 (D.C. Cir. 1985).

While the F.C.C. is entitled to deference in deciding how the public interest will best be served, the reviewing court must ensure that the F.C.C.'s action is based on consideration of permissible factors and is otherwise reasonable.

2. Case Research Suggestions

In general, it was difficult to search broadly on Lexis and Westlaw for relevant cases because too many cases were retrieved (using "telecommunications" combined with various other search terms). The following search terms are probably helpful in conjunction with terms that relate to the specific issue to be researched: F.C.C., BOC, Divestiture, Telephone, Telecommunication, Competition, Monopoly.

A more specific research focus, however, will probably mitigate this problem. Overall, the annotated federal codes are a useful research tool (see Part II(A) for relevant code sections). In addition, the federal digest also provides an effective case retrieval tool. Under the topic "Telecommunications," the following key numbers were most useful:

In General

- 31: Nature, status and regulation in general
- 32: Companies and persons subject
- 45: Affiliation, consolidation and merger
- 46: Interconnection and mutual service; operating agreements
- 47: Legality and approval of agreements
- 48: Duty to connect with other lines or furnish service thereto

Telephone Service

- 261: In general
- 267: Competition, agreements and connections between companies

Charges and Rates

- 305: International and cable messages
- 306: Telephone charges and rates in general
- 307: Regulation in general
- 309: Contracts and franchises
- 316: Rate of return
- 323: Toll or meter charges; long-distance or interexchange, and pay phones;
- 334: Powers of administrative officers and scope of inquiry;
- 335: Notice of hearing; rehearing;
- 341: Scope of inquiry and powers of court;
- 349: Remedies; injunction and recovery of overcharge;

IV. LEGISLATIVE AND ADMINISTRATIVE LAW**A. Statutes**

Communications Act of 1934, 47 U.S.C. § 151 *et seq.*

§§ 151-155 contain the general provisions including the provisions creating the F.C.C.

§§ 201-224 contain the provisions regulating common carriers such as schedule of charges, valuation of property, and extension of lines.

Communication Satellite Systems, 47 U.S.C. § 701 *et seq.*

This Act contains provisions regarding congressional policy and purpose; federal coordination, planning, and regulation; and Communications Satellite Corporation.

Rural Electrification & Telephone Service, 7 U.S.C. § 901 *et seq.*

This Act provides and ensures adequate telephone service in rural areas. §§ 921-924 (Rural Telephone Service); §§ 930-940 (Direct Loan Program); §§ 941-950b (Telephone Bank).

Judicial Review of Agencies and Administrative Procedures 5 U.S.C. §§ 701 *et seq.*

Antitrust Procedures & Penalties Act, 15 U.S.C. § 16(b)-(h) (Tunney Act).

This Act requires public hearings to be held on antitrust settlements in order to assure the presiding Court that the settlement is in the public interest.

B. Regulations

Communications Act of 1934

47 C.F.R.

- § 31 (Uniform System of Accounts for Class A & B Companies, specifies mandatory accounts to be used by telephone companies with operating revenues above \$100,000).
- § 32 (Uniform System of Accounts for Class C Companies, specifies mandatory accounts to be used by telephone companies with operating revenues between \$50,000 and \$100,000).
- § 64.702 (Furnishing of enhanced services and CPE).
- § 64.702(d)(3) (F.C.C. regulation preventing RHCs from obtaining an unfair head start over CPE rivals).
- § 65 (Interstate Rate of Return Prescription Procedures & Methodologies; includes regulations regarding procedures, exchange carriers, interexchange carriers, and maximum rate of return).
- § 66 (Applications Relating to Consolidation, Acquisition, or Control of Telephone Companies; specifies contents of application, support required, and notice).
- § 67 (Jurisdiction Separation Procedures; regulates telephone property; operational revenues, certain income, and retained earnings; operating expenses and taxes; reserves; and universal service factor).
- § 68 (Connection of Terminal Equipment to the Telephone Network; specifies conditions on use of terminal equipment, registration, and complaint procedures).
- § 69 (Access Charges, details the computation and apportionment of access charges).

Rural Electrification & Telephone Service

7 C.F.R.

- § 1702 (Organizations & Functions).
- § 1789 (Audits of Electric and Telephone Borrowers).

C. Recent Bills

Telecommunications Equipment and Information Services Act of 1987

Congress enacted this bill to permit the BOCs to provide information services and to manufacture telecommunications equipment subject to F.C.C. regulation. Specifically, the BOCs can provide information services if no substantial possibility exists that offering such services could harm competition in the industry or customers. The BOCs may also compete as manufacturers subject to the same condition. The bill, however, does not

extend to electronic publishing because of the potential for BOC monopolies. It also specifies safeguards against cross-subsidization and the convening of a joint federal-state board to establish and implement the principles of cost assignment and allocation. H.R. 2030, 100th Cong., 1st Sess. (Apr. 9, 1987).

Telecommunications Equity Act of 1986

The Telecommunications Equity Act of 1986 enables BOCs to provide information services and to manufacture telecommunications equipment, subject to regulation by the F.C.C. S. 209, 100th Cong., 1st Sess. (Jan. 6, 1987).

Telecommunications Policy Coordination Act of 1987

This bill aims to improve coordination in formulating telecommunications policy within the executive branch. It establishes an Office of Telecommunications Policy and specifies its functions. H.R. 323, 100th Cong., 1st Sess. (Jan. 6, 1987).

Telecommunications Employees' Protection Act of 1987

Congress proposed this legislation to establish re-employment rights for employees who have lost employment as a consequence of the divestiture of the Bell system. H.R. 2828, 100th Cong., 1st Sess. (June 29, 1987).

Telecommunications Trade Act of 1987

This bill promotes expansion of international trade in telecommunications equipment and services. Its purpose is to foster economic and technical growth while ensuring that trading nations have open markets. The bill requires investigation of foreign trade barriers and stipulates responsive actions. Additionally, it provides authority for entering trade agreements and other miscellaneous provisions. S. 596, 100th Cong., 1st Sess. (Feb. 26, 1987).

D. Recent Hearings

Modified Final Judgment

Hearings Before the Senate Subcommittee on Communications on the September 1987 decision of Judge Harold Greene that addressed the continued need for the three "core" restrictions imposed by the MFJ on the Bell Operating Companies. The Subcommittee also examined comments on possible future information services. *Proposed Modifications to the AT&T Decree: Hearing Before the Senate Judiciary Comm., Subcomm. on Antitrust, Monopolies, and Business Rights*, 100th Cong., 1st Sess. (Comm. Ser. No. J-100-19) (C.I.S. Abstract v.18:11 S521-52).

Telecommunications Trade

Hearing before the House Subcommittee on Telecommunications and Finance to consider the Trade and International Economic Policy Reform Act

of 1987. Subcommittee consideration was limited to Title II of the Telecommunications Trade Act of 1986, which amends the Communications Act of 1934 to (a) require the U.S. Trade Representative to investigate and report to Congress on foreign barriers to competitive opportunities for U.S. firms in telecommunications markets, and (b) require the President to negotiate trade agreements meeting U.S. Trade Representative recommendations for fair markets for telecommunications products and services, or to implement retaliatory trade actions. *Telecommunications Trade: Hearings Before the House Comm. on Energy and Commerce, Subcomm. on Telecommunications and Finance, 100th Cong., 1st Sess. (Comm. Ser. No. 100-5 1987) (C.I.S. Abstract v.18:8 H361-82).*

Federal Telecommunications Policy Act of 1986

This hearing concerned Senate Bill 2565 (99th Cong., 2nd Sess. (June 18, 1986)) introduced by Senator Robert Dole, which may be reintroduced in the current congress in a modified form. The hearings before the Senate Committee on Commerce, Science, and Transportation considered whether to transfer jurisdiction over implementation of the MFJ from Federal District Court, the Justice Department, and the F.C.C., to the F.C.C. alone. The hearings also examined proposals to relax MFJ restrictions prohibiting BOCs from providing information services, manufacturing telecommunications equipment, or offering long-distance service. *Federal Telecommunications Policy Act of 1986, Hearings to Consider S. 2565, the Federal Telecommunications Policy Act of 1986, Before the Senate Comm. on Commerce, Science, and Transportation, 99th Cong., 1st Sess. (1986) (C.I.S. Abstract v.18:8 S261-26).*

Competitive Status of the Bell Operating Companies

Hearings before the House Subcommittee on Telecommunications, Consumer Protection, and Finance to examine the competitive status of the BOCs. The Subcommittee assessed the anticipated consumer effects of potential relaxation of restrictions prohibiting local telephone companies from providing information services, manufacturing equipment, or offering long-distance services. It included a discussion of H.R. 3687 (Telephone Ratepayer Protection and Technology Promotion Act of 1985) which sought to permit BOCs to provide information services and to manufacture telecommunications equipment as long as these activities are not subsidized with local telephone service revenues; and H.R. 3800 (Telecommunications Equipment and Information Services Act of 1985) which sought to allow BOCs to provide information services and to manufacture telecommunications equipment subject to F.C.C. regulation. *Statements and Discussions Before the House Comm. on Energy and Commerce, 99th Cong., 2d Sess. 174-350, 369-408 (1986) (statements of Laurence DeMuth, Exec. Vice Pres. and Gen. Counsel, U.S. West, Inc., Gary McBee, Vice Pres., Pacific Telesis Group, Paul Levy, Chair, Mass. Dept. of Pub. Util., Phillip Onstad, Chair, Int'l Communications Comm., A. of Data Processing Ser. Org., Uzal Martz, Chair, Telecom Comm., Am. Newspaper Pub. A., Henry Geller,*

Wash. Cen. for Pub. Pol'y Res., Gene Kimmelman, Legis. Dir., Consumer Fed'n of Am., Robert Coakley, Dep't Mgr., Hewlett-Packard Co.) (C.I.S. Abstract v.18:3 H361-21.2).

Transition in the Long-Distance Telephone Industry

Hearings before the House Subcommittee on Telecommunications, Consumer Protection, and Finance to review the status and consumer effects of the transition to competition in the long-distance telephone service industry following the AT&T divestiture of local operating companies, and to assess F.C.C. policies implementing telephone industry transition. *Transition in the Long-Distance Telephone Industry: Hearings Before the House Comm. on Energy and Commerce, Subcomm. on Telecommunications, Consumer Protection, and Finance, 99th Cong., 2d Sess.* (Comm. Ser. No. 99-145 1986) (C.I.S. Abstract v.18:6 H361-48).

V. BOOKS AND REPORTS

Books provide a diverse and in-depth examination of telecommunication issues. Given the pace of technological and regulatory change, they provide useful background information, but often fail to account for cutting-edge technical innovations or recent regulations. (When books could be classified under more than one topic, they were placed under the category that was most appropriate.) Reports, in contrast, often examine a specific topic and contain timely statistical and background information. The following list is an extensive collection of the most useful and relevant books and reports addressing this topic.

A. AT&T Divestiture

1. *The Huber Report*

THE GEODESIC NETWORK: 1987 REPORT ON COMPETITION IN THE TELEPHONE INDUSTRY, Antitrust Division, United States Department of Justice, Jan. 1987.

Peter W. Huber prepared this report as a consultant to the Department of Justice in accordance with the court's decision in *United States v. Western Electric Company*, 552 F. Supp. at 194-95. The purpose of the report is to examine how changing technical, competitive, and regulatory conditions affect the economic and antitrust rationales underlying the restrictions imposed by the MFJ. It contains a comprehensive and detailed compilation of data, and analysis relating to competition in the telephone markets. The report is comprised of seventeen chapters: The Geodesic Network, The Local Exchange, Interexchange Communications, Mobile Radio Services, Data Transmission and Packet Switching, Information Services, Computerized Databases and Electronic Publishing, Public Announcement Services, Electronic Yellow Pages, Voice Storage and Retrieval, Electronic Mail, Transactional Services, Alarm Monitoring, Central-Office Switches, Transmission Equipment, Private Branch Exchanges, and Terminal Equipment. While very technical, this report

is one of the most important secondary sources for research in this area.

2. *Background and Historical Information*

THE BREAKUP OF AT&T: OPPORTUNITIES, PROSPECTS, CHALLENGES, Reuben B. Robertson & Richard E. Wiley as Chairpersons, Law & Business, Inc. (1982).

This source begins with a collection of the rulings, memoranda, and stipulations regarding the AT&T divestiture between August 11, 1982 and October 14, 1982. The last 150 pages include speeches and background material discussing these legal documents and the market impact of the AT&T divestiture.

THE DEAL OF THE CENTURY: THE BREAKUP OF AT&T, STEVE COLL (1986).

In this book, the author provides an intensely detailed description of the events and people that contributed to the AT&T divestiture. The information was collected through numerous interviews and reviews of trial transcripts, settlement conference transcripts, court pleadings, depositions, exhibits, and various other notes and documents. While this book does not provide any current information, it provides a comprehensive background of the key individuals, the setting, and the conditions leading to, and culminating in, the divestiture of AT&T.

DISCONNECTING PARTIES, MANAGING THE BELL SYSTEM BREAKUP: AN INSIDE VIEW, W. BROOKE TUNSTALL (1985).

Written by the former Vice President of Organization and Management Systems at AT&T, this book provides an inside perspective on the planning and execution of the break-up, and the vast corporate restructuring. This book is primarily useful for managers since it describes a historical narrative of the events from a managerial perspective, but it is not a helpful tool for understanding the current status and objectives of AT&T.

ON THE LINE: THE MEN OF MCI—WHO TOOK ON AT&T, RISKED EVERYTHING, AND WON!, LARRY KAHANER (1986).

The history of MCI's assault on AT&T is traced in this book. The account begins in 1960 and chronologically examines several stages of development, concluding with the chapter entitled "Equal Access, 1983 to Present." The book is derived primarily from the author's observations, interviews, and official documents. It provides a useful historical account focusing on MCI rather than AT&T.

3. *Analysis of Divestiture and Implications*

THE AT&T SETTLEMENT: TERMS, EFFECTS, PROSPECTS, Law & Business, Inc. (1982).

The National Association of Attorneys General and Legal Times prepared this handbook for a briefing. While it was compiled

primarily as source material for briefing attendees of the conference, it also serves as a comprehensive reference manual and includes a list of speaker biographies. Although the seminar occurred on March 25, 1982, it provides useful analytical and background information that aids in understanding the divestiture decree.

DISCONNECTING BELL: THE IMPACT OF THE AT&T DIVESTITURE (Harry M. Shooshan III ed. 1984).

This book contains nine essays written by telecommunication experts who have been active participants in the events leading up to the AT&T breakup. These essays include discussions of economic theory, problems presented for regulators on the federal and state level, and the social impact of divestiture.

IMPLEMENTING THE AT&T SETTLEMENT: THE NEW TELECOMMUNICATIONS ERA, Practising Law Institute, G4-3738 (1983).

A 1983 P.L.I. Conference was the basis for this handbook which contains essays concerning regulated interexchange services, equal access, enhanced services, state and local regulation, and BOC post-divestiture opportunities. In addition, this volume includes a useful collection of case and legislative materials.

THE NEW TELECOMMUNICATIONS ERA AFTER THE AT&T DIVESTITURE: THE TRANSITION TO FULL COMPETITION, Practising Law Institute, G4-3780 (1985).

This is a useful handbook containing articles discussing equal access, access charges, enhanced services, market competition, and the restrictions and opportunities for BOCs. It also has a valuable collection of cases decided during 1985.

TELECOMMUNICATIONS AMERICA: MARKETS WITHOUT BOUNDARIES, MANLEY RUTHERFORD IRWIN (1984).

The authors of this book explore the implications of the AT&T-Department of Justice Consent Decree of 1982. Along with background information, they speculate as to the future direction of information products and services in the United States, examine the role of federal and state regulation, and juxtapose regulation and future economic trends. The book also contains several useful tables and figures regarding market and product information.

TELECOMMUNICATIONS: BELL OPERATING COMPANY ENTRY INTO LINES OF BUSINESS, U.S. Government Accounting Office (April 1986).

In this report, the Government Accounting Office examines the rationale advanced for allowing the regulated BOCs to enter various lines of business restricted by the MFJ. The report provides information on the MFJ, current procedures and results of the restriction waiver process, the basic issues and arguments for and against BOC expansion, federal agency views on the restrictions, and related F.C.C. regulation of BOC business.

B. Computer Inquiries

COMPUTER III: A NEW ERA, A GUIDE TO THE F.C.C.'S LANDMARK DEREGULATORY RULING (Dick Stirba ed. 1986).

This special report recalls the evolution of the F.C.C.'s Computer III ruling which allowed AT&T and the BOCs to offer enhanced services without the previously imposed structural separation requirements. The guide is based on reports published in F.C.C. Week over a twelve month period ending in June 1986, when the Commission's final ruling was issued. Overall, this is a very helpful source and contains valuable appendices providing the text of the original Computer III Notice of Proposed Rulemaking, Computer III Order, and Computer III Notice of Supplemental Rulemaking.

C. State and Local Markets

COMPETITION IN THE LOCAL EXCHANGE TELEPHONE SERVICE MARKET, ALFRED LEE & TIMOTHY SLOAN, U.S. Department of Commerce, NTIA Report 87-210 (Feb. 1987).

The National Telecommunications Information Association prepared this very informative report. It contains data gathered from the BOCs, their competitors, long-distance telephone carriers, and large communications user groups. From this database, the report draws conclusions about the characteristics and competitiveness of certain local exchange telephone markets. It concludes that the BOCs do not yet face a high degree of competition for many of their services and customers. Some market demands for alternative services are being met by new entrants, but so far competitors have not fully exploited the BOCs vulnerability to competitive entry.

NEW STATE TELECOM LAWS, Telecom Publishing Group (1986).

This report updates all major state regulatory activity in telecommunications, including copies of laws, with summaries and explanations. In addition it covers deregulation, utility commission authority, life-line plans, long-distance pricing, and intra-LATA competition.

TELEPHONE COMPETITION AND DEREGULATION: A SURVEY OF THE STATES, National Telecommunications and Information Administration, U.S. Department of Commerce (1986).

The National Telecommunications Information Administration conducted surveys concerning the regulatory activities in the fifty states and the District of Columbia. Recent regulatory and legislative actions promoting competition in the intrastate markets—intraLATA and interLATA toll, and local exchange—were studied.

D. Economics

BREAKING UP BELL: ESSAYS ON INDUSTRIAL ORGANIZATION & REGULATION (David S. Evans ed. 1983).

The economic issues involved in the AT&T breakup is the focus of this collection of essays. Written by consultants to the Justice Department between June 1980 and January 1982, the essays provide intricate economic analyses of antitrust and market conditions.

ECONOMIC ANALYSIS OF TELECOMMUNICATIONS: THEORY AND APPLICATIONS (L. Courville, A. de Fontenay, R. Dobell eds. 1983).

This book is a compilation of papers presented at the Conference on Economic Analysis of the Telecommunications Industry in Canada in 1981. The purpose of the conference was to apply past economic research to the unique characteristics of the telecommunications sector in Canada in light of public policy concerns. The book consists of chapters on production analysis, demand analysis, welfare considerations, and regulation.

THE ECONOMICS OF COMPETITION IN THE TELECOMMUNICATIONS INDUSTRY, JOHN R. MEYER, ROBERT W. WILSON, M. ALAN BAUGHUM, ELLEN BURTON, & LOUIS CAQUETTE (1980).

Although this book predates the divestiture of AT&T, it contains a valuable study that (1) analyzes the economic forces (competitive, regulatory, technological, etc.) at work in the telephone industry; (2) analyzes the impact of increased competition of the telephone industry and customers; and (3) identifies appropriate public policies for the industry. The authors overall conclusion is that the free market should decide the size, nature, and direction of the telecommunications industry.

TELECOMMUNICATIONS AND ECONOMIC DEVELOPMENT, ROBERT J. SAUNDERS, JEREMY J. WARFORD, BJORN WELLENIUS (1983).

Members of the United Nations World Bank wrote this book. It contains detailed macroeconomic and microeconomic analysis of benefits, telephone access and use, telecommunications tariff policy, and the mobilization of resources. In addition, the appendices focus on use of telecommunications in health care, postal services and telecommunications, and a survey of rural public call offices in Costa Rica.

E. Public Policy

COMMUNICATIONS DEREGULATION: THE UNLEASHING OF AMERICA'S COMMUNICATIONS INDUSTRY, JEREMY TUNSTALL (1986).

This book provides a broad perspective in its discussion of deregulation in the communications industry. It identifies a series of events that promote the policy of placing new technologies in private hands.

HERITAGE & DESTINY: REFLECTIONS ON THE BELL SYSTEM IN TRANSITION, ALVIN VON AUW (1983).

This personal account of national telecommunications policy and the character of AT&T is written by a former vice president and assistant to the chairman of the board of AT&T. The book covers topics including regulation/deregulation and public policy, Bell system's technology and the stress of policy change, accountability of AT&T to its shareholders and the public, and policy-making and the character of the business.

TELECOMMUNICATIONS AND PRODUCTIVITY (Mitchell L. Moss ed. 1980).

An international conference focusing on the effects of telecommunications systems on individuals and organizations, rather than the specific technologies, provided the material for this book. It is organized into sections examining the potential of telecommunications systems, public and private roles of telecommunications policy making, the work environment, services to the home, public uses of telecommunications systems, and emerging policy directions.

TELECOMMUNICATIONS POLICY HANDBOOK (Jorge Reina Schement, Felix Gutierrez, Marvin A. Sirbu, Jr. eds. 1982).

A collection of articles discussing telecommunications policy research written by government officials and the research community is contained in this book. The essays focus on policy-oriented themes such as converging technologies, reforming public broadcasting, pricing communication services, understanding change, and influencing policy. Some of the selections are very specific, while others are abstract.

TELECOMMUNICATIONS REGULATION TODAY AND TOMORROW (Eli M. Noam ed. 1983).

This book is a compilation of articles from a conference at the Columbia University Graduate School of Business. The articles are divided into four chapters by topic: the passing of the public utility concept; new industry and new regulation; legislation; and access, pricing, and local competition. The book is outdated in terms of recent industry developments, but contains a variety of interesting and pertinent policy discussions.

F. International

THE CALCULUS OF INTERNATIONAL COMMUNICATIONS, MEHEROO JUSSAWALLA & CHEE-WAH CHEAH (1987).

The political economy of Transborder Data Flows (TBDF) is studied in this book. Beginning with background information and the historical and institutional setting of TBDF, the authors proceed to examine its growth and provide an economic analysis of information privacy, regulation, and TBDF policy coordination.

COMMUNICATION REGULATION AND INTERNATIONAL BUSINESS (J.F. Rada & G.R. Pipe eds. 1984).

A collection of essays presented at the International Management Institute workshop in April 1983 are contained in this book. The conference involved a discussion of trends in the telecommunications industry by government officials, international institutions, and academics. The topics covered include transborder data flow, protection of privacy, as well as perspectives on telecommunications issues from Canada, Brazil, Japan, and industry.

THE COMPETITION FOR MARKETS IN INTERNATIONAL TELECOMMUNICATIONS, RONALD S. EDWARD (1984).

Developments in telecommunications policy in seventeen selected countries are explored in this book. It profiles the telecommunications industry in each country and focuses on the structure and policies that govern the degree of access by U.S. companies. For each nation, the authors identify the present organizational structure of the industry, governmental policies concerning the provision of domestic and international telecommunications service, approval processes controlling foreign-produced telecommunications equipment, governmental policy regarding information processing such as valuation and taxation, differences in policies applied to U.S. services versus other countries, future plans to expand competitive access, and views of overseas consumer groups and professional organizations concerning competition. The countries included in the study are Australia, Austria, Belgium, Brazil, Canada, Federal Republic of Germany, France, Hong Kong, Italy, Japan, Mexico, Philippines, Singapore, Sweden, Switzerland, United Kingdom, and Venezuela.

THE DEREGULATION OF INTERNATIONAL TELECOMMUNICATIONS, RONALD EDWARD (1985).

The F.C.C. has restructured the international telecommunications marketplace with the intention of (1) providing for increased market and technological competition, and (2) relying on this enhanced market competition instead of traditional regulation. As a result of several actions, the National Telecommunications and Information Administration has been commissioned to evaluate these actions, summarize the overall effect of the actions, estimate their impact on the consumer, and identify additional steps which are needed to promote fair competition. Their findings and analyses are contained in this book. It concentrates on international telecommunication topics including a description and summary of the F.C.C. actions and their impact, evolving technologies and services, ISDN and global network services and regulations, response of foreign administrations' correspondents, international facility planning and use, long-term market position of international service carriers, and the issues and implications concerning international telecommunications deregulation.

INTERNATIONAL TELECOMMUNICATIONS & INFORMATION POLICY (Christopher H. Sterling ed. 1984).

Presented in this report is a symposium of issues in international telecommunications and information policy. The symposium responded to the government report issued in the beginning of 1983 which outlined the United States' policy options. Also included is the National Telecommunications & Information Administration (NTIA) report entitled "Long-Range Goals in International Telecommunications and Information: An Outline for United States Policy."

THE JAPANESE COMPUTER AND TELECOMMUNICATIONS INDUSTRY 1986: PROFILE & ANALYSIS, Telecom Publishing Group.

In this two-volume set, the Telecom Publishing Group analyzes major sectors of the Japanese computer and telecommunications industry and profiles many companies involved in the industry. Volume I investigates major market sectors including artificial intelligence, cellular radio, computers, semiconductors, telecommunications carriers, telecommunications equipment, and videotex. The report examines each market sector, analyzes its growth potential and regulatory trends, and assesses its openness to sales by U.S. and foreign equipment and service providers. Volume II describes 200 Japanese computer and telecommunications firms, including operating statistics and details regarding their R&D efforts. The profiles vary in length, but cover all of the industry sectors analyzed in Volume I. Volume II is a comprehensive reference tool that provides facts about all of the major and minor participants in the market.

LONG RANGE GOALS IN INTERNATIONAL TELECOMMUNICATIONS AND INFORMATION: AN OUTLINE FOR UNITED STATES POLICY, NATIONAL TELECOMMUNICATIONS INFORMATION ADMINISTRATION, United States Department of Commerce, National Technical Information Service, PB83-175893 (Feb. 1983).

International trends and long-range goals are explored in Part I of this government report. Part II describes the international processes (collaboration and compromise with other countries) through which the United States seeks to advance its interests. This section discusses the International Telecommunications Union and its upcoming challenges. Part II also explains the problems of government structure and organization that should be promptly and soundly resolved to ensure comprehensive, consistent, and effectively executed policy. Finally, Part III delineates important issues on which specific policies and strategies must be developed.

TELECOMMUNICATIONS DEVELOPMENT IN COMPARATIVE PERSPECTIVE: THE NEW TELECOMMUNICATIONS IN EUROPE, JAPAN AND THE U.S., Michael Borrus, Francois Bar, Patrick Coge, Anne Brit Thoresen, Ibrahim Warde, and Aki Yoshikawa (May 1985), Berkeley Roundtable on the International Economy (BRIE) Working Paper.

The Berkeley Roundtable on the International Economy focuses on advances in digital telecommunications networks and their impact in

industrialized countries in this report. It summarizes the different approaches taken in the United States, Japan, and Europe, and how these strategies competitively position each country to take advantage of the emerging use of broad-band technology.

THE UNITED STATES IN THE INTERNATIONAL TELECOMMUNICATIONS UNION AND IN PRE-ITU CONFERENCES, MILDRED L.B. FELDMAN (1976).

Nations regulate the use of the air for communications purposes through the ITU. This book explains the United States' role in the international telecommunication conferences held since the late 1800s. Although the discussions focus on radio and telegraph technologies, the book presents a useful historical view of United States' participation in ITU Conferences.

G. Miscellaneous

THE CHANGING TELEPHONE INDUSTRY: ACCESS CHARGES, UNIVERSAL SERVICE, AND LOCAL RATES, Congressional Budget Office (June 1984).

In this report, the Congressional Budget Office analyzes the impact of the F.C.C. decisions concerning the recovery of fixed costs and cost recovery methods used by local telephone companies. It also contains useful, but slightly out-of-date tables and appendices.

1986: THE YEAR IN REVIEW, Telecommunications Reports, Inc.

Activities in the telecommunications industry during 1986 are summarized in this report. While the issue is dated, it contains a useful exposition of trends and events of the past which set the stage for future developments. This report is divided into twenty short chapters narrating events such as access charge areas, federal preemption, local rate hikes, etc.

VI. ARTICLES

Articles are important resource tools because they provide more recent information than books. The law review articles generally provide thorough analyses and extensive footnotes, while articles from specialized magazines (such as PUBLIC UTILITIES FORTNIGHTLY and TELECOMMUNICATIONS) offer shorter discussions covering more specialized and recent topics. When searching for articles under LegalTrac, Current Law Index, or Index to Legal Periodicals, it is probably best to begin using the terms "telecommunication" and "telephone." The following list annotates recent articles and categorizes them into general subject classifications: AT&T Divestiture and Implications, Articles Discussing the 1987 Greene Decision, F.C.C. Rulemaking and Regulations, State and Local Regulation, Public Policy, Rates and Revenues, Specific Technologies, and Miscellaneous.

A. AT&T Divestiture and Implications

Is Divestiture Working?, John Gantz, TELECOMMUNICATIONS PRODUCTS + TECHNOLOGY, Jan. 1987, at 17.

In this article, John Gantz explores whether divestiture is working. He provides useful statistics and information concerning the effects of deregulation, winners and losers, carrier business, results for vendors, waivers, and strategies for survival. In addition, he briefly examines the various rulings and their future implications.

The Shape of Things to Come, Richard E. Wiley, TELECOMMUNICATIONS, Aug. 1987, at 29.

The author, an attorney and former chairman of the Federal Communications Commission, depicts the restructuring of the telecommunication industry and the new regulatory requirements. He concludes that the aftershocks of the AT&T divestiture are still imminent, and that we are now entering the "Third Wave Restructuring of the Telecommunication Industry."

A Critique of the Huber Report: In Search of the Geodesic Network, Dr. Lee L. Selwyn & W. Page Montgomery, (BUSINESS COMMUNICATIONS REVIEW, May-June 1987, at 23.

Dr. Peter Huber, as a consultant to the DOJ, prepared a comprehensive report on the condition of the former Bell System companies three years after the divestiture. This article criticizes Huber's report which influenced the DOJ recommendations to Judge Greene. The authors believe that Huber's report portrayed a fundamentally flawed view of the technical, economic, and competitive character of the telecommunications industry, and that the DOJ's reliance upon the report was seriously misplaced.

Getting the BOCs Into Long Distance, BUSINESS COMMUNICATIONS REVIEW, Mar.-Apr. 1987, at 32.

The Department of Justice has recommended eliminating the MFJ's line-of-business restrictions against the RHCs entering into information services, manufacturing, other non-telecommunications enterprises, and interexchange long-distance services. In this perspective article, the author argues that Judge Greene should accept the DOJ's recommendation and enter the interexchange long-distance services market subject to listed concerns. The author also suggests specific changes to the DOJ proposal.

Should the RHCs Manufacture?, John Gantz, TELECOMMUNICATIONS PRODUCTS + TECHNOLOGY, Aug. 1987, at 46.

The Department of Justice is promoting the concept that RHCs be allowed to compete by manufacturing telecommunications equipment and Congress seems to concur. In this commentary, John Gantz offers six reasons why the RHCs should not be allowed to manufacture transmission and switching equipment.

Greene Ruling to Touch Many Network Customers, Victor J. Toth, BUSINESS COMMUNICATIONS REVIEW, Jan.-Feb. 1987, at 33.

In this article, the author predicts that proprietary network customers will face dramatic changes in the cost and type of exchange services

used as local and off-network access lines. As a result of several actions before Judge Greene and the F.C.C., multinode network customers are likely to be required to use feature group switched services as the sole means of linking into networks within the local exchange area.

Winning By Losing: The AT&T Settlement and Its Impact on Telecommunications, Paul W. MacAvoy & Kenneth Robinson, 1 YALE J. ON REG. 1 (1983).

This article describes AT&T's subsidization of local service with profits from long-distance services. It then discusses the allegations at issue in the Department of Justice's suit against AT&T along with the terms of settlement, the legal merits of the suit, and the economic consequences of the settlement which allow AT&T to compete more effectively.

Losing by Judicial Policy Making: The First Year of the AT&T Divestiture, Paul W. MacAvoy & Kenneth Robinson, 2 YALE J. ON REG. 225 (1985).

The effects of divestiture one year after the consent decree are analyzed in this article which concludes that divestiture has not worked. Specifically, the article discusses revenue transfers among telephone services existing prior to divestiture. Following a description of developments and failures, the article concludes by proposing goals which the authors argue should be the focus of the post-divestiture telecommunications policy.

Deregulation and the AT&T Divestment: A Competitor's Perspective, Robert D. Alton, 10 WILLIAM MITCHELL L. REV. 501 (1984).

In this short essay, the author advocates that the telecommunication industry "shrug off its regulatory mentality, increase its flexibility, and become more willing to accept risks."

The AT&T Divestment: For Whom Will the Bell Toll?, Kenneth A. Nickola, 10 WILLIAM MITCHELL L. REV. 507 (1984).

In light of the aftermath of divestment, this article describes relevant policy and suggests alternative forms of industry structure. The author based this discussion on Minnesota law and conditions.

Fulfilling the Promise of Divestiture: A Call for Fair and Open Competition, Philip A. Campbell, PUB. UTIL. FORT., Mar. 6, 1986, at 13.

This article reviews regulatory and judicially decreed restrictions imposed on the operation and organization of the regional and local Bell telephone companies. It contends that these restrictions hinder the BOCs' performance and also harm the related consumer interests.

The Demise of the Telephone Network, Alfred W. Duerig, PUB. UTIL. FORT., Jan. 23, 1986, at 30.

The costs and inefficiencies resulting from deregulation in the telecommunications market and the divestiture of AT&T are revealed in this article. In response to these changes, the author considers steps that maximize the benefits for the telephone-using public.

"Baby Bells"—Still Going Strong, Morton L. Brown & Daniel A. Burkhardt, PUB. UTIL. FORT., Jan. 9, 1986, at 41.

This financial news commentary discusses the strong financial position of the seven regional holding companies. It briefly reviews three "baby Bells" (em US West, BellSouth, and Pacific Telesis—and major points of interest concerning each.

The Divestiture of American Telephone & Telegraph Company, Symposium in 9 COMM/ENT 1 (1987).

The Hastings Journal of Communications and Entertainment devoted this issue to topics concerning AT&T divestiture. Overall, this symposium addresses recent issues and provides a helpful background for research in this area. Louis B. Schwartz contributed *Forum and Substance: Introduction to the Symposium*, which discusses the recurrent struggle between AT&T and the antitrust laws. Schwartz presents four criticisms of the MFJ, and advocates that the technical goals of this judgment not overshadow the more important substantive goals. Next is an article entitled *The Modification of Final Judgment: An Exercise in Judicial Overkill*, by Robert B. McKenna and Ronald L. Slyter. These authors contend that divestiture has created an anticompetitive marketplace because it imposes line-of-business restrictions which prevent the regional BOCs from competing with AT&T. They also argue that this judgment created a needlessly bifurcated and duplicative regulatory framework by disregarding contemporaneous pro-competitive regulatory developments propagated by the F.C.C. The third article, written by John R. Worthington, is entitled *The Case for Continued Judicial Enforcement of the AT&T Decree*. This article examines the need for line-of-business restrictions and the dangers of the proposed transfer legislation. It supports enforcement of line-of-business restrictions as necessary to promote competition, and declares attempts to transfer enforcement responsibility to the F.C.C. as unconstitutional and against public policy. The symposium section concludes with James P. Denvir's article, *The Dole Bill: Freeing the Telephone Company Seven?*. While the telecommunications industry is currently subject to overlapping regulation by the F.C.C. and the United States District Court for the District of Columbia, the Dole Bill proposes consolidation of jurisdiction in the F.C.C. The author discusses the Department of Justice position, which supports the consolidation, and examines the potential risks to the regional BOCs.

THE REPORT ON AT&T, Telecom Publishing Group.

In this weekly newsletter, the Telecom Publishing Group provides full coverage of AT&T's new products, long-distance service, international marketing, joint ventures, and regulatory actions.

B. Articles Discussing the 1987 Greene Decision

1. General News Announcing the Decision

These newspaper clippings are marginally useful as research sources but do provide brief descriptions and initial responses to the 1987 Greene decision.

Judge to Ease Information Services Restrictions, S. Mace, INFOWORLD, Sept. 21, 1987, at 11.

Judge Keeps Several Limits on Regional Phone Firms; Some High-Tech Services May Be Permitted, Washington Post, Sept. 11, 1987, at A1.

Most Curbs Retained on 'Baby Bells', Calvin Sims, New York Times, Sept. 11, 1987, at D1, col. 6.

Judge Loosens Grip on Baby Bells Just a Bit; Regional Phone Companies Get a Little More Freedom, but Restrictions Remain, Bruce Keppel, Los Angeles Times, Sept. 11, 1987, at part 4, p. 1, col 5.

Judge Jilts Bells on Key Goals, Elisabeth Horwitt, Computerworld, Sept. 14, 1987, at 1.

2. Implications of the Decision

AT&T—In For the Long Haul, Denis Gilhooly, TELECOMMUNICATIONS, Dec. 1987, at 122.

Denis Gilhooly argues that the 1987 Greene decision was supportive of AT&T's long-term ambitions. He discusses the various players in the telecommunications market and how AT&T intends to "be around for the long haul—in computers, in long-distance, and in equipment manufactur[ing]."

Greene Ruling Shakes Private Transatlantic Fiber Optic Cable Project, Communications Daily, Sept. 24, 1987, at 2. Television Digest, Inc.

This article discusses how Judge Greene's MFJ has affected NYNEX's investment in the Market Link transatlantic cable system.

Home Videotex Gets Shot in Arm from Telephone Ruling, Catherine Arnst, BC Cycle, Reuter Business Report, Sept. 14, 1987.

The focus of this article is on how Greene's 1987 ruling allows telephone companies to provide "gateways" to a local network, enabling users to gain access to services available on a videotex system with a local phone call and at a lower cost.

More Long Distance Firms Arranging for BOC Card Data Base Access, Communications Daily, Nov. 10, 1987, at 3. Television Digest, Inc.

In this article, the author examines the efforts to compete with the BOC card market. A cooperative of long-distance resellers and information service providers has reached an agreement with all twenty-two BOCs. It enables resellers to accept, process, validate, and be billed for BOC Calling Card transactions. Los Angeles-based Operator Assistance Network (OAN) has requested relief from Judge Greene in the bill management area, but Judge Greene and the F.C.C. still have not decided whether data base access pricing should be based on costs or on "what the market will bear."

AT&T Plea on FTS System Rejected, Washington Post, Nov. 9, 1987, at F13; *Baby Bells May Bid Against AT&T*, New York Times, Nov. 7, 1987, at 38; *Judge Greene Approves Martin Marietta Plan for FTS 2000 Switching*, Communications Daily, Nov. 9, 1987, at 3; *Television Digest, Inc; Phone Firms Get OK to Bid Against AT&T*, San Francisco Chronicle, Nov. 7, 1987, at D-22, col 1.

Judge Greene agreed to let regional phone companies bid against AT&T on a \$25 billion government contract. The contract was for the FTS 2000 network which would provide voice, data, video, and dedicated transmission services to government offices throughout the United States, Puerto Rico, the U.S. Virgin Islands, and Guam. AT&T argued that if RHCs provided switching for the FTS 2000 plan administered by Martin Marietta, it would violate the MFJ. Judge Greene allowed Martin Marietta, MCI, and other regional phone companies to bid on the multi-billion dollar contract.

Clash Among Japanese Executives Enlivens International Telecommunications Meeting, Daily Report for Executives, Nov. 2, 1987, at L-5. Bureau of National Affairs, Inc.

The international telecommunications conference was entitled "Pending Changes in Telecommunications Policy: The United States, Europe and Japan." Participants debated the future of deregulation of the U.S. telecommunications industry and the role government should or should not play in its development. This is a brief news story expressing some dissenting views of the Japanese representatives.

Deregulation of U.S. Telecommunications Industry Has Strengthened Its Hand Abroad, Symposium Told, Daily Report for Executives, Oct. 20, 1987, at L-4. Bureau of National Affairs, Inc.

This article discusses how deregulation of the U.S. telecommunications industry has made the industry more efficient domestically which has increased clout internationally. It elaborates some points raised at the international symposium entitled "Pending Changes in Telecommunications Policy: The United States, Europe and Japan."

Worldwide Telecommunications Deregulation Necessary, Greene Says at Telcom 87, Communications Daily, Oct. 23, 1987, at 5. Television Digest, Inc.

A recent statement made by Judge Greene calls for increased competition in telecommunications services worldwide. He criticized the barriers to competition and noted the positive effects of deregulation. Specifically, he praised the French Minitel information service as highly developed and offering substantial public benefit.

C. F.C.C. Rulemaking and Regulations

Will the F.C.C. Free "The Bell Operating Company Seven"?, George Leopold, Electronics, Jan. 20, 1986, at 48.

George Leopold evaluates Computer Inquiry III in this article and asserts that it loosens reins on local phone monopolies.

December 19, 1984—A Big Day in Telecommunications, Michael R. Gardner, 34 CATH. U.L. REV. 625 (1985).

In this short essay, the author focuses on F.C.C. rulemaking in different areas. For example, it discusses telephone access charges and how the F.C.C. revamped the pricing structure for the national telephone systems. In addition, it also discusses how F.C.C. actions regarding Separate Satellite Systems opened the door for privately owned systems.

The Federal Communications Commission and Common Carrier Regulatory Policy: Some Recent Initiatives, PUB. UTIL. FORT., May 15, 1986, at 35.

Three F.C.C. initiatives are examined in this article: (1) a proposal to remove structural separation requirements for the provision of CPE by BOCs; (2) a proposal to separate accounting costs between regulated and unregulated telephone company operations; and (3) guidelines for interim nontraffic-sensitive cost recovery plans. The article provides a good background for issues delineated in Computer Inquiry III.

The Regulatory Burdens of the Bell Operating Companies: Are They Needed?, Jerald N. Fritz, PUB. UTIL. FORT., Apr. 3, 1986, at 25.

This article re-examines the line-of-business restrictions imposed on the BOCs and the F.C.C.'s regulatory requirement that noncarrier competitive businesses are conducted as structurally separate subsidiaries. It reviews the rationales for these restrictions, the changing circumstances, and the possibility of more efficient ratepayer protection through other mechanisms.

Computer III and Independent Value-added Telephone Networks, David A. Reams, PUB. UTIL. FORT., Mar. 20, 1986, at 45.

In this brief commentary the author addresses the three major requirements addressed in Computer III: network interconnection, network disclosure, and accounting requirements. He briefly analyzes the later-imposed regulations.

The F.C.C.'s Path to Deregulation: Turnpike or Quagmire?, Gerald R. Faulhaber, PUB. UTIL. FORT., Sept. 3, 1987.

The author of this article maintains that the gradual, service-by-service deregulation of AT&T is futile and needlessly prolongs the regulatory process. He advocates instead a "social contract" transition period from three to five years, during which the dominant carrier is prevented from raising rates for certain core services by more than a specified percentage.

Regulatory Developments, BUS. COMM. REV., Jan. 1988.

In each January issue of BUSINESS COMMUNICATIONS REVIEW, a summary of major telecommunications-related proceedings at the F.C.C. is presented. This valuable source explains and comprehensively details significant matters facing the F.C.C. In the January/February 1988 issue the following developments were discussed: tariffing reform initiatives, access charges, interstate long-distance service, operator services, Computer III, elimination of structural separation

for the BOCs' provision of CPE (CC Docket No. 86-79), joint and common costs (CC Docket No. 86-111), and F.C.C. jurisdiction.

F.C.C. WEEK, Telecom Publishing Group.

The Telecom Publishing Group provides in-depth reports on key federal regulatory developments concerning the telecommunication industry.

D. State and Local Regulation

Federal and State Roles in Telecommunications: The Effects of Deregulation, Eli M. Noam, 36 VAND. L. REV. 949 (1983).

Eli M. Noam examines the evolution of the traditional federal-state coregulatory system, contrasts the emerging federal regulatory approach with state policies, and discusses reasons for federal predominance in telecommunication regulation. He argues that reorientation is creating administrative problems for states, and concludes that the current coregulatory system is unstable because it necessitates a new intergovernmental consensus that replaces federal dominance.

Federal Preemption of Conflicting Telecommunications Regulations, Laura H. Phillips, 7 GLENDALE L. REV. 141 (1987).

The friction between federal and state statutes and regulatory policy is the subject of this law review article. It surveys the legal rationales for federal assertion of jurisdiction that the F.C.C. has used in the development of a federal telecommunication policy. Then it addresses the practical problems inherent in a jurisdictional analysis under the Communications Act of 1934 and the uncertain impact on recent Supreme Court cases. Finally, the article suggests that federal preemption controversies in this field will be vindicated by federal preemptive authority, provided that the exercise is within the statutory delegation of authority, and is neither arbitrary, capricious, nor an abuse of discretion.

The Present Function of State Regulation of Local Telephone Service, Matthew E. McLogan, PUB. UTIL. FORT., Apr. 16, 1987, at 11.

As a member of the Michigan Public Service Commission, Matthew E. McLogan describes a positive response to the dilemma facing regulators: how to provide effective protections for captive users of monopoly services, while not impeding the spread of competitive benefits—new and additional uses of the local exchange network—to the largest possible number of customers. To summarize, he calls for a transitional regulatory scheme that protects monopoly ratepayers while pursuing policies which allow competitive benefits to reach the widest possible number of customers.

New Choices for Intrastate Long Distance Services, Michael T. Hills, BUS. COMM. REV., Sept.-Oct. 1987, at 17.

Since tracking the activities of each carrier from state to state can be complex and expensive, this article summarizes the major trends occurring in the interstate market.

STATE TELEPHONE REGULATION REPORT, Telecom Publishing Group.

In their newsletter, the Telecom Publishing Group details statutory regulatory actions and cases at the state level.

E. Public Policy

"Back to the Future": A Model for Telecommunications, Mark S. Fowler, Albert Halprin, & James D. Schlichting, 38 FED. COMM. L.J. 145 (1986).

The authors of this article urge a re-examination of government regulation in the telecommunications industry. They offer a broad proposal encouraging active participation by industry, users, and especially state regulatory commissioners. Before arriving at this proposal, they explore goals, the public utility paradigm and its breakdown, the competitive industry paradigm, and the regulatory problems of an asymmetric transition.

A Public Policy Goal: Preserving Public Confidence, Timothy E. Wirth, PUB. UTIL. FORT., Jan. 23, 1986, at 15.

United States Representative from Colorado Timothy E. Wirth cites the important relationships between the telecommunications industry and the financial market—both of which have been marked by significant economic volatility. He emphasizes the need to re-examine public policy goals in order to preserve confidence in our system of raising capital and to nurture a partnership between the public and private sectors.

Social Contract Regulation Is a Bad Bargain for Ratepayers, Jack L. Landau, PUB. UTIL. FORT., July 9, 1987, at 21.

Jack L. Landau argues that the concept of social contract regulation is flawed in many respects. Focusing on the telephone industry, he identifies the legal impediments, policy problems, and questionable assumptions upon which the theory is based. He believes that regulators should examine other methods to achieve the twin goals of providing regulatory flexibility while protecting ratepayers from unreasonable rate increases.

F. Rates and Revenues

The Effect of Deregulation on AT&T's Pricing, Penny L. Sedgley & Larry J. Cody, PUB. UTIL. FORT., Nov. 26, 1987, at 34.

In this article, the authors summarized the purpose, method, and findings of a study conducted by staff members of the Virginia State Corporation Commission. The study focused on the pricing of intra-state services by AT&T Communications subsidiary companies in eleven states during the period from January, 1984, to March 1, 1987. The eleven states were chosen as representative of varying degrees of regulatory control, ranging from conventional rate base and rate-of-return regulation to complete deregulation. While the authors found it difficult to draw firm conclusions about the effects of varying degrees of regulation or deregulation on AT&T's prices, they concluded that AT&T's pricing behavior in Virginia under deregulation indicates progress towards competition.

The Globalization of Telephone Pricing and Services, Peter Cowhey, TELECOMMUNICATIONS, Jan. 1988, at 39.

Peter Cowhey discusses how the experiments in national regulatory reform and the intergovernmental negotiations on the organization of the global telecommunication market have significant implications for local exchange carriers in the United States. The article elaborates on the effects of internationalization and current international negotiations.

Price Theory and Telecommunication Regulation: A Dissenting View, Basil L. Copeland, Jr. & Alan Severn, 3 YALE J. ON REG. 53 (1985).

This article assesses the applicability of the static price theory to market conditions currently confronting local operating companies. It challenges the theory that structural reform in telecommunications is necessary to achieve economic efficiency, particularly in intraLATA markets. Finally, it recommends that regulators view with skepticism arguments derived from price theory that justify departure from the historic pricing theory.

Telephone Lifeline Rates After the AT&T Divestiture, PUB. UTIL. FORT., June 12, 1986, at 57.

In this article the author describes how the imposition of access charges and the concomitant increase in local exchange rates resulting from the divestiture decree have affected the lifeline rates for telephone service. It reviews jurisdictional questions and other related questions involving lifeline rates.

The Truth About Telephone Company Diversification, Edwin B. Spievack, PUB. UTIL. FORT., May 15, 1986, at 13.

This article warns that loosening the restrictions on the regional BOC operations in businesses other than local telephone exchange service may not benefit local telephone users. The author argues that telephone users are likely to find themselves providing revenues for regional companies which are used to support other non self-sustaining business activities.

Telephone Company Capital Recovery: Crisis and Dilemma Persist, Joseph R. Fogarty, PUB. UTIL. FORT., Feb. 6, 1986, at 23.

Adequate capital recovery and consistent depreciation methods are essential to modern telephone company operations in a competitive market, according to this author. He identifies the causes of deficient depreciation reserves and explores the prospects for policy reform.

Transition to Telecommunications Competition Amid Residual Regulatory Obligations, Dennis L. Weisman, PUB. UTIL. FORT., Aug. 6, 1987, at 14.

The market distortions caused by the provision of uncompensated default network capacity ("carrier-of-last-resort service") by the local exchange carriers are discussed in this article. It proposes as a solution the levying of flat rate default network capacity charges on bypassers who choose to rely on the carriers' network for emergency or backup service.

Coping with Access Charges on Data Information and Enhanced Services Providers, Victor J. Toth, BUS. COMM. REV., Sept.-Oct. 1987, at 35.

In July 1987 the F.C.C. announced its intention to extend its access regime to encompass noncarrier providers of enhanced services. (Notice of Proposed Rule Making, CC Docket No. 87-215). This column offers suggestions for minimizing the impact of this new rule which took effect on January 1, 1988.

Private Line Access Charges—A Lesson in Shooting Yourself in the Foot, Victor J. Toth, BUS. COMM. REV., Jan.-Feb. 1988, at 36.

On November 24, 1987 the F.C.C. threatened to extend its access regime to include private line and private network customers. Early customer response bitterly reacted to the prospect of increased rates. The author, however, suggests that the potential net impact will not be very severe, and the proposal could actually lower costs and increase functionality. This article discusses pertinent issues and who will be the winners and losers.

G. Specific Technologies

1. Centrex

A New Factor in RHC's Long-Term Strategies, Barry L. Marks, TELECOMMUNICATION PRODUCTS + TECHNOLOGY, Aug. 1987, at 51.

Barry L. Marks discusses Centrex Systems which are voice switching systems for large users. He explains the large contribution to the resurgence of Centrex by the regional Bell holding companies (RHCs), and how these RHCs have embraced Centrex as a key element in their long-term strategies.

2. Equipment

Telecom Equipment Markets: Life in Flatland, John Gantz, TELECOMMUNICATIONS PRODUCTS + TECHNOLOGY, Apr. 1987, at 37.

This article briefly discusses the telecommunication equipment markets and analyzes delayed capital spending and market trends. It contends that the equipment markets are likely to level off and enter a period of decline, which indicates that a shift to a buyer's market is imminent.

3. ISDN and Standards

Standards in the Telecommunications and Computer Industries: Some Emerging Legal Issues, John G. Lamb, Jr., 4 COMPUTER LAW. 14 (1987).

In this article John Lamb summarizes some of the events which are responsible for the increased emphasis being placed on computer standardization, briefly explains how standards have been adopted in the past, discusses some of the traditional legal issues surrounding adoption of standards, and finally, isolates some emerging trends concerning computer and telecommunications standardization.

ISDNs: Shaping the New Networks that Might Reshape F.C.C. Policies, Comment, 37 FED. COMM. L.J. 171, (1985).

The questions that the F.C.C. proceedings raise regarding ISDNs in light of domestic policies toward ISDN are the focus of this Comment. It begins by discussing general technology and the expected impact of these F.C.C. proceedings. Then it describes the efforts of the United States to develop international standards, and the implementation and implications of these standards.

Fourteen Things You Should Know About ISDN, Tom Valovic, TELECOMMUNICATIONS, Dec. 1987, at 67.

Tom Valovic presents fourteen key issues that end users should be aware of as ISDN continues to emerge as a dominant standard. It mentions concerns of the BOCs and is a useful article for demystifying the various "flavors" of ISDN and the relevant concerns.

4. Networks

Recent Telecommunications Developments Affecting Computer Networks, Warren G. Lavey, 2 COMPUTER LAW. 1 (1985).

This article discusses the regulation of data communications services and equipment, and how this plays a critical role in determining the configurations of computer networks, their ability to meet certain demands, the attractiveness of certain products, and who supplies which components. It focuses on three overlapping areas of regulatory developments: "basic" services used for data transmission, customer-premises computer equipment interconnected with common carriers' lines, and enhanced services.

5. ONA

Why the BOCs Should Provide an ONA-Based Information Fabric, A.M. Rutkowski, TELECOMMUNICATIONS, Sept. 1987, at 108.

The author of this article narrates testimony before the U.S. House of Representatives' Subcommittee on Telecommunications and Finance concerning telecommunications policy. The author argues for growing technological leadership in the U.S. that will allow information services to flourish, and offers specific recommendations on how to achieve this goal.

6. Transborder Data Flow

Impact of Transborder Data Flow Restrictions on Cash Management Services, Fred M. Greguras, 1 COMPUTER LAW. 10 (1984).

In this article Fred Greguras examines the transborder data flow of cash management services including the types of activity, government objectives, privacy issues, national security, economic welfare, protection of domestic industries and public monopolies, and actions and trends throughout the world. He concludes that governmental restrictions could have serious negative consequences, that a minimum level of privacy/data protection rights should be created,

and that substantial investments must be made in long-term planning and management of these systems.

Business Secrets Across International Borders: One Aspect of the Transborder Data Flow Debate, T. Murray Rankin, 1 *COMPUTER L. & PRACTICE*, Mar.-Apr. 1985, at 106.

This article examines the extent to which various standards of business secrecy and disclosure may constitute non-tariff barriers to trade in information services. Specifically, it analyzes varying business secrecy protection in the context of Transborder Data Flow, the impact of data protection laws on international business, and the degree of protection granted business information in the United States and Canada, as well as providing some reform proposals.

7. *Bypass Technologies*

Targeting Bypass Technologies, Leslie Townsend, *TELECOMMUNICATIONS PRODUCTS + TECHNOLOGY*, Feb. 1987, at 21.

Through bypass, consumers are replacing public communication links with private systems. This article discusses recent bypass technologies including T1 multiplexers, SDN (Software-Defined Networks) and two-way VSATs (Very Small Aperture Terminals). It also briefly covers the BOC responses to bypass.

Whatever Happened to Bypass?, George Pfister, *BUS. COMM. REV.*, Mar.-Apr. 1987, at 12.

While the controversy over bypass has been stirred up by the RHCs in the trade press and in conferences, the actual amount of bypass has been relatively small. This article seeks to define some of the underlying factors that have combined to limit the amount of bypass and suggests that many of these barriers are likely to remain.

H. *Miscellaneous*

A Narrow, Misinformed Court Victory for the Bell Operating Companies, Warren G. Lavey, 3 *COMPUTER LAW*. 8 (1986).

On August 15, 1986, a D.C. Circuit Court of Appeals opinion regarding extraregional exchanges services ruled that the 1982 consent decree does not impose geographic restrictions on the BOCs' exchange services. *United States v. Western Electric Co.*, 797 F.2d 1082 (D.C. Cir. 1986) (Buckley, J.). This article explores the restrictions on extraregional information services in light of the decision.

The Private Pay-Phone Business is a Sleeper, John Gantz, *TELECOMMUNICATIONS PRODUCTS + TECHNOLOGY*, Mar. 1987, at 54.

Thus far the pay-telephone's deregulated status has been slow to affect profits. The author forecasts, however, that these devices offer the potential for high returns at a low risk.

Scaling the Heights of the PTTs, John Walko, *TELECOMMUNICATIONS PRODUCTS + TECHNOLOGY*, Apr. 1987, at 19.

Compared to the United States, deregulation in Europe is much further behind. Currently, government monopolies control network

services and the range of business products. While Britain has moved towards deregulation, most PTTs (Post, Telegraph and Telephone authorities) are struggling to hold onto their monopoly position.

The Rewiring of America: Scenarios for Local-Loop Distribution, Tom Valovic, TELECOMMUNICATIONS, Jan. 1988, at 30.

As new fiber transmission broad-band ISDN technologies develop, attention shifts from interexchange carrier trunks to local-loop facilities. These facilities are potentially the most economical and efficient means of distributing broad-band services (i.e. voice, data, video, and combinations thereof) to a wide range of residential subscribers currently served by twisted-pair local-loop facilities. This article summarizes key issues that surfaced in a seminar at MIT involving representatives from the major forces within the telecommunications industry.

Embarking on Our Third Decade, TELECOMMUNICATIONS, Aug. 1987, at 27.

This special section of TELECOMMUNICATIONS concentrates on the future of telecommunications. It provides a useful summary divided into history/regulation, technology, and user's views, includes a valuable perspective of evolving technologies, and concludes with an article entitled "Telecommunication in the Year 2000."

US Decisions on Pacific Telecommunications Facilities: Letting a Million Circuits Bloom?, Timothy J. Logue, 27 JURIMETRICS J. 65, Fall 1986.

In this article, three 1985 decisions having a decisive effect on telecommunication development in the Pacific region are discussed. The first concerns F.C.C. approval of United States carrier participation in construction of the Han 4 Transpac-3 undersea fiberoptic cable. The other two discuss approval of policies regarding private undersea cables and international satellites. Essentially, it asserts that these large investments result in increased capacity which can lead either to increased tariffs or a reduction of tariffs with the hope of a corresponding increased demand.

Universal Telephone Service and Competition: The Rural Scene, Joseph Gillan, PUB. UTIL. FORT., May 15, 1986, at 22.

This article discusses obstacles to bringing competitive long-distance telecommunications service to rural areas. It develops the policy rationale for promoting competitive entry to the rural market, and then describes an existing project in this setting.

Electric Utilities in Commercial Telecommunications—Does It Make Sense?, Samuel C. Sciacca, PUB. UTIL. FORT., May 15, 1986, at 18.

Samuel C. Sciacca considers why utilities are attracted to diversify into the telecommunications field following deregulation and AT&T divestiture. He addresses the various levels of participation by the utilities, the risks, and other relevant concerns.

The Bypass of Local Telephone Facilities: How Serious a Threat, PUB. UTIL. FORT., May 1, 1986, at 49.

In this article the author identifies how bypass—the provision of telephone services by means other than the facilities of the

established local exchange carriers — threatens a loss in revenues and the various responses to this problem.

The Changing Nature of Communications Law Practice, Stuart N. Brotman, 9 COMM/ENT 179 (1987).

The evolution of communications law practice over the past fifty years is outlined in this article. The author discusses how lawyers have adapted their practices to serve increasingly complex client needs. The communications law practice previously emphasized the lawyer's skill in administrative adjudications. Gradually the focus shifted to the quasi-legislative activities found in the informal rulemaking process. During the 1960s, attention shifted from the F.C.C. to the courts as a result of appellate litigation initiated by public-interest advocates. Finally, the author describes how business negotiation skills and traditional modes of advocacy are currently being emphasized.

Who is a "Common Carrier" or "Carrier" Within the Meaning of § 3(h) of the Communications Act of 1934 (47 USCS § 153(h)), 46 A.L.R. Fed. 626 (1980).

In this annotation, A.L.R. collects and analyzes the federal court cases, decisions, and F.C.C. reports that have construed the meaning of the terms "carrier" or "common carrier" as used in § 3(h) of the Communications Act of 1934. It is an invaluable source of information on this limited topic which provides a link into the Lawyers Co-operative network of sources.

Antitrust Immunity Under Federal Communications Act of 1934 (47 USCS §§ 151 et seq.) of Communications Carriers for Acts Involving Interconnections With Other Communications Carriers and Equipment, 59 A.L.R. Fed. 239 (1982).

This A.L.R. annotation compiles federal cases in which the courts determined whether communications carriers were entitled to anti-trust immunity under the Communications Act with respect to the establishment or refusal to establish physical connections with other carriers or to interconnect equipment made by other telecommunication manufacturers. It is a very useful, informative source on this particular subject.

INTERNATIONAL COMMUNICATIONS WEEK and BOC WEEK, Telecom Publishing Group.

International Communications Week provides news and developments on international telecommunications services, policy, and equipment trade, as well activities of the ITU, OECD, and GATT. BOC WEEK regularly covers products and services provided by the BOCs.

VII. PUBLIC AND PRIVATE ORGANIZATIONS

A. Government Agencies

1. *Federal Communications Commission*

Background

The F.C.C. is responsible for regulating all interstate and foreign communications by means of radio, television, wire, cable, and satellite. Following the AT&T divestment, the F.C.C.'s role in regulating the telephone industry is likely to diminish over the long run. In the short run, however, the F.C.C. is expected to remain heavily involved in shaping the post-divestiture telephone industry. The commission continues to regulate AT&T's long-distance tariffs, rate of return, rate of depreciation, and corporate structure, as well as regulating the interstate operations of the BOCs. Moreover, the F.C.C. is responsible for reallocating the costs of telephone service between local and long-distance companies and ensuring that consumers using long-distance service provided by AT&T's competitors have equal access to the national long-distance switching network. In 1985, the Commission imposed access charges on local customers to reimburse local phone companies for providing the equipment that connects customers to the long-distance network. The Commission also presided over the state-by-state conversion of the long-distance system from one that favored AT&T to one in which all long-distance companies received a share of the market. To help deal with the problems of allocating costs and providing universal service, the F.C.C. established the Joint Board, composed of three F.C.C. commissioners and four state regulatory officials.

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Public Information (202) 632-7000
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Publications

Information Services and Publications—includes a list of publications and details on prices and how to order; available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402; (202) 783-3238

Annual Report—summarizes commission actions, major decisions, and legislation; and appendices contain detailed information and statistics on broadcasters and common carriers including financial data, applications, license revocations, and complaints.

F.C.C. Rules and Regulations by Categories—contains regulations arranged under subject headings.

F.C.C. Reports—pamphlets issued weekly, containing decisions, reports, public notices, and other documents of the F.C.C. Available on a subscription basis and bound periodically.

2. *Department of Justice*

Background

The Department of Justice (DOJ) has been instrumental in initiating divestiture of AT&T. The Antitrust Division is the unit within the Justice Department responsible for investigating and prosecuting cases under federal antitrust law. In November 1974, the Antitrust Division charged AT&T, Western Electric, and Bell Laboratories under the Sherman Act with conspiracy to monopolize the telecommunications industry. In January 1984, the divestiture was completed, and Judge Greene commissioned the Antitrust Division to produce a triennial report examining competition in the telecommunications industry.

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Policy & Leg-Exec Ofcr., Ralph J. Justis, 633-2421
Antitrust Library, room 3310, Roger Karr, 633-2431

3. *Congressional Committees*

HOUSE ENERGY AND COMMERCE COMMITTEE

Subcommittee on Telecommunications and Finance; Edward J. Markey, D-Mass., chairman; Larry Sidman, chief counsel and staff director; H2-316 Annex 2, Washington, D.C. 20515; (202) 226-2424

SENATE COMMERCE, SCIENCE AND TRANSPORTATION COMMITTEE

Subcommittee on Communications; Daniel K. Inouye, D-Hawaii, chairman; Thomas Cohen, senior counsel, 227 Hart Senate Office Building, Washington, D.C. 20510; (202) 224-9340

B. Private Organizations

COMPETITIVE TELECOMMUNICATIONS ASSOCIATION (COMPTEL), 120 Maryland Ave., N.E., Washington, D.C. 20002; (202) 542-9022.

COMPUTER AND BUSINESS EQUIPMENT MANUFACTURERS ASSOCIATION (CBEMA), 311 First St., N.W., Suite 500, Washington, D.C. 20001.

COMPUTER AND COMMUNICATIONS INDUSTRY ASSOCIATION (CCIA), 666 11th St., N.W., 6th Floor, Washington, D.C. 20001; (202) 783-0070.

FITCH INVESTORS SERVICES, 5 Hanover Square, New York, New York 10004; closely monitors developments at the Bell RHCs and considers rating actions on a case-by-case basis. Bruce Hyman, (212) 668-8455.

MCI COMMUNICATIONS CORPORATE NEWS BUREAU, 1133 19th St. N.W., Washington, D.C. 20036; (202) 887-3000.

NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION (NTIA), Office of Policy Analysis and Development, NTIA, Suite 4725, U.S. Department of Commerce, Washington, D.C. 20230; (202) 377-1880.

NATIONAL TELEPHONE COOPERATIVE ASSOCIATION (NCTA), 2626 Pennsylvania Ave., N.W., Washington, D.C. 20037; (202) 298-2300.

NORTH AMERICAN TELECOMMUNICATIONS ASSOCIATION (NATA), 2000 M. St., N.W., Suite 550, Washington, D.C. 20036; (202) 296-9800.

SOCIETY OF TELECOMMUNICATIONS CONSULTANTS (STC), One Rockefeller Plaza, Suite 1410, New York, NY 10020; (212) 582-3909.

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