Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of Application of Ameritech Michigan Pursuant to Section 271 of the Telecommunications Act of 1996 to Provide In-Region, InterLATA Services in Michigan	)	CC Docket No. 97-1

Volume 3.2:
Joint Affidavit of Richard J. Gilbert and John C. Panzar on Behalf of Ameritech Michigan

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I. STATEMENTS OF AFFIANTS OF THEIR QUALIFICATIONS

A. Richard J. Gilbert

1. My name is Richard J. Gilbert. I am Professor of Economics at the University of California at Berkeley, specializing in industrial organization and regulation, and a Principal at the Law & Economics Consulting Group ("LECG"). From 1993 until 1995, I was the Deputy Assistant Attorney General for Economics in the Antitrust Division of the U. S. Department of Justice, the highest-ranking economics position in the Antitrust Division. In this capacity, I was involved in the Department's competitive analysis of the AT&T/McCaw merger, British Telecom's proposed equity investment in MCI, Deutsche Telekom and France Telecom's proposed equity investment in Sprint, and other matters involving competition in the telecommunications industry. I was recently invited to testify before the Federal Trade Commission on antitrust policy in high technology and other markets.

2. I have been an Associate Editor of *The Journal of Economic Theory*, *The Journal of Industrial Economics*, and *The Review of Industrial Organization.* From 1994 to 1995, I was President of the Industrial Organization Society. From 1994 until May 1996, I was vice-chair of the American Bar Association's antitrust section committee on economics. I have published and lectured widely on industrial organization theory and policy and I have testified before U.S. courts of law, regulatory commissions, and Congress on economic policy issues. I received bachelors and masters degrees in electrical engineering from Cornell University in 1966 and 1967, respectively. I received a masters degree in economics from Stanford University in 1975, and a Ph.D. in engineering-economic systems from Stanford University in 1976. A copy of my curriculum vitae is attached as Appendix A.

B. John C. Panzar

3. My name is John C. Panzar. I am Louis W. Menk Professor of Economics and Transportation and Director of Graduate Studies of the Economics Department at Northwestern University in Evanston, Illinois. I have been a full Professor at Northwestern University since 1983, and I was Chairman of the Economics Department from 1988 to 1992. Prior to joining the Northwestern Faculty, I was a member of the technical staff of Bell Laboratories from 1974 to 1983, and then Head of the Economic Analysis Research Department at Bell Laboratories from 1980 to 1983. I have also been a Visiting Professor at the University of Pennsylvania Economics Department, as well as a Visiting Adjunct Associate Professor at the University of California, Berkeley Economics Department. I received my Ph. D. in Economics from Stanford University in 1975, my A.M. in Economics from Stanford University in 1973, and my B.A. *cum laude* in Economics from Carleton College in 1969.

4. My professional responsibilities include participation in a number of economics societies, programs, and publication of scholarly journals. Program committees on which I have served include meetings of the Econometric Society, American Economic Association, and Telecommunications Policy Research Conference. I am Associate Editor of the Journal of Regulatory Economics, and a member of the editorial board of the Journal of Information Economics and Policy.

5. As an Industrial Organization Economist, I have studied for the last twenty years the economics of industry structure and performance with a particular focus on regulatory and deregulatory issues. My research has been focused, in part, on an analysis of those factors that are conducive to achieving competitive outcomes in industries that do not structurally resemble the competitive paradigm. A number of my publications discuss issues related to this research, including a book that I co-authored, Contestable Markets and the Theory of Industry Structure (1982, Revised 1987 with W. J. Baumol and R. D. Willig) and articles, e.g., *Contestability: Useful Benchmark or Empty Box* (1992), *Technological Determinants of Firm and Industry*

Structure (1989, Chapter 1 of Handbook of Industrial Organization, R. Schmalensee and R. D. Willig), *Contestable Markets: An Uprising in the Theory of Industry Structure: Reply* (1983, with W. J. Baumol and R. D. Willig), and *The Contestability of Airline Markets During the Transition to Deregulation* (1981, with E. E. Bailey).

6. In April, 1994, I submitted an affidavit to the U.S. Department of Justice in support of Ameritech's Customers First Plan. I have also served as an economic consultant to the U.S. Department of Transportation, and have testified before the Interstate Commerce Commission, the Federal Communications Commission, the Department of Justice, and the Postal Rate Commission. My credentials are more fully outlined on my curriculum vitae, Appendix B.

II. PURPOSE OF AFFIDAVIT

7. In our affidavit we demonstrate that any risk that Ameritech could exploit its position in the local exchange market in Michigan to harm competition in interLATA service is not significant, and that Ameritech's entry into long distance is likely to be pro-competitive and to bring substantial benefits. Our conclusions are based on the economic and technological implications of:

- networks and systems features;
- unbundling and interconnection rules;
- the state of competition in the local exchange market;
- price cap regulations on access services;
- dependence on IXCs for access revenues;
- imputation and separate subsidiary requirements;
- IXCs' monitoring of Ameritech and other LECs' access services;
- restrictions under the Telecommunications Act of 1996 (hereafter "the Act"); and

- the experience in other, related, markets.

8. The combination of these factors ensures that anti-competitive actions that Ameritech's opponents allege it could take in the local exchange market, are either not feasible, or are easy to detect and would incur considerable financial and regulatory risk to Ameritech.

9. We begin by explaining the test for anti-competitive behavior, specifically whether such behavior causes consumers to pay higher (quality-adjusted) prices. We then explain how Ameritech's entry is likely to be pro-competitive and conclude with an explanation of why Ameritech would be ill-served if it were to engage in any of the "anti-competitive" conduct that its opponents hypothesize.

III. THE ECONOMIC MEANING OF ANTI-COMPETITIVE BEHAVIOR

10. An economic welfare analysis requires a distinction between business conduct that harms competition and conduct that might harm competitors. The provisions in Section 271 of the Act are aimed at identifying and precluding behavior that harms competition.

> "Under section 271, once the BOCs have taken the necessary steps [under Section 251], they are allowed to offer long distance service in areas where they provide local telephone service... The world envisioned by the 1996 Act is one in which all providers will have new competitive opportunities as well as new competitive challenges. ...[F]ostering competition in local telecommunications markets and promoting greater competition in the long distance market is fundamental to the 1996 Act. ...The opening of all telecommunications markets [will] bring new packages of services, lower prices and increased innovation to American consumers."[1]

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1 FCC 96-325, First Report and Order In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, CC Docket No. 96-98, August 8, 1996, at 4.

Clearly, when assessing application for interLATA authority under Section 271, the FCC "should not seek to protect particular entrenched competitors or to preserve tranquillity at the expense of promoting competition."[2] The danger is that "it is easy to confuse protecting competitors with protecting competition. In trying to create level playing fields, the agencies have been protecting competitors."[3]

11. Conduct can be anti-competitive only if consumers, not competitors, are made worse off as a consequence of the behavior. Consumers are worse off only if they are forced to pay higher quality-adjusted prices or are denied the supply of goods or services. The amount of commerce so affected must be large enough that consumers cannot turn to other goods and services that are reasonably close substitutes. In antitrust language, quality-adjusted price must increase or supply must be reduced in a relevant market for conduct to be considered anti-competitive. Conduct that raises prices is not necessarily anti-competitive, as the conduct may result in much higher product quality and thus lower quality-adjusted prices. Similarly, conduct which reduces output is not automatically anti-competitive, as it might result in much lower costs and thus lower prices to consumers.

12. Some market developments involving the disappearance or decline of competitors are consistent with the proper functioning of competitive markets. Included in this category are failure and exit of some incumbent firms or recent entrants. The failure of any firm in a market does not necessarily indicate anti-competitive or socially undesirable behavior by a successful competitor. In a healthy, vigorous market, some firms will be "harmed" while others prosper in the pursuit of competitive advantage. For example, entry into a market by a highly efficient firm is likely to attract market share from incumbents. This harms competitors, but enhances

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2 Reply Comments of the Federal Communications Commission as Amicus Curiae on the Report and Recommendations of the United States Concerning the Line of Business Restrictions Imposed on the Bell Operating Companies by the Modification of Final Judgment, Civil Action 82-0192, May 22, 1987.

3 Michael W. Klass and Michael A. Salinger, "Do New Theories of Vertical Foreclosure Provide Sound Guidance for Consent Agreements in Vertical Merger Cases ?" *Antitrust Bulletin*, Fall 1995, pp. 667-698.

competition. Similarly, expansion of a highly efficient incumbent may enhance economic welfare even if it prevents entry of new competitors. Classic strategies that are likely to promote economic welfare include producing a superior product, providing superior information or service to customers, or offering a better price. These strategies clearly advance social welfare, as well as private interests, by increasing the value to consumers of the product relative to its price. Therefore, to assess whether Ameritech's proposed entry is on balance anti-competitive or pro-competitive, we must focus on the likely economic impacts of entry on consumers in terms of quality-adjusted prices.

IV. ASSESSING THE ECONOMIC IMPACTS OF ENTRY INTO DOWNSTREAM MARKETS

A. The presumption in favor of *de novo* expansion

13. Competitive opportunities often exist for firms in related markets. Related markets offer firms the potential to share economies of scale and scope in the production and marketing of products and services. Sometimes these opportunities occur in markets in which the firm is a supplier to firms that will become its competitors. This would be the case with Ameritech's expansion into interLATA service.

14. It is very rare for antitrust authorities to challenge the *de novo* expansion of a firm into a related market. The Modified Final Judgment restricted the ability of the Regional Bell Operating Companies (RBOCs) to provide long distance and other services. However, this was a structural remedy to promote competition in markets that had been dominated by a cost-based, regulated monopoly, which had actively interfered with the establishment of new competition consistent with a perceived mandate that the public interest was best served by a franchise monopoly. There are numerous examples of *de novo* entry by dominant firms into related markets that go unchallenged by antitrust authorities, even when the entry involves markets where the dominant firm would be both a supplier and a competitor to other firms. For example,

incumbent LECs were allowed to expand into cellular telephone, personal communications services (PCS), and information services. In another case, the expansion by Intel, the dominant supplier of PC microprocessors, into the downstream markets of PC motherboards and PC chipsets apparently generated considerable benefits both to consumers and to its downstream competitors.[4] *De novo* expansion, whether in the same market or in a related market, is generally presumed to be pro-competitive.

15. It is more common for antitrust authorities to review mergers in which a merging firm is both a supplier to and an actual or potential competitor of its merger partner. But challenges to such vertical mergers are uncommon (particularly challenges that are litigated in court). Nonetheless, the Agencies' approach to vertical mergers provides a general framework for evaluating their possible costs and benefits. This approach is applicable to *de novo* entry, with the important proviso that the competitive benefits of *de novo* entry are presumed greater than those of a vertical merger. These benefits include additional choice, increased competition, and lower quality-adjusted prices, as well as the vertical efficiencies that would be realized in both cases.

16. Thus, pro-competitive benefit, or at least the absence of competitive harm, is generally presumed when evaluating the *de novo* expansion of an existing firm, whether the expansion is in the same market or into a market in which the existing firm is also a supplier to its prospective rivals. In the case at hand, the likely pro-competitive benefits of Ameritech's entry into long distance service may include lowering both the total production cost and the total cost to users of long distance and local exchange services. At a minimum, Ameritech's separate long-distance affiliate would be likely to reap marketing economies through the use of the well-

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[4] "Intel has chosen to grow not by fighting for a bigger chunk of the pie, but by expanding the pie itself... And if rivals gain more than it does from the growth, then so be it." See, "Squeeze, Gently: Intel and Microchips," *The Economist*, Nov. 30, 1996, pp. 65-66. And, "Intel is using its technological muscle to take over the electronic turf around the microprocessor... It is not necessarily bad for consumers." See, Jeffrey Young, "Digital Octopus," *Forbes*, June 17, 1996, p. 102.

established Ameritech brand name when offering in-region long-distance service, economies which would not be available to most other *de novo* entrants. As the separate affidavit of Paul MacAvoy shows, new entry in long distance would generate large consumer benefits.[5]

B. Upstream monopolists, downstream expansion, and regulation

17. The presumption that *de novo* downstream expansion on the part of an upstream monopolist is pro-competitive is often justified by some variant of the "one monopoly rent" theory.[6] Succinctly put, the argument is that an unregulated upstream monopolist has little or no incentive to restrict downstream competition, as it can take all of the monopoly rents in the unregulated upstream monopoly market. Opponents of RBOC entry into long distance, however, argue that this presumption should break down when the upstream monopolist is regulated – as regulation prevents the extraction of some part of the upstream monopoly rent, it restores the incentive to transfer monopoly power into the downstream market.[7]

18. Yet, the RBOCs' opponents' allegation that vertical integration may adversely affect competition has not prevented vertical mergers in regulated industries. A pertinent example is vertical integration by cable Multiple System Operators (MSOs), such as TCI and Time Warner, into cable programming services. TCI is vertically integrated into cable services such as Encore and Starz! (premium cable movie services) and the Discovery Channel. Time-Warner owns HBO. Through its acquisition of Turner Broadcasting, Time-Warner will also own programming services that include CNN, TBS, TNT, and Turner Classic Movies. Cable MSOs enjoy substantial market power in the provision of video distribution services, while programming is a

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5 Affidavit of Paul MacAvoy in this application, hereafter MacAvoy Affidavit.

6 Timothy J. Brennan, "Is the Theory Behind U.S. v. AT&T Applicable Today?" *The Antitrust Bulletin*, Fall 1995, pp. 455-482.

7 B. Douglas Bernheim and Robert D. Willig, "The Scope of Competition in Telecommunications." Working paper prepared for the American Enterprise Institute for Public Policy Research, Oct. 25, 1996. See also Beard, T. Randolph, David Kaserman and John Mayo, "A Theoretical Analysis of Vertical Reintegration Under the Telecommunications Act of 1996," paper presented at the 1996 TPRC.

more competitive industry. Thus, cable distribution can be considered to be the "upstream" market, and cable programming the "downstream" market.

19. Public policy has not prohibited vertical integration by cable MSOs, even when such integration has occurred by merging, as in Time Warner's acquisition of Turner Broadcasting. Instead, antitrust authorities have allowed the vertical integration under the conduct provisions of a consent decree,[8] despite the fact that cable services are partially regulated. Safeguards may have been required, but the merger was allowed so that efficiencies could be achieved. In fact, "the weight of the evidence [on the effects of vertical integration between cable operators and cable programmers] suggests that such vertical integration is not anti-competitive."[9]

20. Under certain circumstances, however, the firm expanding downstream may harm competition by raising rivals' costs, reducing the quality of services it provides to rivals, or by engaging in predatory tactics. Additionally, if the expanding firm is cost-regulated in the upstream market, competition and welfare could be harmed if that firm were able to allocate costs from downstream market activity to its upstream regulated business. In the remainder of this affidavit, we review the factors that are relevant to each of these types of effects and evaluate their likely impacts. We conclude that the likely beneficial impacts of Ameritech's entry into long distance far outweigh the possible harm to competition.

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8 Agreement Containing Consent Order in the matter of Time Warner Inc., Turner Broadcasting System Inc., Tele-Communications Inc., and Liberty Media Corporation Inc., before the Federal Trade Commission, August 14, 1996, File No. 961-0004.

9 Klass and Salinger (1995), *op. cit.* Also see, National Telecommunications and Information Administration, *Video Program Distribution and Cable Television: Current Policy Issues and Recommendations,* June 1988, at p. 102: "Common ownership of cable systems and cable programming services does not appear to affect adversely the supply of cable programming or the diversity of viewing choices for cable subscribers." Also see, Robert W. Crandall, "Vertical Integration and q Ratios in the Cable Industry," Attachment 1 to Reply Comments of Tele-Communications, Inc., filed April 2, 1990, MM Docket 89-600. Also see, David Waterman, "Vertical Integration and Program Access in the Cable Television Industry," *Federal Communications Law Journal*, April 1995, pp. 511-534.

V. AMERITECH IS UNLIKELY TO IMPEDE COMPETITION FOR LONG DISTANCE SERVICE

21. The likely pro-competitive benefits of Ameritech's entry into long distance must be weighed against potential anti-competitive harm when analyzing the public interest considerations. It is clear in this case that Ameritech cannot force competitors to exit the long distance market. Four full facilities-based competitors and a host of smaller firms supply long distance service. As the table below shows, these are not small, vulnerable companies, but include major firms, such as AT&T and BT-MCI, whose assets and revenues easily exceed those of Ameritech.[10] Further, the assets involved in the provision of long distance service are largely sunk, making it exceedingly unlikely that Ameritech could predate upon and force the exit of competitors from this market. Moreover, even if a long distance supplier did exit the market, its network assets would be available to a new competitor. Thus, any attempted predation by Ameritech would incur large costs with little prospect of success.

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10 1995 Annual Reports for AT&T, MCI Communications Corporation, BT plc, Sprint Corp, France Telecom, Deutsche Telekom, and Ameritech. *Bloomberg* data. Market values at 12/5/1996. *Forbes* 500 survey, March 1996.

	Market Capitalization	Total Revenue
AT&T	$62 billion	$51 billion
MCI-BT[11]	$54 billion	$39 billion
Sprint-France T.-Deutsche T.	$53 billion[12]	$83 billion
Ameritech	$32 billion	$13 billion

22. Potential harm might result if Ameritech were to discriminate in favor of its long distance subsidiary. Such discrimination allegedly could take forms from the extreme to the subtle, as cataloged in the various testimonies, books and articles by Douglas Bernheim and Robert Willig.[13] Some of the main discrimination hypotheses, which we address below, include:

- Foreclosure of exchange access services to long distance rivals;
- Decrease in the quality of the services provided to IXCs;
- Lack of cooperation in network design and other sins of omission;
- Tailoring of access pricing to covertly discriminate in favor of affiliates;
- Exploitation of defects in price caps;
- Manipulation of imputation tests.

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11 MCI and BT announced a proposed merger on Nov. 3, 1996, which consolidates BT's existing 20% ownership of MCI. See *Washington Telecom Newswire*, Nov. 3, 1996.

12 France Telecom and Deutsche Telekom together own 15% of Sprint voting stock; they will increase their combined share to 20% upon the completion of the spin-off of Sprint's cellular business. The figure does not include France Telecom's market capitalization share, as it is not a publicly traded company. (Sprint 1995 Annual Report, p. 54).

13 See, for example, B. Douglas Bernheim and Robert D. Willig, "The Scope of Competition in Telecommunications," Working paper prepared for the American Enterprise Institute for Public Policy Research, Oct. 25, 1996.

23. We believe that it is unlikely that Ameritech will have an incentive or ability to engage in this conduct, for the reasons we discuss below. We further believe that even if Ameritech did have such an incentive or ability, it is unlikely that it could engage in this behavior without detection and vigorous enforcement by existing and future regulatory and antitrust authorities.

A. Regulation prohibits discrimination in the provision of access services

24. Given Ameritech's position as the local exchange provider, one might allege that Ameritech's entry into the interLATA market would foreclose access to its IXC competitors. By denying rival IXCs access to the local exchange network to terminate or originate calls, such disclosure might harm rivals and diminish competition in interLATA service, resulting in increased long distance prices and thus harming the public interest. Ameritech, however, cannot foreclose access to rival IXCs due to FCC regulations and the provisions in the Act. In particular, Ameritech is required to provide non-discriminatory access to all IXCs. Thus, foreclosure is not possible, and only the potential for less drastic forms of anti-competitive discrimination need to be analyzed. In the remainder of this section, we examine the potential for Ameritech to engage in either price or quality discrimination against its rivals. We conclude that such discrimination is unlikely.

25. The safeguards of the Act ensure that BOC interexchange entry will not result in discrimination by requiring that:

- Authorized BOCs provide originating interLATA telecommunications services and certain interLATA information services only through a separate subsidiary (§272.a.2.A-C);
- This separate subsidiary must operate independently from the BOC; maintain separate books, records, and accounts from those of the parent BOC; have separate officers, directors, and employees; not obtain credit under any arrangement that would

permit a creditor, upon default, to have recourse to the assets of the parent BOC; and conduct all transactions with the parent BOC on an arm's length basis, with any such transactions reduced to writing and available for public inspection (§272.b.1-5);

- The BOC may not discriminate between its interLATA affiliate and any other entity in the provision or procurement of goods, services, facilities, and information, or in the establishment of standards; and shall account for all transactions with an affiliate in accordance with accounting principles designated or approved by the Commission (§272.c.1-2);
- A BOC that provides interLATA services must provide intraLATA toll dialing parity to other carriers (§271.e.2.A);
- A BOC must charge its interLATA affiliate, or impute to itself (if using the access for its provision of its own services), an amount for access to its telephone exchange service and exchange access that is no less than the amount it charges any unaffiliated interexchange carriers for such service (§272.e.3);
- The equal access regime decreed by the MFJ and implemented by the FCC continues until such a time that the FCC no longer deems it necessary (§251.g).

26. In summary, Section 272 of the Act expressly and comprehensively prohibits discrimination by Ameritech against unaffiliated long distance providers, covering, among other things, the provision of services, facilities, information, the establishment of standards, and the timeliness in which these services are rendered. For example, according to the Act, Ameritech must offer to IXC competitors, on the same terms and conditions, any intraLATA facilities used by its interLATA affiliate, and Ameritech must charge its long distance affiliate (impute) the same amount it charges other providers for access to its telephone exchange services.

27. The Act's requirement that BOCs entering the long distance market do so through separate affiliates is an approach that is being used in many other deregulated industries. An

example is the natural gas industry, in which (competitive) gas marketing activities are housed in affiliates distinct from pipelines, with rules of conduct imposed by the Federal Energy Regulatory Commission ("FERC") to govern the relationships between the two lines of business. The FERC then mitigates a gas utility's market power in transmission (use of the pipeline) via the open access requirements (similar to interconnection requirements in telecom) set out in Order 636 and rules of conduct that govern the relationships between pipelines and their gas marketing affiliates.[14] Electricity is another example, where competitive power marketing activities are to be placed in an affiliate separate from the monopoly transmission facilities, with a requirement by FERC Order 888 for open access to the transmission grid.[15] While it is too soon to judge the effectiveness of these regulations in the electricity sector, FERC considers that "[natural gas] restructuring has been a success. Order 636 succeeded in eliminating the competitive distortions by the bundled pipeline merchant function."[16]

28. We also note that the same approach has been used to regulate the activities of Bell Operating Companies in the provision of cellular service. As we discuss in Section VI. B. below, this approach seems to have been successful, as there is no significant evidence of discrimination by BOCs in favor of affiliates in the cellular industry.

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14 Federal Energy Regulatory Commission Order 636, Docket Nos. RM91-11-000 and RM87-34-065, April 16, 1992. Order 636 requires pipelines to unbundle their sales services from their transportation services at an upstream point near the production area and to provide all transportation services on a basis that is equal in quality for all gas supplies whether purchased from the pipeline or from any other gas supplier. In addition, pipelines are required to provide a variety of unbundled transportation services to shippers, such as (i) "no-notice" firm transportation, (ii) firm transportation, (iii) interruptible transportation, and (iv) storage services, among others.

15 Federal Energy Regulatory Commission Order 888, Docket Nos. RM95-8-000 and RM94-7-001, April 24, 1996.

16 Remarks delivered by FERC Commissioner Donald F. Santa Jr. to the NARUC Gas Committee, "Interstate Pipeline Rate Design: If You're Still Debating 'MFV vs. SFV,' You May Be Fighting the Last War," Washington D.C., February 26, 1996.

B. Technical safeguards make discrimination unlikely

29. Opponents of Ameritech's entry into long distance service claim that Ameritech can directly discriminate against IXCs competing with its long distance affiliate by manipulating the quality of access service; for example, lowering the quality of the access service offered to IXCs vis-à-vis that offered to its own affiliate. Various hypotheses exist as to how this could occur. For example, IXC-bound traffic could be selectively degraded through software control, the trunks provided to the IXC could be of inferior quality (e.g. worse echo control), or the IXC trunks could be targeted by Ameritech's traffic management systems and thus be caused to provide inferior performance, to name but a few allegations.[17]

30. However, these hypothetical arguments are without merit. As shown by the Affidavit of Daniel Kocher, discrimination in the quality of access services through manipulation of the switch processor, switched transport, dedicated transport, traffic routing, or other physical facilities is unfeasible.[18] Such discrimination would involve modification of internal software and systems and would require the cooperation of both vendors and Ameritech's own workers, coordinated across several departments. These types of internal modification are not only difficult or impossible to achieve without affecting the quality of Ameritech's own services, but are often easily detectable.

C. IXCs Can Readily Detect Quality Deterioration

31. Even assuming it were possible to provide different levels of service for different long distance carriers, this behavior would be noticed by Ameritech's long distance competitors. In the interLATA market, Ameritech faces three substantial competitors in AT&T, MCI and

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17 For a compendium of such allegations, see B. Douglas Bernheim and Robert D. Willig, *The Scope of Competition in Telecommunications,* working paper prepared for the American Enterprise Institute for Public Policy Research, Oct. 25, 1996.

18 Affidavit of Daniel J. Kocher in this application, hereafter Kocher Affidavit.

Sprint, each with the incentive, ability, and procedures in place to scrutinize Ameritech's performance. AT&T, MCI, Sprint and others purchase access services from all seven RBOCs, as well as other independent LECs, and, as a consequence, each IXC has benchmarks available for gauging anti-competitive conduct. Each of the IXCs has in place aggressive "vendor management" programs to monitor the quality of access service it receives from an RBOC, which track Ameritech's performance on access provisioning in terms of circuit failure rates, and installation and repair intervals.[19] These procedures will continue to be in place after Ameritech provides long distance service and will continue to enable accurate monitoring to detect any degradation of service quality by Ameritech. Furthermore, these programs permit the comparison of service quality both over time and across LECs. Finally, to have an anti-competitive effect, the degradation in service would have to be significant enough for customers to notice it. Thus, it seems unlikely that there could be degradation in the quality of services provided by Ameritech which consumers would notice, yet which IXCs would be unable to detect. As we show below, IXCs perform extensive monitoring of the quality of access services – AT&T, for example, monitors call blockage per one million call attempts, and therefore would likely notice any degradation long before any customer would.[20]

32. AT&T proactively oversees the quality of Ameritech's service through its Access Supplier Assessments (ASAs).[21] In its ASAs, AT&T evaluates the performance of Ameritech across a wide variety of services, using pre-established "expected performance" figures to view Ameritech's actual performance in the proper context. Access billing performance provides a good example. AT&T considers Ameritech's performance in mechanized access bill validity and

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19 Ameritech Comment's to FCC In the Matter of Implementation of the Non-Accounting Safeguards of Sections 271 and 272 of the Communications Act of 1934, as amended; and Regulatory Treatment of LEC Provision of Interexchange Services Originating in the LEC's Local Exchange Area, CC Docket No. 96-149, Aug. 15, 1996, p. 27.

20 Testimony of Sue West on behalf of Ameritech, Michigan PSC Case No. U-11240, 12/23/96.

21 MCI operates a similar program.

timeliness, special services, and switched services. In each case, AT&T assesses Ameritech's performance using several quality criteria and then issues a rating and any appropriate admonitions with respect to unsatisfactory performance. Among the other areas reviewed by AT&T are long distance repair, PIC verification, repair and provisioning, network performance reliability, new circuit failure rates, timeliness of installations, special services failure and repeat failure rates, and special services time to restore. By its own admission, "AT&T also establishes quality benchmarks by analyzing the relative performance of the major local exchange carriers ... to determine whether fluctuations in performance reflect industry-wide problems or changing circumstances."[22]

33. In addition to their own monitoring programs, the IXCs have access to service quality data collected under the FCC's Automated Reporting and Management Information System (ARMIS). The Commission has been monitoring service quality since the MFJ, and now requires semiannual service quality reports from other companies subject to price cap regulation, including GTE and Sprint.[23] ARMIS Forms 43-05 and 43-06 collect service quality data on an annual basis, data which can be reviewed by IXCs and used with any internally-collected information to judge service quality, and which MCI argues is "necessary to monitor quality and service standards."[24] The FCC used this data during its most recent price cap performance review for the LECs to conclude that there has not been any significant degradation of service quality since price cap regulation was instituted for these LECs,[25] and its recent decision to

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22 AT&T Complaint and Application for Resolution, in *AT&T Michigan v. Ameritech Michigan* Regarding Access Service, Case No. U-11240 before the Michigan PSC, filed October 30, 1996.

23 *LEC Price Cap Order*, 5 FCC Rcd at 6827-39.

24 MCI comments in CC Docket No. 96-23, as quoted in the FCC's *Report and Order*, November 13, 1996, CC Docket No. 96-23.

25 *LEC Price Cap Order, op. cit.*

continue to impose these reporting requirements on local exchange carriers clearly indicates their usefulness for detecting potential discrimination.[26]

34. Similarly, each of the RBOCs must file ONA parity reports that closely monitor the quality of RBOC service. There are also a myriad of other reporting requirements facing Ameritech. For example, with respect to infrastructure and investment, Ameritech is required to file with the FCC the Annual Infrastructure Report (ARMIS 43-07), Prospective Shared Network Information (ARMIS 495A), and the Fiber Deployment Report. A partial list of reporting requirements to which Ameritech must adhere includes the Nondiscrimination Maintenance Affidavits, Nondiscrimination Installation Reports (CPE), Nondiscrimination ONA Parity Reports, Matrix ONA Services & Tariffs Reports, ONA Plan Update & Deployment Schedules, documentation of the unbundling of new technologies and documentation of the purchase of switched access.[27]

35. Additionally, were Ameritech to deviate from its own past or from the performance of the other six RBOCs, the FCC could easily identify the aberrant behavior and issue the appropriate punishments, which include withdrawal of interLATA authority. The idea that discriminatory behavior on the part of a single RBOC, in this case Ameritech, would go unnoticed by the FCC and all nationwide purchasers of access does not seem likely.

36. The recent complaint filed by AT&T alleging degradation of dedicated access service quality in Michigan, for example, illustrates the ability of the IXCs to monitor and detect alleged degradation in quality.[28] AT&T alleges that Ameritech's dedicated access service in Michigan has deteriorated substantially over the last year, noting that AT&T's customers' desired due dates

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26 FCC *Report and Order*, November 13, 1996, CC Docket No. 96-23.

27 While not all of these reports apply directly to the quality of access service, we cite this list of reporting requirements as it is indicative of the FCC's vigilance on the interconnection and access quality issue.

28 See, Testimony of William L. West and James T. Flynn on behalf of AT&T, in *AT&T Michigan v. Ameritech*, for a discussion of AT&T absolute and relative access quality "vendor management" programs.

("CDDDs") are being missed more frequently, and that a smaller proportion of service failures are restored within three hours than a year ago. AT&T further alleges that Ameritech's performance in this respect is inferior to that of Southwestern Bell or Bell Atlantic.

37. We note that AT&T focused on only four of the 76 Direct Measures of Quality ("DMOQs") it compiles for access services, two each for DS0 and DS1 service respectively. Clearly, one would need to look at the broader picture to arrive at a balanced assessment of service quality. Moreover, failure to meet "customers' desired due dates" does not imply a missed commitment on Ameritech's part. Customers may have unrealistic CDDDs, and their orders may require Ameritech to go out and construct more physical facilities, especially considering the "unbelievably high [growth] in DS1 services." For example, channelized DS1 circuits in service have increased 67% between the end of 1994 and October 1996.[29] Further, Ameritech's timeliness in meeting its commitments to AT&T does not seem to have deteriorated – AT&T's complaint documents show that Ameritech's percentage of missed "committed due dates" in August 1996 was below the same level a year earlier for both DS0 and DS1 service.[30]

38. With regard to AT&T's allegations that the proportion of service failures which are restored by Ameritech within a fixed time has decreased, one needs to consider that the frequency of such failures has decreased substantially since 1994, and that Ameritech's performance in this respect is above average with respect to the other RBOCs and GTE.[31] Moreover if, a network upgrade and improvement allows the operator to eliminate most simple failures, one would expect average repair times per fault to increase, as the faults which occur on the more reliable network are those which are more difficult to fix. In this example, despite the negative statistic, overall network quality indisputably would have gone up. Thus, one needs to

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29 Testimony of Sue West on behalf of Ameritech, in *AT&T Michigan v. Ameritech Michigan.*

30 Flynn testimony exhibits JTF-13, JTF-14.

31 Sue West testimony (Ameritech), which discusses Ameritech's performance within AT&T's rankings for failure frequency of DS0 and Ds1 services.

look at overall quality measures to reach a conclusive assessment of dedicated access quality in Michigan, as well as adjusting for the changes made by AT&T since 1994 in the algorithms used for computing the quality measures.[32]

39. It is instructive to note what AT&T's complaint does not say: AT&T does not allege that the quality of dedicated access service it receives has been degraded relative to that which Ameritech supplies to itself. Furthermore, dedicated access is only a small portion of AT&T's access business with Ameritech – over 85% of AT&T's purchases are for switched access, the class of service that is often alleged could be degraded. In fact, AT&T has acknowledged that Ameritech is best in its class, providing higher quality switched access than any other RBOC or GTE during 1996.[33] This is despite the introduction of presubscription and increased competition for intraLATA toll in both Michigan and Illinois. As we show in Section VI.C. below, Ameritech has suffered substantial market share losses in intraLATA toll. Therefore, if Ameritech had the ability, opportunity and incentive to discriminate, as opponents of Ameritech's request for interLATA authority contend, this is one activity where discrimination should have occurred.

40. Thus, Ameritech cannot feasibly degrade the quality of service to IXC competitors relative to that offered to its own long distance affiliate in an attempt to confer competitive advantage to the affiliate. Ameritech cannot apply, without detection, a different level of service quality to a particular call originating in its territory just because that call is destined for transport by AT&T, MCI, or another IXC competitor to Ameritech's long distance subsidiary. Similarly, Ameritech cannot feasibly apply a different level of service quality to a call terminating in its territory on the basis that it was carried by AT&T or another unaffiliated IXC and not by

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32 A proportion of Ameritech's apparent deterioration is entirely due to the changes in AT&T's algorithms, which have a net negative effect on Ameritech's service quality statistics, everything else being equal. See Ameritech Answer and Affirmative Defense, *AT&T Michigan v. Ameritech Michigan.*

33 Sue West testimony (Ameritech), which introduces in the record an AT&T prepared comparison of switched access quality across the RBOCs and GTE.

Ameritech's long distance subsidiary, because a very large proportion of the traffic paths and hardware are two-way, and where the paths are one-way, they are mostly provided over the same physical facilities. Hence, the argument that Ameritech retains "control" over terminating access to its customers, and can use this to advantage its long distance affiliate, is without merit, as the quality of terminating access cannot differ substantially from that of originating access, and as we have shown, this quality cannot be varied depending on the identity of the carrier.

D. Covert discrimination in the provision of access services

41. Another commonly heard argument against granting Ameritech interLATA authority alleges that the incumbent LEC can place its competitive affiliate at an advantage relative to competing IXCs by manipulating the overall quality of interconnection, without overtly discriminating in favor of the affiliate. For example, it has been claimed that AT&T's True Voice technology relies on the availability of very "clean" interconnection circuits.[34] Without such circuits, it is claimed, True Voice actually performs worse than alternative technologies. Consequently, by lowering the overall "cleanliness" of interconnection circuits, the argument goes, the incumbent LEC could disadvantage AT&T, as AT&T call quality would now be inferior to that of the LEC's affiliate. Variants of this argument include the possibility of the LEC withdrawing network capabilities, potential footdragging in innovation and deployment of network features that would disproportionately benefit IXCs (or acceleration if the features would benefit the LEC's affiliate), and the possibility of setting access rate structures that favor the LEC affiliate (or not implementing rate structures that would favor the IXCs).

42. It is not clear, however, that the incumbent LECs have an unambiguous economic incentive to behave in this manner. For example, David Sibley and Dennis Weisman[35] show

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34 Bernheim and Willig, *The Scope of Competition in Telecommunications*, *op. cit.*, refer to "clean" circuits as high quality access circuits with low "Echo Return Loss" and "Singing Return Loss," and minimal noise.

35 David S. Sibley and Dennis L. Weisman, "The Competitive Incentives of Vertically Integrated Local Exchange Carriers: An Economic and Policy Analysis," November 1996. See also Dennis L. Weisman,

that under plausible assumptions, Ameritech would have an economic incentive to continue providing high quality access even when its affiliate is competing downstream. The gains from reducing the quality of access to downstream competitors (thus capturing downstream profits) can easily be outweighed by the losses caused by the reduced quality in the upstream market (where overall volume decreases and prices are above short-run marginal cost).

43. Thus, the allegations of potential for covert discrimination are inconclusive taken by themselves. To judge their plausibility, one should examine whether discrimination by LECs in downstream markets has been clearly detected in the post-Bell System era. It is important to stress that the existence of sporadic complaints does not prove discrimination, especially discrimination that results in harm to consumers. There are numerous examples of complaints alleging discrimination in industries where the antitrust authorities have declined to act because there was no evidence that consumers were harmed, such as cable television provision and cable programming services,[36] and set-top descrambling equipment.[37] In the next section we examine the experience of other downstream markets in which LECs have been permitted to compete.

"Regulation and the Vertically Integrated Firm: The Case of RBOC Entry into InterLATA Long Distance," *Journal of Regulatory Economics*, Vol. 8 No. 3, November 1995, pp. 249-266.

36 *Viacom International Inc. v. Tele-Communications Inc.* et. al., US District Court, 5th. District. NY 93 Civ. 6658, filed September 23, 1993. Viacom alleged that TCI and General Instrument worked together on technical solutions that would make it more difficult and expensive for independent programmers to gain access to TCI-wired households. See "Viacom Antitrust Suit Against TCI May Be Close To Deal: Pact Seen Involving Programming, Business Ties," *Information Law Alert*, June 10, 1994, No. 10, Vol. 2.

37 The *Viacom v. TCI* suit prompted a Justice Department investigation into the practices of General Instrument, a powerful industry vendor mentioned repeatedly in the suit. See *Information Law Alert*, June 10, 1994, *op. cit.*

VI. DOWNSTREAM MARKETS WITH LEC COMPETITION DO NOT INDICATE DISCRIMINATION

A. Existing vertical integration in local and long distance traffic

44. In examining the issue of whether overt or covert quality discrimination is likely if Ameritech is allowed to offer interLATA service, it is instructive to examine existing firms vertically integrated in local exchange and long distance provision, such as GTE, Sprint, SNET, Frontier and CTC (Chile).

45. GTE, a diversified local exchange company, wholly owned Sprint between 1983 and 1986, which in that period was the third largest IXC. GTE gradually divested its ownership of Sprint by selling 50%, 30%, and 20% to United Telecom in 1986, 1988, and 1992 respectively. During this period GTE would have had the same kind of incentive to discriminate against the other IXCs that it is argued RBOCs would have if they were allowed to enter long distance now. However, an empirical test by McChesney[38] of interstate long distance quantities and prices does not find any evidence of discrimination effects caused by GTE's ownership of Sprint. Specifically, McChesney finds that GTE's ownership of Sprint did not lead to a statistically significant increase in the price of interstate long distance, as measured by the Message Telephone Service Consumer Price Index, nor did it lead to a statistically significant decrease in the quantity of interstate long distance, as measured by the total quarterly interstate switched access minutes.

46. After being divested by GTE, Sprint was acquired by United, and the combined company now provides both local exchange service and long distance service in 19 states. From a competition viewpoint, Ameritech would be identical to Sprint in these areas if interLATA

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38 Fred McChesney, "Empirical Tests of the Cross-subsidy and Discriminatory-access Hypotheses in Vertically Integrated Telephony," *Managerial and Decision Economics*, Vol. 16, 493-505, 1995. See also affidavit of Fred S. McChesney in Support of the Motion of Bell Atlantic Corp, BellSouth Corp., Nynex Corp., and Southwestern Bell Corp., to Vacate the Decree, Civil Action No. 82-0192 (HHG), Feb. 25, 1994.