Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

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| In the Matter of | ) | |
| | ) | |
| Application of Ameritech | ) | |
| Michigan Pursuant to Section | ) | |
| 271 of the Telecommunications | ) | CC Docket No. 97-137 |
| Act of 1996 to Provide In-Region, | ) | |
| InterLATA Services in Michigan | ) | |

**AFFIDAVIT OF ROBERT E. HALL ON BEHALF OF MCI**


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## Introduction and Summary

1. I have been asked by MCI to prepare a discussion of the economic issues raised by Ameritech's application to provide long-distance services to its customers in Michigan.

2. My analysis is carried out within the framework of the Telecommunications Act of 1996. The Act recognizes the dangers to consumers in the local and long-distance markets when a local carrier, still close to a monopolist in its own market, becomes a rival to the long-distance carriers serving its local customers.

3. As competition advances in local markets, the policy of structural separation can be relaxed, as the Act provides. A central question in telephone policy making today is the criterion for determining that local competition has reached the point where that relaxation is safe. In the ideal world, every telephone customer would have a choice among numerous local carriers. Should one of them make it difficult or expensive to make long-distance calls, the customer could shift easily to another local carrier who offered a better deal.

4. It is widely recognized that active competition in local markets will include sellers who offered packages of services—not only bundled local and long-distance service, but other telephone-based services such as voicemail and Internet access. In the more distant future, telephone services will probably be combined with broadband video and Internet services.

5. The encouragement of local competition is a challenge to telephone policy. It is unlikely that any but the largest telephone customers will enjoy a wide choice of local carriers in the foreseeable future who are able to provide their own connections directly to customers. Rather, it will remain the case that the overwhelming majority of customers will be connected to the network by the single loop owned by the historical phone company. The issue for them is whether alternative sellers can use that loop and the other elements owned by the phone company. Another challenge is the terms by which the customers of a new local carrier can make calls to customers of the historical carrier.

6. Local competition will begin to flourish only under the protection of regulators who can solve these two problems. In this respect, the encouragement of competition has completely the opposite character from most other markets. In airlines, trucking, and long-distance telephone, competition sprang up as soon as regulation was lifted. In local telephone, few customers will benefit from just permitting new sellers to enter local markets. The achievement of these benefits for the large majority of customers, as Congress determined, requires regulations to force the historical carrier to permit the use of its circuits by rivals—who are taking profit away—and force it to accept calls from the new rival and to permit its customers to place calls to the customers of the new rival. The historical carrier will stand in the way of all of these with all the vigor and ingenuity that telephone companies have used in the past to defend their franchises.

7. Part II of this affidavit considers the state of local competition in Michigan. I conclude that Michigan's local telephone markets remain vulnerable to Ameritech's efforts to protect its traditional position in local service. During the period when Ameritech is seeking to offer long-distance service to its own local customers, it is reasonable to expect the company to restrain its efforts to retain its dominant position and to cooperate in the

process of creating local competition. It is important, therefore, not to terminate this period of unusual incentives before it has created full permanent local competition.

8. As Part III of the affidavit discusses, if local carriers who are monopoly sellers of local services to large groups of customers are also permitted to offer long distance services to those same customers, the local carriers will withdraw cooperation from their long-distance rivals. Cooperation is essential for an efficient national telephone network. Smooth operation of the network requires a high level of technical interaction among the firms making up the network, and, as technical progress continues, the need for cooperation will become even greater. The telephone customer would be injured by the breakdown of cooperation that would occur when rivalry develops between the dominant local carrier and its long-distance rivals.

9. What effects can be expected from permitting Ameritech and other historical local carriers to control long-distance carriers that serve their local customers? This is the second major subject of Part III. Notice the careful phrasing. Nothing stops local carriers from creating long-distance carriers who serve their customers, as long as the local carrier does not control the long-distance carrier subsequently. And nothing stops local carriers from using their expertise to create long-distance operations that serve the customers of local carriers in other regions.

10. Because there are no regulatory barriers to entry in long distance, it is implausible that any new entrant to the market—including a local carrier entering a market outside its own region—sees a profit exceeding the normal return to capital. The low level of activity in long distance by local carriers outside their regions confirms this conclusion. In other words, the long-distance industry has not contradicted the basic principle of free markets that firms enter until they depress the anticipated excess return from further entry to zero. In the process, the long-distance consumer has enjoyed huge decreases in prices and improvements in the quality of service, as I show in Part IV.

11. To find benefits from the control of a long-distance carrier by a local carrier serving the same customers, we must look to specific efficiencies resulting from the control. To qualify as benefits from suspending the principle of structural separation, the efficiencies must be ones that cannot be achieved by contract under that principle. For example, the technical efficiency of the long-distance carrier's use of the local carrier's circuits and switches could be achieved by a lease. And local carriers could bill their customers for long-distance purchasers from unaffiliated carriers (as many do today under structural separation).

12. Recent discussions of the efficiencies resulting from the control of a long-distance carrier by a local carrier have focused on customers' desire for dealing with a single phone supplier rather than two. Because the Act requires that local telephone companies provide long-distance service through separate subsidiaries, prospects for benefits from the first source are small until the local market becomes substantially competitive. At that time, for customers who prefer a single telephone service supplier, effective competition among a number of integrated local-long-distance carriers will provide a variety of competitively priced alternatives.

## II. Local Telephone Markets

13. Conditions in local telephone markets are a central issue in current policy decisions about long distance. Except for larger business customers, it is not practical for long-distance carriers to make their own connections to telephone customers. Instead, a long-distance call travels over circuits controlled by local telephone companies at both ends of the call. If local telephone markets were as competitive as the long-distance market—where customers have active choices among many rivals—unregulated markets would deliver efficient and inexpensive service, including access service to long-distance carriers. Instead, the overwhelming majority of telephone users have no effective choice at all about local service. The only alternative to the historical local telephone company is wireless service, which is expensive and of lower quality.

14. The development of competition in local markets must be irreversible to provide permanent protection to the consumer. Otherwise, permanent changes in the structure of the telephone system—in particular, in the relations between long-distance and local carriers—may occur as a result of temporary changes in local markets. The result could be a telephone system with all of the defects of the old monolithic AT&T—monopoly in local markets with the incentive and power to obstruct competition in the long-distance market.

15. The effective development of competition in local telephone services depends on cooperation among competing firms. Cooperation among rivals does not come naturally—it is the result of regulatory intervention. My discussion of these issues begins with a general consideration of the tension between cooperation and competition. Many of these issues also arise in the long-distance market, if local carriers are permitted to control long-distance carriers.

## A. General Analysis of Cooperation and Competition

16. In the telephone system, as in many other industries, firms have vertical relations, where upstream firms are suppliers to downstream firms, as well as horizontal relations as competitors. Supplier relations require cooperation, especially in the technically sophisticated telephone industry. On the other hand, the consumer is best served when horizontal relations are completely uncooperative—when one seller actively competes for business by offering better prices and products than other sellers.

17. In general, absent vertical integration, upstream firms cooperate with their downstream customers. But horizontal rivals in the same market resist cooperating with each other—cooperation is the antithesis of competition. Once an upstream supplier integrates vertically into the downstream market, it becomes the rival of its downstream customers. Accordingly, it is unrealistic to expect the upstream firm to cooperate with its rivals in the downstream market. Yet cooperation between upstream and downstream firms is essential for consumer welfare.

18. The larger the role of the vertically integrated firm in the upstream market, the greater the strain between cooperation and rivalry. When the upstream market is competitive, and no seller has a significant market share, failure of a vertically integrated firm to cooperate is innocuous—the downstream purchaser can find an alternative upstream supplier who will cooperate if the vertically integrated supplier is uncooperative. Further, competitive markets can find the socially optimal degree of vertical integration. If there are efficiencies of integration, then competitive markets take the form of competition among many vertically integrated firms.

19. On the other hand, when the upstream seller has a significant share of the upstream market, the breakdown of cooperation with downstream customers upon vertical integration of the upstream seller becomes important. Unless cooperative upstream sellers can completely displace the sales of the less cooperative vertically integrated firm, the tension between cooperation and rivalry will arise; the customers who remain with the uncooperative vertically integrated firm in the downstream market will suffer from the lack of cooperation.

20. Two general principles emerge from this analysis: First, vertical integration into a downstream market merits scrutiny whenever the upstream seller has a significant role in the upstream market. Second, the social costs of the degradation of cooperation with downstream rivals that will inevitably accompany vertical integration need to be reckoned against any efficiencies that may result from the introduction of vertical integration.

21. The policy chosen by Congress for the telephone system, enforced cooperation through regulation, requires firms to act contrary to their shareholders' interests by cooperating with their downstream rivals by providing them with information and consulting help, facilitating interconnection, debugging problems jointly, and in hundreds of other ways.

22. The disincentive for cooperation is much greater when the upstream activity of the dominant firm is regulated, because the dominant firm will attempt to capture profit from downstream activities that would be available

from high prices in the upstream market absent regulation. In the telephone industry, one of the ways local carriers can escape the constraint of regulation in local service is by limiting the role of rival long-distance carriers and selling over-priced long-distance services to its captive local customers. The disincentive for cooperation is just as important under price-cap regulation as it is under traditional rate-of-return regulation.

23. Cooperation between upstream sellers and downstream purchasers is least important when the product is a standardized commodity. By the same token, cooperation is likely to be most important when the upstream and downstream functions have complex technical relations. The relationship between a local and a long-distance carrier is highly technical, and is becoming more so, as increasing intelligence is added to the national telephone system.

## B. Cooperation and Competition in the Telephone System

24. In the contemporary American telephone industry, the local carriers are vertically integrated in all network functions except long distance. Access, switching, and transport within the boundaries of the LATAs are all handled by the local carriers. Recent loosening of regulation has permitted entry by independent firms at all levels. As a result, the issue of cooperation between the local carriers—still dominant in all markets except long distance—and their rivals is arising more and more frequently. To date, both state and federal regulatory policies have pursued the option of enforced cooperation at every level except long distance.

25. Local toll markets demonstrate how vertical integration undermines cooperation—incumbent local carriers uniformly deny their rivals even the most elementary forms of cooperation, such as the use of convenient dialing methods, unless forced by regulators. They also charge their rivals significantly more for access than it costs the carriers to provide access. The local carriers' failure to cooperate with their rivals in local toll markets is conspicuous. It places their rivals at a large disadvantage and gives the local carriers continuing dominance in many local toll markets. I believe the

price and convenience of local toll services would be significantly lower if the local carriers cooperated with local toll competitors.

26. There are other examples which demonstrate the adverse effect of vertical integration on cooperation. For example, independent voicemail vendors are heavily dependent on local carrier cooperation. After the local carriers were permitted to integrate vertically into voicemail in 1988, cooperation with independent vendors fell dramatically. Almost immediately after the carriers were permitted to enter the voice messaging market, several of them filed tariffs that increased the costs of independent answering services by astronomical amounts. Several local carriers deny call forwarding on busy or no answer in connection with answering services, even though it is available to other customers.

27. Another example is the market for payphones. The incumbent local carriers have systematically denied independent payphone vendors the same facilities and interconnections used by their own payphones. The failure of the local carriers to cooperate with their downstream rivals in the payphone market is costly to the payphone user. As an example of non-cooperation, the local carriers consistently refuse to provide the same services to independents that they provide to their own payphone operations.

28. Cellular telephone systems, which depend on local telephone companies to deliver calls placed by cellular users to people with standard telephones, are a special instance where competition has not undermined cooperation because of special features of this service. In many markets, the local telephone company owns one of the cellular carriers, so that the issue of competition and cooperation should arise in principle. I believe that the tension between cooperation and competition is much less acute in cellular services than in local toll or long distance. Each of the two competitors is constrained to half of the spectrum capacity. It only makes sense for the local phone company to interfere with its cellular rival if its own cellular arm can serve additional customers taken from the rival. If its own cellular arm is at capacity, the incentive is diminished. Moreover, there were cellular interconnection disputes when the service commenced. Non-

wireline carriers sought access to local exchange networks on a carrier-to-carrier basis while the local carriers refused and offered instead to interconnect cellular carriers as if they were just large customers.[1]

29. The state regulatory commissions and the FCC are responsible for enforcing cooperation between independent firms in the telephone network. As these regulators have permitted entry into new layers of the network—local transport, local access, payphones, voicemail, and wireless—this role of enforcing cooperation contrary to the interests of the local carriers' shareholders has become more complicated and more important. The regulators have not been completely unsuccessful in enforcing cooperation. For example, regulators in a number of states overcame the fierce opposition of the local carriers and obtained dialing parity for those carriers' rivals. But the regulators face an uphill battle—it took huge efforts to get dialing parity and it is still unavailable in many important markets. All of these failures of cooperation occurred despite the existence of regulation that intends, broadly, to compel cooperation.

30. These failures of cooperation in spite of regulation translate into significant foregone consumer welfare. A leading example is that lack of dialing parity has severely limited competition in local toll markets, so the local carriers have been able to slow down the arrival of competition and to maintain high prices in these markets.

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[1] These points are developed by Dan Kelley in his declaration filed before the FCC In the Matter of Implementation of the Non-Accounting Safeguards of Sections 271 and 272 of the Communications Act of 1934, as amended, April 1997.

## C. Competition in Local Markets

31. The Act requires that local telephone companies cooperate in opening local telephone markets to competition before they are to allowed to enter the long distance business. In effect, the Act offers the profits from selling long distance service as an incentive to open local markets to competition. The Act promotes three forms of local competition: (1) reselling of local service (at retail rates less avoided marketing costs), (2) leasing (at economic cost) of circuits, switches and other elements, such as access to data bases, directory assistance, operator services, white pages, ordering systems, and, (3) the building of independent facilities, that is, circuits and switches owned by independent carriers.

32. None of these forms of competition is present to any significant extent in Ameritech's local market in Michigan, or in any significant local market. Reselling is occurring in a few experiments; probably the most highest volume is ATT's program in Connecticut. As yet, only a trivial amount of local service based on leasing of Ameritech's circuits and switches can occur, because only recently have the terms of the leases been set by regulators. I understand that AT&T's efforts to resell have stumbled as a result of Ameritech's inability to develop working systems to share the information necessary to allow a competitor to resell its services. And in Michigan, as elsewhere in the country, no independent firms are providing their own wire connections to homes or small businesses. Hopes that cable companies or electric utilities might provide rival connections have proven unrealistic.

### 1. Reselling

33. Local competition based on the reselling of Ameritech's services has the least potential benefit for customers of the three forms of competition promoted by the Act. The Act sets the price of resold local service at the local phone company's retail price less avoided marketing costs. All distortions built into current retail prices are inherited by the reseller's cost and therefore are embodied in the reseller's price. Consumers enjoy no benefits of lower costs save to the degree that the reseller's retailing costs are below the retailing costs avoided by the local phone company.

## 2. Leased Circuits and Switches

34. In principle, the second form of local competition promoted by the Act—the leasing of Ameritech's circuits and switches to local rivals—promises greater benefits. The Act sets the price for leased facilities at a rate based on cost. Unlike the pricing of resold services, this form of pricing allows local rivals to overcome existing distortions, provided that facilities are truly available at economic cost. In practice, however, it appears that the prospects for competition based on leased facilities are poor. So far, only interim terms have been set for wholesale transactions in local network components in Michigan. Although the regulators are expected to determine permanent prices soon, there are as yet no prices established on which rivals could craft plans and make investments. No significant investment and irreversible commitment to competing with Ameritech in Michigan could occur without strong assurances that leased facilities will be available on known terms close to economic costs for the indefinite future. In addition, the systems required to provide rivals with fluid use of these elements, such as ordering systems, have not been put in place yet.

35. The conflict between competition and cooperation arises acutely when a rival competes with a local carrier by leasing facilities. Based on past conduct of telephone companies—acting strictly in their shareholders' interests—the actual experience of trying to compete with Ameritech by using its facilities is likely to be excruciatingly frustrating to those who attempt it. Local carriers' proven ability to delay or avoid regulatory intervention is sure to limit the benefits that consumers actually derive from this form of competition. For competition to develop and flourish, rivals need to be able to use the pieces of the existing network as easily as the incumbent, and to pay no more than economic cost. This is an ambitious goal for regulation.

36. Policies to promote local competition through the leasing of facilities need to go far beyond the creation of the theoretical possibility that a rival can lease facilities from the historical phone company. Lease transactions need to be speedy and standardized, with minimum transactions costs, in order for rivalry based on leased facilities to provide serious competition in local markets.

37. Moreover, the historical local carriers such as Ameritech have shown their ability to block the benefits seemingly promised by the Act. The general shape of the battle on this front is now clear: the FCC set an eminently reasonable standard for pricing circuits and switches (TELRIC), but the standard was disabled by the local phone companies through their suit against the FCC that won a stay of the implementation the pricing rule. The result was at least a long delay in providing an environment where local rivals can rely on the availability for the long run of leased facilities at known and reasonable prices. The process of opening competition through fair pricing of existing facilities is thoroughly bogged down in rent seeking. The local phone companies will continue to create legal and other obstacles so long as these tactics succeed in preserving the status quo. The delay and possible modification of TELRIC is just one example of the tactics to inhibit local competition that can be expected in the future. Moreover, if the inhibiting effect of the local carriers' impending applications for the right to sell long-distance is allowed to run out, it is reasonable to expect even more intense warfare against local rivals hoping to lease facilities.

38. Ameritech's experts Robert Harris and David Teece present data on Ameritech's leasing of customer circuits to other local carriers and deployment of customer circuits by other local carriers.[2] In March 1997, Harris and Teece estimate that other local carriers were leasing 21,321 unbundled loops from Ameritech, had deployed 45,480 on-net loops, and were reselling 4,313 lines. According to the most recent data available, for end of year 1995, Michigan Bell had about 5.5 million access lines.[3] Thus, in March 1997, the total activities of firms selling local services of any kind, including well established competitive access providers serving large businesses with thousands of lines, represents less than 1.3 percent of Ameritech's lines in Michigan.

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[2] *Joint Affidavit of Robert G. Harris and David J. Teece on Behalf of Ameritech Michigan*, May 12, 1997, pp. 28, 46.

[3] FCC Industry Analysis Division, *Statistics of Communications Common Carriers, 1995-96*, Table 2.19

## D. Independently Owned Circuits and Switches

39. The third form of competition envisioned by the Act, the building of independent circuits and switches, is at once the form of competition that should give regulators the greatest degree of comfort for allowing the local phone companies into long distance, and at the same time the least likely standard to achieve. This is brought home by the recent standard for competition recommended by the Department of Justice—that there be significant irreversible developments in local telephone service to demonstrate that there is a credible commitment on the part of local rivals to remain in the local telephone business. The DOJ determined that if rival local carriers were merely renting or leasing circuits and switches from the historical local carrier, or even less permanently, reselling local service, this did not constitute a sufficient standard of competition. If the prices for these unbundled network elements and resold service were raised by the local carrier, the rivals could easily and costlessly exit.

40. The economics of local circuits and other elements is critical to the potential success of a policy of replacing local regulation with competition. Long distance carriers and local rivals lacking their own complete local loops are dependent on the facilities of the incumbent local firm—today, almost always the historical regulated monopoly local carrier. The monopoly power lies in their ownership of the single loop that connects the typical customer to the telephone system. The single loop is extremely likely to remain the *only* loop, both because it is one of the most expensive network elements and because the loop plant possesses such great economies of scale that no rival would find it economical to attempt to duplicate it.

41. The scale economy of the historical phone company's extant local loop plant is a formidable barrier to entry into the market for local telephone service. Because the extant plant is universal, the cost of adding another phone to it will almost always be lower than adding another loop to the rival's incomplete loop plant. A potential rival, knowing that it could always be underpriced by the incumbent phone company because the incumbent enjoys lower costs, is unlikely to choose to be a rival at all. If the historical phone company is pricing its local service at its own cost, no rival could hope to profit from entering, either in the short run or long run. If the

historical phone company is pricing its service above cost, the rival's entry is still deterred by its anticipation that the incumbent will underprice it after entry.

42. Thus, the type of unrecoverable investment that would give regulators the greatest assurance that local competition has taken hold permanently is unlikely to be available for the majority of local telephone subscribers. Earlier claims that significant fractions of telephone customers could bypass the existing local network have proven groundless—wireless access suffers both cost and quality disadvantages, and hopes that cable television vendors would add telephone capabilities to their systems have proven unrealistic. As a result, the historical local carriers remain and are likely to remain the sole owners of facilities for access at reasonable cost to the overwhelming majority of telephone customers.

43. In my opinion, the Department of Justice has recommended the appropriate economic standard for determining when it is safe for a local carrier to assume control of a long-distance affiliate—when the local market is irreversibly open to competition. That standard will only be met when local competition has advanced to the point that local service rivals have committed significant unrecoverable investments and competition is at a level where the market is essentially self-regulating. At that point, the historical local carrier's market share will have begun to decline substantially in all local markets thanks to the entry of numerous rivals; barriers to entry of all types, regulatory and otherwise, will have been permanently removed; prices will be converging toward levels determined by cost; and the pace of innovation and the introduction of new services will have accelerated.

## E. Relation to Long Distance

44. The state of local competition is critical to long-distance policy, because long-distance carriers rely on local carriers to provide access at both ends of the typical long-distance call. Currently, independent long-distance carriers enjoy cooperative relations with local carriers, because their relations are exclusively those of buyer and seller, and not of rivals. If local carriers

become rivals in long distance, they will owe a duty to their shareholders to withdraw cooperation wherever possible. Long-distance carriers and their customers would be protected if they could turn to alternative suppliers of access to escape the adverse effects of the withdrawal of cooperation. And, in that environment, local carriers, including the historical carrier, would have an incentive to remain cooperative.

45. At present, long-distance carriers and their customers rarely face alternative suppliers of access except in the case of larger businesses. As discussed earlier in this Part, none of the three modes of local competition promoted by the Act has succeeded in establishing alternative local carriers who could provide access to residential or smaller business customers. Ineffective regulation and the high cost of alternative access technologies constitute substantial barriers to entry to the access market. There is strong indirect evidence that these barriers are formidable. All observers agree that access is priced well above cost. Nonetheless, the incumbent local carriers have retained their near-monopolies. The continuation of high profit margins can be explained only by barriers to entry.

46. I conclude that for the present and near future, policy decisions about long distance in general and Ameritech's application to enter long distance in particular should be made on the assumption of the continuation of a single access provider for most telephone customers and with access charges regulated at levels above costs.

## F. Effects on Local Competition of a Local Carrier's Control of a Long-Distance Carrier

47. Vertical integration of the dominant local carrier into long distance would have an important chilling effect on local telephone competition. We may safely assume that the local carrier's long-distance operations will rely upon the local carrier for access. Hence the shift of an important share of long-distance traffic from independent carriers to the local carrier's long-distance affiliate will reduce the potential business available to a new competitor in local service. Because local service has important increasing returns to scale, the reduced size of the local market will lower the incentive

perceived by the potential entrant to the local market and cut the number of local competitors.

48. Access is one of the most profitable services sold by a local carrier. Regulation has kept local service prices much closer to cost than in the case of access charges. Hence the opportunity to sell access at prices somewhere between cost and the existing high price is one of the main economic incentives for entry to local service. In fact, the only robust form of local entry that has occurred to date—competitive access providers for large customers—relies entirely on this source of profit. Removing 20 or 30 percent of the access market by permitting a local carrier to control a long-distance carrier would have a significant adverse effect on the incentives for local entry.

49. In addition, integrated long-distance operations would give the dominant local carrier a potent strategic tool for depriving potential local entrants of much of their anticipated profits from the provision of access. Where the dominant local carrier is not a long-distance carrier, rival local carriers can capture access business whenever their cost is below the high level of regulated switched access charges. The dominant local carrier cannot lower the switched access charge opportunistically to retain the access business. But when the dominant local carrier bundles access and long distance, as it would under any program of vertical integration, the carrier would have the freedom, in effect, to lower its implicit access charge so as to deter entry and retain its access customers.

50. Thus if Ameritech, as expected, achieves a significant share of the long-distance business of its Michigan subscribers, the likelihood of entry and improved competition in local service in Michigan will be reduced. Whereas independent long-distance carriers would cooperate enthusiastically with new local carriers, few of those new carriers would serve customers who chose Ameritech as their long-distance carrier.

51. I conclude that vertical integration of the local carrier into long distance will inhibit the development of local competition by depriving potential entrants to local markets of much of the profit otherwise available from the access business.

## III. Effects of Control of a Long-Distance Carrier by a Local Telephone Company

52. Ameritech has applied for permission to operate a long-distance subsidiary to serve its customers in Michigan. The application raises the questions about competition and cooperation discussed in the previous Part. Currently, local telephone companies cooperate with the many long-distance carriers, who are customers for access services at both ends of the great majority of long-distance calls. Cooperation is a natural outcome of the relationship between a seller—the local carrier—and a buyer—the long-distance carrier. Cooperation is threatened when the local phone company controls a long-distance carrier. Then the other long-distance carriers become rivals of the local carrier and cooperation is no longer in its interest.

53. After a dominant local carrier such as Ameritech takes control of a long-distance carrier, shareholder interest will dictate that the local carrier cease any voluntary cooperation with independent long-distance carriers, who would then be the local carrier's rivals. Local competition relieves this problem, because in a sufficiently competitive local market Ameritech's long distance affiliate would require the same types of cooperation from other local providers that rival long distance firms required from Ameritech. It is critical to understand that current levels of cooperation between local telephone companies and long-distance carriers are no guide to the level of cooperation that would occur after they became rivals.

54. Recent economic analysis of the incentives of a monopolist to cooperate with downstream rivals has clarified the circumstances when cooperation can be sustained and when it will be withdrawn. In the case where the downstream customers sell products that are close substitutes, it is never in the monopolist's interest to cooperate. By withdrawing cooperation and raising the costs of downstream rivals, the monopolist can always earn more profit through the enhanced sales and profits of its own downstream seller. I treat this topic more fully in Section G of this Part, where I also indicate the shortcomings of analyses that seem to reach the opposite conclusion.

55. The monopolist's incentives to withdraw cooperation from downstream rivals exist under all conditions in the upstream market, but are strongest when the price in that market is held below the monopoly price by regulation. The upstream monopolist in that case will be able to recover monopoly profits denied to it by regulation by elevating prices in the downstream market. In the telephone market, access charges are regulated by the FCC. Not only are they held below the monopoly level, but changes recently ordered by the FCC will increase the bite of regulation and lower access charges toward the level of cost. As these lower access charges go into effect, the incentive of the local telephone companies to inhibit the operations of their long-distance rivals will become greater.

56. The withdrawal of cooperation that follows from a local carrier controlling a long-distance affiliate is socially harmful. Reduced cooperation and the resulting higher long-distance costs raise long-distance prices. This conclusion follows whether or not the long-distance market is perfectly competitive.

57. In view of the high social value of cooperation, a policy permitting a local carrier to affiliate with long-distance carrier requires a companion policy of enforcing cooperation between the newly integrated carrier and its long-distance rivals. This policy of enforcing cooperation would replace the policy of inducing cooperation through market incentives provided by the current principle of structural separation, where the long-distance carriers are only customers, not rivals, of non-integrated local carriers. In the previous Part, I considered the evidence on the success of regulation and litigation in enforcing cooperation contrary to market incentives. At best, regulators and courts can prevent the more conspicuous forms of non-cooperation—overt acts of discrimination. Even then, remediation usually comes years after the conduct begins. I believe that the evidence is generally unfavorable to the hypothesis that genuine cooperation of the type needed increasingly between the elements of the telephone network can be enforced from the outside.

58. The dangers of non-cooperation become greater as time passes. At first, any departure from earlier relations between a local carrier and its independent long-distance customers would be conspicuous. As time passes, the comparison with the cooperation that occurred automatically under structural separation would be less instructive.

59. Regulation of access services in most markets will continue because Ameritech and other local carriers will remain dominant in these access markets for the foreseeable future. As I noted earlier, cooperation with downstream rivals is particularly unlikely if the upstream market is regulated. In addition, vertical integration raises the burden on the regulator by creating opportunities for cost shifting. Determining the appropriate allocation of costs between the regulated and competitive activities of the same telephone company is expensive and unreliable. Under any but the most pristine price cap, regulation creates an incentive to report costs of unregulated operations as if they arose from regulated operations. The incentive is direct in traditional regulation, where a firm is compensated for its allowable costs. The incentive is indirect but still important in price-cap regulation, to the extent that future price caps depend on current costs or profits. The shifting of costs from unregulated to regulated activities lowers social welfare in two ways: It raises the price of regulated service and it displaces more efficient rivals from the unregulated market. Section I of this Part deals with these issues.

60. The policy of structural separation is best applied when efficiencies from vertical integration are small relative to the costs of non-cooperation. In Section C of this Part, I consider evidence on these efficiencies, with particular attention to those identified in the studies sponsored by Ameritech. I do not find persuasive evidence of efficiencies from combining long distance with access and other types of local service.

## A. Benefits of Cooperation in the Telephone Network

61. Long distance involves substantial cooperation between the carrier and access providers at both ends of the call. As networks become more sophisticated, cooperation will become more critical. In that respect, the benefits from the principle of structural separation are growing over time.

62. The conversion of the national telephone system from MF signaling to SS7 signaling has dramatically increased the benefits that the telephone customer can obtain from the system if the various suppliers in the system cooperate. The advent of the Advanced Intelligent Network and the use of ever more sophisticated software will increase the potential benefits even further. It is distinctly not in Ameritech's shareholders' interest to cooperate

with a long-distance carrier if Ameritech is also in the long-distance market—hobbling rivals raises shareholder value. Businesses compete rather than cooperate with their rivals.

63. Cooperation involves much more than just the avoidance of frankly discriminatory acts. As the national telephone system becomes more sophisticated, the importance of cooperation becomes greater but cooperation becomes more subtle and difficult to enforce through regulation and litigation. Experience in the downstream markets where the incumbent local carriers are already vertically integrated—local toll, voicemail, and payphones—suggests uniformly that the carriers serve their shareholders properly by cooperating as little as possible. Unless the efficiencies of vertical integration are substantial, the customers' interests are better served by the principle of structural separation. Under that principle, the carriers have incentives to cooperate with their downstream customers.

64. Structural separation requires separate ownership of the dominant local carrier and long-distance carriers—its purposes cannot be accomplished simply by placing the local carrier's long-distance operation in a separate subsidiary, as required by Section 272 of the Telecommunications Act. The requirement for a separate long-distance subsidiary in the Telecommunications Act of 1996 applies after the Act's mandate for structural separation has been removed because of the development of adequate local competition. The requirement for a separate subsidiary has benefits for regulation, but does not affect incentives that inhibit cooperation after vertical integration

65. Dale Hatfield's affidavit explains in detail how technical improvements in telephone service—generally based on software—have increased the importance of cooperation between the independent firms that make up the telephone system.[4] As he points out, local carriers may go through the motions of apparent cooperation and yet stand in the way of improvements that would bring large benefits to the telephone consumer.

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[4] *Affidavit of Dale N. Hatfield on Behalf of MCI.*

## B. Effectiveness of Enforcement and Regulation

66. Earlier, in Part II, I considered a number of examples of the low level of cooperation that exists between vertically integrated telephone companies and their rivals in downstream markets. All of these instances of non-cooperation occurred despite regulation. As a general matter, I believe it is a fair summary of the evidence from experience in the telephone industry that regulators have not been successful in enforcing high levels of cooperation in situations where the shareholder interests of the local carriers have been to avoid cooperating with downstream rivals. The previous Part showed that competition in the upstream access market has not increased enough to reduce appreciably the need for cooperation between the local carriers and long-distance carriers.

67. In my opinion, it would be unrealistic to expect enforcement and regulation to deal effectively with the major new problems that control of long-distance carriers by local telephone companies would bring. Regulation and enforcement have failed to deal effectively with the most elementary instances of non-cooperation in areas such as local toll service and payphones. I believe that it would be unwise to rely on the same institutions to deal with the more significant social losses that would occur upon vertical integration into the long-distance market. Again, existing high levels of cooperation between local and long-distance carriers are no guide to the level of cooperation that would occur after local carriers take control of long-distance sellers.

## C. Efficiencies from Control of a Long-Distance Carrier by the Local Carrier

68. Despite the social costs of reduced cooperation and the regulatory burden of enforcing cooperation to replace market incentives, it could be desirable to permit local phone companies to control long-distance carriers if there were sufficiently important efficiencies from that control. The issue is *not* whether there are *any* efficiencies. Rather, it is whether the efficiencies are quantitatively sufficient to overcome the sum of the social costs of the decline in cooperation that will accompany vertical integration and the costs of enforcing whatever level of cooperation can be achieved by regulation and litigation.

69. The appropriate measure of efficiency benefits is based on the comparison of full control by the local phone company of a long-distance carrier—as sought by Ameritech—to the most efficient vertical relationship based on contracts that preserve incentives to cooperate. The benefits of vertical integration are limited to those that cannot be achieved through contracts. A leading example is billing. Customers' preference for single telephone bills combining local and long-distance charges are not a source of efficiency, as past experience has shown that the local phone company can provide this service under contract without controlling any long-distance carrier.

70. Ordinarily, the decision to vertically integrate can be left to a private firm in competitive markets. However, it is a fundamental conclusion of my analysis that the decision about vertical integration into long distance cannot be left to the local carrier, so long as the local carrier is a regulated firm with potential market power. Although efficiencies of vertical integration might be one force that led a local carrier to integrate into long distance, there is a powerful incentive, harmful to consumers, that exists even without any efficiencies. The result of leaving decisions about vertical integration to local carriers is anything but the efficient determination of vertical integration that would occur if local markets were reasonably competitive.

### 1. One-Stop Shopping

71. Many discussions of the potential benefits of permitting local telephone companies to control long-distance carriers put primary emphasis on the concept of one-stop shopping. The affidavit of Professors Harris and Teece on behalf of Ameritech is a good example.[5] The hypothesis is that consumers would rather make a single decision about all types of telephone service rather than dealing separately with local, long-distance, and cellular carriers, and Internet access providers. In particular, the customer seeks a single bill for these services. Where one service is dependent on another, as long distance is dependent on local service for access, integration of customer service operations avoids the problem of finger-pointing. These are the only sources of efficiency benefits from one-stop shopping of which I

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[5] *Harris-Teece Affidavit*, p. 20.

am aware. Moreover, these efficiencies are limited by the requirement that the long-distance arm be a separate subsidiary. As long as the local carrier is subject to that requirement, it may not offer integrated customer service.

72. Evidence on the magnitude of one-stop shopping efficiencies is meager. With respect to marketing costs, local carriers do not currently incur such costs for the bulk of their basic services, because their residential and small business customers have no alternative to the single local carrier. Local carriers only market special services, such as call waiting and voicemail. The only marketing efficiencies arise from the opportunity to promote long distance along with those special services.

73. Because smaller long-distance carriers are permitted to market the products of local carriers—local service, voicemail, or anything else—efficiencies from joint marketing of these products can be captured completely through contracts. There does not appear to be any benefit associated uniquely with the local carrier's control of a long-distance carrier in the area of marketing efficiencies.

74. With respect to customer service efficiencies, it would be useful to know, for example, what fraction of customer service calls to long-distance carriers result in referrals to the local carrier (in which case the *possibility* of finger-pointing arises) and what fraction deal with issues such as billing errors, rate plans, and other issues where there cannot possibly be any finger-pointing.

75. Almost the only evidence available about the effects of one-stop shopping is indirect. Southern New England Telephone's long-distance affiliate has enrolled about a third of Connecticut's long-distance customers.[6] SNET's long-distance prices are among the highest of those offering services to households. Those selecting SNET as their long-distance carrier typically have much smaller bills than the average—SNET's share of Connecticut long-distance revenue is considerably lower than its share of customersSNET's long-distance customers see some benefit—apparently not price—in selecting SNET. SNET experienced its most rapid increase in customers when SNET severed its billing arrangement with AT&T and when

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[6] "A Telecom Yankee Defends Its Turf," *Business Week,* October 28, 1996, p. 167.