AN EMPIRICAL ANALYSIS OF THE FOOTPRINT EFFECTS OF MERGERS BETWEEN LARGE ILECS

John B. Hayes, Jith Jayaratne, and Michael L. Katz

1 April 1999

TABLE OF CONTENTS

I. INTRODUCTION 1

II. STEP-BY-STEP EMPIRICAL SUPPORT 4

A. INCUMBENT LECS POSSESS SIGNIFICANT MARKET POWER IN THE PROVISION OF ACCESS SERVICES TO THEIR ACTUAL AND POTENTIAL RIVALS. 4

B. REGULATION IS AN IMPERFECT CHECK ON THE EXERCISE OF ILEC MARKET POWER. 6

C. EXERCISE OF ILEC MARKET POWER IN THE PROVISION OF ACCESS WILL SIGNIFICANTLY WEAKEN COMPETITION. 9

D. THERE ARE SIGNIFICANT COMPETITIVE SPILLOVERS ACROSS ILEC REGIONS. 10

E. THE PROPOSED ILEC MERGERS WOULD INCREASE THE MERGING PARTIES' INCENTIVES AND ABILITIES TO EXERCISE THEIR MARKET POWER. 14

III. HISTORICAL EVIDENCE OF ILEC EXCLUSION 16

A. INTERLATA SERVICES 16

B. LOCAL EXCHANGE SERVICES 17

C. INTRALATA TOLL SERVICES 18

D. CELLULAR SERVICES 21

IV. TIME SERIES ANALYSIS 21

A. TIME SERIES EVIDENCE IS INHERENTLY LIMITED 22

B. THERE IS EVIDENCE OF POST-MERGER PROBLEMS 24

V. CROSS-SECTIONAL ANALYSIS 26

VI. CONCLUSION 28

I. INTRODUCTION

1. This report reviews, in summary form, the empirical evidence that the proposed SBC-Ameritech and Bell Atlantic-GTE mergers will harm competition in local exchange, interexchange, and combined-service markets due to footprint effects.[1] The economic logic of competitive spillovers implies that the increase in ILEC footprints resulting from these proposed mergers would increase the ILECs' incentives to disadvantage rivals by degrading access services they need to compete, thereby harming competition and consumers.[2]

2. A review of the evidence available to us, supports three conclusions:

- ILEC claims to the contrary notwithstanding, experience in cellular and intraLATA markets supports the footprint theory. Experience in interLATA and local exchange markets also is consistent with the footprint theory.
- There is evidence that the provision of access services to competitors deteriorated following previous RBOC mergers. Such direct evidence of footprint effects is, however, limited at this time because the previous RBOC mergers were only recently completed and because the current proposed mergers create substantially larger footprints than previous mergers.
- Most important, there is sound logical and empirical support for the proposition that the proposed mergers will give rise to substantial footprint effects in the future. As we discuss below, this support can be seen in the evidence for each step in the economic logic leading to the conclusion that the proposed ILEC mergers threaten competition.

---

1 We have prepared this report as part of our ongoing analysis of the large ILEC mergers on behalf of Sprint in the matter of Ameritech Corp. and SBC Communications, Inc., For Consent to Transfer Control, CC Dkt. No. 98-141, and in the matter of GTE Corporation and Bell Atlantic Corporation, For Consent to Transfer of Control, CC Dkt. No. 98-184. In particular, several of the issues addressed here are responsive to points raised at the 5 February 1999 *FCC Roundtable on the Economics of Mergers between Large ILECs*.

2 See Declaration of Michael L. Katz and Steven C. Salop, submitted as an attachment to *Petition to Deny of Sprint Communications Company L.P.* in Ameritech Corp. and SBC Communications, Inc., For Consent to Transfer Control, CC Dkt. No. 98-141 (filed Oct. 15, 1998). The analysis of the Declaration was affirmed by the authors for submission in *Petition to Deny of Sprint Communications Company L.P.* in GTE Corporation and Bell Atlantic Corporation, For Consent to Transfer of Control, CC Dkt. No. 98-184 (filed Nov. 23, 1998).

3. Before reviewing the evidence on footprint effects, it is useful to summarize the logic of footprint effects. ILECs possess market power in the provision of access services, and rival competitive local exchange carriers (CLECs), interexchange carriers (IXCs), and combined service carriers (CSCs) depend on these services to compete. When an ILECs' margins on retail services exceed its margins on access services, the carrier has incentives to degrade access services provided to retail competitors if such degradation shifts retail demand to the ILEC. The incentives and abilities of ILECs to degrade access increases when they merge. For instance, exclusionary activity by SBC benefits Ameritech in two ways. First, such activity reduces the return on investments by national local exchange competitors (including combined service competitors). In response, these competitors will scale back or eliminate investments, including investments that are nationwide in their benefits (*e.g.,* R&D and systems development), thereby weakening these firms in Ameritech regions. Second, SBC can shift customers to Ameritech by degrading the terminating access of calls that are originated by interexchange carriers (again, including combined service carriers) from Ameritech regions. The proposed merger would cause SBC to internalize these anticompetitive spillovers and therefore would increase SBC's incentives to engage in such activities. In the light of the inherent limitations of regulation—especially for new types of access and interconnection—the increased incentives and abilities will result in tangible harm to competition and consumers.

4. Basic economic reasoning confirms the importance of the footprint effect. A critical question for policy makers, of course, is whether there is evidence to support the conclusion that footprint effects are large. We believe there is such evidence, and the remainder of this

memorandum reviews several different types of information supporting the existence of substantial footprint effects.

- The parties to the proposed mergers argue that evidence from intraLATA toll and cellular markets establishes that ILECs do not block competition even when they would internalize a high percentage of the benefits from doing so.[3] The parties further assert that exclusionary behavior by ILECs is, in general, not a problem. As we show below, however, the historical evidence in intraLATA and cellular markets shows clearly that ILECs have in fact obstructed competition in these markets. Even when their actions did not completely deter entry, their behavior substantially delayed or weakened competition, to the detriment of consumers. Evidence from local exchange and interLATA markets also is consistent with footprint effects.
- Another approach to assessing footprint effects is to examine past mergers among large ILECs for evidence of increased exclusionary behavior following these mergers. The merging parties have argued, for example, that entry into California increased after the SBC-Pacific Bell merger and that this entry pattern is inconsistent with increased exclusionary behavior following the merger.[4] Their analysis, however, is critically flawed because it fails to account for the nationwide trend toward increased CLEC entry. Once one accounts for this trend, entry into California appears to have slowed rather than accelerated after the SBC-Pacific Bell merger. Moreover, there are many instances in which rival carriers have complained of poorer access services following the SBC-Pacific Bell and Bell Atlantic-NYNEX mergers.
- Cross-sectional comparisons of entry into large and small ILEC regions provide a third source of historical evidence regarding footprint effects. Economic theory predicts that large ILECs will experience less entry because they have greater incentives to exclude than small ILECs. Our analysis of CLEC entry reveals evidence in support of this prediction: large ILECs are shown to have experienced less entry.
- It is important to recognize that the historical evidence is likely to underestimate footprint effects from the proposed mergers for several reasons. First, very recent and future changes in regulation and technology will create more head-to-head competition between ILECs and carriers who purchase access and interconnection from them than has been experienced at any time in the past, thereby intensifying the ILECs' incentives to exclude rivals. Second, an ILEC's ability to exclude rivals may increase qualitatively as its size

---

3 See, for example, the comments of Dennis Carlton, transcript of *FCC Roundtable on the Economics of Mergers between Large ILECs*, CC Dkt. No. 98-141, 5 February 1999, p. 130.

4 Reply Affidavit of Richard Gilbert and Robert Harris ¶ 68, submitted as an attachment to the *Joint Opposition of SBC Communications Inc. and Ameritech Corp. to Petitions to Deny and Reply to Comments,* in Ameritech Corp. and SBC Communications, Inc., For Consent to the Transfer of Control of Licenses and Section 214 Authorization, CC Dkt. No. 98-141 (filed November 16, 1998).

increases and it gains an ability to deny entrants nationwide coverage. The proposed mergers increase the fraction of lines nationwide held by individual ILECs to levels not experienced since the breakup of the Bell System.

- Given the inherent limitations of the historical evidence as a guide to future outcomes, the best way to assess the magnitude of projected footprint effects is to examine critically the economic logic of these effects. By evaluating the evidence for each step in the reasoned conclusion that the proposed ILEC mergers would harm competition, one can judge the plausibility of that conclusion. We believe the record contains empirical support for each proposition in the footprint argument, and the Commission has the ability to obtain additional empirical support.

II. STEP-BY-STEP EMPIRICAL SUPPORT

5. What empirical support exists for the footprint theory? For the reasons summarized in the introduction and discussed further below, the appropriate approach is to verify the empirical significance of the footprint theory by measuring the strength of its individual logical components. By examining the evidence supporting each step toward the conclusion that the proposed ILEC mergers threaten competition, one can judge the plausibility of that conclusion. In this section, we review the key pieces of empirical support for each step in the economic logic of footprint effects.

A. Incumbent LECs Possess Significant Market Power in the Provision of Access Services to Their Actual and Potential Rivals.

6. The Commission, Congress, the U.S. Department of Justice, and numerous state commissions all have concluded that ILECs possess significant market power in the provision of access and interconnection.[5] The Commission is well aware that local and long distance

---

[5] ILEC market power in the provision of access services is detailed the Declaration of John B. Hayes, submitted as an attachment to *Petition to Deny of Sprint Communications Company L.P.* in Ameritech Corp. and SBC Communications, Inc., For Consent to Transfer Control, CC Dkt. No. 98-141 (filed Oct. 15, 1998), and the Declaration of John B. Hayes, submitted as an attachment to *Petition to Deny of Sprint Communications Company L.P.* in GTE Corporation and Bell Atlantic Corporation, For Consent to Transfer of Control, CC Dkt. No. 98-184 (filed Nov. 23, 1998)

competitors depend on ILEC access services, including unbundled network elements, interconnection (both at the network and OSS levels), and various forms of originating and terminating access services. As the Commission previously has recognized, ILECs possess sufficient market power to delay competitors' entry into local exchange and access markets and to discriminate against competitors after they have entered.[6] Both the Commission and state regulators cap access charges to prevent ILECs from abusing their market power.[7] Moreover, the interconnection and structural separation provisions of the Telecommunications Act of 1996 also are based on recognition of ILEC market power.[8]

7. Services like Sprint ION ideally would make extensive use of xDSL, and the ILECs control the necessary facilities for that service. As the Commission has recognized, the emerging market for broadband access to small business and residential customers will require new interconnection arrangements and additional cooperation from incumbents to enable

---

6 See, for example, *In the Matter of Interconnection Between Local Exchange Carriers and Commercial Mobile Radio Service Providers*, Notice of Proposed Rulemaking, CC Dkt No. 95-185, released January 11, 1996 ("*LEC-CMRS Interconnection Proceeding*") ¶ 2. "LECs unquestionably still possess substantial market power in the provision of local telecommunications services." The U.S. Department of Justice has reached a similar conclusion. See *In the Matter of Second Application by BellSouth Corporation, BellSouth Telecommunications, Inc., and BellSouth Long Distance, Inc., for Provision of In-Region, InterLATA Services in Louisiana*, Affidavit of Marius Schwartz on Behalf of the U.S. Department of Justice, CC Dkt. 98-121, ¶¶ 99-107.

7 See *In the Matter of Access Charge Reform*, First Report and Order, released May 16, 1997, ¶¶ 258-284.

8 Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (1996). The 1996 Act amends the Communications Act of 1934, 47 U.S.C. §§ 151 et. seq. See also *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*, Notice of Proposed Rulemaking, CC Dkt. No. 96-149, released July 18, 1996 at ¶ 3 and *In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, Notice of Proposed Rulemaking, CC Dkt. No. 96-98, released April 19, 1996, ¶¶ 6-10.

competition.[9] While there are partial substitutes for ILEC-provided facilities and services needed for xDSL (*e.g.,* cable modems and possibly wireless access), each of these substitutes is imperfect.

B. Regulation is an Imperfect Check on the Exercise of ILEC Market Power.

8. The footprint effects from large ILEC mergers might not concern public policy officials if regulation were so effective that the merged entity had no ability to exercise market power in the provision of access services to rivals. Regulation, however, is clearly an imperfect process.

9. First, regulation has not moved at the pace required to protect markets from anticompetitive harms. The lengthy record in the interconnection dispute between MCIMetro and U S West before the Washington Utilities and Transportation Commission (WUTC) provides a good illustration of this problem. In June 1997, MCIMetro filed an initial complaint alleging that U S West failed to provide interconnection facilities in the quantities and time frames set forth in their interconnection agreement. The WUTC's final order found that U S West had violated the interconnection agreement. However, the order was not issued until February 1999.[10] Nineteen months is an unacceptable long period for regulatory relief in

---

9 *In the Matter of Deployment of Wireline Services Offering Advanced Telecommunications Capabilities*, Memorandum Opinion and Order and Notice of Proposed Rulemaking, CC Dkt. No. 98-147, released August 7, 1998, ¶ 19.

10 *MCIMetro Access Transmission Services, Inc. v. U S West Communications, Inc.*, Commission Decision and Final Order Denying Petition to Reopen, Modifying Initial Order, in part, and Affirming, in part, WUTC Dkt. No. UT-971063, February 10, 1999. The majority of the WUTC found insufficient evidence to conclude that U S West had engaged in "willful and intentional misconduct." *Id.* ¶ 153. The WUTC therefore declined to assess a dollar penalty, despite the clear evidence that competition was harmed by U S West's actions. *Id.* ¶¶ 154-175. But see the separate opinion filed by Chairwoman Levinson concurring, in part, and dissenting, in part, with the majority. Chairwoman Levinson states that the evidentiary record demonstrates that U S West engaged in "willful and intentional misconduct" and that a "substantial penalty, consistent with the number and seriousness of the violations" should be imposed. *Id.,* ¶¶ 310, 333

dynamic telecommunications markets. More generally, the problems surrounding OSS, the roll out of xDSL, and compliance with the checklist for §271 authority all are major examples of the significant scope ILECs possess to strategically delay provision of high-quality access to competitors.

10. A second problem with regulation is that it cannot adequately limit an ILEC's ability to exercise market power. Policy makers simply do not have the necessary information or time to evaluate fully ILEC actions. A study recently conducted by a Georgetown graduate student sheds light on this issue. Federico Mini has analyzed the importance of certain differences in ILEC incentives to engage in exclusionary behavior.[11] The author tests the hypothesis that GTE is less willing to provide access and interconnection to CLECs because it does not have the §271 process to create counter incentives. The author finds that GTE has in fact been significantly less cooperative in providing access and interconnection to CLECs than have the RBOCs.

11. This result is significant to the proposed mergers because it demonstrates that exclusionary incentives matter. The author shows that an increased incentive to exclude rivals is associated with meaningful increases in ILEC exclusionary behavior. This finding bears on three issues that are central to the debate about the empirical significance of the footprint theory:

- First, it discredits the claim that regulatory strictures are so tight that differences in ILEC incentives do not lead to differences in ILEC behavior. According to the study, GTE acts differently from the RBOCs due to the underlying differences in incentives.
- Second, the study demonstrates that the RBOCs have room to engage in additional exclusionary behavior (*i.e.,* to lower their degree of cooperation to that exhibited by GTE). The finding that GTE engages in more exclusionary behavior than the RBOCs is particularly striking given that the study makes within-state comparisons.

---

[11] Federico Mini, "The Role of Incentives: Comparing GTE and RBOC Cooperation with Local Entrants," unpublished doctoral dissertation, Georgetown University, February 1999.

- Third, it demonstrates that these effects are of competitive significance. The author finds there has been less CLEC entry into GTE's service areas than into RBOC territories.

In short, this analysis provides strong support for the footprint theory.[12]

12. In an important sense, these findings are consistent with the claims made by the RBOCs themselves. They have repeatedly asserted that the §271 process gives the RBOCs a powerful incentive to cooperate with local exchange entrants. This assertion implies that regulatory oversight alone does not eliminate opportunities for exclusionary behavior. If it did eliminate such opportunities, the incentives created by the §271 process would have no incremental effect. Moreover, the fact that Congress created the §271 process demonstrates it believed regulatory command alone was insufficient and it was socially valuable to create incentives to counter the ILECs' exclusionary incentives.

13. It is worth noting that policy makers cannot rely on the §271 process to prevent adverse effects from the proposed mergers. Unless ILEC market power has been substantially and irreversibly eliminated prior to §271 approval, the question of what will happen to ILEC incentives post-approval will inevitably arise.

14. It is also important to note that, if the proposed mergers are allowed, regulation will be an even weaker check on ILEC misbehavior due to the loss of independent benchmarks. In their declaration analyzing the adverse effects of the proposed SBC-Ameritech merger on the ability of

---

[12] This analysis also has important implications for the public interest assessment of Bell Atlantic and GTE's recent request to maintain GTE's substantial interLATA businesses without having received §271 authority. (*Report of Bell Atlantic and GTE on Long Distance Issues in Connection with Their Merger And Request for Limited Interim Relief*, submitted under a letter to Thomas Krattenmaker, Federal Communications Commission, by Steven G. Bradbury (counsel for GTE) and Michael E. Glover (counsel for Bell Atlantic) on February 24, 1999.) In particular, this analysis indicates that granting this request would significantly weaken the merged entity's incentives to provide access to rival carriers.

regulators to protect consumer welfare, Joseph Farrell and Bridger Mitchell discuss the importance of comparing performance across large ILECs as a regulatory tool.[13] They cite numerous instances where such benchmarking has been used by the Commission and other regulators. As Farrell and Mitchell demonstrate, the proposed mergers would reduce the effectiveness of benchmarking as a regulatory tool by reducing the number of large ILECs providing independent performance information. Indeed, it is ironic that SBC itself implicitly has conceded the importance of benchmarking—in a recent filing, SBC defended its performance following the SBC-PacBell merger by making comparisons with other ILECs.[14]

C. Exercise of ILEC Market Power in the Provision of Access Will Significantly Weaken Competition.

15. The conclusion that ILEC market power over access and interconnection can significantly weaken competition follows logically from the analysis of the first two parts of this section: ILECs have significant market power, and they have scope under regulation to exercise that market power to disadvantage rivals. The recent study by Federico Mini cited above demonstrates that an increase in an ILEC's exclusionary incentives translates into significant

---

13 The Declaration of Joseph Farrell and Bridger M. Mitchell, submitted as an attachment to *Petition to Deny of Sprint Communications Company L.P.* in Ameritech Corp. and SBC Communications, Inc., For Consent to Transfer Control, CC Dkt. No. 98-141 (filed Oct. 15, 1998). The analysis of the Declaration was affirmed by the authors in an attachment to *Petition to Deny of Sprint Communications Company L.P.* in GTE Corporation and Bell Atlantic Corporation, For Consent to Transfer of Control, CC Dkt. No. 98-184 (filed Nov. 23, 1998).

14 See *Pacific Bell: Post-Merger Performance*, submitted as an attachment to 23 February 1999 *ex parte* letter by Z. Robertson (Senior Vice President, SBC) to Magalie Roman Salas (Secretary, FCC) in CC Dkt. No. 98-141.

reductions in entry by competitors.[15] The next two sections show how the proposed mergers would increase the merging ILECs' incentives to weaken competition.

D. There Are Significant Competitive Spillovers Across ILEC Regions.

16. The first step in the analysis of incentive effects is to recognize that there are significant competitive spillovers across ILEC regions. In other words, when an ILEC takes exclusionary actions to weaken rivals in one region, these actions also weaken the same rivals in other regions. This conclusion follows from two key facts: (1) national rivals are the strongest competitive threats to the ILECs, and (2) there are significant benefits to national scope.

17. **National rivals are the strongest competitive threats to the ILECs.** There should not be much debate about this point—it is one that the ILECs themselves have repeatedly made when defending themselves against arguments that the mergers will reduce potential entry. For instance, David Gebhardt, an Ameritech executive, testified at an Illinois Commerce Commission hearing in January that

> since this Commission and the FCC authorized competition in the intraMSA marketplace in the 1980's, the single biggest competitive threat to Ameritech Illinois and the other local exchange companies has been the major IXCs (e.g. AT&T, MCI and Sprint)....Similarly, efforts by RBOCs to establish out-of-region operations primarily represented attempts to respond to the IXCs (emphasis in original).[16]

---

15 Federico Mini, "The Role of Incentives: Comparing GTE and RBOC Cooperation with Local Entrants," unpublished doctoral dissertation, Georgetown University, February 1999.

16 *Surrebuttal Testimony of David H. Gebhardt*, in Joint Application for Approval of the Reorganization of Illinois Bell Telephone Company d/b/a Ameritech Illinois, and the Reorganization of Ameritech Illinois Metro, Inc. in Accordance with Section 7-204 of The Public Utilities Act and for all other Appropriate Relief, ICC Dkt. No. 98-0555, SBC-Ameritech Ex. 3.2, p. 10.

18. **There are significant benefits to national scope.** The importance of national coverage and scope is recognized by the merger parties. For instance, a recent filing by SBC notes that "Large business customers are increasingly seeking to consolidate more of their purchases of telecommunications services with carriers who can meet a greater portion of their needs, both in terms of the range of services provided (e.g., local, long distance, and data services*) and the geographic scope of coverage* [italics added]."[17] In a recent presentation to the FCC, SBC stated that "The critical base of customers with national and global operations will not give their business to providers who offer service in just a few markets, with a promise of more to come at some distant date down the road."[18] Such benefits to national coverage are important to the merger analysis because, in their presence, weakening a rival's ability to compete in one region will weaken its ability to compete in other regions as well. We understand that these benefits to national scope arise due to the presence of network effects among subscribers and suppliers (*i.e.,* subscribers and suppliers value larger networks), and also due to economies of scale and scope (*i.e.,* costs incurred by an ILEC rival that are common to and benefit all regions entered by that rival).[19]

---

17 See *Narrative Response of SBC Communications, Inc. to the FCC's 1/5/99 Request for Supplemental Information.* (Filed 2 February 1999 as an *ex parte* statement in CC Dkt. No. 98-141.)

18 From *Outline of SBC Communications, Inc. March 5, 1999 Presentation to FCC Local and State Government Advisory Committee*, p. 7, submitted as an attachment to a 8 March 1999 letter by Lynn Starr (Vice President, Regulatory Affairs, SBC) to Magalie Roman Salas (Secretary, FCC). Filed as an *ex parte* statement in CC Dkt. 98-141.

19 The factual underpinnings of the discussion that follows are derived from numerous discussions with responsible Sprint personnel. These facts were submitted to the FCC in an *ex parte* presentation made by Sprint on 2 March 1999. Materials from the presentation were attached to a 3 March 1999 letter from A. Renee Callahan (Willkie Farr & Gallagher) to Magalie Roman Salas (FCC), filed as an *ex parte* statement in CC Dkt. No. 98-141 and CC Dkt. No. 98-184.

- ***Network effects.*** Subscriber-level network effects arise from the presence of affinity groups. The business market has powerful affinity groups (whose members attach relatively greater value to the ability to communicate with each other, more perhaps than the frequency of calls would suggest). Corporate affinity groups can be produced by corporate intranets (linking small and large sites belonging to the same firm) and extranets (which link a firm to its suppliers and customers). Examples of such networks include an insurance company's links with its agents' offices, a franchiser's links with its franchisees' sites, or a national retailer's links with its stores. Such corporate networks may require linking not just large corporate sites but also small sites and offices to the network (and these small sites may not find special access lines to be cost effective and, consequently, services such as ION would ideally make extensive use of xDSL facilities provided by ILECs to reach these small sites). There also apparently are strong affinity groups in the residential market as well.[20, 21] The presence of such affinity groups is important to note because members of such groups are likely to value receiving a range of telecommunications services from a single provider. Hence, if a service like Sprint ION is to sign-up members of an affinity group in one region, that service will need to also serve a critical mass of members of that same affinity group in other regions. Conversely, if the service is unable to serve an affinity group's members in one area, then the service is unlikely to sign up members of that affinity group in other areas. In other words, weakening a competitive service in one region weakens it in other areas as well.

  Network effects at the user level are reinforced by network effects at the third-party supplier level.[22] Suppliers of specialized equipment and applications have greater incentives to develop products for larger bases of potential customers. Sprint will apparently rely, in part, on third-party partners to develop applications for ION and has indicated these partners are sensitive to the projected size of ION's network. Potential partners' incentives are sensitive to network size because the profits earned by these partners from ION-specific applications will depend, in part, on the number of customers who use ION. Even when applications can be adapted to platforms other than ION, the size of the ION network can affect the timing of applications development. It is economically rational for developers to write to those platforms that are likely to have the largest customer bases. Any shrinkage in a particular network's size is likely to persuade

---

20 The success of MCI's Friends and Family program suggests that affinity groups are important in the residential market.

21 Representatives of GTE-Bell Atlantic have stated: "...residential target markets were selected based on long-distance calling affinities with cities in the Northeast." *GTE-Bell Atlantic Merger (CC Dkt. No. 98-184) Response to Commission's Requests for Documents and Information*, submitted as an *ex parte* letter to Mr. Michael Kende and Ms. To-Quyen Truong, Federal Communications Commission, January 15, 1999, p. 13.

22 In the language of the economics literature on network effects, advanced services are subject both to *communications network effects* and *hardware-software network effects*. For further details, see Michael L. Katz and Carl Shapiro "Systems Competition and Network Effects," *Journal of Economic Perspectives*, Spring 1994, *8*, 93-115.

applications developers to delay work on products used by that network and focus instead on developing products for networks with larger anticipated customer bases.

Lastly, increasing returns to scale arise from the existence of word-of-mouth networks, whereby users of a service tell other potential users about it. Word-of-mouth networks can be a valuable marketing vehicle.[23] Conversely, actions by an ILEC that limit a competing service's user base in one region weaken that service in other regions through the diminution of word-of-mouth marketing.

- ***Economies of scale and scope.*** These economies arise from the presence of significant fixed costs (which do not vary with the number of regions entered by ILECs' rivals and the number of customers served by such rivals). Prominent examples include R&D, the development of operations support and customer care systems, and the use of national media. In his affidavit filed in opposition to the mergers, Gene Agee (Director of Finance, Sprint National Integrated Services) itemized several such cost items incurred by Sprint ION.[24] Among the larger cost items he identified are: (1) billing system software and other support system software; and (2) software to run Sprint Service Nodes. In his affidavit, Agee also indicated that national marketing through national media also produces further scale economies. Finally, Sprint incurred significant R&D costs to develop ION. The importance of these scale economies is recognized by SBC. In a recent presentation, SBC states that "the economies of scale and scope of network industries, always powerful, are growing stronger as the infrastructure of telecommunications networks becomes more dependent on computer technology, software and the overall management of technical know-how and marketing knowledge."[25]

---

23 The importance of word-of-mouth networks for product sales is recognized in the marketing literature. An example of a marketing paper that incorporates word-of-mouth effects on sales is Moshe Givon, Vijay Mahajan and Eitan Muller "Software Piracy: Estimation of Lost Sales and the Impact on Software Diffusion," *Journal of Marketing*, January 1995, *59*, 29-37.

24 The Affidavit of Gene Agee, submitted as an attachment to *Petition to Deny of Sprint Communications Company L.P.* in Ameritech Corp. and SBC Communications, Inc., For Consent to Transfer Control, CC Dkt. No. 98-141 (filed Oct. 15, 1998). The analysis of the Declaration was affirmed by the author for submission in *Petition to Deny of Sprint Communications Company L.P.* in GTE Corporation and Bell Atlantic Corporation, For Consent to Transfer of Control, CC Dkt. No. 98-184 (filed Nov. 23, 1998).

25 From *Outline of SBC Communications, Inc. March 5, 1999 Presentation to FCC Local and State Government Advisory Committee*, p. 1, submitted as an attachment to a 8 March 1999 letter by Lynn Starr (Vice President, Regulatory Affairs, SBC) to Magalie Roman Salas (Secretary, FCC), filed as an *ex parte* statement in CC Dkt. No. 98-141. We do not evaluate here the relevance of the proposed mergers to realizing these economies of scale and scope.

E. The Proposed ILEC Mergers Would Increase the Merging Parties' Incentives and Abilities to Exercise Their Market Power.

19. The previous section discusses reasons why we would expect competitive spillovers to exist. This section discusses the extent of competitive spillovers, the resulting increase in ILEC incentives to harm competition, and the disincentives of competitors in the context of the proposed mergers. The strength of these effects may be seen in the following facts concerning the proposed changes in ILEC footprints and how they affect ILEC and competitor incentives.

20. The mergers significantly increase the extent of in-region termination. The SBC-Ameritech merger would increase the fraction of interLATA minutes terminated in-region by SBC and Ameritech by 6.9 percentage points (from 37.2% to 44.1%).[26] The Bell Atlantic-GTE merger would increase the fraction of in-region terminations by 7 percentage points (from 36% to 43%).[27] Each of the proposed mergers would increase the proportion of in-region terminations by more than 18 percent. Thus, each merger would lead to greater internalization of what are today cross-region effects and would therefore increase ILEC exclusionary incentives.

21. In the light of the traffic flows, the degradation of terminating access in one region can be expected to have significant competitive effects at the originating end. For example, Sprint data show that 17 percent of Sprint's long distance minutes that originate in the Ameritech service region terminate in the SBC service region. Thus, the quality of Sprint service to customers in

---

[26] These figures are from the Reply Affidavit of Richard Schmalensee and William Taylor at ¶ 22, submitted as an attachment to the *Joint Opposition of SBC Communications Inc. and Ameritech Corp. to Petitions to Deny and Reply to Comments,* in Ameritech Corp. and SBC Communications, Inc., For Consent to the Transfer of Control of Licenses and Section 214 Authorization, CC Dkt. No. 98-141 (filed November 16, 1998).

[27] These figures are from Sprint's interLATA traffic data.

Ameritech's service region is highly dependent on the quality of termination services provided by SBC. Although inter-region traffic flows account for a smaller proportion of the total when one includes local calls in the base, it is important to note that there are several reasons why such gross traffic flow data likely understate network effects and the impact that exclusion in one region would have on CSC competitiveness in other regions. First, this measure fails to capture the fact that members of affinity groups make a high fraction of their calls to other members of the same group. These customers are highly sensitive to even a few members dropping out of a network (due to ILEC exclusion). Second, distance-insensitive pricing, such as is planned for Sprint ION, will likely increase significantly the volume of long-distance calls relative to local calls. Third, the relatively high share of local minutes need not reflect the value that customers attach to local service relative to long distance service.

22. It also is important to recognize that the proposed mergers would increase the nationwide concentration level of access lines significantly, and each of the proposed post-merger entities would hold a sizeable national share of lines. SBC's nationwide share of access lines would increase from about 19% to about 30% after the Ameritech merger. Bell Atlantic's share would increase from 22% to 33% if it merged with GTE. An entity considering national entry would recognize that either one of these large ILECs would have the unilateral capability to make it very difficult, if not impossible, for the entrant to achieve the geographic coverage needed for a viable national strategy.

23. By permitting effective coordination between what are today separate and independent local exchange operations, the proposed ILEC mergers would increase the merging parties' incentives and abilities to disadvantage local and long distance rivals by reducing ILECs'

provision of the high-quality, efficient, and innovative forms of access that competitors will require. The main factual issue is whether the ILECs already are able to collude tacitly to the same extent that they could coordinate exclusionary behavior post-merger.[28] Competition policy is predicated on the assumption that mergers increase the ability of firms to internalize various financial spillovers. Moreover, it is hard to believe the parties themselves would argue that they already are tacitly colluding to harm actual and potential rivals.

III. HISTORICAL EVIDENCE OF ILEC EXCLUSION

24. In this section, we review past ILEC behavior to see whether it supports or contradicts the general claim that the ILECs will undertake actions to slow or block competition in those instances where a single ILEC internalizes a high percentage of the benefits associated with doing so. We examine the historical experience with respect to four sets of services: (1) interLATA toll; (2) local exchange; (3) intraLATA toll; and (4) cellular. Experience in all four services is consistent with the view that ILECs will expend significant resources to slow or block competition whenever they can capture a significant percentage of the benefits from doing so.

A. InterLATA Services

25. In recent years, there has been relatively little head-to-head competition between large ILECs and purchasers of access services in interLATA markets. In the light of the strictures

---

[28] Kenneth J. Arrow has argued that there is no coordination problem on theoretical grounds, but his conclusion is entirely an artifact of the model he presented. A more realistic model (*i.e.*, one allowing for uncertainty and incomplete information) gives the standard result from the teams literature that ILECs face a coordination problem in deterring common rivals. Declaration of Kenneth J. Arrow, submitted as an attachment to the *Joint Reply of Bell Atlantic Corp. and GTE Corp. to Petition to Deny and Comments*, in GTE Corp. and Bell Atlantic Corp., For Consent to Transfer of Control, CC Dkt. No. 98-184 (Filed Dec. 23, 1998).

against RBOC provision of interLATA services, until recently the RBOCs have likely viewed the IXCs as customers, rather than competitors. Thus, the RBOCs have not had incentives to delay, deny, or degrade the provision of access services to long distance carriers. The RBOCs have, of course, had incentives to charge supracompetitive prices wherever regulators have allowed it.

26. It is worth remembering that there was a time when the Bell Companies did not view the IXCs primarily as customers. The old Bell System had perhaps the ultimate domestic footprint. And, not surprisingly, the Bell System made it extremely difficult for any potential rival to obtain needed access. Policy makers realized that this problem could not be solved through regulations designed to mandate "good" conduct, and they recognized that a structural solution was needed.

B. Local Exchange Services

27. ILECs are plainly aware of the threat entry poses to their local exchange profits, and the record demonstrates they are willing to expend considerable resources to block or delay local competition.[29] Even a cursory review of the trade press reveals many CLEC complaints

---

[29] A comprehensive list of challenges to FCC orders under the Telecommunications Act of 1996 by Bell Atlantic and GTE is contained in Appendix H, submitted as an attachment to *Petition to Deny of Sprint Communications Company L.P.* in GTE Corporation and Bell Atlantic Corporation, For Consent to Transfer of Control, CC Dkt. No. 98-184 (filed Nov. 23, 1998).

A Federal District Court judge had the following to say about SBC's litigation tactics:

"The undersigned must note, however, that it was somewhat troubled by SWBT's tactics in this case. SWBT's penchant for rehashing issues that had already been fully briefed, raising arguments and claims that did not appear in even the most generous reading of the Amended Complaint, and most, importantly, taking positions in this litigation that it had expressly disavowed in the PUC administrative hearing, were, to say the least, distressing. The voluminous briefing in this case -- over seven hundred pages in total -- could probably have been cut in half had SWBT not fought tooth and nail for every single obviously non-meritorious point. Suffice it to say that every conceivable objection SWBT could have raised to the interconnection agreement was, in fact, raised, here and fully briefed by all parties to the lawsuit. The Court has considered these arguments and has concluded that the arbitrated terms of the interconnection agreements fully comply with the requirements of §§ 251 and 252 of the FTA and that the PUC's decisions regarding those arbitrated terms did not involve a misinterpretation or misapplication of federal law and were not arbitrary and capricious." Southwestern Bell Tel. Co. v. AT&T Communications of Southwest, Inc., No. A 97-CA-132 SS, 1998 U.S. Dist. LEXIS 15637, at *56-57 (W.D. Tex. Aug. 31, 1998).

concerning interconnection delays, poor quality service and excessive litigation.[30] And, as discussed above, a recent economic study found that GTE has in fact been significantly less cooperative in providing access and interconnection to CLECs than have RBOCs. These various forms of exclusionary behavior are entirely consistent with the footprint theory.

C. IntraLATA Toll Services

28. Turning to intraLATA and cellular markets, the ILECs' direct competitors have had to purchase interconnection and access services from the ILECs for some time. Hence, these markets offer at least some opportunity to study footprint effects.

29. The merger proponents maintain that evidence from intraLATA and cellular markets supports the view that footprint effects are unimportant. In particular, the ILECs claim: (a) under the footprint theory, they have had substantial incentives to disadvantage rivals in intraLATA toll and cellular services, and (b) there is no evidence ILECs harmed competition in these services.[31] Thus, merger proponents argue, this historical evidence shows that footprint effects, while theoretically plausible, are empirically insignificant.

30. The fact that ILECs have incentives to disadvantage rivals in intraLATA and cellular services is not in dispute. We strongly disagree, however, with the ILECs' characterization of the evidence from these markets. The ILECs limit their analyses to certain periods and types of

---

[30] See, for example, "Southwestern Bell Fails MCI WorldCom Local Phone Test: 85% Failure Rate Puts Test Customers and Future of Competition on Hold," PR Newswire, March 24, 1999 (available at www.smartmoney.com); "Focal, BA Argue over Opting in to Interconnection Deals," *Telecom AM*, February 8, 1999; "Florida CLECs Seek PSC Action to Force Open Local Markets," *Telecom AM*, December 11, 1998; "MCI Complaint Against U S West Regarding Local Phone Interconnection, *et. al*," Washington Utilities and Transportation Commission press release , February 10, 1999. And, of course, the records of various §271 proceedings provide numerous additional examples.

exclusionary behavior, and in so doing they turn a blind eye to real impediments to competition in these markets. A full examination of the evidence demonstrates that ILECs have worked to delay intraLATA competition. This result is consistent with footprint effects, and in addition, it raises the question whether more refined tests could measure the size of these effects. For reasons we discuss below, measuring footprint effects may be difficult in intraLATA markets.

31. A factual analysis of intraLATA toll markets supports the following important conclusions:

- **ILECs have worked to create and preserve significant regulatory limitations on competition in intraLATA toll markets.** Robert Crandall and Gregory Sidak, in a declaration supporting the Bell Atlantic-GTE merger, claim there is no evidence of discrimination in intraLATA toll markets since the introduction of 1+ competition.[32] The authors adopt an excessively narrow definition of exclusionary behavior and deliberately exclude from consideration ILEC efforts to block the introduction of 1+ competition.[33] The fact is ILECs have urged regulators to prohibit intraLATA competition since divestiture, and ILEC efforts to use the courts and regulatory processes to delay competitive entry into intraLATA markets continue to the present.[34] Thus, it is

---

31 See, for example, the comments of Dennis Carlton, transcript of *FCC Roundtable on the Economics of Mergers between Large ILECs*, CC Dkt. No. 98-141, 5 February 1999, p. 130.

32 Declaration of Robert Crandall and Gregory Sidak ¶ 32, submitted as an attachment to the *Joint Reply of Bell Atlantic Corp. and GTE Corp. to Petition to Deny and Comments*, in GTE Corp. and Bell Atlantic Corp., For Consent to Transfer of Control, CC Dkt. No. 98-184 (filed Dec. 23, 1998). Richard Schmalensee and William Taylor make essentially the same point in their affidavit. Reply Affidavit of Richard Schmalensee and William Taylor ¶ 43, submitted as an attachment to the *Joint Opposition of SBC Communications Inc. and Ameritech Corp. to Petitions to Deny and Reply to Comments,* in Ameritech Corp. and SBC Communications, Inc., For Consent to the Transfer of Control of Licenses and Section 214 Authorization, CC Dkt. No. 98-141 (filed November 16, 1998).

33 See, for example, comment of Robert Crandall, transcript of *FCC Roundtable on the Economics of Mergers between Large ILECs*, CC Dkt. No. 98-141, 5 February 1999, p.145.

34 Ameritech, for example, challenged a January 21 Michigan Public Service Commission (PSC) order requiring Ameritech to immediately implement intraLATA dialing parity in metro Detroit. The challenge asserted that, as a result of the recent U.S. Supreme Court decision on interconnection jurisdiction, Ameritech is no longer under a legal obligation to meet the PSC requirement. *Telecom AM*, February 2, 1999.

Crandall and Sidak defend this form of exclusionary behavior as protected speech under the First Amendment. The relevant question for testing the footprint theory, however, is not whether the exclusionary acts are legal. The relevant question is whether ILECs have responded to incentives to

demonstrably false that there is no evidence of exclusionary behavior in intraLATA markets. On the contrary, one clear lesson to draw from the history of intraLATA competition is that ILECs will work hard to prevent entry when they can capture the benefits of doing so.

- **Prior interLATA experience has limited the ability of ILECs actively to degrade toll interconnection facilities; similar constraints would not apply to xDSL and other news forms of access needed by services such as Sprint ION.** In addition to regulatory exclusion, it may be technically feasible for ILECs to degrade the interconnection provided to intraLATA competitors. However, it would not be surprising if there were limited evidence that ILECs have degraded intraLATA interconnection arrangements, despite their incentive to engage in such exclusion.[35] One reason to expect limited evidence of exclusion is that intraLATA interconnection arrangements are virtually identical to interLATA interconnection requirements, and the two services can, in fact, use the same physical facilities. For most of the period in question, interLATA carriers were large ILEC customers that, importantly, were prohibited from competing with the ILECs in major markets. Thus the ILECs had little or no incentive to delay or degrade interLATA interconnection so long as they were unlikely to receive interLATA authority. Moreover, as states have been slow to authorize 1+ intraLATA competition, many ILECs may have had limited incentive to actively degrade intraLATA connections until recently.[36] Given the industry's history and experience with relatively trouble-free interLATA interconnection, and because of the similarities between intraLATA and interLATA interconnection arrangements, ILECs had relatively little ability to degrade intraLATA interconnection, despite their incentive to do so.

  In addition, the interconnection arrangements necessary for toll services are both simpler and better understood than the still evolving interconnection requirements for xDSL services. Thus, regulators have had a greater ability to prevent problems with respect to the interconnection necessary for intraLATA toll than they now have to prevent problems

---

exclude competitors and have been willing to expend resources to delay the onset of competition. The answer to this latter question is surely yes.

35 We are aware of some evidence that this form of exclusionary behavior has occurred in intraLATA markets, although we have not conducted an exhaustive search. For example, a number of ILECs have implemented PIC freezes that have had the effect of limiting customer choice and inhibiting competition in intraLATA toll markets. See "Michigan Court Says Ameritech Freeze Violates PSC Rules," *Telecom AM*, February 1, 1999; "N.Y. Orders Bell Atlantic To Alter Its Toll Carrier PIC Freeze Procedures," *Telecom AM*, December 18, 1997; and Senate and House Agree on Antislamming Compromise, Bill on Hold," *Telecom AM*, October 22, 1998. AT&T affiants R. Glenn Hubbard and William H. Lehr also provide evidence of intraLATA toll abuses in Bell South's territory. Affidavit of R. Glenn Hubbard and William H. Lehr on Behalf of AT&T Corp., ¶¶ 84-86, submitted as an attachment to the *Comments of AT&T Corp.* in Application by BellSouth Corporation, BellSouth Telecommunications, Inc., and BellSouth Long Distance, Inc. for Provision of In-region, InterLATA Services in Louisiana, CC Dkt. No. 97-231 (filed Nov. 25, 1997).

36 IntraLATA 1+ competition was available in only a handful of states until recently. There is good reason to believe that 10xxx intraLATA competition provided a less significant threat to ILECs than 1+ competition.

with the types of interconnection needed by innovative new services, such as Sprint ION. In summary, even if there were evidence that regulators could limit active degradation of toll interconnection facilities, this finding would say little about the ability of ILECs to deny, delay and degrade new interconnection arrangements such as those needed for xDSL services.

D. Cellular Services

32. A factual examination of cellular markets supports the following conclusions:

- **ILECs have attempted to degrade the quality of interconnection facilities provided to their local cellular competitors.** Robert Crandall and Gregory Sidak, in a declaration supporting the Bell Atlantic-GTE merger, argue that "...the wireless market provides the best possible test of the IXC's experts' theories of foreclosure—and the theory fails decisively in that market."[37] As evidence of this failure, they cite the fact that they "...know of no evidence that the ILECs have attempted to degrade the wireline interconnection of their local wireless competitors" (and such degradation would be implied by the footprint theory).[38]

  Crandall and Sidak's claims notwithstanding, ILECs have a long history of degrading interconnection facilities provided to competing cellular carriers. The details of such behavior and the various regulatory and court proceedings on such activity are described in the attached document *LEC-Cellular Interconnection: Historical Analysis* prepared on behalf of Sprint by Willkie Farr & Gallagher. The document notes that, among other types of exclusionary behavior, several RBOCs refused to provide the relatively more efficient "trunk side" interconnection to non-wireline carriers, and, as a result, numerous complaints were filed by non-wireline carriers with state regulators and the FCC during the 1980s. The paper also documents complaints by non-wireline cellular carriers about delays in the provision of interconnection by ILECs and of unreasonable technical restrictions imposed by ILECs. The paper demonstrates that it is clearly incorrect to assert there is no evidence of exclusionary behavior by ILECs in cellular markets. On the contrary, the history of cellular competition, like the history of intraLATA competition, shows that ILECs will work hard to prevent entry when they can capture the benefits of doing so.

IV. TIME SERIES ANALYSIS

33. One claim made by merger proponents is if footprint effects will be significant under the proposed mergers, then footprint effects would be evident in past mergers. There are, however,

---

[37] Declaration of Robert Crandall and Gregory Sidak, ¶ 31. Crandall reiterated this point at the 5 February 1999 FCC Roundtable (transcript of FCC *Roundtable on the Economics of Mergers between Large ILECs*, CC Dkt. No. 98-141, 5 February 1999, p.145).

several reasons why we should not expect to see dramatic evidence of footprint effects from past mergers of large ILECs. That fact notwithstanding, there are several indicators that post-merger performance has deteriorated in important ways.

A. Time Series Evidence is Inherently Limited

34. The reasons why one should not expect to see dramatic evidence of footprint effects from past mergers of large ILECs include the following:

- **The Previous RBOC Mergers Were Completed Very Recently:** The SBC-Pacific Bell and Bell Atlantic-NYNEX mergers were completed in approximately mid-1997, so the sample period is short. It may take the merged entities some time for their actions fully to reflect their changed incentives.

- **The Need to Correct for Industry Trends:** The problems due to a short sample period are compounded by the fact that there have been dramatic changes in the industry over the last year and a half. A serious study of the effects of the past RBOC mergers should take these trends into account. The argument by Richard Gilbert and Robert Harris that SBC's acquisition of Pacific Bell has not prevented an increase in collocation agreements in Pacific Bell regions is undermined by their failure to control for national trends in CLEC entry.[39] When one compares changes in entry into California after the SBC-Pacific Bell merger with changes in entry into other RBOC states (thereby at least partly accounting for national trends), we find that entry into California slowed relative to most other RBOC regions after the merger (and did not change relative to a few). In particular, CLEC entry into California after mid-1997 slowed relative to Florida (the largest state served by BellSouth) and Washington (the biggest state served by U S West) and was the same relative to Illinois (Ameritech's biggest state).[40]

  In fact, this pattern extends to the rest of SBC's territory in the following sense. Although CLEC entry into the average SBC state increased after the merger, CLEC entry into other RBOCs' regions grew even faster. This pattern is consistent with the SBC-Pacific Bell merger's having slowed entry into the expanded SBC region. Specifically, the average SBC state experienced a 33 percent increase in the number of new CLEC entrants in the year after the merger (mid 1997 to mid 1998) as compared with the year

---

38 Declaration of Robert Crandall and Gregory Sidak, ¶ 31.

39 Reply Affidavit of Richard Gilbert and Robert Harris, ¶ 68.

40 In these comparisons, we measure CLEC entry in terms of the number of additional CLECs holding NXX numbers. The data are from Federal Communications Commission, *Local Competition* (December 1998).

before the merger (mid 1996 to mid 1997). However, over the same period, the average Ameritech state experienced a 41 percent increase in CLEC entry, the average BellSouth state saw an 83 percent increase, and the average U S West state saw a 90 percent increase. None of these latter RBOCs was a party to a significant merger during the period. Hence, we use these RBOCs as a control group to account for national trends.

- **Threshold Size Effects:** The merging parties themselves have put forth the proposition that the proposed mergers will create footprints so large as to lead to qualitatively different behavior. In particular, they claim that the scale of the proposed mergers is necessary to pursue national-local strategies. Without addressing the issue of whether the mergers are indeed needed to facilitate such entry strategies, one can see a similar logic at work with footprint effects. These threshold effects arise both with respect to ILEC incentives and competitive carrier disincentives.

  ILEC Incentives. As noted above, the proposed mergers would significantly increase the extent of in-region termination. For example, the Bell Atlantic-GTE merger would increase the fraction of in-region termination by 7 percentage points (from 36% to 43%).[41] Each of the proposed mergers would increase the proportion of in-region termination by more than 18%, thus increasing a merging ILEC's incentives to engage in exclusionary behavior.

  Competitor Disincentives. The proposed mergers would also increase the merging parties' share of access lines significantly, and each of the proposed post-merger entities would hold a sizeable national share of lines. SBC's nationwide share of access lines would rise to about 30% after the Ameritech merger, and Bell Atlantic's share would increase to 33% if it merged with GTE. An entity considering national entry would recognize that either one of these large ILECs would have the unilateral capability to make it very difficult, if not impossible, for the entrant to achieve the geographic coverage needed for a viable national strategy.

- **Footprint Effects Are More Important in the New Industry Environment:** There are at least two reasons to believe that footprint effects will be more important going forward than they have been to date.

  Regulation Has Changed Significantly. In the past, there were regulatory and legal barriers that blocked local exchange competition and kept RBOCs out of long distance. Consequently, ILECs did not have to delay, deny, or degrade access to local exchange rivals—regulation did the ILECs' "work" for them. Moreover, there was little head-to-head competition in local exchange and interLATA markets; as a result, large ILECs had relatively little incentive to engage in exclusionary access practices.

---

[41] These figures are from Sprint's interLATA traffic data.

Technology and the Types of Services Offered are Changing. National coverage is important to the success of new services, such as Sprint ION, that combine both local and interexchange features. Multi-location businesses subscribe to services such as ION in order to reach most of their locations for specialized functions such as distance training. Dennis Carlton, in his affidavit on behalf of SBC and Ameritech, makes this point when he argues there are multi-location business customers who value widespread geographic coverage by their carriers.[42]

B. There is Evidence of Post-Merger Problems

35. We noted above the relative slowdown of entry into SBC's region. There is also anecdotal evidence of degraded practices being exported from SBC to Pacific Bell after their merger. The slowing of CLEC entry in California discussed above may, in fact, be due to the spread of such degraded practices. Without intending to offer an exhaustive or necessarily representative list of all post-merger problems, we describe a number of them here to illustrate that they are significant.[43]

- **Several rivals have complained that Pacific Bell's performance has declined significantly following its acquisition by SBC.** For example, MCI indicated that, prior to its merger with SBC, Pacific Bell "used a billing format that was designed for carrier-to-carrier transactions for billing on services that MCI obtained from Pacific Bell. Following the merger and at the behest of SBC, Pacific Bell unilaterally substituted another billing format that SBC uses for *retail* sales — a format significantly less useful to another carrier." Similarly, AirTouch had set up a market trial of "Calling Party Pays" ("CPP") with Pacific Bell. After its sale to SBC, Pacific Bell informed AirTouch that it was not interested in pursuing the trial. SBC later told AirTouch that it could not use Pacific Bell's tariffed billing and collection services to provide CPP. In addition, AT&T stated that prior to the merger Pacific Bell had agreed that any change to its OSS

---

42 Carlton refers to the "...increasing importance to consumers of packages of end-to-end services provided by a single supplier on a *national basis* [emphasis added]." Reply Affidavit of Dennis Carlton, ¶ 16, submitted as an attachment to the *Joint Opposition of SBC Communications Inc. and Ameritech Corp. to Petitions to Deny and Reply to Comments,* in Ameritech Corp. and SBC Communications, Inc., For Consent to the Transfer of Control of Licenses and Section 214 Authorization, CC Dkt. No. 98-141 (filed November 16, 1998).

43 Unless indicated below, the details of, and supporting citations for, all examples in this section are provided in the accompanying paper *Post-merger Examples of the Spread of Degraded Practices in the Acquired BOC's Territory and Worsening Conditions in the Acquiring BOC's Territory* prepared on behalf of Sprint by Willkie Farr & Gallagher.

interfaces would require joint management, maintenance and operation. After the merger, Pacific Bell ignored the joint implementation requirements and refused to enter into a Joint Implementation Agreement with AT&T. AT&T had to re-arbitrate the issue, and its entry plans were consequently delayed.

Sprint too has seen a deterioration in Pacific Bell's performance. Sprint's existing interconnection agreement with Pacific Bell provides for an unbundled, conditioned xDSL loop. The pricing provisions of the agreement do not include any incremental charges for conditioning the line. SBC has made it clear to Sprint personnel in charge of negotiating the new contract that Pacific Bell will not agree to provide xDSL without charging a conditioning fee.[44] In comparison to Sprint's current contract with Pacific Bell, SWBT's new proposed ADSL contract language provides for dramatically increased loop conditioning charges.

Other differences also arise between Pacific Bell's and SBC's provision of information regarding xDSL availability. For example, Pacific Bell does not assess a charge for DSL loop qualification.[45] SBC proposes to charge CLECs to determine DSL availability.

- **Rivals also have raised complaints about declines in NYNEX's performance following its acquisition by Bell Atlantic.** For example, in New York and other NYNEX states, NYNEX had allowed assignment of existing customer contracts to resellers without treating the assignments as contract terminations and without triggering termination penalties. Bell Atlantic reversed that position, refusing to honor assignment requests submitted by resellers. An industry expert testified that a prohibition on assignment of such contracts seriously injures the resale market.

  In addition, Bell Atlantic has proposed new restrictions on provision of the UNE-platform ("UNE-P") in its §271 prefiling statements in New Jersey, New York, and Pennsylvania.[46] In New York, for example, Bell Atlantic limited its UNE-P offering to certain service categories, customer groups and geographic locations. UNE-P also will not be available for those central offices in which more than one CLEC is collocated. Moreover, where "CLECs do not choose to assemble the platform for themselves, Bell Atlantic-NY may begin to assess an additional recurring charge(s) that would, over the

---

44 Sprint's contract with Pacific Bell expires February 7, 2000.

45 Eighty-seven of Pacific Bell's serving wire centers are pre-qualified for ADSL deployment. For the remaining COs, Pacific Bell will check for DSL availability — free of charge — even though Pacific Bell is not deploying DSL from that CO.

46 These restrictions were first filed in newly-acquired New York, and then spread rapidly to Bell Atlantic's existing states of Pennsylvania and New Jersey.

course of two years, raise the price of the unbundled platform to the CLEC to substantially the cost of similar resold lines."

Bell Atlantic's post-merger performance also has to be evaluated in the light of the conditions that were attached to the Commission's approval of that merger. Recent reports indicate that Bell Atlantic still fails to meet many of the Commission's merger conditions, nearly two years after the merger was approved. For example, MCI claims that Bell Atlantic has thus far failed to implement identical OSS interfaces throughout its region as the Commission ordered, and the Telecom Resellers Association reports that its members perceive a "general lack of cooperation from Bell Atlantic."[47] Further, the differences between the OSS interfaces are not minor. Of the 48 fields in a POTS order, only 9 fields are common between the former NYNEX states and the original Bell Atlantic states.[48] There have also been complaints that Bell Atlantic's provision of access service has deteriorated since its merger with NYNEX.[49]

V. CROSS-SECTIONAL ANALYSIS

36. Another way to test for the existence of footprint effects is to make cross-sectional comparisons. Such comparisons of ILEC footprint effects in the past will likely under-estimate future footprint effects for reasons discussed in the previous sections. For instance, head-to-head competition between CLECs and ILECs largely has developed after the 1996 Telecommunications Act was passed by Congress and implemented by the FCC and state commissions. As a result, ILECs will have greater incentives to use interconnection arrangements to obstruct CLECs than they have had in the past, and the effects of ILEC footprints are likely to be larger in magnitude.

---

47 "Competitors Say Bell Atlantic Hasn't Met Merger Conditions," *Telecom AM*, March 10, 1999.

48 Testimony of Jonathan Sallet, MCI WorldCom's Chief Policy Counsel, transcript of *ILEC Merger En Banc Hearing*, CC Dkt. No. 98-141, December 14, 1998, pp. 131-32.

49 From *The Bell Atlantic Performance Story*, submitted as an attachment to an 11 February 1999 letter by R. Dale Dixon to Magalie Roman Salas (Secretary, FCC). Filed as an *ex parte* statement in CC Dkt. No. 98-184.

37. Despite these limitations of cross-sectional comparisons, preliminary evidence from comparisons of small ILECs with large ILECs suggests that small ILEC regions have experienced greater entry than large ILEC regions. Measuring entry in terms of the number of CLECs holding NXX codes as of September 1998, we found:[50]

- Connecticut (served by SNET) has had more CLEC entry than the (weighted) average of all Bell Atlantic states. Cincinnati (served by Cincinnati Bell) has had more CLEC entry than other big cities in Ohio served by Ameritech, and Rochester (served by Frontier) has experienced more CLEC entry than have large Bell Atlantic cities in upstate New York.
- A comparison of independent telephone companies also suggests that smaller independents have had more entry, although this evidence is admittedly somewhat mixed. We find that the Rochester (served by Frontier) and Cincinnati have experienced greater CLEC entry than the (weighted) average LATA served by GTE.[51] This pattern also holds when one refines the analysis and compares Rochester and Cincinnati with the largest (in terms of access lines) LATA under GTE (Tampa, FL).[52]
- Comparing the smaller RBOCs (Ameritech, U S West, BellSouth) with the two larger RBOCs (SBC and Bell Atlantic), one finds that entry into the five largest LATAs under U S West and BellSouth exceeds entry into the five largest LATAs under SBC and Bell Atlantic. Ameritech, however, appears to have experienced comparable entry to SBC and Bell Atlantic. These somewhat mixed results may be due to the fact that the SBC-Pacific Bell and Bell Atlantic-NYNEX mergers were relatively recent, hence SBC and Bell Atlantic were closer in size to the other three RBOCs until recently.

These comparisons support the footprint theory. Moreover, to the extent that RBOCs temporarily have greater incentives than other ILECs due to the §271 process, these comparisons understate the effects of size.

---

50 Data on CLECs with NXX codes are taken from a report of the Federal Communications Commission titled *Local Competition* (December 1998).

51 GTE has a substantially larger ILEC footprint than any other non-RBOC.

52 However, Lincoln, NE (served by the relatively small ILEC, Aliant) and Connecticut (under SNET) have had less CLEC entry than Tampa (GTE). This appears contrary to the pattern of relatively greater entry into the smaller independent ILECs' regions. However, this result may be due to the fact that Lincoln has few other large LATAs nearby, and because state-city comparisons (such as Connecticut-Tampa) may be misleading.

VI. CONCLUSION

38. Proponents of the proposed mergers have argued there is no evidence that footprint effects will be significant. We believe the record demonstrates otherwise. In this white paper, we have identified many facts to support the conclusion that the proposed mergers pose significant threats to competition and consumer welfare. Moreover, the Commission has the ability to obtain additional information in support of this finding.