COMPETITIVE IMPLICATIONS OF BELL OPERATING COMPANY ENTRY INTO LONG-DISTANCE TELECOMMUNICATIONS SERVICES

AFFIDAVIT OF MARIUS SCHWARTZ

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Professional Background

1. My name is Marius Schwartz. I am a Professor of Economics at Georgetown University. I received my B.Sc. degree with first-class honors from the London School of Economics and my Ph.D. in economics from the University of California at Los Angeles. My research areas are in industrial organization, antitrust and regulation. I have published on these subjects and have taught courses at Georgetown University and to executives and government officials in the U.S. and other countries.

2. From April 1995 to June 1996, I served as the senior staff economist at the President's Council of Economic Advisers responsible for antitrust and regulated industries. Much of my work was on regulatory reform in telecommunications, and I participated in the development of the Administration's policy leading up to the enactment of the 1996 Telecommunications Act. From 1980 to the present, I have served intermittently as a consultant to the Antitrust Division of the Department of Justice on a wide variety of competition matters. I have also consulted for the OECD, World Bank, USAID, and private clients. My curriculum vitae is attached to this affidavit.

Scope of Assignment

3. I have been asked by the Antitrust Division of the U.S. Department of Justice to analyze the economic conditions under which authorizing regional Bell Operating Company (BOC) provision of in-region interLATA telecommunications services ("BOC entry") would be consistent with the public interest in competition, under the entry standard of § 271 of the Telecommunications Act of 1996 ("Act"). I have also been asked for my opinion, in light of my analysis, regarding the Justice Department's general standard for evaluating BOC applications under § 271 that is described in the Department's comments filed with the Federal Communications Commission. As part of my analysis I have considered both the potential costs

and benefits of authorizing interLATA entry by the BOCs, consistently with the specific provisions and overall competitive objectives of Act. I have not been asked to consider whether any individual BOC has met the requirements of § 271 in a particular state.

4. In connection with this assignment, I have drawn on the relevant economics literature and consulted with other academics, regulators, practitioners, and industry participants. I have also reviewed numerous documents, including but not limited to: submissions in connection with the Motion to Vacate the MFJ that was filed by four BOCs in 1995; submissions in the FCC's proceedings to implement the 1996 Act's provisions on local competition, accounting and non-accounting safeguards, and reform of universal service and access charges; the FCC's relevant Orders; regulatory filings with state commissions; documents submitted to the Department of Justice pursuant to the pending mergers between Bell Atlantic and NYNEX, and SBC and Pacific Telesis; and numerous responses submitted to the letter request of Acting Assistant Attorney General Joel Klein issued on November 21, 1996, concerning the competitive impact of interLATA entry by the BOCs ("responses to Joel Klein letter").

5. My assessment is that the Department of Justice's entry standard strikes a good balance between properly addressing the competitive concerns raised by BOC entry, and realizing the benefits from such entry as rapidly as can be justified in light of these concerns. The Department's standard, therefore, is consistent with the public interest in competition reflected in the entry test of section 271 of the Telecommunications Act.

Summary of Analysis and Conclusions

6. The 1996 Act aims to increase competition in *all* telecommunications markets; for the first time, this includes local markets that today are largely regulated monopolies. It is therefore necessary to evaluate the effects of BOC entry not only on competition in long-distance services, but also in local services and in "integrated services" (the offering of both local and long-distance

services—whether bundled or separately—by the same provider).

7. Under appropriate conditions, BOC entry holds the promise of yielding significant benefits to the BOCs and to consumers. The principal benefits may include: (a) reductions in retailing costs enabled by joint provision of local and long-distance services; (b) offering consumers valuable new options from dealing with providers of integrated services, e.g., the convenience of one-stop shopping for all their telecommunications requirements; and (c) increasing the degree of competition in long-distance services (both in interLATA services through BOC entry; and in intraLATA toll services in multi-LATA states that now lack dialing parity for entrants, since the Act requires intraLATA dialing parity in such a state when and only when BOC interLATA entry occurs in the state).

8. BOC entry, however, also raises potential concerns. The principal risk of authorizing premature BOC entry is that doing so will result in significantly less BOC cooperation, than could be induced by an appropriate entry standard, in providing good access at cost-based prices to the various functions and services of a BOC's local networks needed by entrants wishing to offer local or integrated services. These requisite "wholesale local services" include interconnection, unbundled network elements, and discounted local service for resale. Securing efficient access to these services of the BOCs' ubiquitous local networks will be critical for some time to the development of competition in local and integrated services. A BOC's monopolistic withholding of such access cooperation would be a potent and destructive form of rivalry: it would raise competitors' costs, degrade their quality, and deny consumers the benefits of new products. And if facilities-based local competition fails to develop, BOC entry could pose a growing threat to long-distance competition, since today's established access arrangements will increasingly require changes over time.

9. Authorizing premature BOC entry would prematurely reduce a BOC's cooperation incentives for two main reasons: (a) the BOC stands to gain if it can leverage its local market

power into the newly opened markets for long-distance and integrated services; and (b) the BOC is emboldened to stiffen its resistance to local competition having secured its coveted long-distance authority. After explaining these incentives, I argue that regulatory and other post-entry safeguards are considerably less likely to secure the new BOC arrangements for local competition than would a more procompetitive entry standard.

10. First, consider leverage incentives. Once the BOC offers long-distance retail services and thus integrated retail services, it becomes a competitor to its access customers—carriers that must purchase from it access services used to provide these retail services. A BOC then becomes less willing to provide access services to others than if it did not offer the retail services itself. This reduced willingness arises in large part, though by no means entirely, because a BOC's prices for wholesale local services and for local retail services are likely to remain more tightly regulated than its prices for long-distance retail services. Asymmetric regulation of this sort pushes a firm to evade regulation by leveraging the more tightly regulated market power into the less regulated services that require access to the regulated bottleneck services. To raise prices of unregulated services, a BOC must undermine competitors; this it might do—if unchecked by regulation—through various forms of "access discrimination" that raise competitors' costs or degrade their quality.

11. Leverage into long-distance services would entail a BOC's degrading of competitors' long-distance access arrangements; a BOC's ability to do so, however, is limited in the short run (see ¶ 14). But leverage into integrated services could entail degrading of competitors' long-distance access or denying to competitors good access to its wholesale *local* services—because competitors need both to offer integrated services. Undermining integrated-service competitors by restricting their access to wholesale local services could enable a BOC to charge higher prices for its unregulated long-distance services for two reasons: (1) competitors are denied cost savings from joint provision of services, which could raise their cost of providing long-distance services

and thus weaken the discipline they impose on the BOC's prices; and (2) some consumers would be willing to pay a premium for dealing with a provider of integrated services, reflecting, for example, the value of one-stop-shopping.

12. Second, and independent of such incentives to leverage market power into long-distance or integrated services, a BOC like any dominant incumbent is inclined to resist cooperating with local entrants that threaten its core local market power. This resistance can be softened—though not eliminated—by authorizing a BOC's long-distance entry only if its adequate cooperation with local entrants has first been secured. Before entry is authorized, the lure of added profit from long-distance and integrated services gives the BOC an incentive to expedite its required cooperation; after entry, however, time is on the BOC's side and its inclination to cooperate correspondingly diminishes. As a practical matter, rescinding a BOC's entry authority if it slows down its cooperation may well be difficult as well as disruptive. (Halting its future marketing efforts may be a more practical option, but is also less potent.)

13. For these reasons, once a BOC's entry is authorized, its incentives to cooperate in providing network access to competitors will diminish significantly. Therefore, a key question is: how effectively can regulatory and other safeguards enforce the requisite BOC cooperation post entry in the face of reduced BOC incentives? Economic reasoning suggests—and historical experience confirms—that the efficacy of regulatory and other "outside enforcement" varies widely with the economic environment. Regulation fares much better in a stable environment where regulators understand what is and is not standard practice, than in a rapidly changing environment where more frequent adjustments are needed and informational asymmetries are greater. Correspondingly, regulatory oversight can do a reasonable job of maintaining well-established arrangements; but it is far less adept at forcing incumbents to rapidly implement new arrangements, as the lack of historical benchmarks on acceptable performance gives incumbents great latitude to engage in plausible deniability. These observations have important implications.

14. Access arrangements for long-distance services are largely well established; hence regulatory and other safeguards can prevent significant degradation. Although the necessary access arrangements will certainly evolve over time, I understand that radical changes in technical arrangements governing the majority of interexchange revenues are not imminent. While customized arrangements pose a potential problem, such arrangements are used mainly by large customers for whom competitive access alternatives have developed more rapidly. On balance, therefore, regulatory and other safeguards can render the threat to technical arrangements for long-distance access tolerable, at least in the short run.

15. The picture is quite different for access arrangements to wholesale local services. These requisite arrangements are largely new; their implementation will require extensive cooperation by incumbents in developing a host of technical, operational and business protocols, and in establishing appropriate prices.

16. Mandating incumbents' cooperation, as the Act does, surely helps; but the process will evolve much more quickly and efficiently if incumbents have better incentives to cooperate. Thus, the Act sets up the § 271 process which, as is widely acknowledged, only allows for BOC entry when such local-competition access arrangements are meaningfully made available and the market is truly open to competition. This sequencing serves important purposes, as described below. Regulators and other outside enforcers have significantly inferior information than a BOC about how to implement these new systems and how long the task should take. These informational asymmetries hinder reliance on post-entry measures (such as halting BOC marketing of long-distance services, or imposing financial penalties) to force BOC implementation of these new arrangements, since enforcers' uncertainty about how long implementation should take makes it difficult (and inefficient) to specify rigid deadlines.

17. As the § 271 sequencing recognizes, however, these difficulties can be significantly mitigated by requiring as pre-conditions for BOC entry that all major new systems necessary to

open the local market have been made available to entrants, and that their performance has been sufficiently demonstrated; absent such a demonstration, one cannot be confident that the systems indeed do what they promise. Such an entry standard does a better job of aligning incentives: the more informed BOC then has stronger incentives to implement things rapidly in order to expedite opening the local market and thereby its own long-distance entry. And establishing performance benchmarks to gauge the functioning of these new arrangements before authorizing BOC entry renders post-entry safeguards—regulatory, antitrust and contractual—more effective at countering subsequent BOC incentives to degrade these arrangements. Thus, authorizing BOC entry only after a BOC institutes the new access arrangements that are necessary to open the local market to competition is likely to greatly accelerate the emergence of local competition.

18. Although delaying BOC entry until the local market is open may impose some costs, the more rapid opening of the local market that will result is likely to yield significantly larger benefits to consumers. The local market is more than twice as large as long distance (net of access charges), and is largely a regulated monopoly; thus, adding even a modest dose of competition could yield major gains in lower costs and prices, improved service, and product innovation. BOC cooperation in providing wholesale local services also could permit others to compete relatively quickly in integrated services (such as by reselling local services along with long-distance and other services); the ability to offer integrated services is important to enabling long-distance carriers and others to compete effectively with a BOC once it is authorized to offer long-distance service. And in the long run, facilities-based local competition can aid regulation—and eventually, one would hope, supplant it—in safeguarding access arrangements for long-distance services in a less intrusive manner.

19. The foregoing analysis persuades me that BOC entry is appropriate when, and only when, the market in the state has been irreversibly opened to local competition. I believe this entry standard will provide incentives to the BOCs to extend the cooperation necessary to open local

markets more rapidly and efficiently; will help establish the benchmarks enforcers need to maintain the new access arrangements post entry; and will permit BOC entry as rapidly as is consistent with these constraints. Opening the market does not require evidence of local competition of all forms and in all regions of a state sufficient to substantially discipline BOC market power. The Act aims to let market forces determine what forms of entry work best and where; and regulatory and other safeguards will still play a role in disciplining BOC abuse of market power. But, at a minimum, opening the local market requires full, meaningful implementation of the § 271 competitive checklist, not mere paper compliance.

20. By far the best test of whether the local market has been opened to competition is whether meaningful local competition emerges. Local competition establishes presumptions; the more widespread and varied it is, the greater our confidence that the market has been opened. In particular, use on a commercial scale of the new access arrangements needed to support all three modes of local entry envisioned in the Act—facilities-based, unbundled elements, and resale—demonstrates that competitors are obtaining what they need from the BOC. Local competition, even on a modest scale, can also signal entrants' willingness to commit investments and demonstrate their confidence in the openness of the market. Finally, the presence of local competitors can directly assist regulators in preventing future backsliding by the dominant incumbents.

21. If sufficiently diverse competition fails to develop, it is important to understand why. As implied earlier, one possibility is simply lack of interest by entrants in pursuing certain entry modes in certain regions. But before reaching such a conclusion, it is important to ascertain that competition is not being stifled by artificial barriers. Thus, if sufficient competition fails to develop, there should be a rebuttable presumption that this is not due to lack of entrants' interest, but to a failure to irreversibly open the local market. Rebutting this presumption requires ascertaining that the main elements of an open market indeed are in place. The most important

element, the logic for which was explained earlier, is the following. *New technical and operational arrangements must be available and shown to be working*: to support all three entry modes envisioned in the Act; on a sufficient scale, and capable of being rapidly expanded and extended to regions where they are not initially implemented; and for sufficient duration and variety to provide reliable benchmarks to assess and enforce future cooperation.

22. *Procompetitive pricing* of these key inputs also is necessary to inspire confidence that, despite the absence of sufficient actual competition, the market is indeed open. Prohibitively high prices would render the new access arrangements meaningless; to permit efficient local entry, entrants must have adequate assurance that BOC prices for these inputs will remain reasonable and cost-based after interLATA relief is granted. (The FCC has determined that the appropriate costs are: forward-looking incremental cost for unbundled network elements and for transport and termination of local calls; and wholesale discounts off the retail price that are close to the incumbent's avoided retailing costs, in the case of local service sold to other carriers for resale.) Awareness that the § 271 entry process will weigh seriously whether key inputs are priced in a manner that supports efficient competitive entry will usefully complement state efforts in opening local markets.

23. Finally, one must ascertain that competition is not being hindered by any lingering *major state regulatory or other artificial barriers*. (Although such barriers may be subject to preemption under § 253 of the Act, the timeliness and effectiveness of any such FCC preemption decisions is uncertain.) If such barriers are likely for some time to seriously hinder competitors' ability to avail themselves of the new access arrangements put in place with BOC cooperation, these arrangements could become obsolete and the value of such BOC cooperation will decay; and securing this cooperation again once the barriers have been removed but after BOC entry has been authorized will be considerably harder.

24. In short, if sufficient local competition is observed, this demonstrates that the market has

been irreversibly opened; if not, one should exercise more caution in approving the BOC's entry, and insist on offsetting evidence that the market indeed has been irreversibly opened. I have reviewed the Department of Justice's entry standard in light of this analysis. I conclude that it strikes a good balance between properly addressing the competitive concerns raised by BOC entry, and realizing the benefits from such entry as rapidly as can be justified in light of these concerns. It therefore serves the public interest in fostering competition.

I. The 1996 Telecommunications Act and BOC Entry into Long-Distance Services

25. The 1996 Act represents a major shift in U.S. telecommunications policy by establishing as a federal goal the promotion of competition in all telecommunications services. The most significant change is the requirement that local telephone markets, heretofore regulated franchise monopolies, be opened to competition. In addition and relatedly, the Act establishes a procedure for authorizing the BOCs to offer long-distance (interLATA) telecommunications services originating in their service regions after a BOC has sufficiently opened its local markets to competition and BOC entry is judged to be in the public interest.

26. Section A below reviews the main relevant telecommunications markets and Section B discusses the Act's goals of increasing competition and improving performance in these markets. Section C stresses why BOC cooperation will be critical to achieving the Act's goals, and section D discusses the benefits and costs of authorizing BOC entry before there is effective local competition. Based on this analysis, section E discusses the main principles that a procompetitive entry standard should incorporate.

A. The Major Telecommunications Markets Relevant to BOC Entry

27. The 1982 consent decree that broke up the vertically integrated Bell system (Modification

of Final Judgment, "MFJ"[1]) created seven new regional BOCs, and divided those parts of the country served by the Bell system into Local Access and Transport Areas (LATAs); today, the BOCs serve 164 LATAs. Under the MFJ, a BOC could only offer telecommunications services within LATAs (intraLATA). InterLATA services have been provided by long-distance companies, also known as interexchange carriers (IXCs). Recently, however, some local exchange carriers (LECs) not subject to the Act's § 271 interLATA restriction on the BOCs, have been making serious inroads into long-distance services.

28. Superseding the MFJ, the 1996 Act authorizes any BOC immediately to offer long-distance (interLATA) services that originate in states outside its service regions. But to offer interLATA services originating in its region, a BOC must receive FCC approval under § 271 of the Act. A BOC applies for approval state-wide.[2] Approval is granted only after the FCC determines all of the following: (a) which if any of the two tracks stipulated in the Act the BOC is eligible to use at the time to satisfy the *competitive checklist* requiring it to open its local markets in the state to competition: Track A (interconnection agreement with a facilities-based competitor serving business and residential customers), or Track B (statement of generally offered terms to competitors where no request has been made by a provider for access and interconnection); (b) after consulting with the state commission, determines that the BOC, through Track A or B, has satisfied the competitive checklist; and (c) determines that such approval is in the *public interest*. In making its determination on a § 271 application, the FCC must consult with the Department of Justice and give substantial weight to its competitive

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[1] *U.S. v. AT&T*, 552 F. Supp. 131 (D.D.C., 1982). Judge Greene entered the MFJ on August 24, 1984, and the divestiture was consummated January 1, 1984.

[2] Once a BOC receives interLATA approval in any state, § 273 of the Act authorizes it also to enter manufacturing of telecommunications equipment, from which the BOCs are still barred. I have not been asked, in preparing this affidavit, to address equipment markets.

assessment. (In addition, § 272 requires the BOC to offer interLATA services, both in and out of region, through a separate affiliate subject to certain safeguards.)

29. Since the Act links a BOC's interLATA entry authority to the opening of its local markets, in advocating a particular entry standard one must consider its effects on competition in both interLATA and local markets.

1. The BOCs dominate key local networks and are regulated

30. Table 1 shows telecommunications revenues from local (intraLATA) markets now dominated by the BOCs in their regions, and from long-distance (interLATA) markets which the BOCs seek to enter. The data are for 1995, the most recent year for which comprehensive data are available.[3] Despite some changes since the passage of the Act, notably an increase in the activity of local entrants (discussed shortly), the basic market relationships shown by the 1995 data have not changed markedly. Two points stand out. First, local revenues are twice as large as long-distance revenues (net of access payments collected by LECs). Second, incumbent LECs account for the vast majority of local revenues: $102.8 bn compared with a combined $0.6 bn for CAPs and CLECs; although CAP plus CLEC revenue has risen to about $2 billion in 1996, it is still dwarfed by LEC revenues.

31. In their service regions the BOCs have virtual monopolies over *switched* services, both local exchange and exchange access to long-distance carriers. They also dominate special (or

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[3] The data come from the FCC's *Telecommunications Industry Revenue: TRS Fund Worksheet*, December 1996 (*TRS*). There are some relatively minor discrepancies between the *TRS* data and the FCC's *Statistics of Communications Common Carriers*, 1995/96 (*SCCC*). I use *TRS* data because it covers more local carriers. In most cases only LECs with annual revenues over $100 million are required to report to *SCCC* (the 53 such LECs reporting to *SCCC* for 1995 accounted for somewhat over 90% of all LEC revenues). In contrast, almost all telecommunications carriers (1,310) reported to *TRS* for 1995. Thus, *TRS* data cover more LECs (which helps explain some of the discrepancy between the *TRS* and *SCCC* data on LECs), and includes information on other local providers, CAPs (Competitive Access Providers) and CLECs (Competitive Local Exchange Carriers—new local entrants).

dedicated) access used by long-distance carriers. And in most states they also dominate intraLATA toll services, due to the BOCs' continuing ability in those states to deny to IXCs dialing parity (the ability of a customer to make intraLATA toll calls through an IXC without dialing more digits than through the BOC) before the BOCs begin providing interLATA services in these states.[4] In 1995, the ratio of LEC revenues nationwide to long-distance revenue net of access was about 2-to-1 (Table 1); the BOCs accounted for about 73% of all LEC revenues nationwide (Table 1) and about 77% of all interLATA minutes originated in BOC service areas (*SCCC*, Table 2.10). The 2-to-1 ratio therefore is also a reasonable approximation of the relative sizes of (a) those markets which a BOC now dominates (local markets in its service areas) versus (b) those markets now closed to a BOC and in which the BOC would have the greatest impact (interLATA calls originating in its service areas).[5]

32. In recent years, certain local competition has emerged. In central business districts, CAPs have constructed networks that enable large customers to bypass LECs and link directly to IXCs (mainly to send but not receive calls), and provide some links between local private networks. One can expect CAPs and CLECs to expand into switched services, since the 1996 Act preempts many legal barriers that had precluded competition for such switched services in many states.[6]

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[4] Competition has been growing in intraLATA toll service, especially in states that introduced dialing parity between the incumbent LEC and IXCs. IXCs' were estimated to account for about $3.3 billion of intraLATA toll revenues in 1995, compared with $10.1 billion for all LECs (Table 1). I discuss intraLATA dialing parity further in section II.B.

[5] The Act bars a BOC (until it secures § 271 authority) from providing interLATA services that originate anywhere in its states, including parts of a state where local service is provided by other LECs not the BOC. However, the BOC's competitive significance in interLATA services is likely to be greatest for calls originating in its service areas, where it dominates local networks. (Reflecting the difference that control of local networks can make, the Act permits the BOCs to offer interLATA services originating in out-of-region states.)

[6] Indeed, Table 1 understates the revenues of CAPs and CLECs today. New Paradigm Resources Group (NPRG), based on data it developed together with Connecticut Research, reports the following trends.

But CAPs and other local entrants face more than just legal hurdles.

33. Expanding local operations is expensive, and requires significant cooperation from incumbents. As mentioned, the BOCs in their regions retain the only ubiquitous switched local networks. These consist of several major elements. (a) The *local loop* is the sets of wires linking subscriber premises to the telephone company's wire centers (or "central offices"). This local distribution plant is by far the most expensive network element; duplicating it on a large scale would be prohibitively costly, and probably inefficient. (b) *Switching* facilities allow subscribers to communicate indirectly (as opposed to using point-to-point links) with others. Virtually all residential subscribers and small businesses depend on switched local access to originate and to terminate both their local and long distance calls, as non-switched access is only economical for large users. (c) *Local transport* facilities are high capacity trunk lines that connect central offices or other switches. (d) The BOCs also control key *databases*, and key network *signaling* functions—the flow of information associated with setting up, disconnecting, and otherwise controlling a telephone call (information such as the identity of the parties, the duration of the call and the signal being transmitted, e.g., voice or data).

34. In view of their substantial market power, the BOCs and other LECs remain regulated in their prices for most local services and exchange access. Moreover, as explained shortly, the new Act requires incumbent LECs to offer numerous new "wholesale" local services at regulated

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In 1996 CLECs, in which NPRG includes also CAPs, nearly doubled their revenues to $2.2 billion and increased their market shares for all service categories. Their estimated shares of national totals are: 0.4% of local services; 1.8% of intraLATA toll; 0.3% of switched access services; and 10.6% of dedicated access services. NPRG expects these shares to increase considerably in the mid-term future as CLECs are aggressively deploying switch facilities. Still, NPRG notes that these shares remain negligible when compared to incumbent LECs—consistent with the pattern in Table 1—and concludes that, although strong competition for dedicated access services may exist today for selected locations, for the overall local telecommunications market, robust competition does not exist today. NPRG, *Annual Report on Local Telecommunications*, 1996-97.

prices to other telecommunications providers.

2. Long-distance markets are relatively competitive and largely unregulated

35. The extent of competitiveness of long-distance markets is hotly debated (see section II.C); but it is surely greater than in local services. There are four national IXCs, which in 1995 had the following revenue shares: AT&T 53%, MCI 18%, Sprint 10%, LDDS/WorldCom 5%; there are also numerous other carriers, with a significant total market share of 14% (*SCCC*, 1995/96, Table 1.4). And there is considerable switching of customers between carriers. In short, while there is not perfect competition, there is considerable competition.[7]

3. Inefficiencies in the present industry structure

36. While the MFJ succeeded in increasing competition in long-distance services, the current structure of the U.S. telecommunications industry is surely far from perfect.

37. *Losses from separation*. The MFJ's separation of activities based on LATAs imposes certain costs. As explained in section II, it precludes the BOCs from attempting to exploit various economies of scope, especially on the retailing side, associated with joint provision of local and long-distance services; from offering consumers the benefits of one-stop shopping and new services that require both local and interLATA facilities; and from bringing more competition to long-distance services (see the ensuing section I.D.1). LATA boundaries

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[7] In finding AT&T non-dominant, the FCC assessed that "most major segments of the interexchange market are subject to substantial competition today, and the vast majority of interexchange services and transactions are subject to substantial competition." *Motion of AT&T Corp. to be Reclassified as a Non-dominant Carrier*, 11 FCC Rcd 3271, 3288, ¶ 26 (1995). The FCC reiterated these views a year later: "Thus, we believe that market forces will generally ensure that the rates, practices, and classifications [of IXCs] are just, reasonable, and not unjustly or unreasonably discriminatory. . . . We also reject the unsupported suggestion that the current levels of competition are inadequate to constrain AT&T's prices." *Policy and Rules Concerning the Interstate, Interexchange Market*, CC Docket No. 96-61, Second Report and Order, FCC 96-424, ¶¶ 21, 22 (released October 31, 1996).

necessarily impose artificial separation between points near the boundaries, and do not always conform to economic markets or efficient network configurations. LATAs vary widely in size and population; intraLATA calls can travel hundreds of miles, thereby better resembling long-distance calls than local calls as regards the network facilities utilized.[8] For all these reasons, confining the BOCs (or any other firms) to particular geographic regions or types of services is not a first-best solution.

38. *Absence of local competition*. But the most glaring problem today is one that the MFJ was not designed to alter: the absence of local competition. Indeed, confining the BOCs may have been the best guardian of nascent long-distance competition in an era where persistence of the BOCs' regulated local monopolies was taken as given. Replacing such monopolies with local competition, however, can ultimately provide a better safeguard for long-distance competition,[9] while also allowing removal of current restrictions on the BOCs.

39. In addition to safeguarding competition in long distance, introducing local competition at this point is likely to yield even greater benefits by improving market performance in the provision of local services, including local exchange and exchange access, and of integrated services. The local market is more than twice as large as long distance (Table 1), and is largely monopolized by incumbent LECs. While regulation holds down some LEC prices, it introduces

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[8] To some extent this reflects the choice of relatively large LATA boundaries at divestiture (a typical LATA is much larger than a local exchange network). However, even if at divestiture LATAs had been drawn to maximize the degree of separation between the perceived local monopoly bottlenecks and the potentially competitive segments, airtight separation would still be impossible. The boundary between "monopoly" and "potentially competitive" segments is not stationary, but changes with technology and the advent of new services. Any rigid regulatory separation is therefore bound to become imperfect.

[9] The BOCs' own statements implicitly acknowledge that regulation is an inferior safeguard to competition. "This competition (from CAPs) was driving the Bell companies to lower the price *and raise the quality* (emphasis added) of their local exchange services even before the 1996 Act." Joint Response of Bell Atlantic and US West to Joel Klein letter, December 13, 1996, 32-33.

its own costs.[10] These include: a distorted price structure; rigidities in adjusting prices to changing conditions; and weakening firms' incentives to contain costs (if regulation is largely cost-based), to maintain quality (if regulation is of the price-cap variety), and to be innovative and responsive to customer demands. Where feasible, competition is far superior to regulated monopoly as a device for promoting cost reduction, innovation, and superior service.

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[10] Robert W. Crandall and Leonard W. Waverman, *Talk Is Cheap: The Promise of Regulatory Reform in North American Telecommunications*, The Brookings Institution, 1995, chapters 3, 8 ("Crandall and Waverman, 1995"). Gerald W. Brock, *Telecommunications Policy for the Information Age: From Monopoly to Competition*, Harvard University Press, 1994, chapters 12, 14, 15.

B. The New Competitive Vision in the 1996 Act

40. The 1996 Act creates a clean slate and offers an unusual opportunity to remedy many of the above deficiencies in the present industry structure.

1. The Act aims to promote unfettered competition in all markets

41. The Act's unifying goal is increased competition in all markets and the eventual elimination of artificial service boundaries. This means more competition in providing: local services; long-distance services; and "integrated services"—the options of one-stop shopping for, or obtaining bundled packages of, these and other telecommunications services.[11]

42. If successful in promoting local competition, the Act will eventually allow the replacement of detailed, hands-on regulation of local retail prices and services with a combination of local competition and more confined and less intrusive regulation of only key bottleneck network services.[12] (Some regulation of interconnection, especially of termination charges, will be necessary for some time, as explained shortly.) And it will permit any firm to offer any service anywhere, including doing away with restrictions on what services the BOCs may offer and how. As the FCC put it:

> Indeed, the relationship between fostering competition in local telecommunications markets and promoting greater competition in the long distance market is fundamental to the 1996 Act. . . the opening of one of the last monopoly bottleneck strongholds in telecommunications -- the local exchange and exchange access markets -- to competition

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[11] One-stop shopping and bundled packages are closely related notions, but not identical. One-stop shopping lets a customer obtain the same services as before, but from a single source. Bundled packages entail combining and pricing the individual services in new ways. Some customers may demand only one-stop shopping; others may value bundles, while continuing to shop for individual elements separately (e.g., in response to special promotions); still others may choose to purchase only integrated bundles and only from the same source. For brevity I will refer to these features collectively as "integrated services."

[12] See, e.g., Joseph Farrell, "Creating Local Competition," Speech delivered at FCC, May 15, 1996 ("Farrell 1996").

is intended to pave the way for enhanced competition in *all* telecommunications markets, by allowing all providers to enter all markets.[13]

[13] *In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, CC Docket No. 96-98, First Report and Order, (Aug. 8, 1996) ("Local Competition Order"), ¶ 4.

2. The Act seeks to enable various forms of local competition

43. The Act discusses three forms of entry into local markets: facilities-based, resale, and unbundled network elements.

44. *Facilities-based entrants* serve their subscribers using their own network facilities except to exchange traffic with the incumbent LEC.

45. *Resellers* bring no independent network facilities, but resell under their own name the existing services provided by the incumbent (total service resale), combined perhaps with other services. They undertake all the relevant customer-interface functions such as billing and marketing ("retailers" is therefore a better description than the conventionally-used "resellers," since the latter suggests only an arbitrage function).

46. *Entrants using unbundled elements* may lease from the incumbent unbundled network elements, individually or in combination, for example, leasing the incumbent's unbundled loops but providing their own switching facilities.[14]

47. All the above entry modes can serve valuable competitive roles. Facilities-based entry potentially exerts the greatest competitive discipline on the incumbent. But it may not always be desirable, as it could require costly duplication of existing facilities such as loops that could more economically be obtained from the incumbent. Even where desirable, such entry could take considerable time. It is thus important to recognize the potential value of the other two entry modes.

48. Entry by firms that are not entirely facilities based can be beneficial in various ways. First, an entrant could bring direct competitive discipline to those segments it enters, in the form

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[14] Important differences between resale and the use of unbundled elements stem from the different standards for pricing stipulated in the Act in the two cases (as I explain in section V), and from increased opportunities that use of unbundled elements offers for access competition, product and service innovation, and eventual migration to facilities-based entry.

of lower costs and prices or higher quality. For example, resellers might perform retailing functions more effectively than an incumbent; loop unbundlers might limit an incumbent's ability to discriminate against IXCs through control over the intelligence embedded in the switch. Even entrants that are no more efficient could undercut the incumbent by accepting a lower profit margin—because regulation is unlikely to succeed in lowering the incumbent's prices all the way to cost. In addition to such direct competitive discipline, entrants can provide indirect discipline: by giving regulators a benchmark of true costs or technical capabilities, they can assist them in better regulating the incumbent.

49. Second, such entry can increase product variety and quality. For example, reselling local services enables entrants that provide also other services to offer one-stop shopping without having to build facilities for all their services or in all regions; the major IXCs among others view such ability as very important. Resellers or entrants using unbundled elements might offer new pricing plans better tailored to certain customers than are the incumbent's offerings. Entrants using unbundled loops might offer new switch-based ("vertical") services. More generally, smaller entrepreneurial firms could stimulate innovation if given the opportunity to specialize in segments where they enjoy a comparative advantage while obtaining from the incumbent at cost-based prices other unbundled elements they require.

50. Third, such entry modes can assist and accelerate the transition to full-facilities competition, by allowing entrants to attain a customer base before being forced to build extensive facilities. Requiring entrants to be entirely facilities-based at the outset would saddle them with unnecessarily high fixed costs and excess capacity (while subscribers are being added), making entry more risky and more costly. Conversely, granting entrants access at reasonable prices to complementary LEC facilities during the transition could permit a faster and more economical transition to full-facilities competition. Indeed, in the long-distance market some entrants began mainly as resellers and added their own capacity as their name recognition and subscriber base

grew.[15]

51. Recognizing the potential value of all entry modes, the FCC observes: "Section 251 neither explicitly nor implicitly expresses a preference for one particular entry strategy. Moreover, given the likelihood that entrants will combine or alter entry strategies over time, an attempt to indicate such a preference in our section 251 rules may have unintended and undesirable results. Rather, our obligation . . . is to establish rules that will ensure that all pro-competitive entry strategies may be explored." (Local Competition Order, ¶ 12.)

C. Cooperation by Incumbent LECs Will Be Critical

52. Removal of legal and regulatory barriers is enormously important to promoting local competition, which is the key to securing the Act's goals. But Congress recognized that removing legal barriers is only half the battle. One must also remove artificial obstacles mounted by incumbent LECs, since all local entrants need access to certain LEC inputs.

53. *Facilities-based entrants require interconnection*. A facilities-based entrant would still require good and reasonably-priced interconnection to the LEC's public switched network. Interconnection is vital because the essence of communication is the ability to reach and be reached by others. Thus, telephone service exhibits such unusually strong positive "network externalities"— the network's value to a subscriber increases greatly with the number of subscribers that can be reached through the network. Initially an entrant will have far fewer subscribers than the incumbent, so if networks were not adequately interconnected, customers would prefer the incumbent's even if the entrant's network was otherwise superior.

54. As a result, the incumbent can use ubiquity advantages that derive from control of its

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[15] In long distance, however, there is an active wholesale market because multiple facilities owners compete to provide bulk capacity. Before such competition emerged, regulation was required to induce AT&T to provide wholesale capacity to others. Similarly, implementing local resale today—and other wholesale local services—will require regulation as long as LECs retain dominance over local networks.

installed subscriber base and bottleneck facilities as strategic weapons to stifle entry.[16] For example, the incumbent might impose onerous interconnection terms or deny number portability (the ability of customers to maintain their telephone numbers if they switch to an entrant). Overcoming such ubiquity barriers in telecommunications would be very difficult without the aid of regulation. On this point, economists are—quite out of character—virtually unanimous. Thus, until the incumbent's share of subscribers is significantly eroded, even efficient facilities-based competitors will depend on continued regulation to discipline the incumbent's interconnection terms and prices; to secure number portability; to allow its customers to call any subscriber of the incumbent in the local area without dialing more digits than would another subscriber of the incumbent ("local dialing parity"); and to access common signaling facilities and databases.

55. *Resellers require adequate wholesale discounts*. Resellers require the incumbent's cooperation in switching over customers and in obtaining access to various operations support systems. In addition, since resellers undertake costly retailing functions such as marketing and billing otherwise performed by the LEC, to succeed even an efficient reseller must obtain the LEC services at wholesale prices discounted off the LEC's retail prices by an amount equal to the

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[16] A transparent example of the importance of "interconnection" (or "compatibility") in the face of ubiquity, is directory assistance. A firm with only a small subscriber base would be inherently limited in its ability to offer adequate such services—whether through operator services, yellow pages, or other modes—if denied access to the necessary information about the incumbent's subscribers. Industrial organization economists have recognized the importance of ubiquity and installed-base advantages in industries characterized by strong (positive) network externalities. Non-technical surveys of this literature and relevant bibliography can be found in Michael L. Katz and Carl Shapiro, "Systems Competition and Network Effects," *Journal of Economic Perspectives*, vol. 8, no. 2, Spring 1994, 93-115, and Stanley M. Besen and Joseph Farrell, "Choosing How to Compete: Strategies and Tactics in Standardization," same journal and issue, 117-131. The need for interconnection (broadly defined) is probably more acute in telecommunications than in any other industry. For a recent formal analysis of strategic use of interconnection pricing (what the 1996 Act calls "transport and termination" charges) to reduce competition see Jean-Jacques Laffont, Patrick Rey, and Jean Tirole, "Network Competition: I. Overview and Nondiscriminatory Pricing," and "Network Competition: II. Price Discrimination," Institut d'Economie Industrielle, Toulouse, 1997.

LEC's avoided retailing costs.

56. *Partial-facilities entrants require network unbundling*. Like a full-facilities entrant, a partial-facilities entrant also requires interconnection so its subscribers can communicate with the incumbent's. But it requires also network unbundling—access at economical pricing to that *subset* of network elements it wishes to lease from the LEC. The degree of incumbent cooperation needed to make unbundling work efficiently is probably even greater than for the other two entry modes, since unbundling can involve reaching deeper into the network.[17]

57. The Act (§§ 251, 252) requires incumbent LECs to provide the above requisite cooperation to all local entrants. But requiring incumbent cooperation and attaining it are two different things. Incumbents are naturally inclined to resist any encroachment by competitors, and regulators will have their work cut out for them in implementing the Act's requirements for promoting local competition. Softening incumbents' resistance and inducing greater cooperation would therefore be quite valuable. As I will show, this point is critical for developing a procompetitive BOC entry standard.

D. The Potential Benefits and Costs of BOC Entry: Overview

58. There is broad agreement that BOC interLATA entry is in the public interest once the BOC faces sufficient local competition to eliminate its local market power. But what are the tradeoffs from authorizing earlier BOC entry?

1. Potential benefits

59. The potential benefits of earlier BOC entry are conceptually straightforward. Briefly,

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[17] As a general matter, although unbundling requirements may generate competitive benefits, such requirements potentially create organizational diseconomies as well. The extent of these benefits and costs vary from industry to industry, and depend also on the degree of unbundling that is required. The 1996 Act reflects a policy judgment that it will be economically beneficial to require the unbundling of certain elements of the networks of incumbent LECs, and I have assumed here that this Congressional judgment is correct.

BOC entry could allow realization of *economies of scope*, especially in retailing functions: offering local and long-distance services jointly could produce large savings in billing, marketing, and other costs. Moreover, it is widely believed that many consumers would value highly the simplicity and convenience of a single bill, a single customer service representative, and other advantages of *one-stop shopping* for all their telecommunications services, as well as being able to obtain new bundled packages of such services. The BOC in its region is unusually well positioned to tap these advantages on both the supply and demand side of joint provision because it is the dominant provider of a key ingredient, local services, and enjoys an established reputation and customer base.

60. In the longer run, these advantages of joint provision are not unique to the BOCs; other telecommunications providers with established reputations (such as the major IXCs) could realize these benefits provided the BOCs and state regulators have effectively opened the local markets to competition as required in the Act. However, in the short run the BOCs do possess some special advantages in joint provision (see section II.A).

61. Aside from these benefits of joint provision, BOC entry could bring more competition in long-distance services. The BOC is unusually well placed to provide such additional competition, especially for residential and low-volume business customers, due to various advantages deriving from its powerful brand name and established customer links in its region (see section II.C.2). Indeed, because there are always potential benefits from letting any firm try its luck in any market, economists' normal instinct is to avoid placing artificial entry restrictions, unless there are strong offsetting considerations.

2. Potential costs

62. In this case, however, there are offsetting considerations. It is important to understand these potential costs in order to appreciate why BOC entry cannot be analyzed as just generic entry by any other firm. Because the potential costs and how to best address them are less

transparent than the benefits, this affidavit devotes more attention to analyzing these issues.

63. In a nutshell, a BOC's control over key local network inputs needed by others to compete in local services, long-distance services, and integrated services could enable it to inefficiently handicap rivals and distort competition in all these services. A BOC's incentives to handicap such rivals will increase after entry, compared to its pre-entry incentives under a suitably structured entry standard. These altered incentives can be very damaging, since regulatory (and other) oversight cannot always secure BOC cooperation in supplying inputs to rivals as effectively as would be forthcoming if incentives were better aligned. I outline next why BOC incentives to cooperate will diminish post entry, then discuss the ability of regulatory oversight to enforce cooperation in the face of these reduced BOC incentives. Section E draws out the implications for the design of a procompetitive entry standard.

64. Authorizing BOC entry affects BOC incentives through two main channels: (a) leverage into long-distance and integrated services; and (b) emboldened resistance to local competition.

a. Leverage into long-distance and integrated services

65. *Long-distance services*. The Department of Justice sought the Bell System's 1984 divestiture of its local telephone operating companies to prevent misuse of these key monopoly local networks to stifle competition in related markets—notably long-distance services, equipment manufacturing, and information services—that were viewed as potentially competitive but heavily dependent on access to these local networks. Incentives to artificially favor one's affiliates in adjacent markets flow in large part (though certainly not entirely) from asymmetric regulation. A firm whose prices are regulated at the bottleneck, as the Bell system was for local telephone services and as the BOCs are today, has strong incentives to circumvent such regulation by favoring its unregulated (or less tightly regulated) operations in adjacent

markets.[18] The favoritism can involve cross-subsidization (see section III.B.1.a). More importantly, it can involve non-price access discrimination—hampering rivals' access to the bottleneck, for example, by imposing conditions that inflate rivals' costs or degrade their quality (see section III.A.1). This enables the firm to raise its (less regulated) prices in those adjacent markets, while distorting competition and harming consumers in the process.

66. The choice to seek divestiture of the regulated local telephone monopolies from long-distance segments reflected a judgment that, at that time, regulation could not—without being overly intrusive—adequately control the myriad types of (non-price) access discrimination that a vertically-integrated entity could employ. If allowed into long distance, BOC incentives would resurface to attempt access discrimination against IXCs in order to circumvent regulation. Indeed, today there may be a new motive for access discrimination, namely, to weaken the major IXCs as potential entrants into local services; BOC entry reduces the cost to it of engaging in such behavior since lost access revenue from reduced IXC sales is partly offset by increased BOC long-distance sales (see section III.B.2.a). However, a BOC's *ability* to act on its incentives and engage in such access discrimination is weaker today, as explained shortly.

67. *Integrated services*. The ability to offer integrated services is widely emphasized as competitively important, both due to cost savings from joint provision and to the willingness of some consumers to pay a premium for dealing with integrated providers. The key inputs that non-BOCs lack to offer integrated services in a BOC's region are the monopolized *local* services; long-distance and other services can be readily obtained from alternative providers. A BOC's entry into long-distance—and hence integrated services—directly reduces its incentives to supply others key wholesale local services which they need to provide integrated services. As

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[18] See, for example, Timothy J. Brennan, "Why Regulated Firms Should Be Kept Out of Unregulated Markets: Understanding the Divestiture in United States v. AT&T," *Antitrust Bulletin* 32 (1987), 741–793.

with long-distance services, a main driver of BOC leverage incentives into integrated services is asymmetric regulation: the BOCs are likely for some time to remain regulated in their prices for local services or inputs, but would become unregulated (or less regulated) in retail sales of long-distance services. The wrinkle here is that undermining competitors in integrated services by withholding from them good access to wholesale local services could benefit a BOC beyond attempting to degrade only long-distance access.

68. The reasoning is as follows. Regulation is likely to be more effective in preventing a BOC from degrading existing long-distance access arrangements than in prodding it to establish the largely new arrangements for wholesale *local* services (see section I.E below and section IV). Thus, impeding access to wholesale local services can be a more potent way for the BOC to weaken competitors in integrated services. This in turn could be profitable for at least two reasons. (a) Limiting rivals' ability to realize cost savings from joint provision of services also limits the downward pressure they can exert on the BOC's unregulated prices for long-distance services. (b) Some customers are willing pay a premium to deal with a provider of integrated services (e.g., they value one-stop shopping); hence, a BOC could extract higher (unregulated) prices from such customers for its long-distance services if can impede other providers of integrated services.

b. Emboldened resistance to local competition

69. *Local services*. Promoting local competition is a key stand-alone goal of the Act (witness the §§ 251, 252 requirements on all incumbent LECs), but one whose attainment will require considerable LEC cooperation. Naturally, all other things being equal, the LECs are reluctant to extend such cooperation to competitors that could threaten their local dominance (this reluctance does not hinge on a LEC's status as subject to price or profit regulation). Providing LECs with incentives to cooperate can greatly accelerate the process. In the case of the BOCs, the promise of interLATA entry *conditional* on having first provided appropriate cooperation can be a potent

tool for enticing cooperation. This point is very important.

70. The BOC is likely to be far better informed than regulators about how to establish the new local access arrangements and how long this should take. Thus, authorizing BOC entry only after the requisite arrangements necessary to open the local market are made available puts the onus in the right place: the BOC's desire for earlier entry prods it to implement its part quicker. Conversely, the ability to prod a BOC to implement new systems diminishes significantly once entry authority is granted. Absent meaningful benchmarks, penalty threats are problematic, because regulators and courts lack the information about what are reasonable implementation lags for new systems. Authorizing BOC entry before its local market is open would thus prematurely embolden the BOC to stiffen its resistance to opening its market.

E. Principles for a Procompetitive Entry Standard

71. By itself, allowing a BOC to offer long-distance and integrated services is desirable; the potential benefits could be substantial. The danger with premature BOC entry, however, is certainly not that it will enhance the BOC's ability to compete; the danger is that it will allow the BOC to impede others' ability to compete. A procompetitive BOC entry standard should strive to ensure that all parties are given an opportunity to compete on the merits. As the FCC's former chief economist has put it, our goal should always be to level the playing field upwards (Farrell, 1996).

72. Given the importance of good access to BOC local networks for protecting competition in long-distance services and for promoting it in local and in integrated services, the costs of "early" BOC entry are likely to outweigh the benefits if regulatory and other safeguards cannot assure good access in the face of reduced BOC incentives to cooperate. A key question therefore for developing a procompetitive entry standard concerns the efficacy of various post-entry safeguards in enforcing BOC cooperation.

73. Economic reasoning suggests—and historical experience confirms (see section IV)—that

the efficacy of regulatory oversight varies widely with the economic environment. Regulation, while never perfect, fares much better in a stable environment where information is reasonably symmetric, than in a rapidly changing environment where informational asymmetries are greater and more frequent adjustments are needed. Correspondingly, regulatory oversight does much better at enforcing existing access arrangements than at overcoming incumbents' resistance to rapidly implement new arrangements, for which the lack of historical benchmarks on what constitutes acceptable performance gives incumbents great latitude for plausible deniability.

74. These observations have important implications. Because access arrangements for long-distance services have had over a decade to develop, the combination of regulation and established voluntary arrangements among IXCs and LECs is likely to prevent any significant degradation of these established arrangements. Although the necessary arrangements will certainly evolve over time, my understanding is that radical changes in access arrangements governing the majority of interexchange revenues are not imminent. The evidence thus suggests that, when weighed against the potential benefits of BOC entry, the threat to long-distance access arrangements from allowing BOC entry is tolerable in the short run.[19]

75. The picture is quite different regarding access arrangements for local competition. These arrangements—for interconnection and, especially, for network unbundling and total service resale—are largely new and untested. Implementing them will require substantial cooperation by incumbent LECs in developing a host of new technical, operational and business protocols, and in establishing appropriate prices. Incumbents will have wide latitude to stall the process by foot dragging, slow rolling, and otherwise withholding cooperation. "Sins of omission" of this sort are especially difficult for outsiders to detect and prevent, since there is no historical benchmark

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[19] Over the longer term, technical evolution could give rise to greater problems for regulators in safeguarding long-distance access if local competition fails to develop.

to guide what is possible and to gauge deviations from this norm. Thus, local competition will evolve more expeditiously and more efficiently if the BOCs have greater incentives to cooperate in putting in place the new access arrangements needed to open their local markets to competition.

76. An appropriately structured interLATA entry standard can play a major role in stimulating BOC cooperation. One should harbor no illusions: incumbent LECs have great latitude to help or hinder the evolution of local competition, and a suitable BOC entry standard can elicit much more BOC cooperation in establishing and properly pricing the key new arrangements.

77. On the other hand, once the major new arrangements have been established and shown to be commercially operable, and once reasonable prices for them have been set, a track record is created for what constitutes "good performance." Post-entry safeguards—regulatory, antitrust and contractual—then become more effective at countering BOC attempts to reduce cooperation, since the performance benchmarks can help enforcers to prevent future backsliding and to extend these arrangements to other regions or other entrants.[20] Thus, authorizing BOC entry only after the major new access arrangements are in place—or demonstrably made available—can cement important steps to irreversibly open local markets to competition.

78. It is important, however, that these new access arrangements be demonstrated to work on a commercially significant scale, under real-world strains; arrangements that exist only on paper

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[20] I understand that several CLECs have incorporated certain performance benchmarks into their contracts with penalty clauses if BOCs fail to meet such standards. Moreover, several state commissions such as in Illinois and Georgia have or may soon receive authority to enforce performance standards by levying fines where appropriate. Peter Elstrom, "Let the Telecom Dogfight Begin," *Business Week,* April 7, 1997. Finally, even after BOC entry the Act authorizes the FCC to halt a BOC's signing of additional customers. All these safeguards become much more effective once there is a clearer notion of what constitute violations.

or have not been meaningfully tested do not provide much comfort. As with any new ventures, there will be inevitable growing pains; it is important to iron out the kinks while the BOC is still relatively inclined to cooperate—that is to say, before interLATA entry has been authorized. The § 271 entry authority thus is a potent one-time measure that, if properly used, can achieve a real advance in local competition—with favorable effects also on competition in integrated services, and in the longer run also on competition in long distance.

79. Weighing the potential benefits and costs of BOC entry leads me to advocate the following entry standard: BOC interLATA entry should be authorized only if there is sufficient confidence that the local market in the state has been irreversibly opened to competition. Authorizing earlier entry would raise serious competitive concerns; while delaying entry once the local market is open would unnecessarily deprive consumers of potentially large benefits. This open-market standard does not require the presence of effective local competition of all forms and in all regions of the state; the Act aims to let market forces determine what modes of competition work best and where, and regulatory and other safeguards will still play a role in preventing abuse of BOC market power. But it does require considerably more than paper compliance with the competitive checklist.

80. By far the best test of whether the local market has been opened is observing the emergence of meaningful local competition. Local competition establishes presumptions; the more widespread and varied it is, the greater our confidence that the local market has been irreversibly opened. Use on a commercial scale of the new access arrangements needed to support all three local-entry modes envisioned in the Act—facilities-based, unbundled elements, and resale—demonstrates that competitors are obtaining what they need. If sufficiently diverse competition fails to develop, it is important to understand why. An absence of sufficient competitive entry calls for skepticism in approving an entry application, requiring offsetting evidence that the absence of competition reflects lack of interest by entrants. In the absence of

such a showing, the presumption would be that the market has not been irreversibly opened. For reasons sketched in the earlier Summary and explained further in section V.D, the main requirements for an open market are: full, meaningful implementation of the major new technical and operational access arrangements for local competition; adequate assurance that BOC prices are reasonable and cost-based and will continue to remain so after interLATA relief is granted; and removal of major state regulatory or other artificial barriers that are likely to significantly delay local competition.

81. The remainder of this affidavit fleshes out the basis for these conclusions. Section II discusses the likely benefits from early BOC entry. Section III discusses the competitive concerns, and section IV addresses the efficacy of regulatory and other post-entry safeguards in counteracting these concerns. Section V elaborates on the requirements needed to determine that the local market is irreversibly opened to competition, and concludes that the Justice Department's entry standard correctly incorporates these requirements and therefore serves the public interest in promoting competition.

II. Potential Benefits of BOC Entry

82. There are potentially significant benefits from early BOC interLATA entry. The argument rests on two points: (1) BOC entry can bring certain efficiencies; and (2) these efficiencies cannot be attained by other providers as fully or expeditiously without BOC entry (if they could, BOC entry would not be necessary). Step (2) arises because the BOCs today would possess certain unique advantages in providing integrated services; and because the Act ties the removal of certain constraints on the ability of other firms to compete to the approval of BOC interLATA entry. The resulting potential benefits from BOC entry include: A) cost savings and introduction of new integrated services, made possible by joint provision of local and long-distance services; B) increased competition in intraLATA toll services in states that now lack

dialing parity; and C) increased competition in interLATA services.

A. Joint-Provision Efficiencies: Cost Savings and New Integrated Services

83. The efficiencies from jointly providing local and long-distance services largely involve: (a) on the supply side, the cost savings from joint retailing of services; and (b) on the demand side, the value to consumers of one-stop shopping and other new integrated services.

1. Cost savings

84. *Technological economies* on the network side exploitable only through BOC interLATA entry seem modest. First, IXCs' network costs are only a relatively small share of their total cost of providing long-distance services, so there is only relatively little cost to cut; several BOCs reportedly have signed contracts with IXCs to lease wholesale long-distance capacity at prices between 1 and 2 cents per minute.[21] Second, the separate affiliate requirement in § 272, aimed at combating cross-subsidization and discrimination, appears to preclude network integration and therefore to restrict attainment of network economies in providing local and long-distance services, to the extent such economies did exist. Finally, I am not aware of compelling evidence that significant such economies do exist. Consistent with these arguments that the economies exploitable on the network side are only modest, various BOCs plan to offer long-distance services—at least initially—not by expanding their own facilities but primarily by leasing wholesale IXC capacity.

85. *Retailing economies* however do appear significant. Offering an additional service (i.e., long-distance) to existing customers entails lower incremental costs of marketing, billing, customer service, and other retailing functions than the corresponding costs of providing that

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[21] Merrill Lynch, *Telecom Services—RBOCs & GTE,* November 13, 1996. Salomon Brothers, *Telecommunications Services,* April 17, 1996.

service alone.[22] A BOC offering long-distance services could plausibly realize cost savings in these retailing functions of around 2 to 2.5 cents per minute compared to an IXC that is not providing integrated services (see discussion below, however). Taking the average price of a domestic interLATA call to be roughly 13.5 cents, this would represent a 15%-19% savings.

2. New integrated services

86. Quite aside from cost savings, joint retailing of local and long-distance services can provide direct benefits to consumers, akin to obtaining a new, higher-quality product. Consumers therefore could benefit even if the prices of the underlying services did not fall due to cost savings. Consumers are said to value highly the convenience and simplicity of one-stop shopping and other advantages offered by an integrated services provider. The impressive success of GTE and other non-BOC LECs at capturing long-distance business, sometimes without undercutting IXCs' prices, attests to the importance of offering integrated services.[23] If provided interLATA authority, a BOCs could make available the benefits of such integrated services to consumers in its service regions.

3. The ability of other carriers to attain these efficiencies

87. A BOC, if allowed interLATA entry, would currently enjoy certain advantages over most

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[22] Whereas §§ 272(a), (b) appear to restrict network integration, § 272(g) permits joint marketing of local and long-distance services by a BOC or its affiliate, thus allowing the realization of certain retailing economies. Retailing costs are significant. Crandall and Waverman (1995, p. 142) estimated AT&T's 1993 costs per interstate conversation minute net of access payments as: Plant and operations costs, 3.7 cents (Crandall and Waverman as well as others believe the figure is lower today); Marketing and customer service, 3.9 cents; General and Administrative, 2.9 cents.

[23] GTE, the largest LEC, signed more than 750,000 long-distance customers between March 1996 and December 1996 (and by February 1997 over 1 million), and cited a big reason for this success to be customers' preference for a single bill and a single number for customer service. Gautam Naik, "GTE to Introduce Flat-Rate Toll Calls For Business Users," Wall Street Journal, December 18, 1996. Reportedly, GTE did not engage in any substantial under-pricing of the major IXCs, based on published plans. Merrill Lynch, *Telecom Services—Long Distance*, Second Quarter Review, August 12, 1996.

or all other carriers in the joint provision of telecommunications services in its region**:** (a) its established brand name allows it to market additional telecommunications services at relatively low costs of advertising and promotion; (b) its existing relations with virtually all local subscribers allows it to offer billing and customer service for added services at relatively low cost; (c) partly for these reasons, it can obtain lower wholesale prices for long-distance capacity from IXCs than can others; and, most importantly, (d) its control of local networks makes it the dominant source of key local services needed to offer integrated services.

88. The largest IXCs similarly enjoy strong reputations and established customer relations with telephone subscribers in the BOC's region. Thus, they could match many if not all of the efficiencies deriving from (a) and (b), *provided* they could obtain comparable access to (c)—the key local services now controlled by the BOCs.[24] The Act, of course, requires all incumbent LECs to provide such access to wholesale local services; however, delaying BOC interLATA entry until such comparable access has been secured would delay the advent of benefits from joint provision. The basic reason is that implementation and proper pricing of access to the various new wholesale local services required by the Act will take time.[25] Thus, there is a benefit

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[24] IXCs may still face some disadvantages in joint retailing, e.g., IXCs sometimes rely on BOCs for local billing, hence would face a cost disadvantage unless the BOC offered billing services to them at cost. One must also distinguish BOC retailing advantages that reflect cost savings from those that reflect misappropriation of IXC "assets." For example, when an IXC requests from the BOC a local access arrangement needed to provide a new long-distance capability to a customer, the BOC may alert its long-distance operation to the customer's needs and beat the IXC to the punch. Such behavior constitutes misappropriation of IXC information, essentially free riding on the marketing efforts of the IXC; the separate affiliate requirements in § 272 of the Act bars such behavior, as well as other forms of discrimination.

[25] In addition to these inevitable delays, there may be binding constraints imposed by the Act itself. The quickest route for non-BOCs to offer integrated services on a large scale would be to obtain local services from the BOCs at discounted wholesale prices for resale. But § 271(e)(1) of the Act prohibits the three largest IXCs (any carrier that at enactment served more than 5% of U.S. presubscribed access lines)—who are also the most likely large-scale potential competitors to the BOCs in integrated services—from jointly marketing resold local services with long distance-services until February 1999, unless the BOC is authorized to offer interLATA services in the state before this date. It remains unclear

side to allowing early BOC entry. (The cost side of authorizing BOC entry before certain market-opening measures have been implemented is discussed later.)

B. Increasing the Competition in IntraLATA Toll Services via Dialing Parity

89. Section 271(e)(2)(B) of the Act prohibits a non-excepted state from requiring a BOC to implement intraLATA toll dialing parity before February 1999 unless the BOC is authorized to offer interLATA services in the state.[26] Section 271(e)(2)(A) requires a BOC to implement intraLATA toll dialing parity when it begins offering interLATA services. Thus, BOC interLATA entry would indirectly boost competition in intraLATA toll services by triggering dialing parity; such dialing parity has proven to be very important for stimulating intraLATA toll competition. In Minnesota, for example, competitors have captured over 30% of the market since toll parity was implemented in February 1996.

C. Increasing the Competition in InterLATA Services

90. The argument for why BOC entry would increase competition in interLATA services rests on three premises. First, interLATA markets exhibit imperfect competition. Second, the BOC is uniquely positioned to offer increased competition (otherwise other entrants would do just as well). Third, BOC entry indeed would bring such competition.

1. Competitiveness of interLATA markets

91. The extent of interLATA competition is hotly contested. BOCs and their experts characterize it as "anemic" and "tacit collusion" while IXCs portray it as "robust" and "intensely

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whether the restriction also would apply to local services obtained by purchasing all required unbundled network elements from the BOC (the so called "platform").

[26] Single-LATA and states that ordered dialing parity by December 19, 1995 are excepted. As of April 22, 1997, there were 26 multi-LATA states where toll dialing parity is thus precluded by the Act. In 1995, 62% of all completed intraLATA toll calls originated in these states. *SCCC* 1995/96, Table 2.6.

competitive."[27] It is helpful to review some salient points.

92. *Market Structure*. Supply of interLATA services is quite concentrated: in 1995, AT&T accounted for about 53% of revenues, MCI for 18% and Sprint for 10%. On the other hand, concentration has declined considerably since divestiture (when AT&T's share of market revenue was over 90%) and is continuing to decline. Four carriers have national networks (AT&T, MCI, Sprint, and WorldCom) and at least one more national network is being assembled; many carriers have regional networks; and there are hundreds of resellers. The market share of carriers other than AT&T, MCI and Sprint has grown from under 12% in 1991 to over 19% in 1995,[28] and, as the FCC observed in October 1995 when finding AT&T non-dominant, these carriers exert considerable competitive discipline. Nevertheless, the growth of independents is in theory consistent with supracompetitive ("umbrella") pricing by the majors. In gauging competition therefore one must, as usual, look beyond concentration and other aspects of market structure and examine performance.

93. *Performance*. Crandall and Waverman (1995, chapter 5) survey the literature on interLATA competition and remark: ". . . existing studies. . . are not particularly convincing and do not lead to a single conclusion" (p. 165). This literature has generated so much heat but remarkably little light for reasons of data limitations[29] and methodological problems.[30] Crandall

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[27] For a sampling of the contrasting views compare Paul W. MacAvoy, *The Failure of Antitrust and Regulation to Establish Competition in Long-Distance Telephone Services*, MIT Press and AEI Press 1996, with Douglas B. Bernheim and Robert D. Willig, *The Scope of Competition in Telecommunications*, AEI Studies in Telecommunications Deregulation, Working Paper, October 1996, 84-85, forthcoming, MIT Press and AEI Press.

[28] FCC, *Statistics of Communications Common Carriers*, 1995/96, Table 1.4.

[29] Available price data generally reflect published tariffs ("posted prices") not actual transaction prices; the discrepancy between these is large and growing due to increasing use of discount plans. Recovering average revenue data per minute from published figures on total revenues is complicated by the absence of accurate data on quantities—the number of minutes of network use. More and more usage minutes of large

and Waverman perform additional analysis using interLATA *intrastate* data, which offers more observations than interstate data (there are 38 multi-LATA states but only one national jurisdiction), and more sophisticated estimates of quantities. They find that between 1987 and 1993 prices fell much more than access charges; prices net of access fell 4% per year by one estimate (pp. 156-7). Moreover, the data used (*tariffs*, for peak period, switched five-minute calls) fail to capture the impact of various discount plans. Finally, while falling prices could be due to non-competition factors, such as technological cost-reductions, there are other signs of increased competition. Notably, the narrowing of dispersion in prices of calls (a) across states for a given distance, and (b) across different distances suggests that competitive pressures are pushing prices to more closely track costs (pp. 151-3).

94. Crandall and Waverman's overall assessment is that the interLATA market displays

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business customers are unswitched (private lines, virtual private networks) or switched only at one end (WATS, 800 calls), and therefore are not captured in conventional statistics on use of the public switched network. Comparing trends in telephone rates measured by Bureau of Labor Statistics (that use tariffs not transactions prices), Crandall and Waverman (pp. 133-6) observe: "The temporal patterns. . . are so wildly inconsistent that they cast doubt on the validity of any of these data." For example, from 1986-93 there was an apparent acceleration in the degree of competition and rate declines, yet reported growth of network use slowed markedly.

[30] For example, the widely cited study by Taylor and Taylor (*American Economic Review Papers and Proceedings*, May 1993) which finds that AT&T's rate reductions have been less than the reductions in its access costs mandated by the FCC, uses not actual data on AT&T's price reductions but projected reductions; such *ex ante* calculations "are suspect" and "unreliable." (Crandall and Waverman, "CW," 130, 168-9). A study by MacAvoy purporting to find tacit collusion among the three largest IXCs (*Journal of Economics and Management Strategy*, 1995) uses tariffs, not transactions prices; and it includes in IXCs' long run incremental cost net of access charges (LRIC) only "incremental operating expenses incurred for transporting switched calls," estimated by the WEFA group to be 1 cent per minute; all sales and administrative costs are left out. The much touted WEFA study that projects $490 billion in savings to consumers by 2003 from BOC entry assumes among other things: the above LRIC figure of 1 cent; that existing IXC competition is characterized by a simple Cournot model with equal sized firms; that adding a fourth player in a region—the BOC—would decrease rates by 50%; and that these price declines would stimulate the overall economy and add 3.6 million additional jobs over the next ten years. (CW, 169-70.)

"considerable competition" that is "more vigorous than that predicted by the Cournot model" (p. 163) and that "has been effective in reducing prices" (p. 132). However, they add that "(interLATA) markets are not fully competitive so that further entry would be of real value" (p. 132). I share this overall assessment. Allegations that interLATA price competition is nonexistent defy common sense: if there is no competition, why do so many customers switch back and forth between carriers each year?[31] More likely, of course, is that there is considerable competition not captured in published price data, such as the familiar $50 or $100 checks as inducements to switch between carriers. On the other hand, though competition exists and is increasing,[32] there is surely room for more competition.[33]

2. BOC Advantages over other long-distance entrants

95. A BOC in its region enjoys significant efficiency advantages over other potential entrants into long-distance services. It stretches credulity to argue—as some have—that a BOC has nothing uniquely positive to offer, for example, that if it leases others' facilities to provide long-distance services then it is no different from the hundreds of existing resellers.

96. A BOC's reputation and established billing and customer service arrangements with local subscribers would enable it to market long-distance services more effectively than could other entrants. A BOC would be especially well placed to address lower-volume customers. First,

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[31] In 1994, 19 million customers (20% of all customers) changed carriers 27 million times. In 1995, customers changed carriers over 42 million times, and the 1st quarter of 1996 saw an even faster pace. Peter K. Pitsch, "The Long Distance Market Is Competitive," Pitsch Communications, September 3, 1996, p. 2.

[32] Merrill Lynch, *Telecom Services — Long Distance*, November 13, 1996. John J. Keller, "AT&T Results Hit by Cost of Changing Marketplace," Wall Street Journal, October 18, 1996 ("cutthroat competition in long distance services").

[33] The publicized flat-rate plans recently offered by major IXCs, such as Sprint's 10 cents per minute at off peak times and AT&T's 15 cents per minute any time, do suggest increased competition; but they also call into question previous claims that the market was intensely competitive already.

billing and other "fixed and common costs" of serving a customer are relatively large compared to the revenue from low-volume customers, and a BOC already incurs most of these costs in providing local service. Second, low-volume customers are often reluctant to switch from a major IXC to an unfamiliar vendor, and a BOC in its region is often the only carrier with a comparable reputation to those of the major IXCs.[34] These advantages which would render the BOC a powerful retailer of long-distance services also enable it to obtain wholesale long-distance capacity from IXCs at unusually low prices, further increasing its cost advantage over other potential entrants into retail long-distance services.

3. How much competition will BOC entry in fact add?

97. The flip side of the BOC's unique advantages, however, is that the BOC may not feel compelled to pass through most of its competitive advantages to consumers. For example, a BOC may elect to pass on to consumers only a fraction of the unusually large discounts it obtains from IXCs on wholesale long-distance capacity. The degree of pass-through is important: it not only influences the distribution of gains between the BOC and consumers, but also influences the degree to which long-distance calling volume will increase, which in turn affects the gains to society from BOC entry.[35] Precisely how much a BOC's entry will (a) lower prices or (b) largely reshuffle profits from IXCs is an open question. Those who argue that BOC entry will greatly lower prices by increasing competition must explain why—if the long-distance market is far

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[34] These unique BOC advantages in retailing would yield benefits from BOC interLATA entry even if there was perfect competition in interLATA services, because they allow a BOC to realize various efficiencies (discussed earlier) from joint provision of local and interLATA services. However, if interLATA competition is seriously imperfect and if BOC entry would substantially increase this competition, then the value of such entry is magnified, because it also serves to correct a competitive distortion.

[35] Benefits from joint provision of local and long-distance services (cost savings or new services—see section A) will endure even if long-distance calling volume does not expand; but the focus here is on the added gains from increased long-distance competition.

from competitive despite the presence of several major IXCs—adding one (albeit potent) competitor in the state would radically alter matters.

98. In my opinion BOC entry would not yield as dramatic an increase in competition as some claim, in part because of the rapid increase in competition that is already occurring.[36] Nevertheless, some further price declines can be expected from BOC entry. Still greater benefits are likely from joint provision of local and long-distance services (cost savings, availability of new integrated services), whose advent would be delayed by delaying BOC interLATA entry. However, authorizing BOC interLATA entry before the local market has been opened to competition also carries competitive risks; to these I now turn.

III. Potential Competitive Concerns Raised by BOC Entry

99. Section A below discusses more comprehensively the various practices a BOC might employ against long-distance carriers or local entrants, and section B why BOC incentives to do so will increase post entry. Section C addresses whether BOC entry would be inefficient solely because BOC access prices to IXCs, with whom BOCs would compete, are well above BOC costs of providing such access.

A. Anticompetitive Practices: Access Discrimination and Exclusionary Pricing

100. In various ways, both long-distance carriers and local entrants depend on good access to a BOC's ubiquitous local network. Control of these vital local inputs gives a BOC an unusual

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[36] Merrill Lynch, *Telecom Services—Long Distance*, February 14, 1997, reports that increased supply of long-distance capacity has led to "very competitive bidding in the wholesale market" and that the resulting stiffer competition from entities that benefit from this steep resale discount—independent LECs, resellers, dial around companies and pre-paid calling cards—has forced the larger IXCs to pursue more aggressive pricing tactics. As an example, AT&T has begun offering 10 cents per minute anytime, anywhere with a $5 monthly fee, or without any fee for calls at off-peak times. John J. Keller, "Best Phone Discounts Go to Hardest Bargainers," Wall Street Journal, February 13, 1997, B1.

ability, if unchecked by regulation, to engage in anticompetitive practices. It is useful to distinguish between exclusionary practices that involve non-price terms of access to a BOC's facilities ("access discrimination") and those that involve prices—because the welfare effects of the two sets of practices can differ, as can the incentives to engage in them.

1. Access discrimination

101. *Types of practices*. A BOC could impede the ability of rivals to compete by misusing its control of the local network in various ways. It might *raise competitors' costs*, for example, by imposing unnecessarily costly requirements for network interconnection or providing them inferior support or maintenance functions. Increasing competitors' costs induces them to raise prices and thereby indirectly diverts retail sales from competitors to the BOC or its affiliate. A BOC might also divert demand away from competitors and towards its affiliates directly, without forcing them to raise prices. This might be done by *degrading competitors' quality*, such as by foot-dragging in providing new access arrangements, or by *appropriating competitively sensitive information* about customers obtained in the course of supplying rivals with bottleneck inputs. I will label all these non-price methods to weaken rivals—both in long-distance and in local services—under the general rubric of "access discrimination."

102. *Inefficiencies*. Access discrimination is a particularly inefficient form of rivalry. Raising competitors' costs is directly harmful, even if it does not lead to higher prices. In fact, prices are likely to rise; this both harms consumers, and creates additional social losses from output reduction. Degrading competitors' quality too is directly inefficient, harming both competitors and consumers. In addition, these practices and the misappropriation of competitively sensitive information could—by weakening competitors or discouraging entry—reduce the variety of products available the other innovations that competitors might bring to a market. These inefficiencies will be borne by both competitors and consumers.

2. Over-pricing of inputs

103. Overpricing of inputs needed by competitors, or of outputs that are complementary to those sold by competitors, also is inefficient. The social harm here occurs not because of the high prices themselves but because these high prices inefficiently reduce the quantities purchased. However, setting prohibitively high prices for bottleneck inputs, such as call termination, is tantamount to refusing to supply such inputs and thus can create inefficiencies of comparable magnitudes to those under access discrimination. Steep overpricing of inputs can be seriously anticompetitive even well short of complete exclusion of rivals: by greatly inflating rivals' costs, it can artificially and significantly depress their market presence.

3. Under-pricing of outputs

104. BOC entry conceivably could stifle competition also by giving the BOC a new instrument—charging artificially low prices for long-distance services. The arguments can be usefully grouped into three categories, that differ in their plausibility and welfare effects.

105. The first is *predatory pricing* or variants thereof: a BOC would set prices temporarily low in order to stifle competition and subsequently raise prices.[37] Economists are somewhat skeptical of predation arguments, especially when some rivals are well-financed corporations such as the major IXCs, absent regulatory cross-subsidy.

106. The second argument invokes such *cross-subsidy*. A BOC may set an artificially low price that could be profitable to the BOC whether or not price can be subsequently raised in the targeted market; such behavior could be profitable because it entails cross-subsidy from the BOC's regulated activities. As such, it also is inefficient. Section B.1.a below addresses this

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[37] For instance, some have argued that a BOC could use low prices of long-distance services to stifle not only long-distance competition but also *local* competition. A BOC's prices for many local services are likely to be regulated but not its long-distance prices; by marketing complex bundles of both services a BOC might offer targeted discounts through its long-distance prices to those local customers most vulnerable to competition. The greater complexity of detecting and proving predatory pricing when part of a complex bundle of services might help the BOC escape antitrust scrutiny of such pricing.

argument, concluding that cross-subsidy incentives are likely to be weaker for the BOCs today due to increased reliance on price caps and other "incentive regulation."

107. The third argument does not invoke predation or cross-subsidy, but a *price squeeze*. Because a BOC charges IXCs access prices well above its costs, it has an artificial advantage in competing with IXCs for long-distance services. This argument is evaluated in section C.

B. Why BOC Entry Increases Anticompetitive Incentives

108. It is helpful to distinguish anticompetitive incentives driven by attempts to circumvent regulation of price or profit, from incentives that do not hinge on the presence of regulation.

1. Regulatory Evasion

a. Cost misallocation ("cross-subsidization")

109. *Incentives and methods*. Traditional U.S. regulation of public utilities, including local telephone companies, was known as cost-of-service or rate-of-return regulation, because prices were intended to offer the firm a reasonable opportunity to cover its costs including a fair rate of return on capital. A firm whose prices are regulated in such a manner and which also has unregulated (or more lightly regulated) operations in competitive markets will have incentives to shift profit from the regulated to the unregulated side: the higher profit earned by unregulated operations flows directly to shareholders, while the lower profit of the regulated side allows it to "justify" requests for higher allowable prices. Such profit shifting can occur by misallocating various costs of the unregulated entity to the regulated one, behavior more commonly known as "cross-subsidization."[38]

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[38] These cost misallocations can involve purely accounting manipulations, such as mischaracterizing costs attributable to the unregulated side as "joint and common" to both operations; actual payments, such as overpaying the unregulated affiliates for services or assets they provide or undercharging them for services or assets provided to them; or real resource misallocations, such as selecting production methods that are not cost-minimizing but display more common costs that can then be misattributed. Misallocating revenues of the regulated operation to the unregulated one is conceptually similar, as it leaves the regulated side with a greater deficit which can be used to defend requests for rate increases. I prefer the term "cost misallocation"

110. *Anticompetitive effects*. The incentives to engage in cost misallocation stem from a desire to circumvent regulation; but such behavior can have incidental effects of distorting competition. Overpaying an affiliate for its services artificially favors it in competing for sales to the regulated side; misallocating the affiliate's costs to the regulated side (and thus ratepayers) favors it in competing for outside customers by artificially reducing its costs and thereby allowing it to set artificially low prices. These competitive distortions mean that winners are no longer determined on the merits.[39]

111. *Accounting safeguards and separate subsidiaries*. To help detect and prevent cost misallocations, regulators often subject firms to detailed accounting safeguards and sometimes require that unregulated, competitive activities be undertaken through separate subsidiaries. Section 272 of the Act imposes such requirements on BOCs wishing to offer long-distance services. Although such safeguards have some bite, it is widely acknowledged that they have not eliminated cost misallocation in the past, and it is naive to believe they could do so in the future if the firm has strong incentives to engage in cost misallocation.

112. *Price cap regulation*. Importantly, however, the BOCs argue that incentives to misallocate costs no longer exist because in recent years the FCC and state commissions have moved from traditional cost-of-service regulation towards pure price-caps, that sever the link between a firm's allowable regulated price and its costs. Cost misallocation then loses its

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to cross-subsidization because the latter is sometimes wrongly taken to require that the price of the unregulated service must be below marginal cost. As the preceding examples indicate, the phenomenon is more general.

[39] Additional inefficiencies arise quite aside from the distortion of competition in the unregulated markets. First, prices increase to consumers of the regulated products. Second, any real resource misallocations are directly costly, for example, biasing the choice of production methods towards ones that entail excessive common costs. Finally, even if prices of unregulated services fall (which they need not do, e.g., if the cost misallocation involves only fixed and not variable costs), they would be artificially below cost, causing consumption of unregulated services to be excessive.

purpose, because higher reported costs for the regulated side no longer yield higher prices.

113. These claims overstate the extent of the regulatory changes, for two reasons. First, traditional regulation exhibited some lag between rate cases, during which period prices were not continuously adjusted towards cost. Second, today's regulation does not—and cannot— amount to pure price caps. Price caps can never be pure, but are periodically revised.[40] In addition, some schemes of "incentive regulation" do not involve price caps, but require adjustment of prices to share profits (or losses) with consumers once profits are outside certain specified bands. Therefore, a regulated firm's allowable future prices will ultimately depend on its past costs, which re-introduces some incentives to engage in cost misallocation.

114. Nevertheless, these regulatory changes do seem to have markedly altered BOCs' incentives. The BOCs have embarked on aggressive cost-cutting programs, which financial analysts and others attribute to the regulatory changes.[41] These efforts suggest the BOCs assign some credibility to the new regulatory promises. But in that case, they also would not seem to have a strong basis for counting on regulators to allow rapid price increases beyond stipulated levels in response to increased costs due to cost misallocation (or other reasons).[42] In short,

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[40] Pure price caps would establish a permanent formula for determining the firm's maximum allowable prices at all future dates, based on initial forecasts of the firm's attainable costs (and perhaps indexed to variables that influence costs but lie outside the firm's control, e.g., the overall inflation rate); allowable prices would not be revised in light of the firm's actual cost realizations. But in practice, revisions will necessarily occur. One reason is forecasting errors: if regulators underestimate the firm's true costs and stick to the allowed prices, the firm will go bankrupt; if they overestimate costs, the firm will earn large profits that invite strong political pressure to lower allowable prices. Another reason for revising price caps is the introduction of new services, *if* these services are to make a contribution towards covering the firm's fixed and common costs. In light of all this, it is not surprising that the FCC and most if not all states have already revised their initial formulas.

[41] See, for example, Merrill Lynch, *Telecom Services—RBOCs & GTE*, Second Quarter Review, August 9, 1996.

[42] Moreover, regulators are especially protective of important customer classes for which local competition is likely to develop more slowly, such as rural and low-volume residential customers. They

incentives to engage in cost misallocation are certainly more attenuated today, which also serves to lower the risks of the BOCs engaging in anticompetitively low pricing.

b. Leverage incentives due to asymmetric regulation

115. A different and more serious anticompetitive incentive involves leveraging of market power from the price-constrained bottleneck to adjacent, unregulated markets, by engaging in the myriad forms of (non-price) access discrimination. As was explained in section I.D.2, incentives for leverage stem in large part from asymmetric regulation: the firm's prices for bottleneck services are regulated, but its prices for other services that rely on the bottleneck services are not regulated (or less tightly regulated). Here it is worth clarifying a few points.

116. First, contrary to some claims, access discrimination is not costless to a BOC since it reduces BOC input sales to the targeted carriers.[43] Nevertheless, a BOC generally will have some incentives to attempt access discrimination if it is selling unregulated services that compete with those offered by firms that depend on its regulated inputs. And unfortunately the more stringent is price regulation of the firm's bottleneck inputs, i.e., the more "successful" is price regulation, the stronger is the incentive to attempt access discrimination.

117. Second, § 272's requirement that a BOC sell its long-distance services only through a separate affiliate by itself does little to dilute a BOC's incentives to attempt access discrimination against the affiliate's competitors (e.g., IXCs)—because the affiliate's and parent's profits accrue to common shareholders. Regulators can dilute the common interests of a firm's different units

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would thus be especially reluctant to allow price increases in these "monopoly" segments due to cost misallocation from the relatively competitive segments.

[43] The firm must compare this revenue loss with the increased profits from selling its unregulated services. For example, the tradeoff is worse when: (1) its services are poorer substitutes for those of rivals, because a smaller fraction of rivals' lost output and thus access revenue is offset by increased demand for the firm's own services; and (2) the firm's ability to expand sales of unregulated is constrained, by capacity limits or other factors.

by imposing further requirements, e.g., that managers be rewarded based only on the performance of their units, not of the overall firm; they also can attempt to block avenues of discrimination. But to eliminate *all* incentives and ability to favor affiliates would require eliminating all commonality of interest (including via personnel rotation or central oversight) and sharing of resources. This would require not separate affiliates but separate firms.[44] Thus, as long as a BOC is subject to asymmetric price regulation, incentives will persist to attempt access discrimination for purposes of leverage.

118. Finally, it is worth stressing that motives of leverage into integrated services—once a BOC has secured interLATA entry and thus may offer also integrated services—would drive a BOC to reduce cooperation not only in providing access for long-distance services, but also for the host of new wholesale local services needed by integrated-services competitors and called for by the Act.

2. Protecting the core local market

a. Reduced cost of harming IXCs to delay their local entry

119. The major IXCs are among the most likely *large-scale* potential entrants into local markets. Through access discrimination, a BOC may be able to damage the IXCs' reputations in its region and reduce their customer base, thereby also delaying their entry into its local markets. Long-distance entry lowers a BOC's cost of pursuing access discrimination, because while the BOC loses access revenue due to reduced sales of IXCs, some of these reduced sales are now diverted to the BOC's affiliate instead of being lost altogether.[45]

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[44] As a matter of logic, it will be impossible to eliminate *all* potential avenues of discrimination without also vitiating economies of scope—in which case requiring separate firms would seem preferable to awkward regulatory quasi-separation within a firm. There is no perfect way out of this dilemma; the hope is to block the main avenues of harmful discrimination without unduly foreclosing efficiencies.

[45] This is the same as the logic underlying discrimination incentives for purposes of leveraging the price-regulated local access monopoly into higher long-distance prices (see B.1.b above). But the purpose

b. Reduced incentives to cooperate with local entrants

120. Finally and importantly, a BOC's incentives to cooperate with local entrants would be inadequate even putting aside leverage motives into adjacent markets (as would be relevant if integrated services were unimportant, and if regulation could perfectly prevent access discrimination against IXCs). Like any dominant incumbent a BOC is inclined to resist entry, because dominance in providing even purely local services is profitable, notwithstanding regulation.[46] At the same time, the BOC could value entry authority into long distance; for example, its strong brand name locally and ability to realize cost savings through joint retailing functions could allow it to earn profits in long distance (section II.C). Therefore, to receive long-distance authority it would be willing to extend some cooperation to local entrants. Granting such authority before the local market is open, however, will prematurely reduce the BOC's incentives to continue cooperating in opening its market.

C. Artificial Cost Advantage in Competing for Long-Distance Services

121. Among the concerns voiced by major IXCs is that a BOC would have artificial cost

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here is not to raise price in long distance, rather, to delay entry by IXCs into the local market; hence the argument does not hinge on the BOC being able to offer unregulated long distance services or any other form of asymmetric regulation. Note that this was not an issue at divestiture, as local monopoly was protected by state franchises.

[46] This requires only that price regulation not be capable of reducing prices perfectly to cost, hardly a stringent assumption. Perfect "global price-cap" regulation might in theory eliminate incentives to discriminate against competitors. See Jean-Jacques Laffont and Jean Tirole: "Creating Competition through Interconnection: Theory and Practice," February 1996, forthcoming in *Journal of Regulatory Economics*, and "Global Price Caps and the Regulation of Interconnection," July 1996. But in practice price caps are never pure, so allowing entry is likely to end up hurting the firm by ultimately contributing to the tightening of price caps. It is true that the incumbent's incentive to cooperate with output-market competitors may well be greater if it could sell to them the inputs they require at unregulated rather than regulated prices. But even then, the incentive is likely to be inadequate. Once competition is established, it limits the ability to extract profits from customers; it is highly unlikely—for reasons involving contracting problems or antitrust—that the incumbent could collect sufficient profit through overpricing of inputs to competitors initially to offset these lost future profits. Predictably, dominant incumbents often resist entry into their markets.

advantages in competing for long-distance business because their access prices to IXCs are well above cost.[47] The IXCs are right that even if imputation rules required a BOC to charge its affiliate the same access price as it charges IXCs, an affiliate would treat such a price as merely an internal transfer, and would try to base its retail prices on the true cost of obtaining access.[48] A BOC's affiliate would then be able to undercut IXCs' prices selectively to certain customers and capture such business even if it is inherently less efficient than IXCs.

122. The IXCs' argument is correct as far as it goes. But it overlooks the fact that selective discounts by a BOC could well increase total long-distance output and benefit consumers. One must be clear about the alternatives being compared. Assuming that access charges by BOCs to IXCs would be no higher if BOC entry is authorized than if it is not, an assumption discussed below, a BOC's ability to offer selective discounts should increase total long-distance output and benefit long-distance consumers, as compared with barring BOC entry. (This assumes that BOC entry does not induce IXCs to exit the market as a result of being unable to profitably operate at a reduced scale; if exit does occur, a BOC may be able to raise price.) The basic reason is that

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[47] Responses to Joel Klein letter by AT&T (p.21), MCI (pp. 9-10), Sprint (p.3), December 1996. The FCC's recent actions on access charges and price caps, while helping to bring down access charges, do not purport to bring them down to cost and in fact are likely to leave them well above costs for some time. Moreover, intrastate access charges, which now typically exceed interstate charges, will remain under the jurisdiction of state commissions and considerable uncertainty remains about their levels. Thus, the issue raised by the IXCs remains pertinent.

[48] The IXCs are implicitly assuming that imputation rules would not be capable of seriously constraining a BOC affiliate's retail prices. This assumption is probably realistic, given the difficulties of comparing the other relevant variables necessary to conduct an imputation test. (The test prohibits: $p \leq c + w + d$, where p is the affiliate's retail price, c the affiliate's cost of non-bottleneck inputs, w the input price to its rival, and d the firm's extra cost of providing the bottleneck inputs to the rival than to the affiliate. In practice, estimating c and d, can be especially problematic; even agreeing on the relevant services to be used when comparing w and p can be contentious.) Moreover, there is a general question about the wisdom of zealously enforcing any price floors. Such policies can easily stray from protecting competition to protecting competitors.

IXCs' cost has not increased—because by assumption access prices are no higher—but a new competitor (the BOC) enjoys lower cost of serving the long-distance market (albeit artificially lower, because it charges to IXCs access prices well above its own incremental cost of providing access, while basing its own retail pricing behavior on the latter).[49]

123. The assumption that regulation will prevent a BOC from subsequently raising access prices to IXCs (or failing to lower them as much as would otherwise have occurred) is important, however. In particular, there are dangers of regulating access pricing by including in a common basket both access services "sold" to the BOC's affiliate and to IXCs and subjecting the basket to an overall price cap. By lowering the price to its affiliate a BOC would then be allowed to raise prices to IXCs while adhering to the cap; the BOC gains, of course, since the additional profits earned by its affiliate are unregulated. Thus, a BOC will have strong incentives to try and give its affiliate preferential discounts, in order to justify raising the access prices charged to IXCs.

124. The Act and current regulation prohibit such discrimination in access pricing. However, a BOC may plead "nondiscrimination" by designing discounted offers that are nominally available to all but are targeted to its affiliate. It can make discounts conditional on terms that (a) are alleged to provide cost savings and (b) are contrived such that the affiliate is more likely to accept, for example, a buyer's agreeing to make very long-term purchase commitments.[50] The

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[49] Observe that the concern is not with the BOC raising the access price or engaging in access discrimination against IXCs, but with reducing its retail price given that access to IXCs is priced above cost.

[50] Of course, discounts for long-term commitments can reflect legitimate business reasons. In the guise of such reasons, however, one also could contrive contracts of such long duration and such stringent terms for breach that only an affiliate would feel comfortable accepting. An affiliate would realize that if changed circumstances made it efficient to breach its commitment, it would be allowed to do so (in the interest of maximizing overall firm profit) far more readily than would an outsider such as an IXC. A BOC also might try to rationalize discounts based on the *percentage* of a long-distance carrier's minutes committed to the BOC. An IXC might value the option of flexibility, such as splitting its minutes between a BOC and a CAP (especially if CAPs continue to expand), while a BOC's affiliate

scope for such gamesmanship can be reduced by having separate price caps for access services sold to competitors and to affiliates. And in general, if competitively significant "nondiscriminatory" discounted offers are disproportionately accepted by affiliates, some scrutiny may be warranted of whether discounts reflect genuine cost savings.[51]

125. In sum, I would be reluctant to advocate delaying a BOC's interLATA entry solely on the grounds that its access prices to IXCs are currently well above its incremental cost—as long as the BOC can adequately be prevented from raising access prices to IXCs post entry.[52] It is certainly true, however, that the best course is to reduce access charges closer to cost. Assuming that (non-price) access discrimination could be prevented, reducing access prices would both expand downstream output and prevent distortion of competition.

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would far more readily accept exclusivity with the parent.

[51] Unfortunately, it is not easy to police against true price discrimination when buyers require significantly different arrangements, leading to potentially different costs of service. See, for example, Marius Schwartz, "The Perverse Effects of the Robinson-Patman Act," *Antitrust Bulletin*, 31 (Fall 1986), 733-757.

[52] Authorizing BOC entry, of course, does not foreclose subsequent antitrust action if price squeezes are deemed to be anticompetitive.

IV. The Ability of Regulatory Safeguards to Negate Concerns Raised by BOC Entry

126. Based on the preceding analysis, the main potential competitive concerns raised by BOC entry are access discrimination against long-distance carriers and, especially, the withholding of cooperation in implementing and pricing appropriately the various new wholesale local services. How serious these potential concerns in fact are depends on how effectively and expeditiously they can be addressed by regulatory and other safeguards. Section A below discusses generic shortcomings of regulation, showing by implication that there is real value to having a BOC be more disposed to cooperate than having to rely exclusively on forcing its cooperation. Nevertheless, while never perfect, regulatory and other safeguards are far more adept at preventing degradation of established access arrangements than at forcing implementation of new arrangements; this difference has key implications for the design of a pro-competitive standard for BOC entry (see section V). Sections B and C document this difference drawing on past experience with LEC behavior.

A. Generic Shortcomings of Regulation, and Existing vs. New Arrangements

127. Regulation faces several inherent shortcomings in trying to curb a firm's incentives to discriminate against competitors, which caution us against relying on it exclusively.[53]

1. Generic shortcomings of regulation

128. *Detecting abuses*. In order to be effective, regulators must be able to detect a violation. This requires knowing, among other things, what the firm actually did (not what it claims) and often what alternatives it could have pursued. Outsiders such as regulators, courts, and even

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[53] For good discussions of the limitations of state and FCC regulation prior to the 1996 Act, see the December 1994 Declarations of Nina W. Cornell (focusing on state regulation, especially pp. 35-63) ("Cornell, 1994") and of Daniel Kelley (FCC regulation, especially pp. 37-75) opposing the motion by four BOCs to vacate the MFJ. *Unites States of America v. Western Electric Company, Inc. and American Telephone and Telegraph Company*, United States District Court for the District of Columbia, Civil Action No. 82-0192.

competitors possess vastly inferior information than the firm about its business environment and conduct. And while a regulator can learn a great deal by consulting with interested industry parties, to eliminate the informational disadvantage entirely the regulator would have to become the firm.

129. *Proving abuses*. Detecting a violation is not the same as being able to prove it. Regulated firms enjoy—for good reasons—procedural safeguards including the right, which they often exercise, to challenge regulatory decisions in court. A non-specialist court is likely to be less informed about conditions in the industry than is a regulator, and the adversarial court proceedings offer the better-informed firm ample opportunity to raise various objections. Thus, even if a regulator is convinced there is a violation, proving it to the standard needed to take corrective action may be too costly or simply not feasible.

130. The issue of proof is important. The BOCs have repeatedly argued that preventing discrimination is easy because a service difference great enough to influence the behavior of customers assuredly would be detected by competitors and by regulators. However, simply showing such a difference is not sufficient to prove a BOC has discriminated, especially with new or customized arrangements—there could be "innocent" explanations with a sufficient ring of plausibility (different circumstances of transactions, events beyond the firm's control, etc.). Indeed, a major advantage of competition over regulation in taming market power is that a competitor is not constrained by the same rules as a regulator: if a competitor believes the incumbent's price is excessive or its service is inferior it can simply offer customers better options—without having to prove to anyone that the firm is misbehaving.

131. *Deterring abuses*. Effective deterrence requires the expected penalty to exceed the expected gain from engaging in an abuse. The requisite penalty may have to be large given (a)

the potentially large gains to a firm and (b) the limited chance that a violation will be detected and proved, hence that the penalty will be imposed. Regulators may not always have the legal rights or the political ability to impose penalties large enough to achieve meaningful deterrence. Imposing high penalties is especially problematic when violations are not demonstrably blatant, as is likely with new (as opposed to established) access arrangements.

132. *Correcting abuses*. Since deterrence will not be perfect, a regulator also must be able to rectify the effects of abuses quickly and effectively. But the damage to a competitor imposed, for example, by technical discrimination can be difficult to reverse: discrimination may have allowed the regulated firm to beat the rival to market with a new product. This first-mover advantage could have a durable impact, for example, if consumers would have to incur significant switching costs should they wish to move to the entrant. (For this reason, the Act tries to minimize these costs through such means as requiring number portability.)

133. *Cost-effective regulation*. Finally, regulation would have to accomplish the above tasks in a cost-effective manner. It does little good to prevent abuses if doing so means intruding into the firm's decisions to a suffocating degree, or expending vast resources on regulation. As a practical matter, the resources made available to regulators may limit their ability to engage even in the efficient degree of oversight. The FCC and state commissions are operating under tight budgetary and personnel constraints that may not be commensurate with their responsibilities: the new Act has vastly increased the FCC's duties, and state commissions must grapple also with the rapidly changing electric utility industry.

2. Existing vs. new arrangements

134. Assuring equal access to BOC local networks—for both long-distance carriers and local competitors—in the face of reduced BOC incentives to cooperate requires policing against sins of *commission* and *omission*: a BOC might attempt to reduce cooperation from existing levels by degrading existing access arrangements, or fail to provide a greater level of cooperation as it

should in establishing new arrangements.

135. It is difficult for regulators to eliminate entirely even sins of commission—the degradation of existing arrangements.[54] Nevertheless, once arrangements are in place and there is some track record against which to benchmark "good behavior," preventing access discrimination becomes much more manageable.

136. Conversely, enforcing the implementation of new arrangements is much harder. It is particularly difficult to prevent such sins of omission, since there are no good historical benchmarks to guide what is feasible for the firm. Implementing the new Act's local-competition requirements of interconnection, unbundling and resale will require dramatic and wide ranging changes in the way a LEC does business. For example, loop unbundling will require physical (not just electronic) changes. And new electronic interfaces will be needed to coordinate ordering, billing and other functions for carriers that resell a BOC's local service. With reduced incentives to cooperate once allowed into long distance, a BOC could delay such arrangements considerably. It may initially refuse to provide a new arrangement, citing prohibitive costs; then relent and "merely" delay or give priority to requests from its affiliate to place it at a competitive advantage. The point is not that such excuses are never true, but that it will be difficult for regulators to discern which are true and which are not.

B. Enforcing Existing Access Arrangements

137. By and large, the U.S. experience with participation by regulated LECs in long-distance markets suggests that once access arrangements for competitors are established, subsequent

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[54] For example, requiring a BOC to meet "objective" performance measures such as average provisioning intervals is not a perfect safeguard. A BOC could discriminate while showing identical average intervals for its affiliates and outsiders, because the same average can conceal important variations: when it is very important for an IXC to get rapid service the BOC can delay it, while meeting the overall average requirement by providing expeditious service when the IXC least needs it.

problems become much more manageable. To cite a recent example, IXCs have made substantial inroads competing for intraLATA toll services in states such as Minnesota and Alaska that had implemented intraLATA dialing parity prior to the 1996 Act. I am not aware of backsliding by LECs on providing such dialing parity.

138. It is of course possible that we have yet to see the full arsenal of incumbent responses; intraLATA dialing parity is a recent phenomenon and incumbents may still be mulling their options. However, certain LECs such as Rochester Telephone (which is part of Frontier), United (which is part of Sprint) and Lincoln Telephone were not subject to the MFJ and have offered long-distance (interLATA) services in competition with IXCs for some time. I understand that IXCs have made few complaints against these LECs about degradation of existing access arrangements.

139. More recently, Sprint has owned Centel in Nevada since 1992, yet IXCs have made no significant complaints to Nevada regulators. Southern New England Telephone Company (SNET) has begun offering interLATA service jointly with its local service; so has GTE since the passage of the Act (which ended the consent decree that prevented GTE's local operating companies from jointly marketing long-distance services). GTE and SNET have been very successful in capturing long-distance business, but neither has elicited serious complaints concerning their degradation of existing long-distance access arrangements for IXCs.

140. In short the scope for a BOC, after allowed interLATA entry, to degrade existing access arrangements used by IXCs is relatively limited in the short run. Most importantly, regulatory and antitrust safeguards can do a far better job of enforcing such existing access arrangements given the long track record of experience with them. In addition, a BOC would face some technical difficulties today in finely targeting for discrimination only pieces of the network that serve IXCs or their customers. Finally, some of the markets which the BOCs are said to target if allowed interLATA entry, low- to medium-volume residential and business customers, are also

ones where IXCs require relatively simpler access arrangements.[55]

C. Implementing New Access Arrangements

1. IntraLATA toll dialing parity

141. The main long-distance markets in which the BOCs have participated since the MFJ are those for intrastate, intraLATA toll services. Dialing parity—the ability to reach a carrier other than the LEC without dialing additional digits—is very important to subscribers who must dial manually, such as most residential subscribers and small businesses lacking a PBX. Indeed, LECs consistently opposed dialing parity on the grounds that implementing it would cause them to lose massive amounts of traffic. Until a few years ago, no BOC provided dialing parity anywhere. Often regulators did not seek to enforce dialing parity (partly on grounds of protecting this LEC revenue in order to support cross-subsidies of other services such as basic residential access and most services in rural areas). But even where they did, incumbents successfully delayed the process through protracted appeals.

142. The case of Minnesota is instructive.[56] The Public Utilities Commission (PUC) determined in October 1985 that dialing parity to IXCs for intraLATA toll calls (through "1+ presubscription") was in the public interest, and in November 1987 created a committee to develop an implementation schedule and a means of paying the costs of presubscription. U S

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[55] About 80% of LECs' interstate access revenues comes from switched traffic (Table 1, note 6), where access arrangements are largely standardized. Dedicated access is used mainly by large customers, and competition from CAPs and CLECs is developing faster for such dedicated arrangements. However, if local competition fails to develop for broader segments of the market, the BOCs if allowed into long-distance could pose a growing threat to access arrangements used by IXCs: new arrangements will become increasingly necessary, and local networks might be re-configured to permit more subtle forms of access discrimination.

[56] The ensuing discussion draws on Cornell (1994), and on interviews conducted by the Department of Justice. My purpose here is not to single out the Minnesota Public Utilities Commission or the incumbent BOC, U S West, but to illustrate generic problems.

West, the incumbent BOC, asked the PUC to reconsider its public interest finding, but was denied in January 1988. In June 1989 the study committee filed a report stating that presubscription could be done and proposing a method of implementation and funding.

143. In September, 1992, U S West again petitioned the PUC essentially to reconsider its decision that presubscription was in the public interest. The PUC denied the request but reconvened the study committee, having decided that the earlier report might be outdated. The committee submitted an updated report in August, 1993. In July, 1994, the PUC set implementation guidelines for intraLATA equal access by incumbent LECs not already providing it. After further unsuccessful efforts by U S West to challenge the PUC's order in court, intraLATA presubscription was finally implemented in February 1996—over a decade after the PUC had determined that it was in the public interest.

144. This episode, and others like it, are all the more striking given that claims challenging the technical feasibility of dialing parity had long been refuted. In exchanges serving most traffic in Alaska dialing parity was implemented in 1991-92. GTE implemented a comparable capability for itself in Hawaii in 1986; but only in July 1996 did the Hawaii PUC compel it to provide intraLATA dialing parity to others. Thus, technological uncertainty is not the sole problem; incumbents have considerable ability to stall the process through regulatory and legal challenges.[57]

2. "Open Network Architecture"

145. One of the toughest challenges to meeting the new Act's local competition requirements

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[57] The BOCs continue to resist intraLATA dialing parity today. For example, in states such as Michigan and Wisconsin where commissions have ordered such parity, Ameritech has mounted numerous regulatory and legal challenges. Technical barriers are sometimes cited; however, Michigan regulators found that 82% of Ameritech switches could be converted immediately, while the remaining ones would require only some software development.

will be in assuring competitors access to unbundled network elements. The FCC's experience with attempting to implement Open Network Architecture (ONA), while different in some respects, nevertheless is instructive.[58]

146. The FCC's *Computer II* rules (1980) allowed BOCs to offer unregulated enhanced services (such as computerized data processing that also require access to telephone networks) only through separate subsidiaries, in part to help prevent access discrimination to telephone networks against competing enhanced service providers. Ameritech proposed an early version of ONA partly as a substitute safeguard against discrimination: by offering access to disaggregated network elements which enhanced service providers could use flexibly, ONA would reduce a BOC's ability to discriminate. Other BOCs similarly argued that ONA would void the need for the structural separation required by *Computer II*. The FCC concurred: in *Computer III* (1986), it ordered the BOCs to develop plans for ONA and determined that ONA requirements would be "self-enforcing in controlling discrimination."

147. Backsliding from initial ONA promises began almost immediately, though much of this was not conscious discrimination but inevitable in view of the unrealistic expectations initially touted for ONA. And major, protracted controversy ensued over whether the BOCs had actually implemented the reduced version of ONA that they did promise. The FCC, while acknowledging that ONA had not been fully implemented, ruled the BOCs had nevertheless done enough to justify lifting the separate subsidiary requirement. The Ninth Circuit (1994) strongly disagreed, finding that the FCC had failed to explain how these scaled back safeguards, that fell well short of the "fundamental unbundling" originally envisioned in *Computer III*, would suffice to prevent discrimination.

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[58] A summary of the main episodes in the history of ONA and the relevant references can be found in the decision *California v. FCC*, 39 F.3d, 919 (9th Cir. 1994).

148. There are important differences between the network unbundling envisioned in ONA and that required by the 1996 Act. We have a much clearer idea today of the services local competitors might provide and their requirements than we did then for enhanced service providers. And the technological advances needed for ONA were more pathbreaking than the measures required to implement the Act's unbundling requirements (as spelled out in the FCC's Local Competition Order). Still, ONA offers important lessons: backsliding from initial promises, whether deliberate or not, is likely; and so are disputes over the details of what has—and has not—been implemented. These lessons highlight the dangers of relying on "paper implementation" of new requirements and, to avoid protracted regulatory and legal skirmishes, the importance of authorizing a BOC's interLATA entry only after there is enough confidence that it has indeed implemented key local competition requirements**.**

V. Principles for a Procompetitive Entry Standard

149. At the risk of oversimplification, the stylized pattern emerging from section IV is that once access arrangements are in place and there is a track record against which to benchmark "good behavior," the task of preventing access discrimination becomes much more manageable. It is very difficult, however, to impose new arrangements against the firm's will. These considerations, and the earlier analysis of the potential benefits from BOC entry, lead me to the following principles for a procompetitive BOC entry standard.

A. Fully Effective Local Competition Is Not a Prerequisite

150. Withholding BOC entry authority until there is sufficient local competition to eliminate a BOC's market power would not be appropriate on economic grounds. Even if barring the BOCs from long distance was justified at divestiture in order to promote the nascent long-distance competition, such competition could be protected today while allowing BOC entry well before there is effective local competition.

151. There are now several major established long-distance carriers. Regulators today are more attuned to risks of discrimination and, importantly, long-distance access arrangements are well established. The new Act prohibits many discriminatory practices that were not specifically prohibited pre-divestiture. In addition and importantly, the Act provides for opening of the local market which over time should yield additional safeguards for long-distance competition, both by providing direct alternatives, and by offering benchmarks to assist regulators in regulating BOC conduct.

152. Moreover, the development of local competition—a central goal of the Act—can itself be accelerated by authorizing BOC entry before there is effective local competition, *provided* that such authority is appropriately conditioned on prior BOC cooperation with local entrants. Local competition will develop sooner if the BOCs cooperate, and the BOCs should be more willing to cooperate if in so doing they secure earlier entry into long distance. This logic, I believe, is integral to the particular sequencing adopted in § 271.

153. Finally, as noted earlier, BOC entry has the potential to yield significant benefits in provision of integrated services and increased long-distance competition. Since the potential costs can be mitigated through regulatory, antitrust and other safeguards once the market is open and benchmarks are in place, coupled with some local competition, the value of attaining earlier the benefits of BOC entry reinforces the case for approving such entry well before effective local competition is in place.

B. The Local Market Must Be Irreversibly Open to Competition

154. While section IV showed that regulators can do a reasonable job of preserving established arrangements, it also raised significant doubts about their ability to expeditiously enforce new arrangements in the face of BOC resistance. This is particularly an issue for the new local-competition arrangements required by the Act, many of which entail radical departures from past practice. Given the pivotal role of these arrangements in laying the foundation for local

competition as envisioned in the Act, and that local competition holds the key to achieving the Act's goals, I believe that BOC entry should be authorized only once there is sufficient confidence that the BOC's local market has been irreversibly opened to competition through all three entry modes contemplated by the Act. Several steps, discussed next, lead to this conclusion.

1. BOC incentives to cooperate can make a great difference

155. The BOCs themselves seem quite aware of their latitude, within the regulatory and legislative constraints, to affect the pace and efficacy of the process to open up local markets to competition. The importance of BOC cooperation is illustrated by contrasting the experiences of intraLATA toll versus interLATA markets. BOCs successfully delayed implementation of dialing parity for intraLATA toll markets, where they were allowed to compete. In contrast, establishing the physical and administrative arrangements for equal access to IXCs after divestiture was a considerable achievement for the industry; and it was made possible in large part by BOCs' willingness to cooperate given that they were barred from directly participating in long distance and thus had strong interests in ensuring efficient operation of the exchange access business.

2. Importance of securing BOC cooperation before authorizing entry

156. As explained previously, relying on penalty threats to force implementation of new systems is problematic, because enforcers will have far less information than the BOC about how long the process should take. Providing a BOC with incentives to act faster—by authorizing its entry only once sufficient implementation has occurred—will accomplish the process more quickly and more efficiently. Once these main new technical and organizational access arrangements for local competition are in place and shown to be working, they can establish performance benchmarks to assist enforcers in preventing future backsliding. That is, pre-entry implementation of the new systems makes regulatory and other safeguards considerably more effective and less burdensome.

157. On the other hand, once entry is authorized, BOC incentives to continue cooperating will diminish significantly. As a practical matter, rescinding a BOC's long-distance authority would be difficult and, in any event, would be disruptive. While freezing a BOC's future marketing authority would be a more practical option, it also is less potent. Faced with a loss of an important incentive mechanism—the § 271 entry authority—BOC cooperation would have to be induced by threatening penalties which, as noted, are less effective when the issue is implementation of new measures. Thus, it is important to grant BOC entry only after sufficient cooperation has first been secured.

3. The benefits from delayed BOC entry outweigh the costs

158. The Department of Justice's standard would involve some delay in BOC entry relative to adopting an "early" entry standard that required only checklist compliance on paper. This will impose non-trivial costs, by temporarily depriving consumers of increased availability of integrated services, as well as increased competition in long-distance services (see section II). But the costs of delay are outweighed by the prospective benefits.

a. Local versus long-distance markets

159. A BOC's local markets are about twice as large as its in-region long-distance markets. In addition, the local market is a regulated monopoly, with substantial room for improvement in performance. In contrast long-distance markets, though not perfectly competitive, exhibit considerable rivalry and are becoming more competitive even without BOC entry. The gains from injecting even a modest dose of local competition can thus easily outweigh those from adding one, albeit major, competitor into long-distance markets in a BOC's region. (Recall that BOCs already may offer long-distance service outside their regions.)

160. Aside from its inherent benefits, local competition can also help safeguard long-distance competition in the longer run. A BOC's entry into long distance is likely, over time, to pose a

growing threat to the ability of IXCs to compete with it on an equal footing, or invite more intrusive regulation to prevent this, than if local competition emerged sooner. Finally, local competition holds the key to robust competition in offering integrated services—since the key monopolized pieces are local inputs and services.

b. Integrated services

161. *"Competitive parity."* The BOCs argue that any delay of their entry into long distance would give their competitors—especially the major IXCs—important and unfair first-mover advantages in competing to provide integrated services (such as offering one-stop shopping). In addition, and somewhat inconsistently, they argue that delaying BOC entry would deny consumers the benefits of these offerings which the BOCs—if allowed into long distance—would be *uniquely* positioned to provide. I address first the issue of competitive parity, then the more important questions of impact on consumers and on overall welfare.

162. In general, the competitive process works best when no artificial handicap is placed on competitors and all firms are allowed to compete on the merits. At first glance, delaying BOC entry while IXCs and others make inroads into local markets may seem to violate this principle of respecting competitive parity in offering integrated services. This, however, overlooks the fundamental asymmetry in the position of a BOC versus other players.

163. The BOC is the sole major source of local services in its region. In contrast, there are several national and many regional facilities-based providers of long-distance services. If reciprocal entry is allowed concurrently—that is, if BOC entry into long distance is allowed immediately—the BOCs will have a major and artificial advantage in offering integrated services. They will be able to obtain long-distance services rapidly, seamlessly, and at prices very close to cost—because of the vigorous competition among IXCs vying to sell such services to a large wholesale customer as the BOC. In contrast, other would-be providers of integrated services have only one major source for local services: the BOC. Once allowed into long

distance, a BOC would have strong incentives to deny to others the various wholesale local services they need to offer integrated services. Potential competitors would have to wrangle with this sole provider for every new access arrangement or discount. Regulatory and antitrust intervention can certainly help, but it cannot in a cost-effective manner eliminate entirely the disadvantage resulting from the absence of local competition; if it could, we would rely on regulation and not insist on competition.

164. Moving towards parity in competition for integrated services therefore calls for insisting that the BOCs first take substantial measures to open up their local markets—even if by doing so they expose themselves to some entry—because once they are allowed into long distance they can rapidly make up any advantage the IXCs might have temporarily gained.[59]

165. *Effect on consumers*. More important than the effect on competitive parity for its own sake, is the effect delayed BOC entry has on consumers of integrated services and on overall welfare. Delaying BOC entry would delay delivering the benefits of integrated services to consumers through the BOC. However, integrated services will be available to some extent from non-BOC sources. Competitors other than the largest three IXCs could attempt to obtain BOC local services for total service resale. And all competitors could attempt to provide their own local services through facilities-based entry or through use of unbundled local elements

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[59] The structure of the Act reflects a desire to prevent either the BOCs or the IXCs from gaining a substantial "first mover" advantage in offering packages of local and long-distance services, and does so by attempting to deny either one a significant head start. Thus, § 271 requires the opening of the local market to competition—for both resale and unbundled element competition—before BOCs may enter the long-distance market. Similarly, § 271(e) prohibits large IXCs from jointly marketing resold local services in a state prior to the BOC's long-distance entry and, except where already required by a state, limits the implementation of intraLATA toll dialing parity prior to the BOC's entry. Finally, the Act requires the FCC to act on § 271 applications within 90 days, a requirement that ensures that BOC entry will occur promptly after—but not before—all prerequisites for such entry have been satisfied. I believe these requirements are consistent with the above reasoning.

leased from the BOC.[60]

166. Admittedly, competitors are unlikely to obtain such local inputs or services as efficiently and expeditiously as the BOC would have offered its own long-distance affiliate. It will take time and regulatory pressure to implement the necessary new arrangements for supplying competitors with wholesale local services. Quite aside from BOC reluctance, there may be genuine transaction costs in making local inputs available to others as smoothly as to one's own affiliate; transaction costs often explain why in many settings firms prefer vertical integration over arm's length contracting with others. Thus, the local components of integrated services available from non-BOC suppliers are likely to be inferior to or not available as promptly as those that would be available from a BOC if it were immediately allowed to offer long-distance and thus integrated services. This inferiority will show up in the price or quality of the integrated services offered to consumers by non-BOC providers.

167. However—and this is the rub—the BOC will more willingly supply to others its local services or inputs and on better terms if it is barred from long-distance and thus integrated services. As explained earlier, a BOC's incentives to promote such wholesale products increases if it is barred from selling, especially at unregulated prices, competing retail services.

168. In short, barring a BOC from long distance creates a tradeoff regarding integrated services. No other competitor is likely to have as good a set of local services as quickly as would a BOC if allowed immediate interLATA entry. But while a BOC is barred from offering retail integrated services, it has incentives to supply others with wholesale local services on better terms than after it secures interLATA entry. This availability of "better" local inputs to a broader

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[60] Although the Act prohibits the three largest IXCs from jointly marketing long-distance services with local services obtained from the BOC for total service resale, until BOC interLATA entry is authorized (or until February 1999), it allows joint marketing of local services provided via one's own facilities or via unbundled BOC elements.

set of players is valuable; additional players bring greater variety and other benefits (improved customer service, more experimentation with new pricing plans, and other creative offerings). The net effect of earlier BOC entry on market performance in delivering integrated services is thus theoretically ambiguous in the short run. In the long run, competition in integrated services is likely to be far more robust and performance thus superior if strong local competition emerges. That goal is better advanced by authorizing BOC entry only after the conditions of the Department's standards have been met.

169. For all these reasons, accepting a modest delay in BOC entry to comply with the Department's standard is a worthwhile price. BOC cooperation in implementing the § 271 competitive checklist requirements would go a long way towards laying the foundation for healthy local competition. And securing such cooperation is far more likely by making it a prerequisite for BOC interLATA entry. Accepting a modest delay of BOC entry does not foreclose future options; but once entry authority is granted, we may have lost an important tool for opening the local market.

C. Local Competition as Evidence of an Open Market

170. Seeing significant and diverse local competition take root provides by far the best evidence that the market indeed has been irreversibly opened to competition. On the other hand, even with an open market, local competition may still be delayed for other reasons.[61] In particular, we should not expect to see all forms of local competition in all locations, and certainly not right away; indeed, the guiding philosophy of the Act is that market forces should be allowed to dictate what works and what doesn't, once artificial barriers have been removed. For example, if we are successful in ensuring that incumbents make available unbundled network

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[61] For instance, some potential entrants are re-evaluating plans to build their own loops and waiting for technological advances that would allow broad-band delivery capability and let them offer not only telephone service but also video and data services.

elements at prices reasonably close to incremental cost and if such arrangements work smoothly, then it would be wasteful to insist that entrants build entirely their own facilities.

171. Balancing these two considerations, I see the role of observing local competition as establishing presumptions: if sufficient competition is observed, the market is presumed open. If not, one should ask why not; the BOC would face a heavier burden to demonstrate that the market is truly open and that the absence of actual competition was not for lack of BOC cooperation in opening up its networks to competitors.

172. The best proof is in the pudding: the emergence of local competition provides by far the best evidence and assurance that the local market indeed has been irreversibly opened. Observing local competition is helpful for several reasons.

173. *Checklist implementation*. Seeing some actual competition is the most convincing demonstration of meaningful checklist implementation. Without seeing new access arrangements in use by competitors, there will be lingering doubt as to whether these arrangements are truly adequate or whether their pricing is appropriate to make entry by efficient competitors feasible.

174. *Signal of entrants' confidence*. Competitors' willingness to commit significant irreversible investments to the market (sunk costs) signals their perception that the requisite cooperation from incumbents has been secured or that any future difficulties are manageable. Since competitors are knowledgeable about the industry and have an obvious stake in making competition work, their actions speak loudly.[62] Indeed, firm plans to commit substantial investments to the market could be a better indicator than observing a more limited amount of

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[62] In general, it is instructive to observe the actions of parties that have a direct interest in the outcome, because they are likely to have better information than outsiders or find it in their incentives to obtain such information. This principle of "follow the money" has led economists to place substantial weight on how the stock market interprets various events.

competition already in place. (It is important, however, that the plans be firm, e.g., involving contracts for specialized equipment that entail substantial penalty clauses for cancellation. There is a long record of plans to enter local phone service that have been perennially revised, such as by the cable companies to cite one example.)

175. *Entrants' direct role in safeguarding competition*. Quite aside from signaling confidence that local competition can be successful, the presence of competitors can directly help to prevent backsliding on cooperation by incumbents. The presence of competitors can provide regulators with additional benchmarks of what is possible and at what cost, thereby helping regulators (or the courts) to better enforce incumbent cooperation. In addition, established competitors create an additional constituency with a stake in preventing backsliding by incumbents or regulators. Once established competitors are in place, they can help to limit discrimination by acting as whistle blowers.

176. In all cases, of course, the more widespread is the local competition geographically, in the types of services offered, and in the range of access services used from the incumbent, the greater is our degree of confidence that the market has been opened.

177. *Resale versus other entry modes*. It is important to ensure that facilities-based entry options (including through unbundled elements) are truly made possible, as they have important potential advantages over total service resale. They can discipline an incumbent's behavior in more segments, not only on the retailing side but also in certain network functions; for example, entrants renting unbundled loops but bringing their own switches can help curb switch-based discrimination against long-distance carriers in securing local access, and can allow the introduction of new services based on the electronic features in the switch.

178. In addition, entry using unbundled elements can often exert stronger downward pressure on retail prices than can entry through resale—partly due to the different pricing standards

adopted in the Act: wholesale prices for total service resale are computed "top down," by starting with retail prices and subtracting only the avoided retailing costs; in contrast, unbundled elements are priced "bottom up," by starting with the estimated facility costs of these elements. Since retail prices for many services are well above the underlying costs of both retailing and network elements, subtracting only the estimated retailing costs to obtain wholesale prices for total service resale is likely to still leave these wholesale prices above the underlying costs of facilities.

D. Assessing Local-Market Openness in the Absence of Sufficient Competition

179. As mentioned, we do not expect to see all forms of competition everywhere. However, if sufficiently diverse competition is not observed, it is important to understand why. Before concluding that this is simply for lack of interest by entrants in pursuing certain entry modes in certain regions, it is important to ascertain that competition is not being stifled by artificial barriers. Indeed, absent a showing by the BOCs that lack of entry simply reflects a lack of interest, the presumption should be that the market is not open. Reversing this presumption requires verifying that the main elements of an open market indeed are in place. The main elements are discussed below.

1. Full, meaningful implementation of new access arrangements

180. Many of the access arrangements required by the Act for local competition are new. They raise a host of novel issues in technical areas (e.g., loop unbundling), business protocols (e.g., for switching customers from the incumbent to entrants under total service resale), and sharing operations support systems. A condition for finding the local market open, when sufficiently diverse local competition is not yet observed, should be that all such major systems and protocols (including but not limited to loop unbundling, electronic interfaces, operations support systems, access to signaling and databases) are readily available for commercial usage. They should provide regulators sufficient confidence that the conditions have been established to facilitate

efficient entry through all three entry modes contemplated in the Act (facilities based, unbundled network elements, and resale), and for serving all major types of customers. And they should provide a sufficient track record of performance to give regulators reliable benchmarks for gauging and enforcing future cooperation.

181. Moreover, the scale of operations is critical. Systems that stringently cap the rate at which the incumbent's customers can switch to competitors, for example, by processing orders manually or having only a few and perennially busy fax machines, are a sure way to stifle competition. In order not to significantly impede competitors' ability to expand, the above systems should also be capable of being scaled up relatively quickly to accommodate reasonably foreseeable expansion demanded by entrants in a given geographic region (e.g., the ability to rapidly switch over to the entrant a large number of customers, through loop unbundling or total service resale); and capable of being rapidly extended to regions where they are not initially implemented. In addition, a BOC must have implemented number portability and local dialing parity.

182. These new access arrangements must be proven to work in practice. Many of the arrangements called for by the Act (such as loop unbundling) are unprecedented. Implementing such radical new arrangements often proves more difficult than expected even where there is goodwill on both sides.[63] These difficulties increase by an order of magnitude, however, when one side is recalcitrant; there is then endless scope for acrimony and mutual finger pointing, creating a regulatory morass. It is therefore important to have some practical experience with these arrangements, under real-world business conditions and not just in the laboratory, and iron out the major kinks while incumbents are still relatively predisposed to cooperate. The absence of (non-trivial) competition calls for waiting longer to test the new access arrangements, because experience with them under competitive conditions could help pinpoint potential problems more quickly. One should conclude that the market is open only if there is sufficient confidence that

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[63] For example, I learned from Bell Atlantic in July 1996 that it had been working with MFS in Baltimore since February 1995 to implement loop unbundling and had encountered considerable difficulties despite both parties' attempts to work cooperatively.

the major implementation problems have been resolved.[64]

2. Cost-based pricing of new local-competition access arrangements

183. "Availability" of the above access arrangements will be illusory if prices are prohibitively high. Thus, interconnection agreements forming the basis for § 271 entry authority under Track A, or interconnection offers under Track B, should provide entrants with satisfactory pricing assurances. Prices should be reasonably close to cost, as stipulated in the Act. And competitors must have adequate assurance that prices will remain reasonable and cost-based after interLATA relief is granted, in order to make efficient entry viable. Thus, if interim prices are used in the BOC's agreements or offers, there should be some assurance that after interLATA entry is authorized the BOC's prices to local competitors will remain within a tolerable range of these interim levels (e.g., indexed to inflation plus or minus a modest deviation) for a sufficient duration.

184. Even entrants building their own networks will require reasonable prices for terminating their calls on the incumbent's network; assuring such prices is thus critical to the development of facilities-based local competition. Reasonable prices also are necessary for unbundled network elements if, as Congress intended, we are to facilitate also partial facilities-based competition; it would be tremendously costly, slow, and often inefficient for entrants to duplicate the incumbent's entire local network, especially its local loop. Finally, reasonably-priced local service for total service resale is needed in order to provide other carriers a meaningful opportunity to compete quickly and widely in providing integrated services.

185. *Pricing standards*. Section 252 (d) of the Act requires state commissions to use the following pricing standards in arbitrating disputes between incumbents and local competitors: (1) prices of interconnection and unbundled network elements should be based on each party's cost of providing these items; (2) prices of transport and termination of local calls should provide for

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[64] Indeed, the arbitration process has not addressed all the relevant issues. (1) Many states have yet to establish performance standards and in certain cases have been reluctant to involve themselves at all in private negotiations on such matters despite appeals by entrants to do so. (2) Some states have determined that certain issues (such as liquidated damages), were outside their jurisdictional boundaries, wholly precluding their consideration in arbitration. Thus, insistence on appropriate performance benchmarks through the § 271 process can usefully complement state efforts.

mutual and reciprocal recovery by each carrier of (a reasonable approximation of) the additional costs of terminating such calls; and (3) wholesale prices should be based on retail prices for these services minus the marketing, billing and other costs that will be avoided by the LEC by selling at wholesale versus at retail.

186. The FCC in its Local Competition Order, while acknowledging that responsibility for arbitrating specific price levels rests with state commissions, proposed a methodology for arriving at prices: (1) for interconnection and unbundled elements, use forward looking Total Element Long-Run Incremental Cost (TELRIC); and (2) for transport and termination, require symmetric prices based on the incumbent LEC's TELRIC. It suggested proxy ranges for these prices, and for wholesale discounts for total service resale, that a state commissions could use pending completion of its own cost study. These pricing rules and interim proxies were generally praised by competitors, but have been stayed by the Eighth Circuit. Considerable uncertainty remains about the course of these key prices.

187. *Role of § 271 entry authority*. Denying BOC interLATA entry when local competition is seriously impeded by inappropriate BOC pricing of key local inputs can accelerate opening of the local market. Although state commissions are empowered to arbitrate pricing disputes between incumbents and competitors, awareness that the § 271 process will weigh seriously whether key inputs are priced in a manner that supports efficient local entry will usefully complement state efforts to enforce procompetitively low input prices by the BOC to competitors in order to open the local market. This point merits elaboration.

188. State arbitration of interconnection agreements does not occur in a political vacuum. Rather, prices emerging from arbitration are likely to reflect the demands and bargaining powers of the incumbent and its potential competitors. There is great asymmetry in these bargaining powers—since the dominant incumbent is content to preserve the status quo, while the entrant is clamoring for an agreement. By making procompetitive BOC prices to local competitors a requirement for finding the local market to be open one can help reduce the bargaining-power asymmetry, and thus reduce the BOC's prices—thereby complementing state efforts to foster local competition.

3. Removal of substantial regulatory and other barriers

189. Finally, in order to be confident that the local market is irreversibly open, one must ascertain that there remain no major state regulatory or other artificial barriers likely to significantly delay local competition. The Act requires removal of such barriers;[65] but there are gray areas. States have some latitude to impose obligations under the rubric of protecting universal service; local authorities may manage public rights-of-way or require fair and reasonable compensation for their use. Although all such actions must be on a competitively neutral and nondiscriminatory basis, there is sure to be controversy over the precise meaning of these terms.[66] Thus, the timeliness and effectiveness of FCC preemption of such barriers is uncertain. In addition, the BOCs themselves may have latitude to engage in certain practices which, while not explicitly unlawful, may hinder competition.[67]

190. If such barriers are likely to seriously delay competitors' ability to avail themselves of new technical and pricing arrangements for access put in place with BOC cooperation, these arrangements could become obsolete. The value of BOC cooperation in establishing these arrangements will then decay; and securing BOC cooperation again in establishing new arrangements once these barriers have been removed but after BOC entry has been authorized will be far harder.[68]

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[65] Section 253(a) states: "No State or local statute or regulation, or other State or local legal requirement, may prohibit or have the effect of prohibiting the ability of any entity to provide any interstate or intrastate telecommunications service." Section 253(d) empowers the FCC to preempt such barriers.

[66] For example, Texas has imposed certain "buildout" requirements on entrants, requiring them to provide service over at least a certain area which may hamper their ability to enter effectively; requests are pending with the FCC to preempt this and other provisions of the Texas statute. Numerous municipalities reportedly plan to impose fees on new telecommunications providers—but not on incumbents—for use of rights-of-way and local infrastructure. Bryan Gruley, "Disputed Call: Detroit Suburb Sparks Fight by Levying Fees on Telecom Concerns," Wall Street Journal, December 23, 1996. The FCC has decided not to challenge such fees in the case of Troy, Michigan.

[67] For example, some incumbent LECs are said to be signing exclusive access agreements with landlords of multi-unit buildings, housing a high density of customers. Such agreements could stifle the ability of entrants to compete, by denying them the opportunity to attain economies of density in a given area. A provision prohibiting such agreements was dropped from the Act; nevertheless, permitting such agreements can hinder competition.

[68] A concern is that a standard which links BOC entry to removal of regulatory barriers beyond its influence may discourage BOC cooperation, because cooperation may fail to yield a reward. There are several responses to this concern however. First, a BOC's ability to influence the regulatory process in a

E. Conclusion: The Department of Justice's Entry Standard Is Procompetitive

191. The major remaining bottleneck in telecommunications today, controlled by the BOCs in most regions, is local networks. These regulated local monopolies are an inefficient institution, whose replacement by a mix of local competition and lighter regulation can generate large net social benefits in local services, in integrated services, and in protecting and promoting competition in long-distance services while allowing BOC entry. This is the guiding philosophy of the 1996 Act.

192. Authorizing BOC entry when—and only when—the BOC's local market is open would go a long way to promoting local competition and achieving the goals of the Act. The Department of Justice's entry standard embodies this principle. It strikes a good balance between attempting to rapidly realize the benefits from BOC entry while properly addressing the competitive concerns, and therefore serves the public interest in competition.

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state should not be underestimated. Second, requiring an open market as a condition for BOC entry can help persuade states to do more to remove remaining barriers. Third, and most importantly, dismantling such barriers need not impose onerous delay; whereas authorizing BOC entry before the local market is open can seriously jeopardize prospects for opening it in the future. The reasons are twofold. (a) Such barriers may prevent commercial use by entrants of the BOCs wholesale inputs and prevent the BOC from demonstrating that their systems will work under actual usage. (b) As noted in the text, even if the systems would work today, these systems could require major changes if sufficient time elapses before entry. Thus, if entrants cannot avail themselves of these new systems for some time due to the presence of residual barriers, the initial BOC cooperation in establishing these new systems will have had only limited value; and securing future BOC cooperation in updating these systems once these barriers have been removed will be more difficult if BOC entry has already been authorized. As a practical matter, however, I believe that meaningful BOC implementation of the competitive checklist is likely to result in opening the local market in most cases.

I hereby swear, under penalty of perjury, that the foregoing is true to the best of my knowledge and belief.

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Marius Schwartz

Subscribed and sworn before me this _____ day of _____, 1997.

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Notary Public

Table 1: Telecommunications Revenues (1995) [1]

1. All LECs, and BOCs alone	(1) All LECs ($ billion)	(2) % of Total Telecom Revenues[2]	(3) BOCs ($ billion)	(4) % of Revenues of All LECs[2]
Local Revenues	**56.6**	**36.9%**	**43.0**	**76%**
Local Exchange Service [3]	45.0	29.3%	35.2	78%
Local Private Line	1.2	0.8%	0.9	75%
Miscellaneous Local Revenues [4]	10.4	6.8%	6.9	66%
Network Access Services [5]	**33.4**	**21.8%**	**22.5**	**67%**
Federal Subscriber Line Charges	7.0	4.6%	5.8	83%[6]
Access Charges paid by LD Carriers	26.4	17.2%	16.7	64%[6]
Toll Revenues	**12.8**	**8.3%**	**9.5**	**74%**
Switched Service (intraLATA toll)	10.1	6.6%	7.3	73%
Miscellaneous Toll Revenues [7]	2.7	1.7%	2.2	81%
Total All Reporting LECs	**102.8**	**67.0%**	**75.0**	
2. CAPs and CLECs	**0.6**	**0.4%**		
3. LD Carriers' Net Toll Revenues [8]	**50.0**	**32.6%**		

[1] Source: FCC, Telecommunication Relay Service (TRS) Fund Worksheet Data, December 1996. All data are for 1995. Abbreviations: LECs – Local Exchange Carriers; CAPs - Competitive Access Providers; CLECs - Competitive Local Exchange Carriers; BOCs – Bell Operating Companies; LD – Long Distance.

[2] Col. (2) is $ bn in Col. (1) ÷ $153.4 bn (Total Telecommunications Revenues). Col. (4) is Col. (3) as % of Col. (1).

[3] Includes primarily revenues from Basic Local Services (approx. $34 bn) and some vertical services.

[4] Includes primarily Directory Revenues (approx. $4 bn), Nonregulated Revenues (approx. $3.6 bn), and Carrier Billing and Collection Revenues (approx. $1 bn).

[5] Of which $8.9 bn is intrastate access, and $24.5 bn is interstate (including $7 bn in Federal Subscriber Line Charges). The FCC's Statistics of Communications Common Carriers 1995/96 (table 2.9) breaks down interstate access charges paid by LD carriers (i.e. not including SLC) into switched and dedicated access, with switched access accounting for 80%. No comparable breakdown is reported for intrastate access.

[6] This percentage is computed using data from the FCC's Statistics of Communications Common Carriers 1995/96 (table 2.9, lines 154 to 158), which reports the break-down of BOCs' Network Access Revenues in SLC and Access Charges paid by LD Carriers. TRS Fund Worksheet Data does not report such information.

[7] Includes $1.6 bn in Operator Service, Pay Telephone and Card Revenues, $.9 bn in Long Distance Private Line Service, and $.25 bn in All Other Long Distance Revenues.

[8] Total Gross Revenues of Long-Distance Carriers are $76.4 bn, of which $26.4 bn were paid in access charges to LECs. The $76.4 bn figure includes approx. $3.3 bn from intraLATA toll (AT&T estimate), and the rest is interLATA. Of the $76.4 bn, 93% accrued to IXCs, 5% to Toll Resellers and the rest to Operator Service Providers, Pre-Paid Calling Card Providers, Pay Telephone Providers and Others.

	All LECs ($ billion)	Telecom[2]	BOCs	% of Revenues of All LECs[2]
	153.4	**100.0%**		