

not documented. So, time is wasted working on issues which do not meet the needs of the ESP originators, which results in delay.

11. MCI is supporting changes in the IILC process aimed at making the process more efficient, certain, and less costly. However, improving procedures alone will not correct the problems. To correct the problems, the RBOCs must proactively pursue solutions to ESPs needs, i.e. true unbundling. Typically, the RBOCs claim that progress is slowed because the ESPs have not submitted enough "technical contributions," i.e., technical papers. However, that excuse is a red herring to divert attention from the RBOCs' own inaction and unwillingness to provide solutions. The RBOCs need to listen to ESP needs and provide comprehensive contributions to resolve the issues.

12. Even if GeoNet succeeded in getting its issue accepted as it originally intended and subsequently resolved, this would not assure that the RBOCs would agree to implement the solution. If the RBOCs did agree, they could direct Bellcore to create or change the appropriate technical documents, e.g., Bellcore "Technical References" and "Generic Requirements". Such changes could be brought into standards committees, if and when needed, and given to vendors to

develop.^{5/}

13. The RBOCs use tactics of slicing issues into small pieces, forum shopping, changing the originator's issue statement and objective, dominating the consensus process, and prolonging discussion and studying issues instead of taking focused actions. And when they have exhausted their delay tactics, they simply do not implement agreements, as such agreements are voluntary.

14. In addition, in many cases, the resolutions of IILC issues contain language which specifies an investigation of a particular request rather than the implementation thereof. Such studies and investigations may be appropriate in some instances, but do not provide any certainty of delivery of unbundled interfaces.

15. A better approach, which would provide a level of certainty, would be to simply require the RBOCs to cooperate and expedite network unbundling. I cannot identify a technical

^{5/} There have been preliminary reports of a possible sale or spin-off of Bellcore by the RBOCs. As a practical matter, such a sale is not likely to have much of an impact on the processes described herein, since the RBOCs could still coordinate among themselves just as easily and would still exercise dominance over these processes through their own representatives in the relevant industry committees, forums and associations and through their enormous purchasing power. Moreover, the RBOCs would likely be Bellcore's most significant customers, thereby continuing their strong influence on Bellcore.

or operational reason that would prevent the RBOCs from carrying out fundamental unbundling by engaging Bellcore to write technical requirements to implement the IILC issues as well as broader unbundled interfaces based on a clear set of objectives and timelines. Without a clear requirement, however, the industry will be subjected to a costly and uncertain discussion and paper-creating activity instead of true unbundling.

II. The RBOCs Can Effectively Use the Forums and Standards Process to Stall Developments and Implementations That Are Not Part of Their Plans

16. ATIS in its former structure (ECSA) was 100% LEC. The LEC membership criteria restriction was lifted and non-LEC industry entities were given eligibility for membership. However, it is a numerical fact that the LECs' interests remain in control. The ATIS profile reveals that 92% of its member companies are LECs, the board of directors is 82% LEC, and the officers were appointed mainly from the LEC ranks.

17. Despite the ATIS motto of doing what is best for the industry rather than putting a corporate interest first, the fact is that the LEC predominance in the ATIS membership and board continues to strongly influence its undertakings. In addition to the board and officers, most of the key ATIS staff also have been hired from the LEC industry. A meeting was recently held between the ATIS board of directors and representatives of the Internet Society for the purpose of gaining a better understanding of both organizations. One of

the Internet representatives asked if ATIS was involved in lobbying on policy issues. Mr. Sczypczak, the ATIS Chairman, promptly replied, "No, we do that in USTA". Mr. Sczypczak apparently overlooked the fact that USTA is a LEC association and is heavily involved in lobbying for MFJ relief, among other contentious issues, and many of the minority ATIS members are opposed to MFJ relief until certain conditions are met. Hence, it has been my experience that while ATIS membership has been "opened", its thinking continues to be strongly influenced by its LEC roots. This is not to deny that much of its work is well intended and that its staff does in fact work very diligently towards solving the industry's problems. However, it cannot be overlooked that the RBOCs do in fact enjoy a dominant position in these industry activities and heavily participate in the management of ATIS, which significantly influences its direction.

18. The RBOCs, through their ability to dominate and control consensus, have been able to postpone the delivery of new service capabilities and thus prevent access purchasers from offering new features based on those new capabilities. For example, since 1987 the RBOCs have placed various hurdles in the standards process and in the industry forums to delay access customers interested in using additional Signaling System Number 7 (SS7) signaling capabilities. One such capability would enable a LEC to pass the Carrier Identification Code (CIC) to an IXC via SS7 in an originating

Feature Group D access configuration. Passing the CIC would allow IXCs, for example, to provision universal trunk groups, thus eliminating the need to segregate traffic to identify service or reseller traffic usage. In addition, passing the CIC would allow IXCs to perform CIC-based routing and develop new services that would use the CIC as a call processing or billing mechanism trigger.

19. MCI and other IXCs have been forced to overcome one obstacle after another in obtaining this capability. MCI requested a CIC delivery mechanism as far back as 1987, when commenting on Bellcore technical documentation concerning SS7 interconnection. At the Industry Carriers Compatibility Forum (ICCF), MCI and other IXCs supplied comments to Bellcore's interLATA SS7 interface specifications (what eventually became TR-TSV-000905 and now known as FR-NWT-000905). MCI's request was for the SS7 Transit Network Selection (TNS) parameter, which contained the CIC information, to be made available as an orderable option for domestic calls, in addition to the existing requirement for international calls. The RBOCs' response, however, was that the issue would need to be worked in T1^{6/} standards. Then, when MCI brought the issue to the standards body in 1988,^{2/} the RBOCs would only consider

^{6/} Committee T1 is an ANSI-accredited standards committee for the development and coordination of North American telecommunications standards.

^{2/} MCI made a formal request to the SS7 signaling working group, T1S1.3, via contribution T1S1.3/88-07521, that the TNS
(continued...)

methods of CIC delivery that were more complex than using the TNS parameter. The RBOCs exercised their dominance over the standards committee to permit only the development of a new parameter instead, the Carrier Identification Parameter (CIP). MCI and the other IXCs were thereby forced to accept this new CIP parameter in place of the TNS parameter. The process of developing this new parameter alone has effectively delayed providing a CIC-delivery capability because implementation would now require every SS7 switch to generate and recognize the new parameter, as opposed to modifying an existing signaling element. It was yet another RBOC hurdle created in order to make the provision of this capability more complex to implement, thereby leading to the effective denial of the IXCs' request.

- 20. The next hurdle in the process was to return to the ICCF and request the RBOCs to provide implementation information. Although the technical description had been stable for some time, the RBOCs initially refused^{8/} to provide implementation information, stating that the standards activity was still in progress, that a prioritization of capabilities

^{7/}(...continued)

parameter be passed unconditionally between the local and interexchange networks. MCI's contributions T1S1.3/89-03521 and T1S1.3/98-09504 described the use of a new SS7 parameter for delivery of CIC information.

^{8/} MCI requested an exchange carrier report at ICCF meeting #20 in August, 1990 to provide implementation details concerning CIP which was included in the ANSI issue 2 draft ISUP standard. There had been no technical challenges against CIP which could have suggested that technical issues existed.

was required and an assessment of costs and availability was needed before any response could be provided. RBOC responses at a subsequent ICCF meeting provided little assurance that RBOCs were addressing this issue. In fact, several RBOCs stated that the standards process was still unresolved. Other comments ranged from there being no available vendor information to concerns over technical requirements not being available. Other RBOC responses questioned the IXCs' desire for the capability, despite all of the IXCs present expressing their desire and support for the CIP capability.

21. Seven years of persistent effort have elapsed in pursuit of CIP delivery. This includes an extensive tour of the forums, standards committees, Bellcore's requirements process, and one-on-one meetings. However, CIP delivery still has not been made available and there are no certain implementation timelines. This is a sad commentary since it could have been a minor addition to the original SS7 signaling protocol and could have been available with the initial SS7 roll out.

22. Another example of how the RBOCs can effectively use the forums and standards process to delay service capabilities to other entities is with 555 access arrangements. MCI and other entities, including ESPs, requested and received 555-XXXX line numbers from the North American Numbering Plan Administrator (NANPA) in June, 1994. This followed over twelve

months of intensive work by the Industry Numbering Committee (INC) to develop assignment guidelines for the 555 resource.

23. The RBOCs waited^{2/} until after the assignment guidelines were complete to consider development of the access arrangements. It was only after the assignments were made by NANPA that it became publicly known that the RBOCs apparently did not have and were not yet developing the technical means to route, screen, and bill 555 calls. The industry is now developing access arrangements. But, access customers and ESPs who have numbers assigned are currently forced to consider differing, varying and undesirable technical approaches from the RBOCs. It should be noted that the RBOCs already have their own 555 applications and routing in place. Because of the RBOCs' failure to disclose their inability to provide 555 access arrangements, MCI and other IXCs as well as ESPs have been delayed in implementing new services.

24. A similar example of where MCI has encountered RBOC delay strategies in offering new service features and capabilities concerns a national abbreviated dialing plan. BellSouth, in particular, which introduced and co-sponsored development of abbreviated dialing capabilities for over two

^{2/} Telco Planning introduced the issue of the development of 555 access arrangements to the IILC in February, 1994 as Issue #046 and to the ICCF in March, 1994 as Issue #277.

years at the IILC,^{10/} initially supported MCI's concept of developing a national abbreviated dialing plan at the Industry Numbering Committee (INC).^{11/} Then, after co-sponsoring the issue at the IILC and six months after supporting the issue when introduced at the INC, BellSouth explicitly withdrew their support^{12/} for the capability. Hence, BellSouth's withdrawal of support has delayed progress on the development of new service opportunities and puts in jeopardy the development of an abbreviated dialing plan.

25. Other RBOCs have opposed abbreviated dialing plan development for reasons ranging from inadequate numbering resources being available to meet industry demand (Bell Atlantic), to there being inadequate demand for such resources (NYNEX). BellSouth has asserted its wish to assign abbreviated codes for use in its own territory and therefore would not need a national plan, which would afford it less control of the resource. RBOC sponsorship and support of this issue in both the IILC and the INC has misled ESPs and other carriers interested in the development of abbreviated dialing capabilities, by initially causing them to believe that

^{10/} BellSouth's issue was introduced into the IILC on April 23, 1992 (Issue #036), requesting developments of abbreviated dialing access.

^{11/} BellSouth's June 1, 1994 contribution to the INC stated support for the plan. MCI's July, 1994 contribution to the INC also stated support for the plan.

^{12/} BellSouth's December 13, 1994 contribution to the INC stated opposition to the plan.

implementation was a realistic expectation.

26. Another example of RBOC actions that have misled their customers is in the area of telecommunications fraud prevention matters. The Network Operations Forum (NOF) has, as one of its standing committees, the Toll Fraud Prevention Committee (TFPC). The TFPC has been discussing the fraud prevention issues arising from call forwarding for two years, generating much attention from both IXCs and LECs.

27. These deliberations appeared to have resulted in TFPC recommendations that addressed the call forwarding fraud problems. While the TFPC was conducting its deliberations, however, the RBOCs were filing tariffs that did not address the fraud risks, and since then, two RBOCs -- including Pacific Bell, whose representative on the TFPC is the co-chair -- submitted tariffs ignoring the TFPC recommendations. In response, the IXCs have found it necessary to oppose the tariffing of this service. Thus, the efficiency and "good faith negotiation" utility of the industry forum process is questionable, at best. It is difficult, if not impossible, to understand what rationale exists for such an approach, other than an RBOC strategy to delay closure of issues, or delay saying no. It is evident that even after two years of TFPC discussions, the RBOCs apparently have no intention of supporting the agreements they made in the TFPC.

28. These dynamics are not limited to the domestic standards arena. The RBOCs can also influence the international standards process. For example, the U.S. position to the International Telecommunications Union (ITU-T) is disproportionately influenced by the RBOCs, through their ability to dominate the consensus process at Committee T1, which originates many of the U.S. contributions to the ITU-T.

29. A specific example illustrates how the RBOCs can impede those who espouse positions inconsistent with their strategies and plans. International carriers, including MCI, have been actively working to advance the standardization of a capability called Global Virtual Network Service (GVNS) in the ITU-T. The GVNS service will provide a global standard procedure and protocol at the international interface to facilitate interconnections of carrier specific, virtual private network services between countries. The RBOCs are not currently international carriers, and thus one would expect that they would have a neutral position on the development of GVNS capabilities. However, the exact opposite is true, with the RBOCs and Bellcore having argued at T1 against the positions of international carriers, such as MCI and AT&T, who were attempting to develop proposed positions to the U.S. State Department. The RBOCs and Bellcore succeeded in delaying GVNS technical contributions several times in Committee T1 standards

from going forward as U.S. positions^{13/} to ITU-T.

30. The RBOCs' dominance of standards and forums is further facilitated through another industry association, the United States Telephone Association (USTA). The USTA structure affords the RBOCs the opportunity to collectively plan and discuss their positions concerning industry technology, numbering resources, network operations, administration and LEC services. Then, the USTA position is carried into the industry standards and forum meetings, where the USTA position, while touted as being made on behalf of all local exchange carriers, is essentially another RBOC voice.

III. The RBOCs Are Able To Numerically Dominate The Industry Standards and Forum Process Through Leadership Positions and By Attendance

31. The RBOCs dominate leadership positions in the standards and forum process. Per the T1 Officers Directory, January 20, 1995, the RBOCs held 36 leadership positions, and the IXCs held 14. Of these positions, there are 14 RBOC chairs and only 2 IXC chairs. As a result, the RBOCs have the ability to steer events toward an outcome which is consistent with their business interests. The RBOCs also dominate the standards and forums process through attendance.

^{13/} The RBOC and Bellcore position concerning the GVNS standard was to attempt to force the use of the E.164 numbering plan in the service description. International providers required a network specific numbering plan to identify the carrier for routing purposes.

32. The RBOCs' domination by numbers is particularly effective at T1's working group meetings, because decisions reached at these working groups are determined by the attendees' "consensus." The working groups are subcommittees tasked by T1 to resolve most of the technical issues arising in the standards process. The RBOCs and Bellcore in this environment are able to effectively delay or prevent standards development, or drive their own objectives at the working group level by the sheer number of representatives they send to meetings.^{14/} In addition, the RBOCs are benefited by the additional voices in attendance at these meetings through the representatives of their associations.^{15/} Their massive collective purchasing power also permits them to influence positions taken by vendors.

33. By contrast, decisions on leadership and standards approval are made by a vote of member companies at the governing technical subcommittee T1 and T1 advisory levels

^{14/} For example, the following numbers are representative of traditional attendance levels at standards meetings. In a sample of working group meetings from 1987 to present, the RBOCs provided, on average, nearly 3 times the number of attendees to each meeting throughout the period as the IXCs. The T1S1.3 working group meeting in October 1988 had five times the number of RBOC attendees (39 representatives) to each IXC attendee (7 IXC representatives). The T1S1.1 working group meeting in July 1994 had 24 RBOC and 4 IXC representatives. The T1S1 meeting in October 1994 had 13 RBOC and 7 IXC representatives. It should also be noted that it is not uncommon for Bellcore attendees alone to outnumber the IXCs (e.g., T1S1.3 working group in July 1989 had 8 Bellcore attendees but only 6 IXC attendees).

^{15/} USTA and National Exchange Carrier Association (NECA) are examples.

rather than by consensus. However, even with voting by member companies at these levels, it is both very difficult and time consuming to change the outcome, because the consideration and resolution of concerns are sent back to the working group meetings, where RBOC dominance can control the outcome. The RBOCs do not dominate committee T1 with their voting memberships. However, their leadership positions, industry affiliation, and Bellcore ownership provide the dynamics to dominate the outcome of what happens and what is prevented from happening.

34. The ability of the RBOCs to dominate industry meetings^{16/} is amplified within the industry forums, where the resolution of issues is determined solely by consensus without an accompanying voting process. Thus, the result is that ESPs have limited opportunity to influence the outcome of issues in the forums and in standards. If the RBOCs do not want something to happen, it does not happen.

IV. The Bellcore Requirements Process is Also Subject to Abuse By the RBOCs

^{16/} For example, the following numbers are representative of traditional attendance levels at industry forums. In a sample of NOF, ICCF, INC and CLC meetings, the RBOCs provided, on average, greater than twice the number of attendees to each meeting as the IXCs. In March 1995, the NOF #47 general session meeting had 20 RBOC and 5 IXC representatives. In March 1991 the ICCF #22 meeting had 36 RBOC and 14 IXC representatives. In November 1994, the ICCF #33 meeting had 16 RBOC and 8 IXC representatives. In March 1995, the INC meeting had 12 RBOC and 5 IXC representatives. At the February 1995 CLC meeting, all 7 RBOCs, two independent LECs and USTA were represented, but only three IXCs were present.

35. Not only are the RBOCs able to delay the development and implementation of capabilities and control, by their dominance, the outcomes within the consensus process, but they are also able to control the development of technical specifications, which direct their equipment suppliers.

36. Bellcore's generic requirements,^{17/} now referred to as "GR-CORE", accompanied by their corresponding Issues Lists Reports (ILRs), have not addressed the concerns of ESPs. The Bellcore requirements process presents a significant obstacle to the orderly provision of new services. This is because, despite industry standards and forum agreements, there is no assurance that such agreements will be incorporated into the technical specification that is developed by Bellcore on behalf of its owners, the RBOCs. Further exacerbating the problem is the Bellcore disclaimer contained in each technical publication stating that each Bellcore client may make changes in any portion of the specification. Thus, an ESP may never know with any degree of certainty whether a standard or industry forum agreement will be implemented, or be implemented in the same manner across all access networks. In contrast, the RBOCs have a robust infrastructure for coordinated planning through their Bellcore, USTA and other national services coordinating groups. They selectively use these groups when they want to make something happen and when they do not.

^{17/} Previously, Bellcore used a Technical Advisory (TA) and Technical Requirement (TR) process to interact with industry and the vendor community.

37. Bellcore claims that its new generic requirements process provides an opportunity for industry to have input into the requirements process and avoids unnecessary problems associated with capability development.^{18/} Bellcore refers to this as an early interaction process, where equipment suppliers and users, such as ESPs, could participate in the document development process by providing input. In reality, this input from other entities carries only the weight that the RBOCs collectively decide to attach, and affords no commitment by Bellcore or the RBOCs to include such input in the technical specifications. It is the RBOCs alone that determine approval of what is or what is not contained in these Bellcore de-facto standards documents.

38. The generic requirements process is essentially the RBOCs' private standards setting process run by Bellcore to circumvent the industry standards or forum arenas. It provides a continuous opportunity to control business opportunities for ESPs and to maintain the local monopoly bottleneck.

39. Industry issues and problems concerning Bellcore or other technical documents presented for resolution can be arbitrarily dismissed by the RBOCs if they are inconsistent with RBOCs' business objectives and/or strategic plans.

^{18/} Bellcore announces new Generic Requirements process, Bellcore Digest, June, 1993.

Control of the de-facto standards setting process provides the convenience of ultimate control of what technical designs are made available.

40. An example of the RBOCs acting in an arbitrary and discriminatory manner concerns the issuance of Screen List Editing (SLE) service requirements in 1994. The SLE service provides end-users with the ability to change a switch resident table, which controls various call management features, for example, selective call acceptance or call rejection. Non-call associated SS7 signaling messages are used to facilitate this functionality. In the revised Bellcore document (TA-NWT-000220, Issue 4), the RBOCs extended the SLE service on an interLATA basis, and specified that the routing of the SS7 messages would be transported via a network chosen by the RBOC, and not based on equal access presubscription. Equal access presubscription would utilize the "Intermediate Signaling Network Identification" (ISNI) capability.

41. The RBOCs slow rolled the development of ISNI at Committee T1. However, after years of delay, they finally decided not to oppose it any longer. The RBOCs also eventually stopped opposing inclusion of ISNI in Bellcore's generic requirements documents. Hence, it would seem reasonable to expect that they intended to implement ISNI for services which would enable the routing of non-call associated signaling messages across network boundaries.. However, the RBOCs

arbitrarily determined that the SLE service would not utilize ISNI when they issued revised interLATA Bellcore requirements for SLE.

42. Moreover, when MCI brought the SLE issue to the attention of the ICCF #30 in November, 1993 requesting that the requirements be further revised to include routing of the interLATA messages based on equal access, the RBOCs refused to accept the issue on the grounds that the routing of these messages was based, and ought to be based, on the RBOCs' business decisions. A second request by MCI to address this issue was brought to ICCF #31 in March, 1994 by demonstrating how the Modified Final Judgment (MFJ) applied to this issue. The RBOCs again refused to address the issue, and stated that "they consider the routing of internetwork interLATA non-call setup to be official communications and thus a business policy decision the LEC is entitled to make."^{19/} Subsequent attempts at the ICCF and CLC^{20/} to create an industry agreement to define "official communications" were also unsuccessful and refused consideration by the RBOCs. This is another example of the RBOCs dominating the industry consensus process and controlling the de-facto design of the interconnected networks and supported services. The power of their collective opposition prevented the issue from even being considered, thus

^{19/}ICCF meeting record, ICCF #31, March 16-17, 1994, page 352.

^{20/}ICCF #32 meeting, July, 1994 and CLC meeting, September, 1994.

precluding any potential resolution. This problem is not limited to SLE and is indicative of the anticompetitive behavior of the monopolistic access providers.

43. ESPs cannot be expected to travel through the maze of industry discussions, meetings and standards processes when no clear direction and timetables exist for true unbundling. The RBOCs have established a strategy to deny true unbundling through a continuum of tactical hurdles, one after another. For example, their closed AIN architecture was not designed to provide the foundation to build an open network access environment. This resulted in the need to create new issues at the IILC. This is just another hurdle to opening the RBOC networks beyond a token level. Based on these experiences, it is clear that the RBOCs must be required to unbundle their networks for ESPs and other competitive service providers, since they will never do so on a voluntary basis.

Further Affiant saith not

Peter P. Guggina

Peter P. Guggina

Subscribed and sworn to before me
this 3 day of April, 1995.

Sheri Hayes

Notary Public

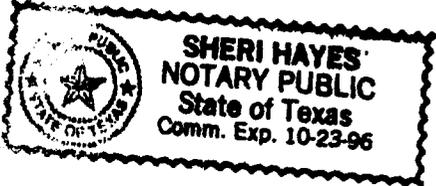


EXHIBIT C

steps to strengthen the cost allocation rules.^{86/} The Commission concludes, in the alternative, that "[t]o the extent cost accounting safeguards may involve any diminution in protection against cross-subsidization, [relative to structural separation,] the danger of this is outweighed by the benefits of integration."^{87/}

As an introductory matter, the Commission's alternative conclusion clearly must be rejected. As explained in Part I of these comments, BOC provision of enhanced services will produce no significant public benefits. It is therefore impossible for such benefits to outweigh any "diminution in protection" resulting from elimination of structural separation. The Commission's attempt to reduce its regulatory safeguard burden by reliance on supposed benefits simply is not possible. Unless nonstructural safeguards can be shown to be at least as effective as structural separation in preventing cross-subsidies, therefore, the Commission cannot reasonably eliminate structural separation. As explained below, no such showing is possible.

2. Joint Cost Allocation Is Inherently Ineffective

The problem with reliance on the Commission's cost allocation and monitoring rules as a basis for eliminating structural separation is not so much that the rules need vast

^{86/} NPRM at ¶¶ 14-30.

^{87/} Id. at ¶ 32.

improvement, which they do, but that no cost allocation rules can effectively prevent cross-subsidies in the provision of integrated services. Accounting and other non-structural separation rules and policies fail to eliminate either the incentives or the opportunities to engage in cross-subsidization of nonregulated services with monopoly profits. Nor does attempting to "fix" the rules already in existence alter their basic ineffectiveness. The flaw with the Commission's reliance upon nonstructural requirements is that neither expending resources to improve their usefulness nor mandating greater compliance with them will alleviate the underlying reality that accounting safeguards are not capable of preventing cross-subsidization.

Regardless of their form or strength, non-structural cost separations will not suffice because they fail to address three fundamental issues: (1) there is no accurate method for developing an allocator for jointly used resources; (2) telephone company control over allocation formulae and the internal data used to populate the formulae result in the distorted apportionment of costs; and (3) BOCs will continue to overproject their regulated use of joint investment and expenses, rendering incorrect any forward-based allocation.

a. There is No Accurate Method For Developing an Allocator For Jointly Used Equipment

Although BOC nonregulated operations have historically accounted for only a small portion of their total operations, the costs associated with these services are not insignificant. Projected 1990 nonregulated expenses for the BOCs are \$2.624 billion, or 4.72% of their total company expenses. If BOC nonregulated operations expand, MCI is concerned that the current problem of improper cost allocation will only magnify as the BOCs' nonregulated service costs grow.

The problems associated with joint use costing result, not necessarily from accounting abuses, but from the arbitrariness of the allocators used to divide joint costs, the BOCs' discretion to decide which of several allocators to use, and their ability to choose resources and technologies that evade the constraints of the costing process to their advantage. Simply put, there is no method that ensures correct cost apportionment of jointly used resources. On the surface, it might appear that standardization of allocators among the Tier I LECs would mitigate this problem, but there is no underlying "science" or economic theory upon which a particular standard can be chosen. Even readily trackable measures such as minutes or miles cannot accurately capture the cost causative effect that each BOC service will have on its choice of inputs or production techniques.

Further, even if a single method could be deemed the most

appropriate (though not accurately reflecting cost causation), the BOCs still retain discretion over both the compilation of the data used to calculate allocation formulae (such as usage) and the manner in which the joint services or investment are actually used. As long as the BOCs retain the incentive to engage in cross-subsidization, they will take advantage of any leeway in the implementation of cost allocation rules to benefit their unregulated ventures.

Investment in advancing technologies further increases the difficulty of achieving accurate allocations. In an integrated operation, carriers may select a technology that is more sophisticated or more extensive than is required of the regulated operation alone. The flexibility given the BOCs to choose the - technology and the way it is employed can defeat even the most accurately designed accounting mechanism. For example, if the firm installs fiber primarily to offer enhanced or other nonregulated services, then the allocation of virtually any of those network reconfiguration costs to regulated narrowband basic services will be incorrect. Certainly, any allocation based on relative usage of these facilities -- given the predominance of regulated usage -- will not reflect cost causation, but will instead impose an unfair cost burden on the services that do not benefit from these large-scale investments.^{88/}

^{88/} Accordingly, the BOCs' MFJ argument that nonregulated services bear too much of the total costs can be ignored. The
(continued...)