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Before the
Federal Communications Commission
Washington, DC 20554

In the Matters of	)	
Deployment of Wireline Services Offering	)	
Advanced Telecommunications Capability	)	CC Docket No. 98-147
	)	
and	)	
	)	
Implementation of the Local Competition	)	CC Docket No. 96-98
Provisions of the	)	
Telecommunications Act of 1996	)	

COMMENTS OF WORLDCOM, INC.

Dated: October 12, 2000

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EXECUTIVE SUMMARY

It is without question that collocation of equipment in incumbent local exchange carrier (ILEC) facilities is essential to local competition. However, delays in provisioning and restrictions on equipment installed in collocation spaces has significantly diminished its effectiveness as a tool to promote competition in the consumer markets. The Commission must take every opportunity to facilitate collocation, and interconnection between providers and access to network elements. Collocation itself is more than "used or useful" to access or interconnection to network elements. It is absolutely essential to the provision of service to both residential and small business markets. Without effective collocation, competition in the residential market is essentially crushed.

In particular, consumers would be denied the benefits of more efficient service provided by competitive local exchange carriers (CLECs), with modern equipment capable of combining the functionality of numerous pieces of legacy network equipment into a single unit. This increases cost and network efficiencies, while decreasing costs and demands on space, and eliminating unnecessary points of failure. Moreover, the common costs associated with a particular piece of equipment, when combined with the per-line costs of a single line, drive CLECs to acquire multi-functional equipment, which in turn reduces overall costs, and benefits consumers.

Adjacent collocation or other means of collocation outside of an incumbent local exchange carrier's central office (CO) are equally essential to the provision of services to consumers. In particular, without access to dark fiber between remote terminals (RT) on an unbundled basis, collocation is impracticable at the remote terminal. Moreover, the Commission

must also take all measures to allow for effective collocation at the RT, which includes requiring ILECs to deploy a reasonable number of voice and data capable line cards, and taking steps to prevent spectrum incompatibility problems when ADSL services out of a CO and an RT are carried in the same binder group.

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COMMENTS OF WORLDCOM, INC.

I. INTRODUCTION

WorldCom, Inc. (WorldCom), by its attorneys, hereby submits its comments in the above-captioned proceedings. WorldCom responds to certain issues raised in the Second and Fifth Further Notices of Proposed Rulemaking.[1]

Collocation is, and remains, essential to any realistic prospects of a competitive telecommunications industry that Congress envisioned at the time it adopted the Telecommunications Act of 1996 (1996 Act). However, since the 1996 Act codified the ILECs' obligation to provide collocation for the purpose of access or interconnection with network elements, the ILECs have engaged in dilatory tactics that have harmed consumers and prohibited vigorous competition in the telecommunications industry. For example, ILECs have failed to

[1] In the Matters of Deployment of Wireline Services Offering Advanced Telecommunications Capability and Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, Order on Reconsideration and Second Further Notice of Proposed Rulemaking and Fifth Further Notice of Proposed Rulemaking, CC Docket Nos. 98-147, 96-98, (August 10, 2000).

meet promised deadlines for space provisioning, delaying CLEC entry into a central office (CO). ILECs have also failed to permit competitive local exchange carriers (CLECs) to deploy multi-functional equipment in CLEC-controlled collocation space. Such equipment is not only necessary for simple access or interconnection with network elements, but also provides increased network and space efficiencies while decreasing costs and dependence on ILEC equipment.

Additionally, the Commission must take appropriate steps to ensure that CLECs are able to collocate in remote terminals and other non-central office environments. In the event that collocation at a remote location is selected by a CLEC to provide services to consumers, ILECs must have an adequate number of voice and data-capable plug-in cards available, or permit CLECs to collocate their own voice-data capable cards. Moreover, ILECs must provide sufficient dark fiber or copper to bring the remote collocation-generated traffic back to the CO, and ensure that spectrum incompatibility does not disrupt any CO-based ADSL offering carried in the same binder group.

ARGUMENT

II. THE COMMISSION MUST RECOGNIZE THAT IN ORDER FOR COLLOCATION TO SATISFY CONGRESS'S GOAL OF COMPETITION, ILECS MUST BE OBLIGATED TO FACILITATE THE COLLOCATION PROCESS

In the Second Further Notice of Proposed Rulemaking, and in light of the D.C. Circuit's decision in GTE v. FCC, the Commission seeks comment on how the FCC should define a piece of equipment as "necessary" under § 251(c)(6) and whether that equipment could be collocated if it has multi-functional purposes. Moreover, the Commission sought comment on whether its

rules on subloop unbundling and line sharing required modification in light of any changes to collocation rules. As set forth below, WorldCom believes that equipment is "necessary" when it promotes facilities-based competition, and multi-functional equipment can and should be used to satisfy the Commission's goal of promoting subloop competition. Moreover, additional subloop unbundling is required in order to make collocation an effective tool to promote line sharing, line splitting, and the development of other advanced services.

A. How Should The Commission Define Necessary?

The Commission has requested that commenters propose alternative definitions of "necessary," and to explain why each proposed definition would be consistent with the statutory language and the purpose behind § 251(c)(6). Second Further Notice of Proposed Rulemaking in CC Docket No. 98-147, at ¶ 75. WorldCom proposes the following definition:

> **The physical collocation of equipment is "necessary" for interconnection or access to unbundled network elements if the inability to use such equipment would seriously impair or obstruct CLECs' ability to compete on a facilities basis with the ILEC for customers in any geographic area, giving the ILECs an unreasonable competitive advantage that CLECs cannot otherwise overcome on a timely basis.**

This definition is fully within the limits of "the ordinary and fair meaning" of the statute's terms and is consistent with the statutory purpose.

1. Ordinary And Fair Meaning Of "Necessary"

The word "necessary" is susceptible of various meanings and must be considered in the statutory or constitutional context in which it used.[2] Courts over the years have applied many judicial interpretations to the term. In many of these cases, court have rejected the notion that

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[2] See Black's Law Dictionary (5th ed. 1979) ("necessary" "is an adjective expressing degrees.")

"necessary" must be equated with "indispensable" or "required," and instead have applied far less rigid meanings.

For example, many years ago in M'Culloch v. State of Maryland, 17 U.S. 316 (1819), the Supreme Court stated that "necessary" does not always import "an absolute physical necessity," but rather its use in "the common affairs of the world, or in approved authors," imports no more than that one thing is "convenient, or useful, or essential to another."[3] Over a century later, the Court interpreted "necessary" in the context of section 3(j) of the Fair Labors Standards Act and stated that reading "necessary" in the highly restrictive sense of "indispensable," "essential," or "vital" would give an "unwarranted rigidity to the application of the word."[4] The Court instead concluded that the term means that which is "practically necessary."[5]

Given the various flexible meanings of "necessary" over the years, WorldCom's definition is well within the limits of the term's "ordinary and fair meaning." Moreover,

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[3] M'Culloch v. Maryland, 17 U.S. 316, 413 (1819).

[4] Armour & Co. v. Wantock, 323 U.S. 126, 129 (1945).

[5] Id. at 130. Numerous other court have also interpreted the term "necessary" liberally. See, e.g., C.I.R. v. Tellier, 383 U.S. 687, 689 (1966) ("ordinary" and "necessary" expenses need only be "appropriate and helpful"); United States v. Hernandez-Urista, 9 F.3d 82, 83-84 (10th Cir. 1993) (subpoena is "necessary" if witness' presence is "relevant, material and useful"); Federal Labor Relations Authority v. United States Dep't of Defense, 984 F.2d 370, 372-73 (10th Cir. 1993) (deferring to the FLRA's interpretation of "necessary for full and proper discussion . . . of collective bargaining" to include union's right to employees' home addresses because communications with workers at home was necessary even though alternative means of communication existed); Chrisner v. Complete Auto Transit, Inc., 645 F.2d 1251, 1261-62 (6th Cir. 1981) (business necessity defense to Title VII disparate impact claim need not show indispensability; "[r]ather, the practice must substantially promote the efficient operation of the business"; F.T.C. v. Rockefeller, 591 F.2d 182, 188 (2nd Cir. 1979) (ancillary investigation "necessary" to the main investigation under section 6 of the Federal Trade Commission Act if it "arise[s] reasonably and logically out of" the main investigation; ancillary investigation need not be "absolutely needed" or "inescapable").

WorldCom's definition of "necessary" is not nearly as open-ended as the "used or useful" definition originally proposed by the Commission, which the D.C. Circuit specifically rejected as "overly broad."[6] By contrast, WorldCom's definition gives considerable substance to the meaning of "necessary."

Under the Court's interpretation of the current definition, collocated equipment must be more than "used and useful" for interconnection or access to UNEs. However, the D.C. Circuit directs the Commission to find the appropriate balance to best promote facilities-based competition. The Court notes that the FCC's prior interpretation of section 251(c)(6) was impermissibly broad because it could permit CLECs to collocate equipment with "unnecessary multi-purpose features, such as enhancements that might facilitate payroll or data collection features."[7] As will be discussed below, that is not the nature of the equipment that CLECs generally seek to collocate. It is generally equipment that provides network efficiencies, and an increased ability to interconnect or route traffic destined for an interconnected partner. Without this ability, competition is stifled, networks do not operate in the most stable and efficient manner possible, and customers are denied access to competing services.

There can be no doubt that competition is an appropriate focus for the definition of "necessary."[8] As discussed more fully below, ensuring facilities-based competition is the

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[6] GTE Service Corp. v. Federal Communications Commission, 205 F.3d 416, 422 (D.C. Cir. 2000).

[7] Id. at 424.

[8] In this sense, WorldCom's definition is similar to the definition for "necessary" set forth by the Commission for purposes of section 251(d)(2) in the UNE Remand Proceeding. Both definitions focus "on the competitor's ability to furnish a desired service, and not merely on whether profits are increased" by use of an element or piece of equipment. See UNE Remand

principal purpose of section 251(c)(6). This is reinforced by much of the language included in section 251(c)(6). Indeed, the first part of section 251(c)(6) specifies that an ILEC must provide physical collocation "on rates, terms, and conditions that are just, reasonable, and nondiscriminatory," and the last part of the section provides that ILECs may refuse physical collocation only where it is not "practical for technical reasons or because of space limitations," and, even then, the ILEC must offer virtual collocation as a substitute. This language clearly illustrates Congress' intent that collocation is fundamental to bringing competing services to local markets.

Finally, WorldCom's definition of "necessary" is also in accord with the D.C. Circuit's statement in GTE Service Corp. that the definition's rationale cannot be based on presumed cost savings alone.[9] WorldCom's definition focuses on enabling competition, as opposed to cost. While competition and cost savings are certainly related, with cost savings contributing to whether or not a CLEC can compete with an ILEC for customers, it is just one factor. Also relevant are the efficiencies and functionalities that the equipment provides, and whether the equipment used by the ILEC to serve its own customers contain the same efficiencies and functionalities. Therefore, WorldCom's definition is well within the realistic meaning of the statutory term.

2. Consistent With The Statutory Purpose

In addition to being fully within the limits of "the ordinary and fair meaning" of the

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Order, at ¶ 45. However, the precise definitions are different because the contexts in which the term is used are different.

[9] GTE Service Corp., 205 F.3d at 424.

statutory term, WorldCom's definition of "necessary" is also wholly consistent with the statutory purpose. As the D.C. Circuit noted in GTE Service Corp., section 251(c)(6)'s statutory purpose is "to ensure competition in areas of advanced technology in telecommunications."[10]

WorldCom's definition of "necessary" is specifically designed to fulfill this statutory purpose. Application of the definition would entitle CLECs to physically collocate state-of-the-art mixed-use equipment that CLECs require to provide services (either basic or advanced) to their customers, if the CLECs could show that they would be impaired in their ability to offer competitive service without that equipment. This includes multi-functional equipment such as remote switching modules, which are capable of terminating circuits as well as performing multiplexing and switching functions. All of these functions are necessary for the provision of competitive services and, for this reason, are part of the multi-functional equipment that ILECs are currently installing and using in their own central offices and remote terminals to provide advanced services to their *own* customers. Thus, depriving CLECs of the ability to collocate and use the *same* equipment would seriously impair and obstruct CLECs' ability to compete with ILECs for customers. This would be wholly inconsistent with the goals of section 251(c)(6) and the pro-competitive goals of the Act in general.

For all of these reasons, WorldCom's proposed definition of "necessary" is proper and should be adopted by the Commission.

B. Why Multi-Functional Equipment Is Necessary

The FCC asks whether section 251(c)(6) should be read to interpret the definition of "necessary" as "permitting physical collocation of equipment having additional capabilities, such

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[10] Id. at 422.

as the multi-functional equipment incumbent LECs deploy in central offices and remote terminals."[11] The answer is a resounding yes.

At the center of this debate lies the question of whether CLECs can collocate switching equipment, or equipment that has switching capabilities incorporated into other functions or features, and whether, as the Commission asked, this multi-functional equipment is "necessary" for access to or interconnection with network elements. However, as Gluon Networks points out in its filing, this is not the correct question, because "multi-function equipment is equivalently necessary to the uncombined systems and is more efficient."[12]

For example, the digital loop carrier systems being deployed by the ILECs are similarly attractive to CLECs. Via time division multiplexing, unbundled loops can be aggregated into several different services, including switched voice and private line services. Integrated remote switching equipment can also separate out long distance traffic from local traffic to unbundle locally switched voice service. Both these types of equipment are necessary for interconnection with network elements, and are capable of providing such access in smaller spaces, requiring less power, performing more efficiently, decreasing the number of points of failure, and generally costing less than the dis-aggregated equipment.

Without this integration, it would not be economically feasible for smaller companies to become facilities-based. The additional costs assumed in purchasing separate, single-function equipment, when combined with the additional costs incurred for provisioning (and the need for additional space subsumed by this additional equipment) make it less likely for smaller entrants

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[11] Collocation Order at ¶ 74.

[12] Comments of Gluon Networks, Inc., filed September 25, 2000, at 4.

to move towards residential markets. Moreover, multi-functional equipment is necessary for CLECs to be able to compete against ILECs to provide the same services to consumers. As long as the multi-functional equipment aids in the transmission and routing of telephone exchange service or exchange access in accessing UNEs or interconnection between carriers, whether such traffic is voice or data, it should be permitted for collocation purposes.

The ILECs would vehemently oppose any attempt by the Commission to restrict their use of DSLAMs that incorporate a splitter function into the unit. They would similarly object to any prohibition on the use of integrated voice and data "plug-in" line cards in digital loop carrier (DLC) environments. The ILECs use DSLAMs and integrated plug-in cards to transmit and route telephone exchange service or exchange access service over the same network elements as CLECs. Thus, any argument that multi-functional equipment is beyond the bounds of the 1996 Act is fatally flawed. If it were unnecessary, it would not be employed by ILECs to serve the very same functions needed by CLECs.[13] The same holds true for DLC systems and remote switching. Integrated equipment is used by ILECs to facilitate the provision of service to its own customers. Those interests do not change simply because the underlying service is provided by CLECs over essentially the same network.

C. Next Generation Digital Loop Carriers Are Necessary For Access To Or Interconnection With UNEs

The Commission asks whether line cards are necessary for access to UNEs in "next

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[13] If the Commission were to restrict CLECs from collocating multi-functional equipment, the same restrictions must be imposed on the advanced service affiliates of the ILECs.

generation" digital loop carrier (DLC) configurations.[14] The term "next generation" is particularly relevant to the discussion about whether multi-functional equipment is necessary for access or interconnection purposes. As the Commission recognizes, "next generation" is simply a synonym for "integrated" when discussing DLC configurations.[15] The DLC system is, in itself, a multi-functional service, and that is its appeal to ILECs. The very line cards that form the platform of a customer's service out of the DLC remote terminal can be integrated to provide for both voice and data capability. These line cards, also known as "plug-ins," can serve multiple functions. Certain cards provide for voice only, while others provide for both voice and data. Thus, the very premise of next generation, or integrated, DLC service is to use multi-functional equipment to deploy fiber deeper into neighborhoods. It is disingenuous for ILECs to argue that CLECs cannot access these line cards to access or interconnect with network elements. The fact that advanced services may be provided with the use of a multi-functional voice and data line card is entirely irrelevant. Without access to integrated voice and data cards in DLC systems, CLECs are unable to offer a service that can be provided by ILECs, and thus cannot compete in the marketplace to provide consumer services. Accordingly, the Commission should determine, either in the context of this docket or within the UNE Remand proceeding, that voice and data-capable line cards are necessary to the CLECs' provision of service, and must be unbundled by the Commission.

D. Cross-Connects Are Necessary For Access Or Interconnection

In order for CLECs to be able to provide services to consumers in the same manner, time

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[14] Collocation Order at ¶ 82.

[15] Id.

frame, and quality as ILECs, ILECs must provide cross-connects. A "direct, physical link between two collocators' collocated equipment is 'necessary for interconnection. . . at the premises of the local exchange carrier,'"[16] regardless of whether CLECs can engage in direct or indirect interconnection outside the ILECs' premises. It is a competitive tool without which CLECs cannot compete. In line sharing or line splitting configurations, the ILEC must provide the cross-connect at the Main Distribution Frame (MDF), or permit CLECs access to the MDF to run the cross-connects themselves. In cases where an ILEC is rolling out IDLC systems, the ILEC must provide cross-connects. Otherwise, the ILEC must grant open access to the Fiber Distribution Frame (FDF).

If the Commission were to deny cross-connects to CLECs, collocators would be forced to ask the ILECs to cable the traffic outside of the ILEC facility to a CLEC fiber, which would have to be connected to the other collocator at a physical location nearby, or brought back to the CLEC's point of presence (POP).[17] If it is brought back to a POP, then the traffic intended for the collocating partner is sent over the network until it reaches the partner's POP, at which point the traffic is handed off. This alternative process is unduly cumbersome and creates numerous potential points of failure. The signal also requires boosting, as each point of interconnection over fiber causes a 0.5 dB signal power attenuation.[18] This, in turn, could lead to additional failure that would not occur if the ILECs were to provide simple cross-cables within their offices

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[16] Collocation Order at ¶ 90.

[17] It is worth noting that if the ILEC requires collocating companies to interconnect outside of the CO, that the ILEC is forced to cable that traffic outside the CO itself, a more detailed procedure than a simple cross-connect between CLECs.

[18] See Collocation Order at ¶ 92.

or premises.[19]

It is worth noting that in the Internet industry, cross-connects are provided by the company providing the collocation space. Companies like Colo.com or CO SpaceServices.com offer a variety of cross-connects, and Colo.com will pre-wire to collocation cabinets.[20] This is done so that the facility remains under the control of the owner, and promotes security of equipment, certainty of service, and consistency in wiring. The competitive marketplace simply would not tolerate collocation providers which refuse to provide cross-connects. It defies logic that the telecommunications industry must still debate the ILECs' obligation to provide cross-connects. In order to continue to move away from the legacy monopoly of yesterday and enjoy the competitive success of the Internet, the ILECs must provide cross-connects.

Alternatively, the Commission should require ILECs to provide cross-connects within ILEC facilities on the same basis as made available to their advanced service affiliates (ASA). In any instance where an ILEC provides a cross-connect between a CLEC and its ASA, the same service should be provided on the same terms and bases to the CLECs. ILECs have not made any indication that they are not willing to provide cross-connects to its ASAs. Accordingly, any service provided to the ASA must be provided on the same non-discriminatory basis to the CLECs.

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[19] Of course, the FCC has the option of permitting CLECs to provide their own cross-connects between collocations. See Collocation Order at ¶ 91. However, given the lack of access provided to CLECs of ILEC wiring and connectivity within the central office generally, this option would be rendered unworkable by the ILECs.

[20] See www.COSpaceServices.com/products/crossConnects.html; see also www.colo.com/english/solution/service_specs.htm for examples of cross-connects made available as a service to collocators within Colo.com's facilities. Cross-connects are also a standard feature of collocation service provided by E-Colo.com, Equinix, and Exodus Communications Inc.

E. The ILECs Must Allow Collocation At Remote Terminals

In order to facilitate subloop unbundling, ILECs must permit CLECs to use data-capable line cards, and must provide for sufficient dark fiber for transport to the CO, as new RT facilities are constructed. Industry discussions reflect that SBC's Project Pronto intends to use remote terminals that have only one data-capable card for every three voice-only cards installed.[21] Moreover, SBC is not providing for sufficient fiber from the RT to the CO for use by CLECs providing service out of that remote terminal. SBC is generally deploying twelve strand fiber to the RT, and has announced that only two strands will be available for CLEC use.[22] In other words, only two CLECs will be able to transport data back to the CO from the RT. The Commission must not permit SBC to control the number of market participants in such a manner.

Effective collocation also requires the ability to collocate DSLAMs remotely. In the event that ILECs continue to refuse collocation of DSLAMs, ILECs must be directed to offer several options: (i) unbundle DSLAM equipment at RTs (e.g. lease DSLAM line cards at RTs to CLECs), and (ii) where possible, permit CLECs to self-supply the required line cards, at CLECs' request.

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[21] Each card, either voice only or voice-data capable, has four ports per card.

[22] See Testimony of George Kubes, Transcript of Proceedings, Section 271 Compliance Monitoring of Southwestern Bell Telephone Company of Texas, Texas Public Utility Commission, Project Nos. 20400, 22165, Sept. 14, 2000 at 215-17. ("The fiber that's being deployed is typically in 12 fiber strands because that's the normal type configuration. . . . In other words, assuming that it's a Litespan, I have to have four fibers for the TDM side. I have two fibers for the ATM side. I might have another MUX -- SONET type MUX there where I have to have four fibers. That would be my ten-fiber complement. I would have a ribbon of 12 available at that RT site").

F. Spectrum Compatibility Problems Require The Commission To Provide Access To Remote Terminals For Competing Carriers Providing ADSL Out Of A Central Office Where The Traffic Is Carried Within The Same Binder Group As ADSL Traffic Coming From The RT

Spectrum compatibility remains an issue with intermediate transceivers (remote terminals, repeaters, amplifiers) that requires Commission assistance. Repeatered and Integrated Digital Loop Carrier (IDLC) deployed HDSL, HDSL-2, T1, and ADSL systems mixed with CO-based ADSL systems are not spectrally compatible. Currently, there is no protection given to the carrier with the CO-based ADSL. SBC's Project Pronto is a real-world case of this scenario.

If an intermediate transceiver system (e.g., remotely deployed ADSL) occupies the same binder as ADSL deployed from the CO, then the intermediate transceiver system has the capability of rendering the CO-based ADSL system inoperable. This is due to the potential of increased far-end crosstalk (FEXT) into the CO-based ADSL receivers since the intermediate transmitters, in effect, have moved closer to the CO-based ADSL receivers (CPE).[23] Thus, the Commission must be sensitive to spectrum management concerns. If ILECs permit collocation at remote terminals to provide ADSL service (in addition to HDSL, HDSL-2, and T1), these concerns are eliminated, and consumers have more than one option for ADSL service.[24]

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[23] Some preliminary reviews have indicated that the CO-based ADSL services would be completely disabled in this scenario, even if the remote ADSL was deployed several thousand feet from the CO.

[24] For guidance on these issues, the Commission should look to Technical Subcommittee T1E1.4, the Working Group on DSL Access, that deals with spectrum management issues. T1E1 will be releasing a spectrum management plan in the near future that can assist the Commission in addressing these concerns.

III. IN INSTANCES WHERE NEXT-GENERATION DLC IS DEPLOYED TO PUSH FIBER DEEPER INTO NEIGHBORHOODS, CLECS MUST RETAIN THE RIGHT TO ACCESS REMOTE FACILITIES TO PROVIDE SERVICES TO CUSTOMERS

The Commission seeks comment on "whether in deployment of new network architectures, including the installation of fiber deeper into the neighborhood, necessitates any modification to or clarification of the Commission's local competition rules, particularly our rules pertaining to access to unbundled transport, loops, and subloops."[25] In instances where ILECs deploy fiber deeper into neighborhoods and communities, CLECs must have available corresponding rules that permit unbundled access to dark fiber and spare copper, as a part of subloop unbundling. Moreover, ILECs must be required to provide cross-connects at the RT as they would in a central office or other ILEC facility, as technically feasible.

As stated above, SBC has indicated that it will only make two strands of fiber within a twelve strand line available for use by CLECs. Of course, this is a significant limitation on the number of CLECs or DLECs able to provide service out of an SBC remote terminal, as they are being deployed today. This is entirely anti-competitive, fails to promote the Commission's goals, and favors SBC's advanced service affiliate over other CLECs.

As the Commission noted, "new network architectures that employ NGDLC systems will allow incumbent LECs to provide xDSL services (as well as traditional voice services) to customers that are served by loop facilities consisting of fiber feeder plant and copper distribution plant."[26] If sufficient dark fiber (or excess copper) is not made available on an

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[25] Collocation Order at ¶ 118.

[26] Collocation Order at ¶ 124.

unbundled basis for use by CLECs and DLECs that are able to obtain access to the limited number of voice-data line cards in a remote terminal, those companies should be able to bring the traffic back to the central office, and not leave it stranded for lack of fiber capacity between the CO and the RT.[27] Accordingly, the Commission should visit the issue of inter-facility transport, and require ILECs to provide the appropriate access to fiber or unbundled multiplexing equipment that permits competitive access to ILEC remote facilities.[28]

[27] The same concerns apply with respect to unbundled access to excess copper.

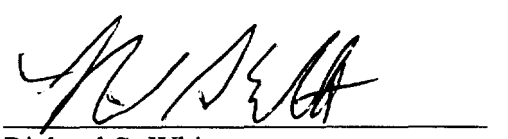
[28] Collocation Order at ¶ 120.

IV. CONCLUSION

In order to continue to promote competition, the Commission should require ILECs to permit, in accordance with § 251(c)(6), collocation of equipment that provides CLECs the same competitive opportunities as ILECs. Under the definition of "necessary" proposed by WorldCom, both multi-function and single-function equipment must be collocated in order to create the same competitive opportunities as the ILECs. Cross-connects are also required for competition, and should be provided on the same basis as made available for the advanced service affiliate. Moreover, the Commission should take any and all steps necessary to permit CLECs to provide services out of remote terminals, or controlled environment vaults or huts, including collocation of (or unbundled access to) line-cards, DSLAMs, dark fiber, excess copper, and multiplexing equipment.

Dated October 12, 2000

Respectfully submitted,



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CERTIFICATE OF SERVICE

I, Denise E. Akoto, hereby certify that I have this 12th day of October, 2000, sent a copy of the foregoing " Comments of WorldCom, Inc. " by hand delivery, to the following:

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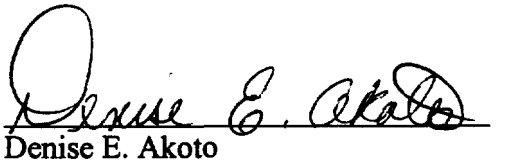

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