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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
Implementation of the Local	)	**CC Docket No. 96-98**
Competition Provisions of the	)	
Telecommunications Act of 1996	)	

DECLARATION OF EDWIN A. FLEMING ON BEHALF OF WORLDCOM, INC.

1. My name is Edwin A. Fleming. My business address is One Tower Lane, Suite 1600, Oakbrook Terrace, IL 60181. I have a Bachelor of Science degree in Business and am a Certified Public Accountant.

2. I am employed by WorldCom, Inc. (WorldCom), and I serve as a Senior Manager of Strategic Business Planning. My responsibilities include evaluating and managing building additions to WorldCom's local network and planning local network expansions.

I. Purpose and Summary

3. The purpose of this declaration is to describe the process that WorldCom uses to extend its local network to additional buildings or to additional LEC central offices. I also discuss the analysis contained in the Reply Declaration of Robert

W. Crandall (Crandall Declaration), filed on April 30, 2001 with the Reply Comments of the United States Telecom Association (USTA).

4. In Parts II and III below, I show that the construction of high-capacity loop and transport facilities is time-consuming and requires significant levels of capital investment. In Part IV below, I show that the Crandall Declaration underestimates the cost of extending a CLEC network to a new building.

II. The "Building Add" Process

5. The "building add" process involves the construction of a "lateral" from an existing WorldCom local network to a new customer building. In some cases, especially if the lateral is short or mainly traverses private property, the lateral may consist of only a single path. But for customers whose requirements demand a high level of reliability, and for longer laterals that primarily use streets or other public rights-of-way (where there is a higher risk of cable cuts), WorldCom often uses "diverse routing," i.e., two separate paths, between the WorldCom ring and the customer building.

6. If the building in question is more than a mile from WorldCom's local network, it is not evaluated using the building add process. Buildings that are more than a mile from the existing ring would only be added as part of new subnetwork construction, which is typically a multimillion dollar project.

7. The addition of a building to WorldCom's local network incurs outside plant costs (including rights-of-way, trenching, labor, and conduits and fiber); the cost of building access (including the building access agreement and the cost of preparing

the "POP space"); and the cost of transmission electronics at the customer premises and at WorldCom's local network node.

8. Building adds are extremely expensive. The cost of WorldCom's recent building adds, most of which have involved short laterals of a few hundred feet or less, has averaged $250,000.

9. Building adds are also time-consuming. Building adds generally take between six to nine months, but can often take substantially longer. In general, the most time consuming part of the process is not the construction itself, but the negotiation of rights-of-way and building access agreements

10. If projected WorldCom customer demand in a building is a DS-3 or less, the building is generally not even considered for a building add. In WorldCom's experience, it is more cost-effective to serve customers in these buildings using ILEC special access services. For larger buildings where WorldCom projects WorldCom customer demand of several DS-3s or optical level circuits, the building add decision is made using a screening process that compares projected revenues to the cost of the building add and that also takes into account the risk that revenues will be lower than projected. Because building adds are so expensive, WorldCom is able to add only a limited number of buildings to its local network each year.

III. Construction of Transport Facilities

11. When WorldCom extends its network to an additional ILEC central office, it uses a diversely-routed architecture, constructing a ring that connects existing

WorldCom network facilities to the ILEC central office. Because WorldCom uses a diversely-routed architecture, the trenching that is required will be substantially greater than the line-of-sight distance between existing network facilities and the ILEC central office.

12. Adding a central office to WorldCom's network incurs outside plant costs (including rights-of-way, trenching, and conduits and fiber); the cost of collocation; and the cost of transmission electronics at the customer premises and at WorldCom's local network node.

13. The extension of WorldCom's local network to an ILEC central office is extremely expensive. In WorldCom's experience, the extension of WorldCom's local network to an ILEC central office generally incurs an expenditure of at least $1 million, even for a central office that is close to existing WorldCom network facilities.

14. In most cases, however, costs are substantially higher. Typically, the extension of WorldCom's local network to an ILEC central office requires several miles of outside plant construction, at a cost of between $200,000 and $400,000 or more per mile. For example, I estimate that the extension of WorldCom's local network to the two largest "offnet" central offices in Seattle would require 7.5 miles and 7.0 miles of outside plant construction.

IV. Crandall Declaration

15. I have been asked to review the Crandall Declaration and the associated cost study prepared by the Cambridge Strategic Management Group (CSMG). I have the following observations.

16. First, CSMG inappropriately assumes that the length of the lateral is equal to the shortest path between the CLEC network and the target building. As I discuss above, laterals are often diversely-routed. Where diverse routing is used, WorldCom local network engineers assume, as a rule of thumb, that the length of the lateral will be 2.5 times the "line-of-sight" distance.

17. Even if diverse routing is not required, it is unrealistic to assume that the length of the lateral will be equal to the "line-of-sight" distance. Streets and other available rights-of-way rarely follow the shortest path. By failing to recognize this constraint, CSMG has underestimated the outside plant construction cost by a significant amount.

18. Second, CSMG appears to have underestimated the trenching costs. While CSMG's estimate of $17 to $30 per foot is perhaps a reasonable estimate of trenching costs for a "building add" in suburban areas, trenching costs in the central business district of major cities are often much higher, at least $70 to $100 per foot. Costs are higher in these areas because trenching requires digging up and then repairing streets and sidewalks.

19. Third, the CLEC network maps appear to be inaccurate. To the extent that I can discern the claimed path of WorldCom's network on the maps in the Crandall

Declaration, it appears that some of the routes shown on the map include WorldCom conduit that is generally not used for its local network; include long haul fiber routes; or are otherwise inaccurate. Because Worldcom's long haul network is designed for transport between cites, the use of a small section of the fiber pair for a building addition generally makes the remainder of that fiber pair running between the cities unusable. Accordingly, the use of long haul fiber for building additions is normally not economically feasible. In addition, WorldCom's long haul fiber routes often do not even have spare fibers that could be used for building adds. As a result, WorldCom rarely extends fiber from its long haul network to customer buildings.

20. Fourth, I note that the costs of outside plant construction in the six cities studied in the Crandall Declaration are substantially lower than construction costs in top-10 MSAs such as New York, Washington, DC, Los Angeles, and San Francisco.

Declaration

I declare under penalty of perjury that the foregoing is true and correct.

Executed on June 11, 2001.

/s/ Edwin A. Fleming
Edwin A. Fleming

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

Edwin A. Fleming

June 11, 2001

[redacted]

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Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers	)	CC Docket No. 01-338
	)	
	)	
Implementation of the Local Competition Provisions of the Telecommunications Act of 1996	)	CC Docket No. 96-98
	)	
	)	
Deployment of Wireline Services Offering Advanced Telecommunications Capability	)	CC Docket No. 98-147

DECLARATION OF IAN T. GRAHAM ON BEHALF OF WORLDCOM, INC.

1. My name is Ian T. Graham and I am Executive Director, WorldCom OnNet DSL. In this role, I have operational responsibility for executing WorldCom's facilities-based DSL strategy, which is largely centered around WorldCom's acquisition of certain DSL network assets of Rhythms NetConnections ("Rhythms"). Before this, I held the positions of Senior Director and Director of Global Capacity Acquisition for WorldCom and its UUNET affiliate. Part of my responsibilities in those positions involved managing the company's relationships with Covad Communications, Rhythms, and NorthPoint Communications, which were then the three major national competitive providers of DSL services. In addition, I worked closely with Product Management and other business units on the company's efforts

to obtain arrangements with each of the Regional Bell Operating Companies ("BOCs") for the resale of DSL.

2. The purpose of my declaration is to explain WorldCom's current DSL strategy and its evolution, and to demonstrate that this strategy is dependent on the continued availability of unbundled network elements ("UNEs") from the BOCs. If WorldCom is denied access to select UNEs necessary for the provision of DSL services, this will result in a growing customer base (*i.e.*, small to medium sized businesses, enterprise customers and independent Internet Service Providers ("ISPs")) being deprived of the benefits of cost-effective high-speed access, all because the BOCs have ignored this customer segment in developing their DSL offerings.

The Business Case for DSL

3. DSL has a number of features that make it a more attractive access solution than a dial-up connection or a high capacity leased line (*e.g.*, T1) for a broad variety of customers. First, unlike dial-up, DSL can be provided at a variety of speeds, each of which can be made available at different price points. With DSL, customers can tailor their bandwidth purchase to their specific needs. Second, the terminating equipment and local transport facilities required for DSL are generally much less expensive than those required for high-capacity leased line services, such as a T1 or fractional T1 (frame relay) service. Third, DSL, particularly ADSL service using line-sharing, can be provisioned more quickly than high-capacity leased service, because, in most cases, the installation of the customer premise equipment ("CPE") can be handled by end users, most of whom are not specially trained in computer or information technologies. This helps lower the cost of installing the

service relative to high-capacity service options. Finally, in its various flavors and options, DSL is flexible enough to meet the broadband access requirements of most small/medium businesses, enterprise teleworkers, and end users of ISPs. Customers upgrading dial-up connections to DSL generally experience a significant and satisfactory decrease in the amount of time it takes to download information.

4. Because of these features, DSL is an attractive access solution for four main customer segments. First, retail, end-user customers that use the Internet frequently, or that use it for Internet-enabled applications such as online entertainment, file-sharing, and digital picture and video presentation, are buying DSL as a "dial upgrade."

5. Second, small and medium sized businesses can use DSL to access the Internet for document sharing, online research (such as Lexis.com), online procurement, email, and other collaborative online business applications (such as Web-based video conferencing or net-meetings). These business customers often cannot afford the costs associated with a high-capacity leased line, but at the same time cannot afford the application unresponsiveness associated with performing these functions over a dial-up connection. DSL is the perfect solution for their needs because it provides them with the amount of bandwidth they need but at a cost less than a high-capacity leased line.

6. The third segment is the enterprise segment. Large Fortune-500 companies find DSL to be a cost-effective way of connecting many different retail or distribution points (such as gas stations or fast-food restaurants) to a private corporate network. These companies may use DSL services to connect nodes on a private

corporate network using traditional data networking protocols, such as frame relay or ATM services, or using newer IP virtual private networking ("IP VPN") protocols. In addition, these companies are increasingly turning to DSL as an access solution for remote work and telecommuting solutions in which the company buys the employee's DSL line at home or reimburses the employee for the costs of such service.

7. Finally, independent ISPs have found DSL to be an excellent delivery mechanism for Web content and other ISP services such as Web hosting, email, news, information, online photo albums, online scheduling services, online auctions, and a broad variety of other applications.

8. As described in more detail below, of these four customer segments, the BOCs have targeted the first at the expense of the other three.

WorldCom's DSL Product Offerings

9. WorldCom currently offers a variety of DSL products: Enterprise DSL ("EDSL"), Internet DSL ("BDSL"), Private Label DSL—Access Edition ("PLDSLA") and Private Label DSL—Internet Edition ("PLDSLI"). WorldCom's OnNet DSL products support a broad range of applications including Internet, frame relay, ATM and virtual private networks ("VPNs"). As discussed below, the various product features have evolved somewhat over time as the means through which WorldCom provided such services have changed.

10. ***Enterprise DSL***: EDSL is used to provide frame relay, ATM and other data services to small and medium sized businesses and to enterprise customers with a requirement for many, dispersed, faster-than-dial data service connections (such as gas stations, retail chains and franchises). EDSL includes symmetric

bandwidth for upstream and downstream traffic, multiple static Internet protocol addresses ("IP addresses"), routers for use as CPE, domain name ("DNS") hosting and a variety of access speeds, depending on the application, ranging from 128 kbps (kilobits per second) up to 7.0 Mbps (megabits per second), WorldCom currently offers a Service Level Agreement ("SLA") to its customers to cover network service up to the demarcation point between the BOC copper loop and the WorldCom facilities-based DSL network. There is a strong demand from WorldCom's customers for business-grade (T1 equivalent) service level guarantees that extend through the BOC copper loop, but WorldCom has been unable to offer such enhanced SLA coverage for the copper loop portion of the Enterprise DSL service because the BOCs have refused to provide business-grade mean time to repair and other service guarantees for their xDSL UNEs. WorldCom has been asking for such improved last-mile SLAs from the BOCs for the unbundled network elements for 2 years.

11. ***Internet DSL***: BDSL is an Internet access product that WorldCom sells to two types of customers: Solo and Office. The Solo BDSL product is for a single user, and is primarily targeted to sole proprietorships, home offices, and enterprise customers wishing to purchase teleworker DSL connections for employees to use as a remote work location. It provides asymmetric bandwidth, two static IP addresses, and bridges for CPE. The use of static IP addresses distinguishes this product from traditional BOC retail DSL offerings, which generally use dynamically-assigned IP addresses that are less suitable for business applications and secure networking (VPNs). The Office BDSL product is designed for a small, multi-user location such as a small business or an enterprise location such as a remote sales

office. The Office versions provides symmetric bandwidth in speeds from 128 kbps to 1.0 Mbps, multiple static IP addresses, routers for CPE, DNS hosting, and email accounts.

12. ***Private Label DSL***: Private Label DSL, in both Access and Internet Editions, offers both symmetric and asymmetric bandwidth service that WorldCom sells to enterprise customers in bulk for use as a large-scale remote work or telecommuting solution, and to ISPs, on a wholesale basis, for resale to end users. PLDSL includes a full suite of CPE options from low-end bridges to high-end routers, self-installation and professional installation options, and both dynamic and static IP addressing configurations for the Internet Edition. The difference between the Access and Internet Editions relates to the way in which WorldCom hands off the data traffic to the customer. For the Access Edition, we provide our customer with an aggregated traffic stream at the ATM layer. The customer provides its own IP addressing and Internet access to the end user. For the Internet Edition, we carry the customer's traffic to WorldCom's Internet backbone and route it over the Internet using WorldCom's IP addressing. In both scenarios, the customer manages the — end user relationship (*e.g.*, billing, authentication, technical support) and provides any Internet content (*e.g.*, email, news, Web hosting, portals) or value added services (*e.g.*, VPN, online entertainment servers).

13. These various DSL products are sold on a stand-alone basis, and also are used as building blocks for the virtual private network services, managed private network services, and other value-added services provided by WorldCom.

WorldCom's DSL Build & Resale Strategy

14. WorldCom's strategy for the provision of DSL service has taken different paths and evolved over the past five years. During that time, WorldCom has built a facilities-based DSL network, has resold DSL service provided by competitive DSL providers (*e.g.*, Covad, Rhythms, and NorthPoint), and has tried unsuccessfully to reach sustainable arrangements for the resale of BOC DSL services. Currently, WorldCom's DSL strategy is centered around our facilities-based network and certain DSL network assets that we purchased from Rhythms through its Chapter 11 bankruptcy proceedings at the end of 2001.

WorldCom DSL Build

15. During 2000 and into 2001, we initiated a DSL build in targeted central offices across the United States. We used existing WorldCom collocation arrangements and augmented them to add DSL capability. On average, we incurred non-recurring charges of $50,000 to upgrade each of the collocation spaces and another $80,000 for equipment, configuration, and installation services for the initial build-out, as well as installation and recurring costs for backhaul circuits (ATM transport) to WorldCom's regional aggregation locations. WorldCom equipped approximately 100 central offices with DSL capabilities before stopping this program because of the high deployment costs. At that point, the decision was made to provide DSL services through resale arrangements with data local exchange carriers ("DLECs") such as NorthPoint, Covad and Rhythms, and to explore opportunities to resell BOC DSL service.

DLEC DSL Service

16. Beginning in approximately 1999, WorldCom entered into contracts to resell DSL service offered by the DLECs. WorldCom resold these DSL services as part of both its EDSL and BDSL services. Up until mid-2001, the majority of WorldCom's DSL customers were provisioned on DSL facilities purchased from DLECs.

17. Beginning in early 2000, all three national DLECs began to face financial difficulties that affected their ability to provide service. In January of 2001, Covad announced it was closing 141 central offices. That same month, Rhythms announced it was closing 224 central offices. Covad's closures resulted in service no longer being offered in five metropolitan areas. Rhythms closures caused it to no longer offer service in twenty metropolitan areas. As a result of these closures, WorldCom lost a significant number of active customers. Meanwhile, NorthPoint filed for bankruptcy and ceased providing service in March on virtually no notice. This event stranded thousands of WorldCom DSL customers. During the summer of 2001, Covad and Rhythms each announced their respective filings under Chapter 11 of the bankruptcy code.

18. Despite the difficulties faced by each of these DLECs, all three networks have survived essentially intact and available to provide DSL service going forward. Covad has emerged in a restructured form after eliminating over a billion dollars in debt; AT&T picked up many of the NorthPoint collocations for approximately $135 million; and, as described in more detail below, WorldCom acquired a substantial portion of the Rhythms DSL network assets in the latter half of 2001.

BOC DSL Service

19. Beginning in approximately 2000, WorldCom began exploring the

possibility of reselling BOC DSL service. However, after several years of attempting to secure DSL from the BOCs, this effort has not resulted in any satisfactory business arrangements that would permit WorldCom to utilize BOC-provided DSL services in a cost-effective, large-scale manner to meet its DSL product line requirements. First, the BOCs refused to offer DSL services that met technical and product requirements necessary for WorldCom to provide a business-grade DSL service. Second, the BOCs refused to offer even consumer-grade services on a wholesale basis and on competitive terms. Finally, the BOCs' level of effort in working with WorldCom on the development of a suitable resale product was inconsistent with our goal of bringing a product to market in anything approaching a reasonable time frame. For example, the extravagant systems development costs and continually changing requirements for electronic bonding with BOC OSS systems have forced WorldCom to recently abandon the automation of BOC DSL resale order management and support functions. The BOCs require quarterly OSS upgrades with no guarantees of backward compatibility, which means that associated capital expenditures needed to maintain the OSS links to the BOC systems would have been approximately twice the cost of the underlying DSL loops.

20. From a technical and product perspective, WorldCom required features such as: speeds up to 1.5 Mbps provisioned symmetrically; variable bit rate data handoffs; low over-subscription on backhaul circuits; ATM layer 2 egress to access concentrators; service level agreements for network availability, network latency, data delivery, and mean time to repair; cost-effective pre-qualification and order-management interfaces for DSL; and support for both routed and bridged CPE configurations. As a general matter, the service that WorldCom was offered by the BOCs came with limited

features such as asymmetric bandwidth provisioning; unspecified bit rate; high oversubscription on the backhaul circuits; no quality of service guarantees; and no support for routed CPE configurations.

21. For example, the DSL service offered by Verizon-East (Bell Atlantic) did not provide a separate permanent virtual circuit for each end user location at the ATM (layer 2) handoff to WorldCom, an architecture that prevents WorldCom from performing fundamental network management functions, such as traffic shaping and monitoring. Instead, the Verizon-East DSL service hands all traffic off to WorldCom in one aggregated PVC, which reduces WorldCom's ability to directly support the end-user. WorldCom has conducted numerous successful trials with Verizon-East using Layer Two Tunneling Protocol (L2TP), but Verizon-East has chosen not to implement this in their production environment.

22. In addition, to interface with the BOCs, WorldCom is required to develop different OSS systems for pre-qualification and order management for each BOC region. SBC and Verizon, for example, have failed to fully integrate their legacy DSL OSS systems; therefore, different OSS development is required for each legacy region. The burdens associated with engineering our DSL products around different sets of technical specifications and supporting it through the development and deployment of seven different OSS interfaces are daunting. Molding the different BOC offerings into a single, unified, national DSL product suite is very difficult. In addition, in doing so, WorldCom would have had to engineer our DSL services to the lowest common denominator of service offered by the BOCs, thereby losing the features that make our DSL products attractive to businesses and enterprise teleworkers. These features include: managing

oversubscription and traffic on the network to levels that are suitable for a business-grade DSL product; supporting routed CPE which is commonly used in a multi-user office environment; and offering symmetric bandwidth capabilities for business locations whose usage patterns do not fit those of the typical residential customer.

23. From a contracting perspective, the BOCs refused to offer even their standard consumer-grade product on anything approaching competitive wholesale terms (something which, had it been available, would have been attractive to us to satisfy our ISP customers and possibly remote, single user locations). For example, SBC's DSL affiliate, ASI, included terms in its wholesale tariff that: (1) permitted SBC, without our knowledge or consent, to provide other advanced services to WorldCom's customers over the DSL line paid for by WorldCom; (2) permitted SBC to perform disruptive testing without notice to WorldCom; and (3) gave SBC the ability to change the parameters of the service offered without notice to WorldCom.

24. Even when we managed to reach agreement on the terms of a wholesale tariff, as we did with BellSouth, conflicts arose in the implementation of those arrangements. For example, with BellSouth, we had to work through conflicts between the access service request ("ASR") process and mutually agreed upon IT mechanisms for ordering service.

25. Finally, the process of working with the BOCs took forever. By the end of 2001, we had managed to implement a wholesale arrangement with only BellSouth and Pacific Bell. Development efforts with respect to the other BOC territories were still several months and several million dollars away from completion.

DSL Network Assets

26. By the middle of 2001, it became clear that resale of BOC DSL was not a long-term viable business strategy and would not permit us to sell to our core customer segment—business customers. At the same time, the bankruptcy filing of Rhythms presented an opportunity for WorldCom to buy a fully functioning, relatively new, nationwide DSL network for a fraction of what it would cost to build such a network from scratch.

27. Accordingly, in September of 2001, we bid for and won a substantial portion of the Rhythms nationwide DSL network for approximately $31 million. The Rhythms acquisition allows WorldCom to deliver DSL services through our own facilities in 709 central offices in 31 metropolitan markets. The asset purchase allows us to provide various flavors of DSL, including ADSL, SDSL and IDSL (as well as service upgrades in 2002 to G.SHDSL and other extended reach technologies), and we have the ability to add sufficient capacity to each of the central offices where we are collocated. WorldCom purchased state-of-the-art equipment from Rhythms, including DSLAMs, splitters, metallic loop testers, ATM and IP concentrators, IP routers, ATM switches, and OSS provisioning systems that permit the electronic ordering of xDSL UNEs from all of the BOCs. We selected which assets to purchase based on a variety of factors, including the number of customers served out of those locations, projected growth rates, and synergies with our existing customer base.

28. It is important to note that the DLEC bankruptcies of 2001 have significantly altered the economics of the competitive DSL business. Through the Rhythms acquisition, WorldCom was able to purchase valuable equipment and

operational collocations for a fraction of the actual costs incurred by Rhythms. We also acquired a skilled and experienced employee base knowledgeable of the issues involved in running a facilities-based DSL business. Moreover, via the bankruptcy acquisition, WorldCom was able to significantly optimize the operational costs of running a national DSL network by migrating Rhythms-leased network facilities off of other LECs and onto WorldCom-owned network facilities. Today, almost all of the WorldCom OnNet DSL network (with the notable exception of the UNE copper loops obtained from the BOCs and transport in a few hundred central offices) operates via networking hardware, metro private lines, aggregation hub facilities, and data and Internet backbones that are owned and operated by WorldCom.

29. WorldCom's immediate challenge is to quickly grow our DSL business, utilizing the existing infrastructure put in place by Rhythms. We intend to do so, however, using a business model that is slightly different than the traditional DLEC model. Not only will we offer the traditional layer 2 and layer 3 access services offered by the DLECs and BOCs, but WorldCom can take advantage of the breadth of its product portfolio to use DSL as an access platform for value-added services sold by WorldCom, such as VPNs, IP Comms, and managed private network services using frame relay and ATM. In addition, we can bundle DSL with high-capacity leased lines and roaming dial-up access services to provide enterprise customers with a complete spectrum of access options, whether for Internet access or for use in connecting back to corporate networks.

Our DSL Offering Depends On Access to Select ILEC Facilities

30. WorldCom cannot deliver the innovative DSL-based products it offers today and will offer in the future without access to unbundled network elements from the

BOCs. WorldCom's DSL business requires continued access to local dry copper loops, the high-frequency portion of voice-enabled loops (where voice is provided by either the BOC or a CLEC), high capacity transport out of the BOC central office back to WorldCom metro aggregation facilities, and the associated BOC systems that enable WorldCom to pre-qualify, order, check the status of, and monitor such UNEs.

31. To provide DSL service, WorldCom leases two types of local loops from the BOCs: (a) two-wire dry copper loops, and (b) the high-frequency portion of voice-enabled copper loops where voice service is provided by the BOC or a CLEC (line sharing / line splitting). Both loop types are equally important to our DSL service offerings. Some business customers prefer the security and flexibility of dry copper loops, or require such dedicated connections due to inside wiring issues with their business location, but such loops are more expensive and usually take longer to install because installation activity by both BOC and WorldCom technicians at the customer premises is needed. Because federal and state regulations regarding line splitting have yet to be meaningfully implemented by the BOCs, businesses that use CLEC providers for local voice service have no choice but to purchase dry copper DSL services if they want DSL access to their location. Similarly, where the BOCs have deployed digital loop carrier facilities between the central office and the end user, thereby depriving WorldCom and other DLECs from being able to use the previously existing copper facilities for high-speed SDSL or ADSL services, WorldCom's only DSL access option is a dry copper IDSL service that is limited to 128 kbps throughput.

32. Unlike dedicated loops, line sharing allows DSL to be deployed over the customer's existing voice-enabled copper loop. Typically, ADSL service via line sharing

can be installed more quickly because a technician does not need to be dispatched to the customer premise. In addition, line sharing is often more efficient because it utilizes the existing loop plant and is less expensive to provision.

33. As an adjunct to line sharing, WorldCom also needs the right to engage in line splitting (*i.e.*, sharing of the loop between a competitive voice and data provider, which may or may not be the same company). Particularly in the business market segments, WorldCom is having DSL orders rejected by the BOCs because the BOC is not the local voice provider and refuses to coordinate the high-frequency loop order with the voice CLEC (even though both WorldCom and the voice CLEC are both obtaining access to the copper facilities from the BOC). WorldCom has been pushing the BOCs to implement practical and reasonable measures to allow for line-shared ADSL provisioning over UNE-P services purchased by voice CLECs. To date, the BOCs have demonstrated little willingness to implement such procedures in a timely manner.

34. For dry copper loops and line sharing loops, WorldCom has no choice but to purchase these UNEs from the four BOCs. There is *no* alternative provider available to the CLEC community, nor is it possible or economic for CLECs like WorldCom to duplicate the ILEC copper loop plant that was built on regulated subsidies. It is no secret that the BOCs have control over these last mile copper facilities that connect to our end-user customers. Those facilities have been gradually deployed over the past century and to come even close to duplicating that achievement would take decades and require enormous investment. WorldCom's only means of connecting existing and future DSL customers with our data and IP networks is through leasing these unbundled network elements from the BOCs.

35. In some instances, we are unable to serve certain customers with DSL because the local loop is composed partially of fiber. A significant percentage of our xDSL UNE orders are rejected by the BOCs because of the presence of fiber / digital loop carriers, and this problem will only increase over time as the BOCs "break" the cooper connections between end users and the central offices by expanding their fiber networks deeper into the field. Competitive data LECs, including Rhythms, had been very active in trying to find an industry solution to serving these customers before the BOCs rolled out retail DSL offerings over fiber-fed loops. Unfortunately, FCC inaction on this issue has left the DLEC community in a precarious situation. The BOCs are aggressively rolling out DSL service out of remote terminals and blocking WorldCom from providing SDSL and ADSL services from the central offices, while we wait for regulators to develop rules that allow us to serve these customers via the BOC-deployed fiber facilities. To date, the BOCs are refusing to allow us to access these loops in a competitive fashion. Our hope is that the Commission will resolve the issue consistent with how the Illinois and Wisconsin Commissions and Texas arbitrator have resolved it, so that WorldCom can grow its DSL business by serving these customers with various value-added services that the BOCs do not offer today.

36. In addition to loops, WorldCom purchases UNE transport from the BOCs to connect our collocation arrangements with our data hubs. Where economical, WorldCom builds our own transport to our collocation arrangements. Today, about half of the Rhythms collocation cages that we acquired last year in bankruptcy connect to WorldCom-provided transport. When we purchased the Rhythms assets, one of the first projects we completed was to migrate CO-to-Hub transport over to our own network,

wherever facilities were available. However, there remain a few hundred central offices where we purchase UNE transport from the BOCs because it is not economical for us to build our own fiber transport or it is not feasible to purchase from a third party.

37. To pre-qualify, order, and maintain the DSL loops, we need to interface with the BOCs and access their OSS databases. Without access to the BOC pre-ordering systems, we would not be able to tell whether a particular loop was qualified for DSL. (Currently, their response time and system availability times are less than adequate for WorldCom and its ISP customers.) Nor would we be able to accurately populate an order for a DSL-capable loop without the necessary pre-order information that the BOCs require for submission of a local service request. Like other business segments that use BOC circuits, we rely on the BOCs to update us on the status of our orders by returning timely and accurate firm order confirmations or rejects followed by provisioning completion notifications. In addition, we need the BOCs to update us on changes to their interfaces so that we can make the necessary adjustments on our end.

If WorldCom is Unable to Access These UNEs, Business Customers Will Not Be Served and Prices for High-Speed Internet Access Will Remain High

Business-Grade Service

38. WorldCom and Covad are the only companies providing business-grade DSL service today on a national basis. As already described above, there are aspects of the BOCs' DSL network architecture and product offerings that make it virtually impossible for an enterprise to receive business-grade DSL. The BOCs are not managing oversubscription and traffic on the network at levels that are suitable for a business-grade product; some are not supporting static IP addressing and routed CPE (which is generally

the easiest and most cost effective way of supporting multiple users over a single DSL line); and most are not offering symmetric bandwidth capabilities for business locations whose usage patterns do not fit those of the typical residential customer. In addition, the BOCs are not offering dry-copper loop service, which constricts a customer's ability to obtain any other type of DSL service other than ADSL. It is my opinion that the BOCs have not developed a business-grade DSL offering because they do not want to diminish the lucrative revenues they receive from selling high-capacity T1 leased lines to businesses (especially when those T1 circuits are really HDSL in disguise).

39. For WorldCom to continue to provide dry copper and line-shared DSL services to businesses and ISPs, we must have cost-effective access to unbundled network elements. In order to drive broader DSL usage across the nation, the overall price of DSL service needs to come down, which in turn requires careful cost management of the underlying network inputs, especially the UNE prices paid to the BOCs. If DLECs lose access to the BOC UNEs or the BOCs are allowed to over-price them, existing DSL providers would be forced to exit the marketplace, which will leave businesses with no other option but to purchase expensive dedicated high-capacity circuits.

Internet Access to ISPs

40. It is critical for WorldCom to continue to have cost-based access to UNEs so that independent ISPs can offer consumers with high-speed access to the Internet at affordable prices. Although WorldCom does not directly compete in the consumer DSL marketplace today, we enable our ISP customers to do so. ISPs are a significant source of innovation in the development of Web content and Internet applications, something

that will in turn drive the demand for consumer broadband Internet access. In addition, competition for consumer-grade DSL service between independent ISPs and the BOCs will result in lower prices and greater choice for consumers.

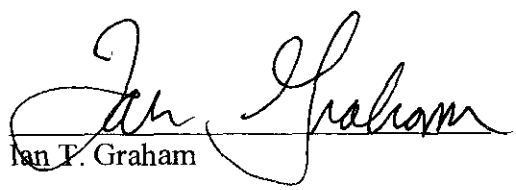
41. Unlike WorldCom, the BOCs have not developed a cost-effective wholesale ISP product because they would rather steer all DSL customers to the ISP of the BOCs' choosing, which is often times the BOC-affiliated ISP. Where they do offer a wholesale ISP product, it typically is at prices that prohibit small and medium ISPs from competing with the BOC retail services, and is only a viable option to large ISPs if they are willing to make enormous volume commitments that keep the ISPs from buying services from competitive DLECs. Without cost-effective

DSL services provided by WorldCom, most ISPs (especially the small and regional players) cannot compete with the RBOC retail offerings and will remain on the sidelines, thereby restricting consumer choice and limiting the opportunity for creative development of broadband applications that will drive consumer adoption.

42. This concludes my Declaration.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on March 29, 2002.



Ian T. Graham