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**BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554**

In the Matter of)
)
Application by SBC Communications Inc.,)
The Ohio Bell Telephone Company d/b/a)
Ameritech Ohio and Southwestern Bell)
Communications Services, Inc. d/b/a)
Ameritech Long Distance for Provision of)
In-Region InterLATA Services in Ohio)

CC Docket No. _____

**AFFIDAVIT OF MICHAEL D. SILVER
ON BEHALF OF AMERITECH**

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AFFIDAVIT REGARDING WHOLESALE PROVISIONING OF DSL SERVICE**

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I, Michael D. Silver, being of lawful age and duly sworn upon my oath, do hereby depose and state as follows:

PROFESSIONAL EXPERIENCE

1. My name is Michael D. Silver. I am an Associate Director in SBC's Wholesale Marketing group, where I am responsible for providing support to Ohio Bell Telephone Company d/b/a Ameritech Ohio ("Ameritech")¹. My business address is 350 N Orleans, Chicago, IL 60654.

¹ The Ohio Bell Telephone Company, an Ohio corporation, is a wholly owned subsidiary of Ameritech Corporation, which owns the former Bell operating companies in the states of Ohio, Illinois, Wisconsin, Indiana, and Michigan. Ameritech Corporation is a wholly owned subsidiary of SBC Communications, Inc. Ohio Bell offers telecommunications services and operates under the names "Ameritech" and "Ameritech Ohio" pursuant to trade name registrations with the state of Ohio.

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2. My duties include monitoring state regulatory proceedings, regulations and orders that may affect SBC's Wholesale Marketing operations or current and future interconnection agreements with Competitive Local Exchange Carriers ("CLECs"). In addition, I represent Ameritech's Wholesale Marketing positions to regulatory bodies. The primary responsibilities of SBC's Wholesale Marketing group are to develop and manage wholesale products and services; to support negotiations of local interconnection agreements with CLECs; to participate in state arbitration proceedings; and to guide compliance with the Telecommunications Act of 1996 ("FTA") and federal and state laws concerning the continued implementation of local exchange service competition.

3. Prior to my current position, my job responsibilities included managing Feature Group D access services, supporting Ameritech's access policies in State regulatory proceedings, interfacing with independent Local Exchange Carriers in the Ameritech region, and providing cost support for access rates. I began my career with Centel (now Sprint) developing the underlying costs for their rates. I have 22 years of experience total in the telecommunications industry.

PURPOSE AND EXECUTIVE SUMMARY

4. The purpose of my affidavit is to demonstrate how Ameritech's unbundled advanced service offerings comply with FCC requirements including the *UNE Remand Order* as it relates to advanced services and the *Line Sharing Order*.² In doing that, I will

² *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, Third Report and Order and Fourth Notice of Proposed Rulemaking, 15 FCC Rcd 3696 (1999) ("*UNE Remand Order*"); *Deployment of Wireline Services Offering Advanced Telecommunications Capability and Implementation of Local Competition Provisions of the Telecommunications Act of 1996*, Third Report and Order CC Docket No. 98-147 and Fourth Report and Order CC Docket No. 96-98, 14 FCC Rcd 20,912 (1999) ("*Line Sharing Order*").

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explain how Ameritech makes these advanced services products available on a wholesale basis.³ These required products – xDSL-capable unbundled loops and the High Frequency Portion of the Loop Unbundled Network Element (HFPL UNE, also known as Line Sharing) -- are part of checklist item (iv) – “Local loop transmission from the central office to the customer's premises, unbundled from local switching or other services.”⁴

5. Ameritech has been provisioning unbundled loops for CLECs to provide xDSL services since 1997. Ameritech began provisioning the HFPL UNE in June of 2000 and has since seen a steady increase in the number of HFPL UNEs requested and provisioned. In the month of June 2001, Ameritech had more than 92,000 HFPL UNEs for affiliated and non-affiliated carriers in service throughout Ameritech’s five-state region. In Ohio, Ameritech had more than 22,000 HFPL UNEs in service in June 2001. The continued and sustained growth of this product offering demonstrates Ameritech’s ability to provide these loops to CLECs in commercial volumes.
6. While the general processes for ordering xDSL capable loops and the HFPL UNE are largely analogous to those for ordering any other UNE loop (which are described in the affidavits of Mr. William C. Deere, and Mr. Mark J. Cottrell, hereinafter the “Deere affidavit” and the Cottrell affidavit”, respectively), this affidavit specifically focuses upon unique portions of the pre-ordering, ordering and provisioning process for xDSL-capable loops and the HFPL UNE.

³ Discussions in this affidavit relate to Ameritech’s current advanced services product offerings available in new interconnection agreements. Ameritech’s current offerings are available in its generic interconnection agreement. Terms and conditions referenced in this affidavit may be found in the xDSL Appendix of Ameritech’s Generic Interconnection Agreement. Different terms and order processes may apply to certain interconnection agreements that pre-date Ameritech’s current offerings.

⁴ 47 U.S.C. Section 271(c)(2)(B)(iv)

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7. Because Ameritech utilizes the same Operations Support Systems (“OSS”) for these advanced services for each of the five states in which it operates, including Ohio, any conclusions drawn from an examination of Ohio processes and procedures apply with equal force across Ameritech’s five-state region. These operational support systems are discussed in more detail in the Cottrell affidavit. As shown below, Ameritech has succeeded in providing order processes and loop qualification information to CLECs utilizing Ameritech’s unbundled advanced service offerings allowing them a meaningful opportunity to compete. In addition, Ameritech fully complies with the loop qualification requirements of the *UNE Remand Order* throughout its five-state region, including Ohio.
8. Both the xDSL-capable unbundled loop and the HFPL UNE are priced based on TELRIC-loop rates, as described in the affidavit of Mr. Scott Alexander (hereinafter, the “Alexander affidavit”)
9. A number of performance measures have been developed related to these advanced services offerings, and are described in detail in the affidavit of Mr. Salvatore Fioretti (hereinafter, the “Fioretti affidavit”).
10. The nondiscriminatory processes Ameritech follows, in addition to the performance measures, ensure a level playing field among unaffiliated and affiliated advanced services providers alike. Moreover, as described in the affidavit of Mr. John Habeeb, Ameritech has implemented a separate subsidiary for advanced services in Ohio. The existence of this separate affiliate structure is another means to confirm the nondiscriminatory provisioning of these key inputs for advanced services
11. Finally, I discuss three other issues related to advanced services. First, I describe how Ameritech permits carriers to engage in Line Splitting, which is when one or more

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CLECs split an unbundled xDSL-capable loop to provision both voice and data services. Second, I will show that Ameritech is not required to provide Unbundled Packet Switching at this time as it does not meet the FCC's four criteria set forth in the *UNE Remand Order*. Third, I will discuss Ameritech's voluntary wholesale Broadband Service ("BBS") offerings that facilitate the use of the Project Pronto Broadband Service network architecture for the provision of xDSL services to end users.

PRODUCT OFFERINGS

12. Ameritech has developed and implemented processes that allow CLECs to offer any type of xDSL⁵ service to their end user customers. These processes are identical for all states in the Ameritech region (Illinois, Indiana, Michigan, Ohio, and Wisconsin). Ameritech imposes no limits on a carrier's advanced services offerings as long as the carrier operates within the guidelines set forth in the national industry standards. Ameritech also allows CLECs to provision non-standard xDSL technologies
13. CLECs may provision any of the various forms of xDSL presumed acceptable for deployment over UNE loops or the HFPL UNE, and are not limited to the xDSL offerings that Ameritech, or its advanced services affiliate, chooses to offer. By providing access to loop make-up information, Ameritech ensures that CLECs have the unrestricted opportunity to decide whether to provide xDSL services to its end user customers, the ability to select a particular xDSL-based technology to offer, and

⁵ The term "digital subscriber line" ("xDSL") describes various technologies and services. The "x" in xDSL is a place holder for the various types of DSL services, such as, but not limited to ADSL (asymmetric digital subscriber line), HDSL (high-speed digital subscriber line), ISDSL (ISDN Digital Subscriber Loop), SDSL (symmetrical digital subscriber line), UDSL (universal digital subscriber line), VDSL (very high-speed digital subscriber line), and RADSL (rate-adaptive digital subscriber line).

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the information necessary to order facilities over which they may provision such services.

xDSL-Capable Unbundled Loop Product Offering

14. As required by the *First Report and Order*⁶, Ameritech makes available xDSL loops, defined as a copper loop over which a CLEC may provision various DSL technologies. As part of the SBC/Ameritech FCC merger conditions, Ameritech has committed to automatically removing load coils, repeaters and/or excessive bridged tap (bridged tap in excess of 2,500 feet) at no charge to the CLEC⁷. Conditioning for the removal of load coils, repeaters, and/or excessive bridged tap for loops longer than 12,000 feet is optional and will be performed at the CLEC's request. Additional description of Ameritech's stand-alone xDSL-capable loop offering is found in the Deere affidavit.

HFPL UNE Product Offering

15. In the *Line Sharing Order*, the FCC determined that the high frequency portion of the loop was a UNE. The *Line Sharing Order* directed ILECs to provide unbundled access to the high frequency portion of the loop to CLECs seeking to provide an xDSL-based service that meets one of the FCC's criteria regarding the presumption of acceptability for deployment on the same loop as the analog voice service. ILECs are only required to provide such unbundled access to a single requesting carrier for use

⁶ *In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, First Report and Order, CC Docket No. 96-98, released August 8, 1996 ("First Report and Order")*

⁷ FCC 98-141, SBC/Ameritech Merger Conditions, Appendix C, Merger Condition 21

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at the same customer address as the traditional retail POTS analog voice service provided by the incumbent.

16. Line sharing as ordered by the FCC applies to:

- Two carriers - the ILEC providing traditional retail POTS analog voice service and the CLEC providing data service (*Line Sharing Order*, 14 FCC Rcd at 20,948, ¶ 74) - to the same customer at the same customer address, *i.e.*, one loop per end user (*Id.*).
- xDSL technologies that do not use the frequencies immediately above the voice band, preserving a “buffer” zone to ensure the integrity of the voiceband traffic (*Id.*, at 14 FCC Rcd at 20,943-44, ¶ 64).
- xDSL technologies that do not interfere with analog voice band transmission (*Id.*, at 14 FCC Rcd at 20,946-47, ¶¶ 70-71).
- Lines that carry traditional POTS analog voice band services provided by the ILEC. If the ILEC’s retail POTS service is disconnected, for whatever reason, the data provider must purchase the entire stand alone loop to continue providing xDSL to the customer. Similarly, ILECs are not required to provide line sharing to a requesting carrier purchasing a combination of network elements known as a UNE platform (*Id.*, at 14 FCC Rcd at 20,947-48, ¶¶ 72-73).

Additional description of the HFPL UNE is found in the Deere affidavit.

17. As suggested in the *Line Sharing Order*,⁸ SBC/Ameritech developed its HFPL offering through extensive collaboration between SBC/Ameritech and the CLEC community on a 13-state basis. The collaboration included a trial where the primary

⁸ *Line Sharing Order*, 14 FCC Rcd at 20,971-72, ¶ 128.

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objectives were to identify key aspects of operating in a line sharing environment, such as:

- Ownership arrangements for the splitter.
- Location options for the splitter.
- Installation, maintenance and repair for the splitter.
- Ordering and provisioning flows/processes.
- Billing capability.
- Technical operation.

18. This collaborative effort was instrumental in identifying key issues and learnings and to develop future implementation details. Even though line sharing is now commercially available, SBC is continuing to work collaboratively with the CLECs on a monthly basis to resolve issues as they arise.

19. During the collaborative process noted above, Ameritech voluntarily agreed to provide splitters to CLECs purchasing the HFPL UNE on a line-at-a-time basis. Ameritech agreed to do this, although it is not required by the FCC, because some CLECs stated that they would not have been able to install their own splitters in time to begin line sharing at the initial roll-out of the offering. However, the initial roll-out is complete, and Ameritech reserves the right to evaluate, and potentially discontinue, its splitter offering in the future, subject to the requirements of its interconnection agreements. The sites for Ameritech's initial deployment of these splitters was determined by interested CLECs. Ameritech has completed the installation of splitters in the central offices in Ohio that were agreed to during the collaborative process, and as of August, 2001 is providing splitters for line sharing in 112 central offices in Ohio.

Standard xDSL Loop Conditioning

20. Ameritech makes available standard xDSL Loop Conditioning Charges that provide a set non-recurring charge for specific types of activities involved in conditioning an xDSL capable loop. This type of conditioning is applicable to both xDSL-capable

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unbundled loops and the HFPL UNE. Ameritech's interconnection agreements do not require a CLEC to request available loop conditioning. (See for example approved Interconnection Agreement with Essex Communications, Inc dba Elec Communications ICON Interconnection Agreement, Appendix DSL, Section 7). Rather, a CLEC always has the option of obtaining a particular xDSL-capable loop "as is," or with any desired available conditioning. Additionally, CLECs also have the option of requesting conditioning at any time after Ameritech has provisioned a loop. Finally, Ameritech automatically performs conditioning free of charge to remove load coils, repeaters and/or bridged tap in excess of 2,500 feet for loops under 12,000 feet.

Availability of xDSL-Capable Unbundled Loops, HFPL UNE, and Standard xDSL

Loop Conditioning

21. Ameritech makes available xDSL-capable unbundled loops, standard xDSL Loop Conditioning and the HFPL UNE for CLECs (including technically feasible features, functions and capabilities) in Ohio through interconnection agreements. As of August 1, 2001 Ameritech currently has 33 CLECs with agreements (interim and permanent) which include xDSL and HFPL UNEs in Ohio, and 69 throughout the Ameritech region.
22. Any CLEC can execute the Multi-State Generic Interconnection/Resale Agreement ("GIA")⁹, negotiate a customized agreement with Ameritech, or can simply adopt the interconnection, service and/or network element arrangements contained in existing, approved agreements. (See for example BULLSEYE Telecom Interconnection

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Agreement).¹⁰ See the Alexander affidavit for more information regarding how CLECs may obtain an interconnection agreement with Ameritech. The terms and conditions relative to xDSL capable unbundled loops, standard xDSL Loop Conditioning, and the HFPL UNE are found in Appendix DSL of these Interconnection Agreements.

PRICING

23. xDSL-Capable Unbundled Loop, Standard xDSL Loop Conditioning, and the HFPL UNE Products have TELRIC-based pricing. The rates for xDSL capable unbundled loops were approved by the PUCO in Case No. 96-922-TP-UNC. The rates for Standard xDSL Loop Conditioning, Loop Qualification, and the HFPL UNE were the subject of extensive hearings in Case No. 96-922-TP-UNC and are awaiting a decision by the PUCO.

OSS ISSUES RELATED TO ADVANCED SERVICES

24. The FCC requires that CLECs have access to pre-order loop qualification information and ordering information. Ameritech provides access to this information to CLECs and allows them a meaningful opportunity to compete using either stand-alone xDSL capable loops, or the HFPL UNE. In addition, Ameritech fully complies with the loop qualification requirements of the *UNE Remand Order* throughout its five-state region, including Ohio.

⁹ CLECs may access this Generic Agreement from CLEC Online found at <<http://clec.sbc.com/unrestr/interconnect/multi/index.cfm>>

¹⁰ A list of CLECs with approved Appendices for the provision of xDSL and HFPL is found on Silver Affidavit – Attachment A

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PRE-ORDERING

25. There are many pre-ordering transactions in Ameritech's OSS that a CLEC may take advantage of as described in the Cottrell affidavit. Among these is a transaction that is particular to Advanced Services: the Loop Qualification transaction. This transaction can be used for both the xDSL-capable unbundled loop and the HFPL UNE.

Loop-Qualification Process

26. The procedures described for loop qualification apply to the xDSL and Line Sharing offerings provided by Ameritech.

27. In the *UNE Remand Order*, the definition of OSS was modified to include access to loop qualification information.¹¹ Prior to the effective date of the *UNE Remand Order*'s loop qualification requirements, Ameritech already provided non-discriminatory access to loop make-up information.

28. Specifically, the *UNE Remand Order* required that:

- ILECs must provide requesting carriers with non-discriminatory access to the same detailed information about the loop that is available to the incumbent.¹²
- ILECs must provide CLECs with the same information that is available to the ILEC in any of its own databases or other internal records including engineering records, plant records, and back office systems.¹³

¹¹ *UNE Remand Order*, 15 FCC Rcd 3696, 3884 ¶ 426 (1999).

¹² *UNE Remand Order*, 15 FCC Rcd at 3885, ¶ 427.

¹³ *Id.*, 15 FCC Rcd at 3885-3886, ¶ 427-428.

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- ILECs are not required to make available through an electronic interface loop make-up information that is not available to itself.¹⁴
- ILECs must provide CLECs access to manual loop make-up information on a non-discriminatory basis and electronic access to information available to the ILEC electronically.¹⁵

Ameritech makes available loop qualification information in Ohio through interconnection agreements. (See for example Essex Communications, Inc dba Elec Communications ICON OH Interconnection Agreement, Appendix DSL, Section 6). As shown below, Ameritech makes loop qualification available to CLECs in three ways, two are electronic and one is manual.

29. Before I describe these electronic and manual options, I will summarize the loop information provided. “Loop qualification” information, or as it is also referred to as “loop make-up information,” provides the detailed, end user-specific loop make-up information the service provider needs to make a decision regarding the provisioning of an advanced service. This loop make-up information includes the data a carrier needs to determine the loop’s ability to support a particular xDSL service, such as the 26 gauge equivalent loop length; the length of the loop by gauge; the quantity of bridged tap, load coils and repeaters present on the loop; the length of the feeder cable (“F1”) and the distribution cable (“F2”) respectively; the presence (or absence) of digital loop carrier (“DLC”) in the loop; and the presence of other potentially disturbing technologies in the same and/or adjacent binder groups as well as other

¹⁴ *Id.*, 15 FCC Rcd at 3886, ¶ 429.

¹⁵ *Id.*

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loop make-up information. A complete listing of the 51 base data fields that may be returned to CLECs electronically is attached as Attachment B.

30. Effective March 24, 2001, CLECs may submit loop qualification requests for xDSL loops through Ameritech's electronic pre-order interfaces (Enhanced Verigate and EDI/CORBA). The results of the loop qualification requests are returned electronically in real time. As a result, CLECs have real-time access to the actual loop make-up information, where actual information is contained in an electronic database. CLECs can also choose between placing an order based on the information available electronically or requesting a manual look-up of any actual loop make-up information not stored in Ameritech's electronic databases.
31. Ameritech offers CLECs the ability to access information electronically in two ways. First, they may request actual loop make-up information, which is specific loop make-up information for an actual loop. A request for actual loop make up information may be based either on the requested end user's address or a working telephone number ("WTN.") As described in the Cottrell affidavit, CLECs may access this information via Enhanced Verigate, EDI/CORBA, or TCNET where available.
32. Second, CLECs may choose to access archived actual data, which is housed in Ameritech's Loop Qualification Host database. Prior to March 24, 2001, actual loop makeup originating in Ameritech's provisioning systems was the only type of mechanized loop qualification available to CLECs. As of March 24, 2001 CLECs in Ameritech have access to two types of mechanized loop makeup information: "Actual" loop makeup as described above, and "archived actual" (loop makeup data that is stored in the loop qualification database for up to 30 days). Archived Actual

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data allows a faster real time response to loop requests, as it has been pre-pulled from backend provisioning systems and stored in a dedicated Loop Qualification database. This Loop Qualification Host database is updated monthly by wire center, and is a snapshot of loop qualification data from Ameritech's provisioning systems for the loops in that wire center. CLECs may access this database electronically to retrieve their requested loop make up data via Enhanced Verigate or EDI/CORBA.

33. When actual or archived actual information is not contained in these electronic databases, CLECs may request a manual look-up of the actual loop make-up information. If the CLEC chooses the manual look-up option, it can submit a request directly to Outside Plant ("OSP") Engineering through Ameritech's Enhanced Verigate or EDI/CORBA interfaces. OSP Engineering will complete the loop qualification request within 3 – 5 business days, and update the mechanized loop qualification system for electronic retrieval. In addition, upon request, Ameritech will return the results of manual look-ups to an e-mail address pre-designated by the CLEC.

34. With each electronic loop qualification request, a number of Ameritech's systems are searched for the information. The first system the CLEC's loop qualification request goes to performs certain "gateway" functions, such as authentication, routing the transaction to the appropriate systems, and recording the request for later tracking. The loop qualification request is then forwarded to a "middleware" system that provides common access to legacy systems for both wholesale and retail pre-ordering functions. The legacy systems contain certain loop information, such as terminal addresses, and the actual loop make-up information.

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35. The actual loop information that is returned on a loop qualification request depends on the CLEC's request. In the case where a CLEC has provided a working telephone number ("WTN"), loop make-up for the loop used by that specific WTN will be returned. If there are multiple WTNs at the address, a CLEC may request and receive loop make-up on each WTN. Therefore, if a premise had two or three working telephone lines, the CLEC can use the WTN search to obtain the actual make-up information for each line.
36. If a CLEC has provided an address, rather than a WTN, Ameritech provides loop make-up on the first loop at the specified address.
37. With either type of inquiry (by WTN or by address), the loop makeup information provides the CLEC with the data it needs to determine the loop's ability to support a particular xDSL service as listed above. This information typically would be returned to the CLEC electronically. However, as noted above, CLECs receiving loop qualification information can request a manual look-up of loop makeup information (researched by engineering personnel) that is not contained in Ameritech's electronic databases through the mechanized interface that initially returns the loop qualification data. The information returned to the CLEC is as complete and accurate as the data contained in Ameritech's databases and engineering records allows.
38. Information pertaining to the identification of the requestor alternate exchange carrier number ("AECN") is stored internally along with the record of each request for audit purposes, but is not used in any way in the execution of the request, and is not provided to OSP engineering in the case of a manual loop qualification request. as the Loop Qualification system is completely blind to the source of each request. This means Ameritech provides a CLEC the same information it would provide to its retail

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unit or advanced services affiliate (Ameritech Advanced Data Services (“AADS”)), and that the information is retrieved in the same manner and in the same time intervals.

39. At this time, the possibility exists that by returning information on the first loop the systems find, Ameritech could provide CLECs with loop make-up data on a loop that is not suitable for xDSL service, even though a “non-loaded” copper loop that is ready for xDSL service also serves that address.
40. In response to this issue, on April 3, 2001, Southwestern Bell Telephone (“SWBT”) implemented an enhancement to its loop qualification system, which had been developed and subjected to internal testing before being implemented. With this enhancement, the loop qualification system searches records in LFACS for a non-loaded copper loop connected to the requested address for which actual loop makeup information exists. If the search finds a non-loaded copper loop with loop makeup information, it will retrieve the makeup information for that loop and return it to the requesting carrier. The search performed by the loop qualification system continues as long as possible, until either (a) the system locates a non-loaded copper loop with loop information; or, (b) the system completes the search of all loops to the requested premise.¹⁶ In the event that the search does not locate a non-loaded copper loop with actual loop makeup information, the loop qualification system returns loop makeup information on a loop connected to the requested premise in the following priority order: (1) a loaded copper loop; (2) Digital Added Main Line (“DAML”); (3) Digital Loop Carrier (“DLC”). With this enhancement, the loop qualification system in the

¹⁶ The timeout in the middleware interface for a loop qualification inquiry is 120 seconds; if a response is not provided to the interface in this time, the interface will return an error message. Thus, the loop qualification search is designed to return information to the CLEC interface within 120 seconds.

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SWBT region searches for the same type of loop it would use to provision the service.

A non-loaded copper loop is the type of loop that SWBT would look to provision if a CLEC actually ordered an xDSL-capable loop or HFPL UNE provisioned to that address. Consistent with the *UNE Remand Order*, the loop qualification system searches LFACS for loop makeup information on loops connected from the serving central office to the requested premise address.¹⁷

41. A similar enhancement is presently being developed for Ameritech and is scheduled to be in place by August 2001, as it has been given the highest priority. Because of the inherent differences in the components and interfaces between Ameritech and the SWBT region Loop Qualification systems, the Ameritech version, while maintaining the same search logic and results as in SWBT, will reflect Ameritech specific systems. In both Ameritech and SWBT this enhancement involves no modifications to the actual provisioning systems and thus avoids any risk of changing the existing assignment and provisioning process. Once implemented, the enhancement would provide the same benefit to CLECs as the April 3, 2001 SWBT enhancement by ensuring that the loop qualification system would search for a non-loaded copper loop as its first preference.

42. An illustration of the loop qualification process is contained in my Attachment C.

¹⁷ See *UNE Remand Order*, 15 FCC Rcd at 3885, ¶ 427 (“[A]n incumbent LEC must provide the requesting carrier with nondiscriminatory access to the same detailed information about *the loop* that is available to the incumbent, so that the requesting carrier can make an independent judgment about whether *the loop* is capable of supporting the advanced services equipment the requesting carrier intends to install.”) (emphasis added); 47 C.F.R. § 51.319(a)(1) (“The local loop network element is defined as a transmission facility between a distribution frame (or its equivalent) in an incumbent LEC central office and the loop demarcation point at an end-user customer premises...”).

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SPECTRUM MANAGEMENT -- THE POWER SPECTRUM DENSITY (“PSD”)

INFORMATION

43. When loops adjacent to one another in a binder group are used to provide divergent technologies (*e.g.*, ADSL and SDSL), the two xDSL signals can create noise or cross-talk and disrupt one another. It quickly became apparent within the industry that to minimize the potential for such interference in a multiple provider environment, some form of spectrum compatibility and management standards would need to be implemented. National standards setting bodies have worked towards establishing industry consensus on how best to accommodate xDSL-based services on a wireline network originally designed to carry voice transmissions. Ameritech strongly supports this initiative, as it will allow numerous diverse technologies to coexist efficiently within the network.
44. To minimize this potential interference, the American National Standards Institute (“ANSI”), a national industry standards setting body, developed “power spectral density masks” (or “PSD masks”) which define national guidelines on signal power density across various frequencies. Since new and evolving technologies frequently fall within existing PSD masks, which are broad enough to cover a number of technologies, carriers can rely upon the PSD masks standards to provision new technologies without causing spectral incompatibility. PSD numbers¹⁸ (or PSD categories) are tied to the PSD masks and, thus, to the underlying national standards,

¹⁸ PSD numbers are based on ANSI national standards for spectrum management pending endorsement by the FCC. As noted in the Third Advanced Services Report and Order and in the ACTA Report and Order CC Docket No. 99-216. The FCC determined that they can rely on the ANSI accredited standards development organization, T1E1.4, to develop spectrum compatibility standards pertaining to the network side of the demarcation point. As in ANSI T1.417 – 2001 Spectrum Management For Loop Transmission Systems.

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providing a method for monitoring the interference potentially caused by new technologies.

45. Accordingly, when a carrier orders an HFPL UNE or an xDSL-capable loop from Ameritech, that carrier provides the PSD mask within which it intends to offer xDSL service (See for example approved Interconnection agreement with Essex Communications, Inc dba Elec Communications; ICON OH Interconnection Agreement, Appendix DSL, Section 4). Ameritech, in turn, maintains an inventory, which identifies, by PSD, the various advanced services present in the network.
46. As national industry standard setting bodies promulgate additional standards to address emerging technologies, Ameritech will adopt and implement the new standards as well.
47. Ameritech has dismantled binder group management on all loops except those used for T-1 services, which the FCC has recognized as involving a known disturber requiring continued binder group management. *See Line Sharing Order*, 14 FCC Rcd at 21,010, ¶ 214. In doing so, Ameritech fully complies with CFR Rule 51.232.

ORDERING

48. When requesting an xDSL capable unbundled loop or HFPL UNE, the CLEC simply submits a complete and accurate Local Service Request (“LSR”)¹⁹ through Ameritech’s LEX or EDI electronic interfaces, or by facsimile when arrangements are made with Ameritech’s Local Service Center (LSC). Currently orders will be accepted using an Access Service Request (“ASR”),

¹⁹ The CLEC handbook explains what information must be included on the LSR. *See* the affidavits of Mr. Mark Cottrell and Ms. Mary Pat Regan (hereinafter, the “Cottrell affidavit” and the “Regan affidavit”) for details.

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as well as the LSR. However, the CLECs were notified by Ameritech, via an Accessible Letter dated March 8, 2001 (Ameritech OSS Accessible Letter CLECAM01-033)²⁰, that effective March 9, 2002 orders for local loops will no longer be accepted via the ASR.

49. In the event a CLEC orders an xDSL (ADSL/HDSL) capable loop (as opposed to Ameritech's current xDSL-capable offering without providing the PSD, the order will be processed the same as any other unbundled loop²¹. Through this process if facilities are available and no modifications are necessary, the order is provisioned electronically. In the event loop conditioning is required to provision the ADSL/HDSL loop, the order is processed pursuant to the Facility Modification (FMOD) process. (See the Bill Deere and Justin Brown affidavits for a description of the FMOD process.)

50. The remainder of the section on the ordering process describes xDSL capable orders with PSD masks and HFPL UNEs.

51. The LSR should indicate the PSD mask of the particular xDSL technology that the CLEC envisions providing for inventory and loop provisioning purposes. A requesting carrier provides this information via the use of the Network Channel ("NC") and Network Channel Interface ("NCI") codes on

²⁰ Ameritech's accessible letters are available at <https://clec.sbc.com/acclatters/home.cfm>

²¹ Prior to the SBC/Ameritech merger, Ameritech did not offer an xDSL-capable loop that could be used with any PSD mask. Instead, Ameritech offered ADSL/HDSL loops. Unlike Ameritech's current offering, the xDSL-capable loop, ADSL/HDSL loops did not have standard conditioning terms and conditions. Instead, facility modifications, including conditioning, for ADSL/HDSL loops are handled in the same manner as other unbundled loops.

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the LSR, which are established by the national industry standards group discussed above. In addition to relaying the PSD information, the NC and NCI codes will notify Ameritech of the type of loop being requested.

Ameritech utilizes this information for provisioning and inventory purposes.

52. The LSRs for the xDSL-capable unbundled loop and the HPFL UNE are basically the same. The minor differences in the fields utilized when ordering the HFPL UNE are due to the unique aspects of line sharing. Unlike a stand-alone xDSL-capable loop that does not have an associated telephone number, when a CLEC purchases the HFPL UNE, the CLEC must provide the telephone number of Ameritech's voice service that occupies the low frequency portion of the loop to be shared. The CLEC must also provide their desired assignment information related to the provision of the splitter.

The Mechanics of the Ordering Process

53. Upon receipt of an accurate electronically submitted LSR, Ameritech's mechanized order-processing systems automatically initiate a mechanized loop qualification request
54. If the loop qualification results match the criteria specified on the CLEC's LSR, the order is issued automatically, and a Firm Order Confirmation ("FOC") is sent to the CLEC.²²
55. If the loop qualification results fail to meet the minimum criteria specified by the CLEC, the LSR is rejected. The CLEC may then cancel the request or resubmit under a different version or under a different purchase order number

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("PON") the original LSR to order the loop "as is" or with conditioning. The CLEC may also opt to change the specified PSD for the requested loop at any time prior to the FOC's issuance.

56. The "as is" option allows a CLEC to avoid sending a supplemental LSR should the loop require conditioning to support CLEC's desired xDSL technology. A CLEC initiates this arrangement by including the "UALNQX" 'SPEC code' on an LSR. Ameritech will note on the service order whether the loop meets the parameters of the CLEC's chosen PSD mask. This information will help to identify non-standard xDSL technologies if an end user's service is degraded. Whenever a CLEC chooses to use the "as is" one-step option, Ameritech strongly recommends that the CLEC perform a mechanized loop qualification before submitting an LSR because Ameritech will issue a service order regardless of the physical characteristics of the loop. The CLEC does have the option of sending a supplemental LSR before or after FOC to request conditioning if desired. Third, a CLEC can specify on the initial LSR that it desires Ameritech to perform conditioning shown to be available by the loop qualification results

PROVISIONING

57. xDSL capable loops regardless of PSD class are provisioned by the same systems and the same network groups. The PSD of the technology the CLEC intends to provision is communicated by the NC/NCI combination that the CLEC provides on the LSR.

²² FOCs can be returned mechanically or manually, depending on the system the CLEC used when submitting the LSR.

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58. HFPL UNE's, regardless of splitter type are provisioned by the same systems and the same network groups. The number of jumpers placed by the central office technician is dependent on type of splitter that the CLEC decides to use.

59. The PSD specified by the CLEC does not alter the manner in which the xDSL-capable loop or HFPL UNE is provisioned. If a spare non-loaded copper loop is not available (for an xDSL-capable unbundled loop) or if the end user's existing voice service is not provisioned over a non-loaded copper loop (for an HFPL UNE), Ameritech checks internal assignment records to determine if a non-loaded copper pair can be made available. One way of attaining a non-loaded copper pair is through a line and station transfer ("LST"). A LST occurs when service of an existing, working Ameritech retail customer, who is served by a non-loaded copper pair, is transferred to a different copper pair, so that the original non-loaded copper pair can be used to provision the requested xDSL-capable unbundled loop or HFPL UNE. If a non-loaded copper pair can be made available through an LST, Ameritech performs an LST as part of the standard provisioning process. This process is more common with line sharing as the voice service is already working on an assigned pair.

Time Intervals for Provisioning

60. Whether or not conditioning is required, Ameritech offers CLECs xDSL-capable loop and HFPL UNE provisioning intervals that are at or better than parity with the provisioning intervals available to Ameritech's advanced services affiliate.

Provisioning intervals may be found in approved Interconnection Agreements such as the Essex Communications, Inc dba Elec Communications ICON Interconnection Agreement, Appendix DSL, Section 7. Provisioning intervals are determined by

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whether a non-conditioned or conditioned loop is requested. These two provisioning categories are defined as indicated below.

Non-Conditioned	<ul style="list-style-type: none">• Includes all orders where conditioning is not specified on the LSR and for loops under 12,000 feet where loop conditioning is performed at no charge. Conditioning that would be performed at no charge for loops under 12,000 feet includes the removal of load coils, repeaters, and excessive bridged tap (bridged tap in excess of 2,500 feet).
Conditioned	<ul style="list-style-type: none">• Includes all orders where conditioning is requested and specified on the LSR.

61. The provisioning and installation interval for the xDSL-capable loop, where no conditioning is requested and for orders of 1-20 loops per order or per end user location, is 5 business days. For an xDSL-capable loop where conditioning is requested, on orders for 1-20 loops per order or per end user customer location, the provisioning and installation interval is 10 business days. For CLEC requests of more than 20 xDSL-capable loops per order or per end user location, where no conditioning is requested, Ameritech will provision the request within 15 business days, or as agreed upon by the parties. Orders for more than 20 xDSL-capable loops per order which require conditioning will have a provisioning and installation interval agreed to by the parties.

62. The provisioning and installation interval for the HFPL UNE, where no conditioning is requested and for orders of 1-24 loops per order or per end user location, is 3 business days. For a HFPL UNE where conditioning is requested, on orders for 1-24 loops per order or per end user customer location, the provisioning and installation interval is 10 business days. For CLEC requests of 25 to 48 HFPL UNEs per order, or per end user location, where no conditioning is requested, Ameritech will provision the request within 6 business days or as agreed upon by the parties. For 49 to 99

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HFPL UNEs where no conditioning is requested, Ameritech will provision the request within 7 business days, or as agreed to by the parties, and any orders for greater than 99 HFPL UNEs, the intervals will be negotiated. Orders for more than 24 HFPL UNEs per order which require conditioning will have provisioning and installation intervals as follows, 25-48 HFPL UNEs, 11 business days, 49 to 99 HFPL UNEs, 12 business days, and any order greater than 99 HFPL UNEs will have a negotiated interval. The intervals for HFPL UNEs can be found on SBC's CLEC website << clec.sbc.com >> by choosing CLEC Handbook, then Ohio, followed by Products and Services, UNE, Unbundled Loops, and Due Date Negotiation/Intervals in Section 2.0.

63. In each instance, Ameritech offers CLECs provisioning intervals in parity with Ameritech's advanced services affiliate's provisioning intervals.

Coordination of HFPL UNE Installations

64. Although two providers are involved in providing service over the HFPL UNE, all the central office work required of the data provider may be performed in advance of the due date. This eliminates the need for coordination between Ameritech and the data provider and minimizes possible end user down time. Ameritech is responsible for ensuring that the interruption of its end user's voice service is brief. As the CLEC is establishing new service, service interruption of the CLEC's service is not an issue.

65. As with any new product offering, Ameritech has experienced some isolated incidents in the provisioning process requiring additional training of Ameritech's personnel. Ameritech is committed to addressing issues on an ongoing basis through the ongoing line-sharing collaborative process and one-on-one communication with CLECs.

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66. Additional provisioning issues associated with the HFPL UNE are discussed in the Deere affidavit.

IDSL OVER 2-WIRE DIGITAL LOOPS

67. CLECs may provision IDSL over a 2-wired digital loop (“Basic Rate Interface loop” or “BRI loop”). However, there are challenges associated with provisioning IDSL over a loop designed to support ISDN. These challenges are primarily due to two issues.

68. First, due to differences in IDSL and ISDN technologies, CLECs provisioning IDSL over a BRI loop may be unable to achieve the desired level of service on a loop designed to support ISDN on certain DLC systems including the Marconi DISC*S system deployed in Ameritech’s network. The first four channels of the DISC*S system do not support the full 144 kbps bonded IDSL signal. Ameritech has conducted an internal test of a new channel card that will enable the first four channels of the DISC*S system to support the bonded 144 kbps IDSL signal. After the success of the test, Ameritech is continuing to work with Marconi to resolve remaining issues.

69. Second, Ameritech has been unable to fully test the capabilities of a BRI loop provisioned over DLC. As a result, provisioning difficulties that have been apparent when Ameritech provisions a retail or resale ISDN service are not identified on a BRI loop because Ameritech does not have access to the end user’s CPE equipment. This is because the end user is not Ameritech’s, and it is not providing the digital signal through its switch. As a result Ameritech cannot transmit the digital signal through digital loop carrier equipment and test the circuit end to end at turn up.

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70. Ameritech has worked diligently to develop a solution to these operational concerns.

As a result of these work efforts, on June 28, 2001, Ameritech issued an Accessible Letter (CLECAM01-185) notifying CLECs that a new IDSL-capable loop offering would be available effective June 29, 2001 in the Ameritech region. That accessible letter spelled out the necessary ordering information, including the applicable SPEC code. In order to resolve the provisioning difficulties caused by Ameritech's prior inability to fully test the BRI loop as part of the IDSL product offering, Ameritech is upgrading the TPI 550 B test sets used by Ameritech technicians and installing new TPI 550 B+ in central offices where BRI is currently being utilized. These steps ensure the IDSL-capable loop product offering has been provisioned correctly. SBC has budgeted over two million dollars for the upgrades necessary to support the new IDSL-capable loop offering throughout its 13-state region.

PERFORMANCE MEASURES

71. Performance measures for the advanced services product offerings that are addressed in this affidavit are discussed in detail in the Fioretti affidavit. As shown in Mr. Fioretti's affidavit, Ameritech's performance measures address order processing timeliness, the timeliness of Ameritech's installation and percentage of Ameritech-caused missed installation appointments, the quality of the Ameritech installs, and the timeliness and quality of the maintenance and repair functions Ameritech provides to competing carrier for xDSL-capable loops and HFPL UNE.

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OTHER RELATED ISSUES

LINE SPLITTING

72. Line splitting is the use of an unbundled loop by a CLEC (or two CLECs) for the provision of both voice and data services over a single loop. CLECs have the ability to engage in line splitting today under Ameritech's current offerings.²³ Ameritech supports line splitting where a CLEC purchases separate elements (including unbundled loops, unbundled switching, and cross-connects for these UNEs) and combines them with their own (or a partner CLEC's) splitter in a collocation arrangement.

73. CLECs were able to line split even before the *Line Sharing Order*. The *Line Sharing Order* was not necessary to enable one or two CLECs to line split. It was necessary to require an ILEC to share a loop, much like in a line-splitting situation, when it remained the voice provider.

74. In order to line split using existing Ameritech offerings, a CLEC may purchase an xDSL-capable loop UNE from Ameritech and then provide both voice and data services over the loop. If desired, the CLEC may also purchase UNE switching to provide voice services. A single CLEC may choose to use a loop to provision both data and voice services, or one CLEC could provide voice service and another CLEC could provide data service. Under existing offerings, CLECs may provide voice and data services to customers in a variety of ways.

75. With line splitting, the xDSL-capable loop is terminated at a CLEC's collocation arrangement where it is connected to a CLEC-owned splitter. The splitter separates the voice and data frequencies. The data portion of the line is routed to the data

²³ Cf. *Texas 271 Order*, 15 FCC Rcd at 18,515-516, ¶ 325.

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CLEC's Digital Subscriber Line Access Multiplexer ("DSLAM"), which may be integrated with the splitter. The data CLEC may or may not be the same as the voice CLEC. Both the splitter and DSLAM are required for line splitting as they are with line sharing. As with line sharing, the data CLEC must be collocated due to technical limitations of xDSL, which requires DSLAM equipment to be located where the copper loop is terminated. Many DSLAMs have "integrated" splitters, which eliminate the need for a "stand alone" splitter.

76. Typically, the DSLAM and splitter will be located in the data CLEC's collocation space and the xDSL-capable loop will be terminated there. The CLEC can pre-wire the splitter so that the voice service will be established immediately when the xDSL-capable loop and unbundled switch port are terminated to the CLEC's collocation arrangement. The data provider will also transmit its data service through the splitter enabling both the voice and data to coexist on the shared facility.
77. The voice provider may use its own switching equipment to provide voice service, or it may purchase UNE switching from Ameritech. If the voice CLEC is collocated in the central office, it may choose to use a splitter located in its collocation space to perform the splitting function, and send the data portion of the service to the data provider's DSLAM. However, if the voice CLEC is not collocated in the central office and wants to purchase UNE switching, the voice CLEC may designate a point in the data provider's collocation arrangement where Ameritech should terminate the connection to the switch port.
78. Ameritech currently has electronic ordering capabilities for line splitting when the CLEC is requesting a brand new service arrangement (no reuse of facilities from an

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existing service). Ameritech's parent company, SBC, as suggested by the *Line Sharing Reconsideration Order*,²⁴ is currently meeting with interested CLECs to develop improved order processes for situations where a CLEC wishes to engage in line splitting reusing facilities previously used as part of a UNE-P arrangement or line shared arrangement. Implementation of a single LSR conversion process for Ameritech is not scheduled at this time, as the current state of the market does not support committing the resources to do so. At such time as there is market demand, SBC will target implementation.

79. Ameritech's current offerings in Ohio thus allow CLECs to engage in line splitting, and meet all requirements for line splitting. In the *Texas 271 Order* and again in the *Kansas/Oklahoma 271 Order*, the FCC rejected arguments that SWBT did not meet its line splitting obligations, finding that SWBT's offering met all FCC requirements.²⁵ Just as SWBT does in Texas, Kansas, and Oklahoma, Ameritech permits CLECs to engage in line splitting by combining unbundled elements via a CLEC-provided splitter.

Unbundled Packet Switching for Advanced Services

80. The *UNE Remand Order* established a limited obligation to unbundle packet switching for advanced services. Rule 51.319(C)(3)(B) of the FCC rules established four criteria, all of which must be met before Ameritech is required to unbundle its packet switching offering. Those criteria are:

- The incumbent LEC has deployed digital loop carrier systems, including but not limited to, integrated digital loop carrier or universal digital loop carrier systems; or has deployed any other system in which fiber optic facilities replace copper facilities in

²⁴ *Line Sharing Reconsideration Order* ¶ 21.

²⁵ *Texas 271 Order*, 15 FCC Rcd at 18,515-517, ¶¶ 323-29; *Kansas/Oklahoma 271 Order* ¶¶ 220-21.

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the distribution section (*e.g.*, end office to remote terminal, pedestal or environmentally controlled vault);

- There are no spare copper loops capable of supporting the xDSL services the requesting carrier seeks to offer;
- The incumbent LEC has not permitted a requesting carrier to deploy a Digital Subscriber Line Access Multiplexer at the remote terminal, pedestal or environmentally controlled vault or other interconnection point, nor has the requesting carrier obtained a virtual collocation arrangement at these subloop interconnection points as defined by § 51.319(b); and
- The incumbent LEC has deployed packet switching capability for its own use.

81. Ameritech currently has no packet switching for advanced services within its existing network that meet the unbundling criteria. However, should Ameritech deploy any packet switching for advanced services meeting the unbundling requirements, Ameritech's interconnection agreements contain a binding legal commitment to provide CLECs with unbundled access to such packet switching. (See TOTALink, Appendix UNE, Section 10.1) The potential obligations regarding unbundled packet switching for advanced of Ameritech separate data affiliate, AADS are addressed in the Habeeb affidavit.

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Ameritech's Wholesale Broadband Service Offering

82. Ameritech's wholesale Broadband Service offering is not part of any checklist item – and therefore is not a 271 issue. The FCC has found that the issue was not ripe for review in 271 proceedings and the same pertinent facts exist in Ohio today as in Kansas and Oklahoma.²⁶ Specifically, Ameritech has not received a CLEC request for unbundled packet switching made in accordance with FCC rule 51.319(c)(4). Accordingly, as in the Kansas/Oklahoma proceeding, this issue should not be considered as part of this proceeding.

CONCLUSION

83. Ameritech has fully met all of the FCC's competitive checklist requirements relating to loop qualification pre-ordering functionality, xDSL-capable unbundled loops, standard xDSL loop conditioning, the HFPL UNE, line splitting and unbundled packet switching.

²⁶ See *Kansas/Oklahoma 271 Order* ¶¶ 244-45.

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

Executed on _____, 2001.

Michael D. Silver
Associate Director-Wholesale Marketing

STATE OF ILLINOIS
COUNTY OF COOK

Subscribed and sworn to before me
this _____ day of _____, 2001.

Notary Public