DRAFT

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

In the Matter of	)	
	)	
Joint Application by SBC Communications Inc.,	)	
Michigan Bell Telephone Company d/b/a	)	
Ameritech Michigan and Southwestern Bell	)	CC Docket No. _____
Communications, Inc. d/b/a Ameritech Long	)	
Distance for Provision of In-Region InterLATA	)	
Services in Michigan	)	

AFFIDAVIT OF MICHAEL D. SILVER
ON BEHALF OF AMERITECH

STATE OF ILLINOIS)
)
COUNTY OF COOK)

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AFFIDAVIT REGARDING WHOLESALE PROVISIONING OF DSL SERVICE

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 Michigan Bell Telephone Company d/b/a Ameritech Michigan ("Ameritech")[1]. My business address is 350 N Orleans, Chicago, IL 60654.

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.

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

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 Ameritech's compliance with requirements of the *UNE Remand Order* as they relate to advanced services and the *Line Sharing Order*.[2] In doing that, I will explain how Ameritech makes these advanced services products available on a wholesale basis. 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."[3]
5. Ameritech has been provisioning unbundled xDSL capable loops 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 February 2001, Ameritech had more than 48,000 HFPL UNEs for affiliated

[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*").

[3] 47 U.S.C. Section 271(c)(2)(B)(iv)

and non-affiliated carriers in service throughout Ameritech's five-state region. In Michigan, Ameritech had more than 12,000 HFPL UNEs in service in February 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 those portions of the pre-ordering, ordering and provisioning process that are unique to xDSL-capable loops and the HFPL UNE.

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 Michigan., any conclusions drawn from an examination of Michigan processes and procedures apply with equal force across Ameritech's five-state region. The FCC requires that CLECs have access to pre-order information and ordering information. CLECs must also have loops provided in a timely and quality manner. As shown below, Ameritech has succeeded in providing this functionality to CLECs and allows them a meaningful opportunity to compete using loops that are DSL capable, whether stand-alone or shared with Ameritech. In addition, Ameritech fully complies with the loop qualification requirements of the *UNE Remand Order* throughout its five-state region, including Michigan. Ameritech is also on full compliance with the MPSC's requirements set forth in its March 7, 2001 order in Case No. U-12540.

8. Both the xDSL-capable unbundled loop and the HFPL UNE are priced at TELRIC-based 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 Michigan. 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 CLECs split an unbundled loop for the low frequency or voice portion of the loop and the HPFL or data portion of the loop. 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 Wholesale Broadband Service (WBS) offerings that facilitate the use of the Project Pronto 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 xDSL[4] 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, so long as the service does not interfere with or degrade services provided by Ameritech or other carriers to other end users.

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 every CLEC has 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 the information necessary to order such services.

xDSL-Capable Unbundled Loop Product Offering

14. As required by the *UNE Remand Order,* Ameritech makes available xDSL loops, defined as a copper loop over which a CLEC may provision various DSL

[4] 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), IDSL (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).

technologies. A copper loop used for such purposes will meet basic electrical standards such as metallic connectivity, capacitive and resistive balance, and will not include load coils, mid-span repeaters or excessive bridged tap (bridged tap in excess of 2,500 feet in length). Removal of load coils, repeaters or excessive bridged tap on an existing loop is optional, subject to conditioning charges, and will be performed at CLEC's request. Additional description of Ameritech's stand-alone xDSL 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 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*,[5] 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 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.

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

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. 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 Michigan that were agreed to during the collaborative process. However, since that time, the MPSC, in its Order issued March 7, 2001 in Case No. U-12540, has required Ameritech to provide the splitter for line sharing.[6]

Standard xDSL Loop Conditioning

20. Ameritech Michigan 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 unbundled loops and the HFPL UNE. Neither Ameritech's interconnection agreements, nor tariffs, in Michigan require a CLEC to request available loop conditioning. (See for example Ameritech's Tariff No. 20R, Part 19, Section 2, 1(C), or approved Interconnection Agreement with Level 3 Communications LLC Interconnection Agreement, Appendix DSL, Section 7).

[6] The March 7, 2001 Order in Case No. U-12540 is currently before the MPSC on Rehearing for other issues. Ameritech is currently abiding by all aspects of the MPSC's Orders that are not the subject of rehearing, subject to reversal or modification on appeal.

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 Michigan through interconnection agreements and pursuant to tariffs approved by the Michigan Public Service Commission. Ameritech currently has 45 CLECs with agreements (interim and permanent) which include xDSL and HFPL UNEs, of which 29 are in Michigan.

22. Any CLEC can execute the Multi-State Generic Interconnection/Resale Agreement ("GIA")[7], 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 Allegiance Telecom of Michigan, Inc. Appendix DSL).[8] *See* the Alexander affidavit for more information regarding how

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

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

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.

23. As required by the MPSC in its February 9, 2000 Order in Case No. U-12320, these offerings are also available in Ameritech's Tariff No. 20R, Part 19, Section 2, which is titled "Unbundled Loops and HFPL".[9]

PRICING

24. xDSL-Capable Unbundled Loop, Standard xDSL Loop Conditioning, and the HFPL UNE Products have TELRIC-based pricing as determined by the MPSC. The rates for xDSL capable unbundled loops were set by the MPSC in Case No. U-11831 (Ameritech Michigan's Biennial Cost Docket). The rates for Standard xDSL Loop Conditioning, Loop Qualification, and the HFPL UNE were set by the MPSC in Case No. U-12540; Order issued March 7, 2001. Ameritech submitted compliant tariff modifications and cost studies on April 6, 2001.

OSS ISSUES RELATED TO ADVANCED SERVICES

25. The FCC requires that CLECs have access to pre-order information and ordering information. Ameritech provides this functionality to CLECs and allows them a meaningful opportunity to compete using either stand-alone loops, or loops that are shared with Ameritech, that are DSL capable. In addition, Ameritech fully complies

[9] Ameritech's tariffs can be viewed over the Internet at: <http://www1.ameritech.com/corporate/regulatory/tariffs_mi.html>.

with the loop qualification requirements of the *UNE Remand Order* throughout its five-state region, including Michigan.

PRE-ORDERING

26. There are many pre-ordering transactions in Ameritech's Operations Support Systems ("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

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

28. In the *UNE Remand Order*, the definition of OSS was modified to include access to loop qualification information.[10] 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.

29. 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.[11]
- 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.[12]

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

[11] *UNE Remand Order*, 15 FCC Rcd at 3885, ¶ 427.

- ILECs are not required to make available through an electronic interface loop make-up information that is not available to itself.[13]
- 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.[14]

30. Ameritech makes available loop qualification information in Michigan through interconnection agreements and pursuant to its tariffs. (See for example Ameritech's Tariff No. 20R, Part 19, Section 2, 1(C), Level 3 Communications LLC 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.

31. 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

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[12] *Id*., 15 FCC Rcd at 3885-3886, ¶ 427-428.

[13] *Id*., 15 FCC Rcd at 3886, ¶ 429.

[14] *Id*.

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 loop make-up information. A complete listing of the 45 base data fields that may be returned to CLECs electronically is attached as Attachment B.

32. 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.

33. 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.

34. 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 the Loop Facility Assignment and Control System ("LFACS") and Ameritech Records and Engineering System ("ARES") OSS 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 from the LFACS and ARES systems that is stored in the loop qualification database for up to 30 days). Archived Actual data allows a faster real time response to loop requests, as it has been pre-pulled from backend OSSs and stored in a dedicated database. This Loop Qualification Host database is updated monthly by wire center, and is a snapshot of loop qualification data from Ameritech's LFACS and the ARES 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.

35. 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.

36. 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 is the Ameritech Enterprise Messaging System ("AEMS"). AEMS performs

certain “gateway” functions, such as authentication, routing the transaction to the appropriate systems, and recording the request for later tracking. AEMS then forwards the loop qualification request to the Service Access Management System (“SAM”) SAM is a “middleware” system that provides common access to legacy systems for both wholesale and retail pre-ordering functions. The legacy systems that are accessed by SAM for pre-ordering loop qualification are LFACS and ARES. In the Ameritech region, LFACS contains certain loop information, such as terminal addresses, and ARES contains the actual loop make-up information.

37. The actual loop information that is returned from LFACS/ARES depends on the information that AEMS requests from SAM. In the case where a CLEC has provided a 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.

38. If a CLEC has provided an address, rather than a WTN, AEMS asks SAM to obtain all terminal information from LFACS at that address, AEMS then takes that information and selects the first loop returned to it. AEMS then uses that loop terminal information to request all remaining loop make-up information from ARES.

39. With either type of inquiry (by WTN or by address), the loop makeup information provides the CLEC with all the data it needs to determine the loop’s ability to support a particular service (including 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.

40. 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, in the case of a manual loop request, the requestor identification is suppressed and not presented to the person fulfilling the request. In this way, 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 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.

41. 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" loop that is ready for xDSL service also serves that address.

42. 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 LFACS search performed by the loop qualification system continues as long as possible, consistent with the DataGate interface timeout for the pre-order loop qualification inquiry, until either (a) the system locates a non-loaded copper loop with loop information loaded in LFACS; or, (b) the system completes the search of all loops to the requested premise.[15] 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 SWBT region operates in a manner similar to the LFACS provisioning logic, in that it searches for the same type of loop that LFACS would provision if a carrier requested an xDSL-capable loop. A non-loaded copper loop is the type of loop that LFACS would look to provision if a CLEC actually ordered an xDSL-capable loop 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.[16]

[15] 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.

[16] *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

43. 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 be built into SAM and AEMS middleware as opposed to DataGate in SWBT. In both Ameritech and SWBT this enhancement involves no modifications to LFACS 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.

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

SPECTRUM MANAGEMENT -- THE POWER SPECTRUM DENSITY ("PSD") INFORMATION

45. 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

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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…").

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.

46. 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 numbers[17] (or PSD categories) are tied to the PSD masks and, thus, to the underlying national standards, providing a method for monitoring the interference potentially caused by new technologies.

47. 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 Ameritech's Tariff No. 20R, Part 19, Section 2, 1(C), or approved Interconnection agreement with Level 3 Communications LLC Interconnection Agreement, Appendix DSL, Section 4). Ameritech, in turn, maintains an inventory, which identifies, by PSD, the various advanced services present in the network.

48. As national industry standard setting bodies promulgate additional standards to address emerging technologies, Ameritech will adopt and implement the new standards as well.

49. 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

50. When requesting an xDSL capable unbundled loop or HFPL UNE, the CLEC simply submits a complete and accurate Local Service Request ("LSR")[18] through Ameritech's LEX or EDI electronic interfaces, or by facsimile when arrangements are made with Ameritech's Local Service Center (LSC).

51. In the event a CLEC orders an xDSL capable loop and does not provide the PSD, the order will be processed the same as any other unbundled loop. Through this process if facilities are available and no modifications are necessary, the order is provisioned electronically. In the event facility modifications are required to provision the xDSL capable 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.)

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[17] PSD numbers are based on ANSI national standards for spectrum management pending endorsement by the FCC.

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

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

53. 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 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.

54. 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. These additional fields are discussed in the Cottrell affidavit.

The Mechanics of the Ordering Process

55. Upon receipt of an accurate electronically submitted LSR, Ameritech's mechanized order-processing systems automatically initiate a mechanized loop qualification request

56. If the loop qualification results indicate that the available facility matches the criteria specified on the CLEC's LSR, the order is issued automatically, and a Firm Order Confirmation ("FOC") is sent to the CLEC.[19]

57. If the available facility fails to meet the minimum criteria specified by the CLEC, the LSR is rejected. The CLEC may then cancel the request or supplement 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.

59. Ameritech has made various options available to CLECs. First, a CLEC can advise Ameritech it requires a loop that meets the industry standards for the CLEC's chosen PSD. If the loop serving the end user does not meet these standards, Ameritech notifies the CLEC before a service order is issued. The CLEC then determines whether to proceed with the order. This option allows CLECs to request that a loop be provisioned *only if it meets the relevant industry standards*. If the loop fails to meet the standard for the designated type of xDSL, the CLEC can also choose to provision a non-standard technology, recognizing the potential risks.

60. Second, a CLEC can specify on the LSR that it will take the loop "as is," regardless of whether the loop meets the specifications set by the national standards for the type of xDSL the CLEC intends to provision. The "as is" option allows a CLEC to avoid sending a supplemental LSR should the loop fail to meet current industry standards for CLEC's desired xDSL technology. A CLEC initiates this arrangement by

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

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

61. All xDSL-capable loops and HFPL UNEs are provisioned in the same manner regardless of the PSD specified by the CLEC on the LSR. 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 through a line and station transfer ("LST"). An LST is when service of an existing, working Ameritech customer who is served by a non-loaded copper pair is transferred to a different pair, so that that 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

62. 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 Ameritech's Tariff No. 20R, Part 19, Section 2, 1(C), or in approved Interconnection Agreements such as the Level 3 Communications LLC Interconnection Agreement, Appendix DSL, Section 7. Provisioning intervals are determined by whether a non-conditioned or conditioned loop is requested. These two provisioning categories are defined as indicated below.

Non-Conditioned	• 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	• Includes all orders where conditioning is requested and specified on the LSR.

63. 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.

64. 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 an 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 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.

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

Coordination of HFPL UNE Installations

66. 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.

67. 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 xDSLworkshops, the ongoing line-sharing collaborative process, and one-on-one communication with CLECs.

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

IDSL OVER 2-WIRE DIGITAL LOOPS

69. 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. Aside from a provisioning interval that is considerably shorter than that available for Ameritech's retail or resale customers, these challenges are primarily due to two issues.

70. 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.

71. 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 we are not providing the digital signal through our switch. As a result we cannot transmit the digital signal through digital loop carrier equipment and test the circuit end to end at turn up.

72. Ameritech has worked diligently to develop a solution to these operational concerns. As a result of these work efforts, Ameritech has recently developed a new loop offering. Ameritech's new IDSL-capable loop offering is planned to be available to CLECs during the 2nd quarter of 2001. 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 to ensure the IDSL 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

73. Performance measures for the advanced services product offerings that I address in this affidavit are discussed in detail in the Fioretti affidavit. As shown in that

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.

OTHER RELATED ISSUES

LINE SPLITTING

74. Ameritech permits CLECs to engage in line splitting, using Ameritech's UNEs, in full compliance with the FCC's rules and the MPSC's Order in Case No. U-12540.[20] In accordance with the FCC's rules and orders, including the *Line Sharing Reconsideration Order,* Ameritech Michigan supports line splitting where a CLEC purchases separate UNEs (including unbundled loops, unbundled switching, and cross-connects), and combines them with its own splitter (or the splitter of the CLEC's data partner) in a collocation arrangement.[21] Specifically, a CLEC may purchase each of these unbundled network elements from Ameritech Michigan, or in combination with their own facilities, and then use them to provide both voice and data service over the loop. Alternatively, a CLEC may provide voice service while a data partner provides data services.

[20] As noted above, Ameritech is currently abiding by all aspects of the MPSC's March 7, 2001 Order in Case No. U-12540 that are not the subject of rehearing, subject to reversal or modification on appeal.

[21] The FCC requires ILECs to accommodate line splitting only where *a CLEC purchases an entire loop and provides its own splitter*. *Texas 271 Order,* ¶ 325; ¶ *Line Sharing Reconsideration Order,* ¶ 19.

75. By accommodating line splitting in this manner, Ameritech Michigan's current offerings meet all the FCC's requirements for line splitting. *See Texas 271 Order,*[22] *Line Sharing Order,*[23] *and Line Sharing Reconsideration Order*[24].

76. The processes described above also provide compliance with the MPSC's requirement in its March 7, 2001 Order in Case No. U-12540 that "Ameritech Michigan must permit line splitting over the UNE-P, at least when the CLECs provide the splitter, as the FCC has now ruled." (Page 7) In this specific instance, the CLEC would order an xDSL-capable unbundled loop and would connect it to its splitter in its collocation cage. The CLEC would also order an Unbundled Local Switching with Shared Transport port, specifying it be cross-connected, as well, to its collocation. Upon connecting the voice signal from splitter to the ULS-ST port, the CLEC would have its "UNE-P" to provide voice service to its end user. In the alternative, a CLEC may enter into an agreement with a second CLEC to use its collocated splitter.

Unbundled Packet Switching for Advanced Services

77. 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:

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[22] 15 FCC Rcd at 185515-17, ¶¶ 323-329

[23] ¶¶ 72.

[24] *Third Report and Order On Reconsideration in CC Docket No. 98-147 and Fourth Report and Order on Reconsideration in CC Docket No. 96-98* (January 19, 2001) ¶ 19.

- 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 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.

78. Ameritech Michigan 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.

Ameritech's Wholesale Broadband Service Offering

79. Ameritech's Wholesale Broadband Service offering enables CLECs to provide DSL service to new, previously inaccessible customers.

80. Ameritech Michigan essentially offers three different Broadband Service arrangements to the CLECs. The first is a "data-only" service arrangement. In this

arrangement no voice is transmitted over any of the facilities. Therefore, nothing in this service arrangement relates to any form of line sharing. The second Broadband Service arrangement is the "data with line-shared subloop" service arrangement. This service arrangement achieves the same result for the CLEC as the line sharing required by the FCC's Line Sharing Order. That is, the CLEC may provide DSL service to an Ameritech Michigan POTS customer over the same copper distribution pair. However, this is different than the line sharing required by the FCC because it is literally not possible for "line sharing" (i.e., fiber sharing) to occur in the fiber portion of the Broadband Service, it is misleading to refer to this as a "line-shared" service arrangement. The third Broadband Service arrangement is the "combined voice and data" service arrangement.

81. Ameritech's Wholesale Broadband Service Offerings are actually 12-state standard offerings – they are the same in each SBC state in which it is offered.[25] Thus, the offering in Michigan is the same as it is in each of the other SBC states. CLECs may obtain Ameritech's Wholesale Broadband offering by agreeing to the SBC-12 State Broadband Service Stand-Alone Agreement.[26]

82. Ameritech's Broadband Service offering is not part of any checklist item – and therefore is not a 271 issue.

83. Nonetheless, issues related to SBC's Wholesale Broadband Service offering have been raised in the state proceedings in Michigan and, the MPSC addressed those

[25] The offering was recently withdrawn in Illinois due to the halt of the Project Pronto network architecture deployment.

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

issues in its order issued in Docket U-12540 on March 7, 2001. In that Order, the MPSC required Ameritech to provide its Wholesale Broadband offerings to CLECs by making them available via its tariffs and interconnection agreement amendments pursuant to Section 252 process of the Act. Ameritech's offering is, and has been, available in its stand-alone agreement for these service and is now available via its MPSC Tariff No. 20R, Part 24, Section 1.

CONCLUSION

84. 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.

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

Silver Affidavit – Attachment A

Ameritech Interconnection Agreements w/ HFPL Language

CLEC Name
BullsEye Telecom
Essex Communications, Inc.
FairPoint Communications Solutions Corp.
Intra Community Communications
Kdot Communications
Maverix.net, Inc.
MAXCESS, Inc.
Michigan Utility Company & Payment Systems
NationNet Communications Corporation
Navigator Telecommunications, LLC.
Now Communications, Inc.
PaeTec Communications Inc
TOTALink
Vectris Telecom, Inc.
@link Networks, Inc.
Allegiance Telecom, Inc.
Coast to Coast Telecommunications, Inc.
DSLnet Communications, LLC
Focal Communications Corp. of Michigan
JATO Operating Two Corporation
Level 3 Communications LLC
NEXTLINK Michigan, Inc.
Sprint Communications Company L.P.
US XChange of Michigan, LLC
Ameritech Advanced Data Services
Covad Communications Company
DSLnet Communications, LLC
New Edge Network, Inc.
Rhythms Links, Inc.

Silver Affidavit – Attachment B

Loop Qualification Elements

1. Loop length: includes both the feeder pair (F1) and the distribution pair to the customer's terminal (e.g., Pedestal) (F2). In July 22, 2000, for "Project Pronto" Broadband UNE Loops, the loop length will be returned indicating the length of the portion that is copper and the length of the fiber from the Central Office to the RT. The overall loop length for all loops will display the portion that is copper and the portion that is fiber, either in this field or in separate fields, no later than May 17, 2000.
2. Loop length by segment
3. Length by gauge
4. 26 gauge equivalent loop length (calculated)
5. Presence of load coils
6. Quantity of load coils (if applicable)
7. Presence of bridged taps
8. Length of bridged taps (if applicable)
9. Presence of pair gain/DLC
10. Qualification status of the loop based on specified PSD. If no PSD class is specified, the default PSD is class 5 (ADSL).
11. Source of data – actual or designed
12. Location of load coils
13. Presence of repeaters
14. Location of repeaters
15. Type of repeaters
16. Quantity of repeaters
17. Type of plant (aerial or buried)
18. Type of loop (copper or fiber)
19. Availability of spare facilities
20. Location of bridged tap
21. Quantity of bridged tap by occurrence

Loop Qualification Elements

22. Location of bridged tap by occurrence
23. Quantity of range extenders
24. Location of range extenders
25. Location of pair gain devices
26. Type of DLC
27. Location of DLC
28. Quantity of DLC
29. Presence of DAML
30. Presence of disturbers in same or adjacent binder groups
31. Loop medium
32. Whether the loop originates at a Remote Switching Unit (RSU)
33. Location of Remote Switching Unit (RSU)
34. Type of Remote Switching Unit (RSU)
35. Resistance zone
36. Whether the loop originates at an ADSL Capable Remote Terminal (RT)
37. Whether the loop originates at a Non-ADSL Capable Remote Terminal (RT)
38. Indicator of whether ADSL capable RT is available
39. Target date of when ADSL capable RT will be deployed
40. Location of ADSL capable RT by address
41. Location of ADSL capable RT by CLLI
42. Location of non-ADSL capable RT by address
43. Location of non-ADSL capable RT by CLLI
44. Wire Center Code
45. Taper Code

'Silver Affidavit – Attachment C

Loop Qualification Process for Advanced Services