than 14 minutes, start to finish. Ms. Gentry points out that a manual system may cause this process to take days.[191] Rhythms asserts that an electronic ordering system should support an automatic flow-through process that enables a CLEC employee to place orders on-line.[192] If SWBT does not have real-time access available, Rhythms recommends that it should be required to develop such a system within six months.[193]

Rhythms also states that it appears that SWBT's LFACS and LEAD databases have all of the loop makeup information Rhythms needs for pre-ordering DSL-capable loops.[194]

Rhythms witness Ms. Gentry asserts "that the systems and processes SWBT intends to employ are specifically tailored for, and will strongly favor, SWBT's own chosen type of ADSL, thereby affirmatively restricting or precluding the provision of other types of DSL-based services by ACI and other CLECs."[195] Ms. Gentry cites the lack of parity between the manner in which loop qualification requests are transmitted (by mail or fax) by CLECs, compared to the e-mail access available to SWBT's retail operations.[196] Ms. Gentry also makes reference to SWBT's planned Loop Qual system for obtaining loop make-up information, noting that the enhanced CPSOS system will be available to SWBT's retail operations, including mechanized order flow-through. However, CLECs must take extra steps to process orders, even after being given access to pre-ordering functions through Verigate/ Datagate.[197]

---

[191] ACI Exhibit 2, Direct Testimony of Jo Gentry at 8 (Feb. 19, 1999).

[192] ACI Exhibit 2, Direct Testimony of Jo Gentry at 15 (Feb. 19, 1999).

[193] *Id.*

[194] ACI Post-Hearing Brief (Confidential Version) at 69, citing ACI Ex. 149a, Phillips Tr. 160; McDonald Tr. 8, 9:20-22, 14; ACI Ex. 34; ACI Ex. 39.

[195] ACI Exhibit 20, Supplemental Direct Testimony of Jo Gentry at 3-4 (May 24, 1999).

[196] *Id.* at 16.

[197] *Id.* at 16-17.

Covad argues SWBT's LFACS database contains all or most of the information necessary to determine whether a loop is capable of transmitting xDSL signals.[198] To achieve true non-discriminatory access, Covad continues, CLECs must have read-only access to the same information.[199] Covad observes that, according to the deposition of SWBT employee Ms. Bird, several departments in SWBT already have read-only access to LFACS for various purposes.[200] Even if a CLEC has access to the loop makeup information, Covad asserts that SWBT still must provide a mechanized loop ordering interface to achieve flow-through parity with its own retail service offerings.

SWBT describes its process that includes pre-qualification, ordering, and loop qualification for ADSL loops.[201] SWBT witness Auinbaugh indicated that SWBT is developing a mechanized pre-qualification process to indicate whether a loop serving a particular location is capable of supporting ADSL technology.[202] The mechanized pre-qualification process generally categorizes the loops into those with a length of less than 12,000 feet, those that are between 12,000 feet and 17,500 feet, and those that are in excess of 17,500 feet, or have non-copper facilities on the loop. In subsequent testimony and cross-examination, SWBT witnesses Auinbaugh, Deere, and Phillips maintain that the pre-qualification process is entirely an option to the CLEC, as is any conditioning that may be desired.[203] Mr. Auinbaugh then describes the CLEC's loop ordering process, which includes a manual loop qualification procedure. During this procedure, the engineering group provides the loop make-up, which includes details

---

[198] Covad Exhibit 43A, Supplemental Direct Testimony of Sandee Turner at 7-8 (May 24, 1999) (Confidential); ACI Exhibit 149A, Bird Deposition at 14–16; 27–29; 63–65 (May 6, 1999); ACI Exhibit 149A, D. McDonald Deposition at 33–36 (May 12, 1999).

[199] Covad Exhibit 45, Supplemental Rebuttal Testimony of Dhruv Khanna at 4-5 (May 28, 1999).

[200] Covad Exhibit 43A, Supplemental Direct Testimony of Sandee Turner at 8 (May 24, 1999) (Confidential).

[201] SWBT Exhibit 1, Direct Testimony of Michael C. Auinbaugh at 7-14 (Feb. 19, 1999); SWBT Exhibit 2, Direct Testimony of William C. Deere at 14 (Feb. 19, 1999).

[202] SWBT Exhibit 1, Direct Testimony of Michael C. Auinbauh at 8 (Feb. 19, 1999).

[203] SWBT Exhibit 1, Direct Testimony of Michael C. Auinbauh at 20 (Feb. 19, 1999); SWBT Exhibit 6, Rebuttal Testimony of Michael C. Auinbauh at 15 (April 8, 1999); SWBT Exhibit 26, Supplemental Rebuttal Testimony of William C. Deere at 8 (May 28, 1999); SWBT Exhibit 28, Supplemental Rebuttal Testimony of George R. Phillips, Jr. at 2-3 (May 28, 1999).

regarding loop length, bridged taps, load coils, repeaters, and a verification of loop and spectrum feasibility.[204]

SWBT witness Mr. Deere reiterates that SWBT does not currently have an electronic database that contains all of the loop make-up information being sought by Petitioners.[205] During cross-examination, he indicated that the two items that are usually missing from the LFACS database are indicators of actual loop length and the presence of bridged tap.[206] Mr. Deere believes that the complete loop makeup in electronic form exists for less than 21% of SWBT's central offices.[207] He further emphasizes that SWBT does not use a loop make-up database for the provision of retail ADSL services.[208] SWBT contends that the LFACS database is not the type of robust system that is capable of providing real-time access to either CLECs or SWBT's retail ADSL operations.[209]

SWBT witness Mr. Phillips indicates that since April 1, 1999, SWBT has made its SORD ordering system available for CLEC use, providing the ability to submit electronic orders for xDSL loops.[210] Mr. Phillips also describes a new database, "Loop Qual," that is being developed to provide electronic access to loop make-up information to customers on the retail side as well as the wholesale side.[211] This system contains at least five fields of information: basic qualification (red/yellow/green), wire center, taper code, loop makeup, and 26 gauge equivalent

---

[204] SWBT Exhibit 1, Direct Testimony of Michael C. Auinbauh at 10-11 (Feb. 19, 1999). The Arbitrators note that Mr. Auinbauh also testified regarding flow-through requirements for orders as follows:

> Q. (Phillips) Okay. Do you think that SWBT is required to give to ACI and Covad the same level and degree of flow-through for their UNE loop orders that is present for your retail ADSL orders?
> A. (Auinbauh) Actually, no. Tr. at 1859 (June 5, 1999).

[205] SWBT Exhibit 26, Supplemental Rebuttal Testimony of William C. Deere at 3 (May 28, 1999).

[206] Tr. at 1825 (June 5, 1999).

[207] SWBT Exhibit 26, Supplemental Rebuttal Testimony of William C. Deere at 5 (May 28, 1999).

[208] *Id.* at 3.

[209] Tr. at 1974 (June 5, 1999).

[210] SWBT Exhibit 28, Supplemental Rebuttal Testimony of George R. Phillips, Jr. at 6 (May 28, 1999).

[211] Tr. at 1864-1865 (June 5, 1999).

length. Mr. Deere states that this information is mostly theoretical point design data.[212] This database should be accessible by CLECs through the Verigate system, and it is scheduled to be on line by December 1999.[213]

Award

The Arbitrators find that SWBT must provide Petitioners with nondiscriminatory access, whether that access is available by electronic or manual means, to its OSS functions for pre-ordering, ordering, provisioning, maintenance and repair, and billing for DSL-capable loops. This includes "the manual, computerized, and automated systems, together with associated business processes and the up-to-date data maintained in those systems."[214] Petitioners must be given nondiscriminatory access to the same OSS functions that SWBT is providing any other CLEC and/or SWBT or its advanced services affiliate. This includes any operations support systems utilized by SWBT's service representatives and/or SWBT's internal engineers and/or by SWBT's advanced services affiliate to provision its own retail xDSL service.[215]

The Arbitrators' decision is consistent with the FCC's recent findings in the *UNE Remand Order*. While not modifying the definition of OSS, the FCC clarified that "the pre-ordering function includes access to loop qualification information." Loop qualification information identifies the physical attributes of the loop plant (such as loop length, the presence of analog load coils and bridge taps, and the presence and type of Digital Loop Carrier) that enable carriers to determine whether the loop is capable of supporting xDSL and other advanced technologies. This information is needed by carriers seeking to provide advanced services over those loops through the use of packet switches and DSLAMs."[216] The FCC also elaborated on the ILEC's obligation to provide requesting carriers the same underlying information the ILEC

[212] Tr. at 1979 (June 5, 1999).

[213] Tr. at 1872-1875 (June 5, 1999) (SWBT is currently "masking" four of the data fields from use and view); 1949 (June 5, 1999).

[214] *UNE Remand Order* at ¶ 425.

[215] *Id.* at ¶¶ 427-430.

[216] *Id.* at ¶ 426.

has in any of its own databases or other internal records, and gives examples of the types of information to be provided.[217] The Arbitrators adopt the FCC's findings on the requirements associated with access to loop makeup information found in the *UNE Remand Order*.

SWBT has provided sworn testimony that it does not use a loop make-up database for the provision of retail ADSL services.[218] It is clear from evidence in this case, however, that some SWBT employees involved with retail ADSL have access to databases containing useful loop makeup information that are not available to CLECs. As an example, evidence reveals that at least one member of SWBT's ADSL Retail Core Team, the Manager of the Loop Assignment Center, Methods and Procedures, also has responsibilities with respect to the LFACS database.[219] Further, SWBT's outside plant engineers and loop assignment center personnel have access to the LFACS and LEAD databases that contain valuable loop makeup information sought by CLECs.[220] The Arbitrators are troubled by the inconsistencies regarding the relationship between SWBT's retail and wholesale operations, and find that the issue of nondiscriminatory access must be further addressed. SWBT should not be allowed to assign employees to both wholesale and retail responsibilities, nor should SWBT employees be allowed access to information that in any way may advantage its retail advanced services operations over those of its competitors. Remedies to address the Arbitrators' concerns will be included in the discussion of DPL Issue No. 16.

The Arbitrators also note that SWBT has stated that in addition to the number of central offices for which inventories had been requested by CLECs, an additional 271 central offices are

---

[217] *UNE Remand Order* at ¶¶ 427-431; 47 C.F.R. §§ 51.319(g) and 51.5. *See also* SBC/Ameritech Merger Order at ¶¶ 371-374 and SBC/Ameritech Merger Order Appendix C at ¶ 20.

[218] SWBT Exhibit 26, Supplemental Rebuttal Testimony of William C. Deere at 3 (May 28, 1999).

[219] ACI Exhibit 149A, Deposition of Victoria Bird at 48-49, 130-134 (May 6, 1999).

[220] ACI Exhibit 149A, Bird Deposition at 36, 45-46, 60-62, 112-114, 177-183 (May 6, 1999); *Id.*, Goodson/Wren Deposition at 238-246 (May 6, 1999).

expected to be inventoried for SWBT's own purposes before the end of 1999.[221] All of this inventory information should be made available for use in providing loop makeup information.

In addition, in order to encourage deployment of advanced services throughout Texas, and because the LFACS and LEAD databases currently contain valuable loop makeup information accessible to SWBT personnel,[222] and because SWBT is already currently working to provide electronic processes for preordering and ordering of advanced services,[223] the Arbitrators find that SWBT must provide real time, electronic access to all systems needed for efficient provisioning of advanced services such as xDSL. SWBT's pre-qualification and loop qualification systems as currently described are *not* a reasonable substitute for pre-order access to actual loop makeup information. SWBT's current systems involve the application of SWBT's ADSL design parameters to the qualification of loops to be used for technologies that may far exceed SWBT's service offerings, and focus on theoretical loop makeup rather than actual loop makeup.[224]

The Arbitrators order SWBT to develop and deploy enhancements to its existing Datagate and EDI interfaces that will allow CLECs, as well as SWBT's retail operations or its advanced service subsidiary, to have real-time electronic access as a preordering function to the loop makeup information described in DPL Issue No. 17. SWBT shall develop and deploy these enhancements as soon as possible, but not to exceed six months from the Award in this Arbitration.[225] The interim manual process for access to loop makeup information is addressed in DPL Issue Nos. 15(a) and 19(b) below.

---

[221] Tr. at 1947 (June 5, 1999).

[222] In fact, SWBT witness Mr. Deere testified that SWBT network personnel currently access and use the information in the LFACS and LEAD databases to provide loop qualification information. Tr. at 1818-1819. *See also UNE Remand Order* at ¶ 430.

[223] *See, e.g.*, Tr. at 1864-1865 (June 5, 1999); Tr. at 1872-1875 (June 5, 1999); 1949 (June 5, 1999); SBC/Ameritech Merger Order at ¶¶ 371-374 and SBC/Ameritech Merger Order Appendix C at ¶¶ 15-20.

[224] *See UNE Remand Order* at ¶ 428.

[225] *See* SBC/Ameritech Merger Order at ¶ 374 and SBC/Ameritech Merger Order Appendix C at ¶ 20.

SWBT shall also develop and deploy enhancements to its existing Datagate and EDI interfaces to allow for ordering xDSL and other advanced services as soon as possible, but not to exceed six months from the Award in this Arbitration. Such enhancements shall ensure that orders for DSL-capable loops flow through at parity with comparable UNE orders, and SWBT's retail or advanced services affiliate's DSL orders. Also, as discussed and defined in Section II of this Award, Petitioners are ordering "DSL-capable" loops. The only varieties of DSL-capable loops are 2-wire xDSL loops and 4-wire xDSL loops. Therefore, any ordering process should not require Petitioners to specify a type of xDSL to be ordered. However, for each loop, Petitioners should at the time of ordering notify SWBT as to the type of PSD mask they intend to use, and if and when a change in PSD mask is made, Petitioners should notify SWBT. Likewise, SWBT should disclose to Petitioners "information with respect to the number of loops using advanced services technology within the binder and type of technology deployed on those loops."[226] The ordering process should also encompass any conditioning requested by Petitioners, *e.g.*, at the time of ordering, Petitioners should be able to instruct SWBT as to what conditioning is requested. The Arbitrators do not believe that any additional modifications to the current electronic ordering processes for UNE loops should be necessary, beyond those required to address the PSD mask and conditioning issues.

The Arbitrators also find that SWBT shall provide "trouble reports" to Petitioners for "any function or capability of the accessed loop element" and SWBT shall "not limit such reports to voice-transmission trouble only."[227] The FCC stated in ¶ 195 of the *UNE Remand Order*:

> Thus, we conclude that, in so far as it is technically feasible, the incumbent must test and report trouble on conditioned lines, if requested by the competitor, for all of the line's features, functions, and capabilities, and may not restrict its testing to voice-transmission only.

15(a). What is the appropriate interval for SWBT's xDSL-capable loop qualification process?

---

[226] *Advanced Services Order* at ¶ 73.

[227] *UNE Remand Order* at ¶ 195.

Parties' Positions

Rhythms contends that SWBT should qualify a loop for a CLEC within four hours of receiving the order for the xDSL loop.[228] According to Rhythms witness Mr. Geis, new customers of the CLEC may be required to wait over 14 days for xDSL service on an unbundled loop under SWBT's proposal, and that interval may grow to 28 days or more in areas where neither SWBT nor CLECs are currently offering the service.[229] According to Rhythms witness Mr. Kersh, Pacific Bell responds to the CLEC request with loop qualification information (using the "12k/17k/18k" pre-qualification method) within one to 72 hours of receipt of the request.[230]

Covad argues that SWBT should offer a standard interval for loop qualification of four hours, as does its affiliate Pacific Bell.[231] Covad witness Mr. Haas expresses concern that SWBT's proposed loop qualification intervals do not allow competitors the opportunity to provide xDSL services in the same amount of time as SWBT's retail organization.[232]

SWBT indicates that it is committed to provisioning for xDSL loops under the same terms and conditions as SWBT provides on its tariffed ADSL product.[233] SWBT's proposed contract language describes the loop qualification interval as follows:

> Until a mechanized system is in place for loop qualification, requests for loop qualification shall be submitted to SWBT on a manual basis. A standard loop qualification interval of 3-5 days is available for requests in markets where the process is currently in place. In other markets, a maximum standard loop qualification interval of 15 days is available until loop qualification methods, procedures, and training are established for the central office. In an effort to establish the Loop Qualification Process by central office in the priority order desired by CLEC, CLEC will provide SWBT with a prioritized list of central office locations where CLEC has appropriate associated equipment, has or has

[228] ACI Proposed Contract Language, Revised Decision Point List Matrix, Section 4.X.4. (May 28, 1999).

[229] ACI Exhibit 6, Rebuttal Testimony of Eric Geis at 19 (April 8, 1999).

[230] ACI Exhibit 9, Rebuttal Testimony of Mike Kersh at 5 (April 8, 1999).

[231] Revised DPL Matrix at 36 (May 28, 1999).

[232] Covad Exhibit 1, Direct Testimony of Charles A. Haas at 12-14 (Feb. 19, 1999).

[233] SWBT Exhibit 1, Direct Testimony of Michael C. Auinbauh at 15 (Feb. 19, 1999); SWBT Exhibit 6, Rebuttal Testimony of Michael C. Auinbauh at 17, and at Schedule 2 (April 8, 1999).

> ordered shielded cable, and intends to order access to ADSL Loops within 60 days of receipt of the list of central offices. SWBT will establish Loop Qualification Process methods, procedures, and training, for CLEC's 3 highest central office priorities and will meet with CLEC to establish a schedule for the remaining identified locations, if any. In any event, CLEC shall be entitled to the loop qualification interval of 3-5 days associated with any SWBT central office(s), which SWBT has completely inventoried for another CLEC or for SWBT's own purposes. After the initial loop qualification and installation on behalf of any CLEC in a given central office, a standard loop qualification interval of 3-5 days will be established.

During cross-examination, SWBT witness Mr. Auinbaugh agreed that in the worst case, the maximum allowable qualification and conditioning interval could reach 30 working days, or six weeks.[234] Mr. Samson indicated that in addition to the number of central offices for which inventories had been requested by CLECs, an additional 271 central offices are expected to be inventoried for SWBT's own purposes before the end of 1999, thus reducing the qualification interval.[235]

Award

The process of providing loop information to CLECs is clearly a critical step in the provision of xDSL services. The long-term goal for this interval should be measured in minutes or seconds, rather than days. SWBT's current process includes two types of loop qualification: (1) pre-qualification, which consists of the red/yellow/green zone designation based on algorithms tailored for SWBT's ADSL product; and (2) and a process containing five or more elements, including theoretical loop length. As discussed in DPL Issue Nos. 15 and 17, the Arbitrators believe SWBT must provide actual, real-time loop makeup information to CLECs rather than a pre-qualification or loop qualification process because SWBT's back office personnel have the ability to access relevant actual loop makeup information in real time through the back office databases.

---

[234] Tr. at 1846 (June 5, 1999).

[235] *Id.* at 1947.

The FCC agreed with this approach in the *UNE Remand Order*, concluding that:

> access to loop qualification information must be provided to competitors within the same time intervals it is provided to the incumbent LEC's retail operations. To the extent such information is not normally provided to the incumbent LEC's retail personnel, but can be obtained by contacting incumbent back office personnel, *it must be provided to requesting carriers within the same time frame that any incumbent personnel are able to obtain such information.* It would be unreasonable, for instance, if the requesting carrier had to wait several days to receive such information from the incumbent, if the incumbent's personnel have the ability to obtain such information in several hours. In order to provide local exchange and exchange access service, a competitor needs such information quickly to be able to determine whether a particular loop will support xDSL service.[236] (emphasis added.)

Until such a real-time system is implemented, however, the Arbitrators find that SWBT's pre-qualification system should provide a response to Petitioners' queries within four hours for those central offices that have been inventoried. If a CLEC chooses to employ SWBT's manual pre-qualification system in a central office that has not been inventoried, the interval for receiving the response should be no longer than 10 business days. If a CLEC elects to have SWBT provide actual loop makeup information through a manual process, then the interval should be established as 3 business days. If SWBT can provide its retail ADSL personnel with actual loop makeup information in a shorter time frame, then the interval for a CLEC should be parity with that timeframe. At the time an electronically interfaced loop makeup system is implemented, the objective interval for obtaining loop make-up information should become a part of the body of OSS performance measures.

16. Upon request from Rhythms, is SWBT required to provide loop length and makeup data regarding specific central offices within a reasonable period of time from all central offices?

Parties' Positions

Rhythms contends that SWBT should provide loop make-up information to CLECs, but is concerned that SWBT is requiring up to 60 days to implement the loop qualification process in

[236] *UNE Remand Order* at ¶ 431.

each specific central office.[237] In addition, Rhythms disagrees with SWBT's request that CLECs submit a list of central offices, in priority order, where this process would be provided. Rhythms believes that such information is highly proprietary and should not be given to competitors.[238] Rhythms argues that Petitioners have already submitted over 100 collocation applications in Texas, and the loop inventory should be completed within the same time as the collocation request is completed.[239] According to Rhythms witness Mr. Kersh, SWBT's claim that it will take two months to perform an inventory for three offices is unreasonable, considering that it took Pacific Bell approximately three months to inventory 80 to 90 offices designated by CLECs in California.[240]

Rhythms' proposed contract language contains the following recommendation:

> 4.X.4. SWBT shall also provide to Rhythms the loop length and makeup of all loops served from Central Offices designated by Rhythms, within 60 days of submission of a request for each Central Office.

Covad does not provide evidence on this specific DPL issue. Covad reiterates its desire to receive computerized access to databases that contain loop make-up, repair, maintenance or billing information.[241]

Evidence submitted by SWBT does not address the issue of providing loop length and make-up of *all* loops in each central office designated by the CLEC. SWBT indicates that it has no obligation to supply detailed information about every loop in a central office. SWBT witness Mr. Deere asserts that loop makeup information is not contained in any single source, and that it would be very difficult and extremely expensive to compile for all central offices.[242] However,

---

[237] ACI Exhibit 2, Direct Testimony of Jo Gentry at 13-14 (Feb. 19, 1999); ACI Exhibit 6, Rebuttal Testimony of Eric Geis at 20–21 (April 8, 1999); ACI Exhibit 9, Rebuttal Testimony of Mike Kersh at 4–5 (April 8, 1999); ACI Exhibit 7, Rebuttal Testimony of Jo Gentry at 2–3, 5-6 (April 8, 1999).

[238] ACI Exhibit 6, Rebuttal Testimony of Eric Geis at 20 (April 8, 1999).

[239] *Id.* at 21.

[240] ACI Exhibit 9, Rebuttal Testimony of Mike Kersh at 5 (April 8, 1999).

[241] DPL at 43 (May 28, 1999).

[242] SWBT Exhibit 2, Direct Testimony of William C. Deere at 14-17 (Feb. 19, 1999), SWBT Exhibit 7, Rebuttal Testimony of William C. Deere at 11-12 (April 8, 1999).

SWBT witness Mr. Samson, testifies that SWBT expects to inventory 271 central offices for its own purposes prior to the end of 1999.[243]

SWBT presents evidence describing its loop pre-qualification plan that is being implemented in central offices in Texas, beginning with Austin, Dallas, and Houston.[244] For those central offices that have been inventoried for the purpose of loop pre-qualification, SWBT indicates that it will provide the results to CLECs in 3–5 business days. In areas that have not been inventoried, only the maximum loop qualification interval of 15 business days is available. Regarding the potential delay in conducting inventories, SWBT witness Mr. Auinbaugh testified that the 60 day interval for the office inventory could be running during the time in which the CLEC's collocation request is being provisioned.

Award

The Arbitrators view this issue as containing three major elements. The first is whether SWBT should be required to provide loop length and makeup information for individual loops as requested. The Arbitrators responded to this issue in the affirmative in DPL Issue No. 15.

The second element is whether CLECs will be required to furnish a prioritized list of areas in which they will serve, and the time interval within which SWBT is expected to inventory the central office. The Arbitrators find that CLECs should not be required to provide SWBT with a prioritized listing of central offices in which they plan to provide service. The CLECs already provide notification to SWBT when they order collocation, and SWBT should use that process as the signal to perform necessary inventories. The Arbitrators view further disclosure as unnecessary and contrary to the need for competitive confidentiality. Evidence in this proceeding shows that SWBT has already shared with its Retail ADSL Core Team members a listing of central offices in which CLECs have collocated or those in which CLECs are seeking

---

[243] Tr. at 1947 (June 5, 1999).

[244] SWBT Exhibit 7, Rebuttal Testimony of William C. Deere at 9 (April 8, 1999); Tr. at 1945-1948 (June 5, 1999).

deployment.[245] The Arbitrators believe such disclosure of competitive information to SWBT retail ADSL employees is inappropriate, disadvantages competitors and must stop immediately.

The third component of this issue is whether or not SWBT should be required to provide loop makeup information for all existing or vacant loops within *all* its central offices. The Arbitrators find that in those central offices in which SWBT has completed its inventory, either in response to a CLEC request or for its own retail deployment, or for its separate advanced services subsidiary deployment, SWBT must provide the requested loop makeup information for all loops in the central office within three business days. For those central offices that have not yet been inventoried, the Arbitrators agree that "blanket" requests for immediate loop makeup details should not be supported at this time, but that such central offices should be inventoried according to a schedule based on collocation requests. SWBT has agreed to inventory the central offices within 60 calendar days of a request from a CLEC, and the Arbitrators find that such an interval is reasonable, so long as it is allowed to run concurrently with the collocation request in that central office.

In the *UNE Remand Order*, the FCC found that an incumbent LECs should not be required to "catalogue, inventory, and make available to competitors loop qualification information through automated OSS even when it has no such information available to itself." In those instances where an incumbent LEC has not compiled such information for itself, the FCC does not require the incumbent to conduct a plant inventory and construct a database on behalf of requesting carriers. The FCC did find, however, that an incumbent LEC that has manual access to this sort of information for itself, or any affiliate, must also provide access to it to a requesting competitor on a non-discriminatory basis. The FCC further stated that it expects that ILECs will be updating their electronic databases for their own xDSL deployment and, to the extent their employees have access to the information in an electronic format, that same format should be made available to new entrants via an electronic interface.[246]

---

[245] *See* Covad Exhibit 34; Covad Post-Hearing Brief at 59 - 61 (Aug. 17, 1999).

[246] *UNE Remand Order* at ¶ 429.

However, this issue heightens the Arbitrators' concerns regarding the equality of information transfer between SWBT's retail and wholesale operations. Evidence shows that SWBT's ADSL Retail Core Team personnel have had access to network assignment databases that could easily allow SWBT's retail operations to gain significant advantage over their competitors.[247] The Arbitrators need further assurance that competitively beneficial information is not being passed from SWBT's network provisioning operations to its retail service operations. An arms-length separation, *e.g.*, a separate advanced service subsidiary as proposed in the SBC-Ameritech merger conditions,[248] would be one solution to the Arbitrators' concerns. Until such separation is accomplished, however, the Arbitrators instruct SWBT to prepare a plan for approval by the Commission within 45 calendar days of this Award, whereby "firewalls" are constructed between SWBT's retail and wholesale organizations, the purpose of which is to restrict the flow of competitively beneficial information.

17. What data should be included in the makeup data?

Parties' Positions

Rhythms contends that it must be provided with information about the physical makeup of the xDSL loop; including loop length, wire gauge, presence and number of repeaters, load coils and bridged tap and existence of DLC systems or DAMLs.[249] Because different xDSL technologies are best suited for different loop conditions, Rhythms needs the loop makeup information in order to adapt the type of xDSL service to the available loop.[250]

---

[247] ACI Exhibit 149A, Deposition of Victoria Bird at 48-49, 130-134 (May 6, 1999); ACI Exhibit 19, Supplemental Direct Testimony of Eric H. Geis at 14-15 (May 24, 1999).

[248] *In re Applications of Ameritech Corp., Transferor, And SBC Communications Inc., Transferee, For Consent to Transfer Control of Corporations Holding Commission Licenses and Lines Pursuant to Sections 214 and 310(d) of the Communications Act and Parts 5, 22, 24, 25, 63, 90, 95 and 101 of the Commission's Rules*, CC Docket No. 98-141, Memorandum Opinion And Order (rel. Oct. 8, 1999) (*SBC-Ameritech Merger Order*).

[249] ACI Exhibit 1, Direct Testimony of Eric H. Geis at 34 (Feb. 19, 1999); ACI Exhibit 2, Direct Testimony of Jo Gentry at 7–8 (Feb. 19, 1999); ACI Exhibit 7, Rebuttal Testimony of Jo Gentry at 6–7 (April 8, 1999); ACI Exhibit 20, Supplemental Direct Testimony of Jo Gentry at 6–9 (confidential) (May 24, 1999).

[250] ACI Exhibit 1, Direct Testimony of Eric H. Geis at 35 (Feb. 19, 1999).

Covad maintains that loop makeup information, at a minimum, should include the loop length, existence and length of bridged taps, existence of load coils, average wire gauge, presence and type of DLC, and ISDN readiness.[251] Covad argues that SWBT's databases have all this information.[252]

SWBT witness Mr. Phillips indicates that SWBT will soon implement a pre-qualification system, accessible through VERIGATE, that will provide the loop length stated as 26 gauge equivalent, the wire center, an indication if the pair is loaded or non-loaded, the taper code, and the red/green/yellow qualification indicator.[253] In addition, SWBT witness Mr. Auinbaugh indicates that SWBT will soon implement modifications to its LEX/EDI ordering gateway that will provide the loop length stated as 26 gauge equivalent or as actual gauge makeup, the absence or presence of load coils, the presence of bridged tap, repeaters, and or DLC.[254]

Award

The Arbitrators find that the loop makeup data should include the following: (a) the actual loop length; (b) the length by gauge; and (c) the presence of repeaters, load coils, or bridged taps; and shall include, if noted on the individual loop record, (d) the approximate location, type, and number of bridged taps, load coils, and repeaters; (e) the presence, location, type, and number of pair-gain devices, DLC, and/or DAML, and (f) the presence of disturbers in the same and/or adjacent binder groups. The Arbitrators find that SWBT should provide to the CLEC any other relevant information listed on the individual loop record but not listed above.

The Arbitrators' position is consistent with the decision of the FCC in the recent *UNE Remand Order*. With respect to this issue, the FCC found that:

> "an incumbent LEC must provide the requesting carrier with nondiscriminatory access to the same detailed information about the loop that

[251] Covad Exhibit 43, Supplemental Direct Testimony of Sandee Turner at 3 (May 24, 1999).

[252] *Id.* at 8.

[253] Tr. at 1877 (June 5, 1999).

[254] SWBT Exhibit 1, Direct Testimony of Michael C. Auinbauh at 14 (Feb. 19, 1999).

> 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. Based on these existing obligations, we conclude that, at a minimum, incumbent LECs must provide requesting carriers the same underlying information that the incumbent LEC has in any of its own databases or other internal records. For example, the incumbent LEC must provide to requesting carriers the following: (1) the composition of the loop material, including, but not limited to, fiber optics, copper; (2) the existence, location and type of any electronic or other equipment on the loop, including but not limited to, digital loop carrier or other remote concentration devices, feeder/distribution interfaces, bridge taps, load coils, pair-gain devices, disturbers in the same or adjacent binder groups; (3) the loop length, including the length and location of each type of transmission media; (4) the wire gauge(s) of the loop; and (5) the electrical parameters of the loop, which may determine the suitability of the loop for various technologies. Consistent with our nondiscriminatory access obligations, the incumbent LEC must provide loop qualification information based, for example, on an individual address or zip code of the end users in a particular wire center, NXX code, or on any other basis that the incumbent provides such information to itself."[255]

In that same decision, the FCC clarified that "the relevant inquiry is not whether the retail arm of the incumbent has access to the underlying loop qualification information, but rather whether such information exists anywhere within the incumbent's back office and can be accessed by any of the incumbent LEC's personnel. Denying competitors access to such information, where the incumbent (or an affiliate, if one exists) is able to obtain the relevant information for itself, will impede the efficient deployment of advanced services. To permit an incumbent LEC to preclude requesting carriers from obtaining information about the underlying capabilities of the loop plant in the same manner as the incumbent LEC's personnel would be contrary to the goals of the Act to promote innovation and deployment of new technologies by multiple parties."[256]

18. Can SWBT impose a loop qualification process rather than provide information concerning loop makeup?

---

[255] *UNE Remand Order* at ¶ 427.

[256] *Id.* at ¶ 430.

Parties' Positions

Rhythms opposes SWBT's proposal for a loop qualification process to be used in place of the provision of loop make-up information.[257] Rhythms argues that SWBT's pre-qualification process (red/green/yellow) is based on the acceptability of a loop to SWBT's own retail ADSL services, and may not apply to the services to be provided by CLECs. Rhythms seeks to determine for itself whether a particular loop is capable of supporting xDSL service.[258] Rhythms argues that SWBT should not be permitted to substitute its judgment for that of a CLEC regarding the xDSL loop characteristics.[259]

Covad reiterates its arguments made in DPL Issue Nos. 15 and 17. Covad argues that it should have instantaneous access to the information necessary to determine whether xDSL services can be provisioned across a loop. Covad argues that SWBT should only determine whether a spare pair is available for lease to the CLEC.[260]

SWBT states that its pre-qualification process is entirely optional, and need not be utilized by a CLEC.[261] SWBT also provides "loop qualification" or "loop makeup" information on a manual basis to CLECs upon request for an xDSL loop.[262] SWBT states that it does not know the design parameters of the CLEC service or equipment; therefore, SWBT cannot make a determination of required conditioning of the CLEC service.[263]

---

[257] ACI Exhibit 1, Direct Testimony of Eric H. Geis at 36 (Feb. 19, 1999); ACI Exhibit 6, Rebuttal Testimony of Eric Geis at 15-19 (Apr. 8, 1999); ACI Exhibit 7, Rebuttal Testimony of Jo Gentry at 2-5 (Apr. 8, 1999).

[258] ACI Exhibit 2, Direct Testimony of Jo Gentry at 10 (Feb. 19, 1999).

[259] *Id.*

[260] Covad Exhibit 43, Supplemental Direct Testimony of Sandee Turner at 3, 5 (May 24, 1999).

[261] SWBT Exhibit 28, Supplemental Rebuttal Testimony of George R. Phillips, Jr. at 4 (May 28, 1999).

[262] *Id.* at 3.

[263] SWBT Exhibit 26, Supplemental Rebuttal Testimony of William C. Deere at 12 (May 28, 1999).

Award

The Arbitrators find in DPL No. 15 that SWBT's pre-qualification and loop qualification systems as currently described are *not* a reasonable substitute for the provision of actual loop makeup information. To the extent that SWBT's retail operations or separate advanced services affiliate is able to access pre-qualification indicators such as the current red/green/yellow methodology, CLECs should have the same access. However, the indicators and reports obtained thus far from SWBT's pre-qualification and loop qualification programs are based on SWBT's ADSL service offering, and will be of only limited value to the Petitioners. The Arbitrators find that competitive parity can only be reached with respect to loops used to provide xDSL services if CLECs are provided with real-time access to actual loop makeup information that they can then use to provide their services to their customers.

The Arbitrators' finding is consistent with the *UNE Remand Order*. In that Order, the FCC found that :

> "an incumbent LEC should not be permitted to deny a requesting carrier access to loop qualification information for particular customers simply because the incumbent is not providing xDSL or other services from a particular end office. We also agree with commenters that an incumbent must provide access to the underlying loop information and may not filter or digest such information to provide only that information that is useful in the provision of a particular type of xDSL that the incumbent chooses to offer. For example, SBC provides ADSL service to its customers, which has a general limitation of use for loops less than 18,000 feet. In order to determine whether a particular loop is less than 18,000 feet, SBC has developed a database used by its retail representatives that indicates only whether the loop falls into a "green, yellow, or red" category. Under our nondiscrimination requirement, an incumbent LEC can not limit access to loop qualification information to such a "green, yellow, or red" indicator. Instead, the incumbent LEC must provide access to the underlying loop qualification information contained in its engineering records, plant records, and other back office systems so that requesting carriers can make their own judgments about whether those loops are suitable for the services the requesting carriers seek to offer. Otherwise, incumbent LECs would be able to discriminate against other xDSL technologies in favor of their own xDSL technology."[264]

[264] *UNE Remand Order* at ¶ 428.

19(a). Should SWBT be required to deploy a mechanized loop makeup information process for DSL capable loops?

Parties' Positions

Rhythms maintains that it must have access to electronic, automated systems pre-ordering system that allow rapid and efficient access to the technical make-up of a potential customer's loop within six months of the effective date of this arbitrated agreement.[265] Rhythms asserts that SWBT must be required to provide to CLECs access to the same mechanized loop makeup information, or any portion of loop makeup information that becomes mechanized, that SWBT provides to itself in connection with offering its own xDSL retail services.

Covad argues that SWBT maintains databases that contain all of the information necessary to determine whether a loop is capable of transmitting xDSL signals.[266] To achieve true parity, Covad contends, CLECs must have equal, instantaneous access to the same information.[267] Covad asserts that SWBT must provide mechanized access to the loop makeup information.

SWBT states its understanding that it is required to offer parity access to the OSS systems that exist for service ordering and pre-ordering. To the extent SWBT deploys new, mechanized systems that contain loop makeup information, SWBT agrees that it should, and intends to, make that system available to CLECs. SWBT's proposed modifications have been discussed in DPL Issue No. 17.

Award

As discussed in DPL Issue No. 15, the Arbitrators find that SWBT must provide real time, electronic access to all systems needed for efficient provision of advanced services such as xDSL. To the extent SWBT is technically able to access the following in its own operations,

[265] ACI Exhibit 2, Direct Testimony of Jo Gentry at 10 (Feb. 19, 1999).

[266] Covad Exhibit 43, Supplemental Direct Testimony of Sandee Turner at 8 (May 24, 1999).

[267] Covad Exhibit 45, Supplemental Rebuttal Testimony of Dhruv Khanna at 4 - 5 (May 28, 1999).

SWBT will develop and deploy mechanized and integrated OSS that will permit real-time CLEC access through an electronic gateway to a database that contains the loop makeup information. SWBT should not be allowed to delay the provision of the mechanized loop qualification process for competitors to a date uncertain. The Arbitrators require SWBT to meet the implementation schedule in Section VIII of this Award.

19(b). Until SWBT deploys the mechanized loop makeup information process, what should the process be for a manual process?

Parties' Positions

Rhythms contends that the manual request process should consist of the CLEC submitting requests for loop make-up information via facsimile and SWBT returning the information in the same manner. According to Rhythms witness Ms. Gentry, SWBT currently provides loop make-up information for its own retail operations in three to five days.[268]

Covad maintains that SWBT should be required to develop a mechanized interface for loop makeup information, and does not provide evidence on the manual process.

SWBT states that the centers that handle tariffed ADSL service requirements are required to manually type ADSL service orders.[269] SWBT witness Mr. Deere indicates that when a CLEC requests qualification for an xDSL loop, SWBT manually performs the engineering work to determine the loop makeup and provides the information to the CLEC.[270]

Award

Until a real-time loop makeup database is operational, the Arbitrators find that SWBT shall provide CLECs with manually-derived loop makeup information upon request at no charge.

[268] ACI Exhibit 2, Direct Testimony of Jo Gentry at 11 (Feb. 19, 1999).

[269] SWBT Exhibit 6, Rebuttal Testimony of Michael C. Auinbauh at 16 (April 8, 1999).

[270] SWBT Exhibit 26, Supplemental Rebuttal Testimony of William C. Deere at 12 (May 28, 1999).

Transmittals and responses between CLECs and SWBT should be by the quickest means practical; facsimile, telephone, or e-mail. As indicated in response to DPL Issue No. 15(a), if a CLEC chooses to employ SWBT's manual pre-qualification system in a central office that has not been inventoried, the interval for CLEC receiving the response should be no longer than 10 business days. If a CLEC elects to have SWBT provide actual loop makeup information through a manual process, then the interval should be established as 3 business days.

20(a). Should the CLEC be allowed to make the business decision as to the need for loop conditioning based on information provided by SWBT?

20(b). Should SWBT be allowed to make all determinations regarding loop conditioning for CLEC needs within its sole discretion?

Parties' Positions

Rhythms reasons that only the particular CLEC knows the parameters of the services it seeks to deploy, and therefore should be able to request the specific type of conditioning required for a particular loop.[271] Rhythms argues that SWBT has the opportunity to see the total outside plant inventory for retail services, thus allowing SWBT the opportunity to find spare or alternative loop facilities that may not need conditioning.[272] Rhythms believes that SWBT should not make business judgements regarding the technical capabilities of CLECs; the CLEC will be in the best position to make decisions regarding conditioning depending on the technology to be used.[273]

Covad asserts, based on the revised contract language proposed by SWBT, that SWBT appears to conceptually agree with this point. Covad maintains, however, that the contract language proposed by SWBT is not acceptable for other reasons. Covad points out that SWBT's

---

[271] ACI Exhibit 1, Direct Testimony of Eric H. Geis at 39-40 (Feb. 19, 1999); ACI Exhibit 2, Direct Testimony of Jo Gentry at 18 (Feb. 19, 1999).

[272] ACI Exhibit 2, Direct Testimony of Jo Gentry at 19 (Feb. 19, 1999).

[273] ACI Exhibit 1, Direct Testimony of Eric H. Geis at 39-40 (Feb. 19, 1999).

own retail loop qualification flows automatically into the loop provisioning interval so that SWBT does not suffer the same delays as Covad.[274]

SWBT responds that it has committed to let CLECs make their own business decisions with regard to loop conditioning, consistent with the *Advanced Services Order*.[275] However, SWBT explains that if the CLEC does not request the conditioning suggested by SWBT, then SWBT will not guarantee the service, and performance measures should not apply to that individual xDSL loop.[276] If the CLEC requests SWBT to perform the suggested conditioning, SWBT asserts that it is entitled to cost recovery for the work performed.

Award

Parties reached agreement on this issue during the arbitration proceeding.[277] The Arbitrators agree with the Parties resolution that all conditioning shall be performed at the request of the CLEC.

21. Should SWBT be permitted to limit availability to loops over 17.5k ft only on an ICB basis?

Parties' Positions

Rhythms claims that CLECs can provision viable xDSL services over loops in excess of 17,500 feet and should be permitted to do so at their own service quality risk.[278] Rhythms' witness Geis argues that all loops should be available, regardless of length. Mr. Geis also testified that over 20% of Rhythms' xDSL customers are on loops in excess of 18,000 feet in length.[279] Rhythms testifies that there are generally no differences between analog loops less

[274] Tr. at 1955 (June 5, 1999).

[275] SWBT Exhibit 6, Rebuttal Testimony of Michael C. Auinbauh at 15 (April 8, 1999).

[276] *Id.* at 18.

[277] Covad's Post Hearing Brief at 5 (Aug. 17, 1999).

[278] ACI Exhibit 1, Direct Testimony of Eric H. Geis at (Feb. 19, 1999).

[279] *Id.* at 41.

than or in excess of 17,500 feet in length.[280] Rhythms contends that it is unreasonable to require a competitor to await lengthy ICB (individual case basis) provisioning and pricing decisions from SWBT.[281]

Covad affirms that it offers xDSL services, including IDSL that are provisioned over loops longer than 17,500 feet in length. Covad argues that SWBT should fill xDSL loop orders regardless of loop length and then allow Covad to determine what services can be provided across the loop consistent with other provisions of the Interconnection Agreement.[282]

SWBT's initial proposal was to limit the availability of loops in excess of 17,500 feet in length only on an ICB basis. However, subsequent to its initial filing, SWBT revised its proposal to establish a separate price for each additional work operation required to condition a loop beyond 17,500 feet in length.[283] SWBT does not propose limiting the provision of xDSL loops over 17,500 feet in length.[284]

Award

SWBT states that it will allow CLECs to order loops over 17,500 feet in length without individual case basis (ICB) provisioning and pricing.[285] The Arbitrators find that SWBT should not be permitted to limit availability of xDSL loops in excess of 17,500 feet in length to an ICB basis. When questioned during the hearing, SWBT did not provide a cost basis for choosing 17,500 feet for a cutoff.[286] SWBT witness Deere explained that with some technologies, loops

---

[280] Tr. at 1397 (June 4, 1999).

[281] ACI Exhibit 1, Direct Testimony of Eric H. Geis at 41 (Feb. 19, 1999); ACI Exhibit 6, Rebuttal Testimony of Eric Geis at 21 (April 8, 1999).

[282] Covad Exhibit 43, Supplemental Direct Testimony of Sandee Turner at 5-6 (May 24, 1999).

[283] SWBT Exhibit 6, Rebuttal Testimony of Michael C. Auinbauh at 11-12 (April 8, 1999).

[284] *Id.*

[285] SWBT Exhibit 6, Rebuttal Testimony of Michael C. Auinbauh at 11 (April 8, 1999).

[286] *Id.* at 1241.

require repeaters after reaching 18,000 feet in length; in his words, "that's why the distance was kept below that."[287] The Arbitrators note that the Parties agree that "...17.5 is not a magic cutoff where the cost characteristics become radically different...."[288] Loop rates and conditioning charges are addressed in Section VI of this Award.

22. What is the appropriate provisioning interval for 2-Wire xDSL capable loops?

Parties' Positions

Rhythms supports a 7-day provisioning interval for a 2-Wire xDSL loop, or the analogous level at parity with retail xDSL services offered by SWBT, whichever is less.[289]

Covad points out that Pacific Bell, SWBT's affiliate, agreed to provide xDSL loops to Covad within 7 days, if no conditioning is required; within 10 days if conditioning is required; and within 15 days if there are no facilities. Covad argues that SWBT should be held to the same standards. Covad maintains that longer intervals will give SWBT an unfair competitive advantage by allowing SWBT to provide actual xDSL services to its customers before the CLECs can.[290]

SWBT's proposed contract language indicates that the provisioning and installation interval for xDSL loops that do not require conditioning is 5 to 7 business days after the loop qualification process is complete. The specific contract language proposed by SWBT is as follows:

> A. The provisioning and installation interval for an ADSL, 2-Wire or 4-Wire MS Capable Loop or other DSL-Capable loops that are materially the same, as defined above, where no conditioning is requested, will be 5-7 business days after the Loop Qualification process is complete, or the provisioning and installation interval

[287] Tr. at 1243 (June 4, 1999).

[288] *Id.* at 1243, 1403.

[289] ACI Exhibit 2, Direct Testimony of Jo Gentry at 19 – 20 (Feb. 19, 1999).

[290] Covad Exhibit 1, Direct Testimony of Charles A. Haas at 10 (Feb. 19, 1999).

applicable to SWBT's tariffed DSL-based services, whichever is less. The provisioning and installation intervals for the ADSL, 2-Wire or 4-Wire MS Capable Loops where conditioning is requested will be 15 business days for loops up to 17,500 feet, or the provisioning and installation interval applicable to SWBT's tariffed DSL-based services where conditioning is required, whichever is less. An ADSL, 2-Wire or 4-Wire MS Capable Loop in excess of 17,500 feet where conditioning is requested will have a provisioning and installation interval agreed upon by the Parties for each instance of special construction. VLS Capable Loops will be provisioned under the terms of the 2-Wire Digital Loop as described in Appendix UNE of this Agreement.

B. Subsequent to the initial order for an ADSL, 2-Wire or 4-Wire MS Capable Loop or other DSL-Capable loops that are materially the same, as defined above, additional conditioning may be requested on such loop at the rates set forth below and the applicable service order charges will apply; provided, however, when requests to add or modify conditioning are received within 24 hours of the initial order for an ADSL, 2-Wire or 4-Wire MS Capable Loop, no service order charges shall be assessed, but may be due date adjusted as necessary. The provisioning interval for additional requests for conditioning pursuant to this subsection will be the same as set forth above.

SWBT maintains that this schedule is completely at parity with what SWBT is providing for its retail xDSL operations.[291]

Award

The Arbitrators find that the provisioning and installation interval for a xDSL loop, where no conditioning is requested, on orders for 1-20 loops per order or per end-user location, will be 3 - 5 business days, or the provisioning and installation interval applicable to SWBT's tariffed xDSL services, or its affiliate's, whichever is less. The provisioning and installation intervals for xDSL loops where conditioning is requested, on orders for 1-20 loops per order or per end-user customer location, will be 10 business days, or the provisioning and installation interval applicable to SWBT's tariffed xDSL services or its affiliate's xDSL services where conditioning is required, whichever is less. Orders for more than 20 loops per order or per end-user location, where no conditioning is requested, will have a provisioning and installation interval of 15 business days, or as agreed upon by the Parties. Orders for more than 20 loops per order which

[291] SWBT Exhibit 1, Direct Testimony of Michael C. Auinbauh at 15-16 (Feb. 19, 1999).

require conditioning will have a provisioning and installation interval agreed by the Parties in each instance. The Arbitrators find that the provisioning intervals are applicable to every xDSL loop regardless of the loop length.

V. Collocation [292]

DPL Issue Nos. 33-34, 36

33. Should SWBT be required to offer cageless collocation?

Parties reached agreement on this issue in the arbitration proceedings on April 15, 1999.[293]

33(a). Should SWBT be required to provide collocation at a remote terminal site?

Parties reached agreement on this issue in the arbitration proceedings on April 15, 1999.[294]

33(b). Should the interconnection agreement include new collocation provisions that reflect the requirements of the FCC's March 31, 1999 First Order in CC Docket No. 97-147?

Parties reached agreement on this issue in the arbitration proceedings on April 15, 1999.[295]

---

[292] The Arbitrators note that subsequent to the Parties' agreement, the Commission approved the revised physical and virtual collocation tariffs of SWBT. These revised tariffs provide the rates, terms and conditions for collocation for providers using Attachment 25 – DSL of the T2A.

[293] Tr. at 467-541 (April 15, 1999).

[294] Tr. at 467-541 (April 15, 1999).

[295] Tr. at 467-541 (April 15, 1999).