ARBITRATION AWARD

I. INTRODUCTION

A. PROCEDURAL BACKGROUND

The federal Telecommunications Act of 1996[1] (FTA96) requires that when an incumbent local exchange carrier (ILEC) and a new local service provider (LSP) are unable to negotiate the terms and conditions of interconnection agreements, either of the negotiating parties "may petition a State commission to arbitrate any open issues." FTA96 §251(b)(1). The Public Utility Commission of Texas (the Commission) is the state commission responsible for arbitrating disputes under FTA96.[2] The Commission anticipated it would be called upon to resolve disputes under FTA96, and promulgated a dispute resolution rule that established procedures for conducting arbitration proceedings.[3]

Several LSPs have petitioned the Commission to resolve their disputes with Southwestern Bell Telephone Company (SWBT). Pursuant to FTA96 §252(g), the Commission ordered that five of the SWBT arbitration petitions be consolidated.[4] The petitioning companies in this consolidated proceeding are American Communications Services, Inc. (ACSI), AT&T Communications of the Southwest (AT&T), MCI Telecommunications Corporation/MCIMetro Access Transmission Services, Inc. (MCI), MFS Communications Company, Inc. (MFS), and Teleport Communications Group, Inc. (TCG) (collectively, "the Petitioners").

The Commission's arbitration panel in these dockets is composed of the three Commissioners: Chairman Pat Wood, III, Commissioner Robert W. Gee, and Commissioner Judy Walsh (the Arbitrators). The members of the panel were sworn in as arbitrators and, with the assistance of Commission staff advisors, conducted the consolidated arbitrations in accordance with the Commission's dispute resolution rules.

---

[1] Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56, *codified at* 47 U.S.C. §§151 *et seq.* Hereinafter, all citations to FTA96 will be to the 1996 Act as codified in the United States Code.

[2] The Commission has the authority to conduct the FTA96 arbitrations pursuant to §252 of FTA96 and §§1.101, 3.051, 3.451, 3.458, and 3.460 of the Public Utility Regulatory Act of 1995, Texas Civil Statutes, Article 1446c-0 (PURA95).

[3] P.U.C. Proc. R. §§22.301 - 22.310 (establishes procedures for mediation, arbitration, and approval of interconnection agreements under FTA96).

[4] The original consolidation order also included a sixth petition, Docket No. 16244, a petition filed by TCG for arbitration with GTE Southwest Incorporated (GTE). TCG withdrew its arbitration request regarding GTE prior to hearing.

FTA96 §252(b)(4) limits the issues that may be decided in arbitration to those set forth by the parties. During the course of the consolidated arbitration proceeding, parties were advised repeatedly to identify issues that required decisions by the Arbitrators. If parties did not include an issue on the "Decision Points Lists" developed during the proceeding, the Arbitrators did not include the issue in the list of those requiring a decision. All of the decisions rendered in Section III of this Award are intended to resolve disputed open issues identified by the parties to this proceeding. If an issue was stipulated by the parties during the course of the proceeding, or otherwise eliminated from the list of issues in dispute, a decision on the issue is not included in this Arbitration Award.

This Arbitration Award resolves the disputed issues presented for arbitration, and sets the stage for completion of interconnection agreements between SWBT and ACSI, AT&T, MCI, MFS, and TCG. The parties' interconnection agreements shall be presented to the Commission for approval, as required by FTA96 §252(e), according to the schedule established in Section IV of this Award.

B. STRUCTURE OF THE AWARD

This Award is organized as follows. A list of the stipulations reached during the arbitration proceeding is provided in *Section II.* The stipulations represent the parties' settlements of issues that were initially brought before the Arbitrators for arbitrated resolutions. Copies of the stipulations are included in the Award as *Appendix A.*

The Arbitrators' decisions on the disputed issues presented for arbitration are found in *Section III* of the Award. Four appendices referenced in Section III are incorporated as part of the Arbitrators' Award: *Appendix B*, the Avoided Cost Discount spreadsheet; *Appendix C*, the Depreciation Rates spreadsheet; *Appendix D*, the 2-wire/4-wire descriptive diagram; *Appendix E*, the document entered into the record as AT&T Exhibit 15A, entitled "Electronic Pre-Order and Ordering and Provisioning Availability."

A schedule for implementation of the terms and conditions of the Arbitration Award by the parties is set forth in *Section IV.* Finally, the Arbitrators' conclusion is stated in *Section V.*

II. STIPULATED ISSUES

An arbitration award is not required for issues resolved by agreement of the parties. During the course of the arbitration proceedings, the parties have continued to work to resolve disputed issues, and have filed numerous stipulations reflecting resolution of their disputes. The terms of these stipulations are incorporated by reference in the Arbitrators'

Award regarding the relevant Petitioners. The following stipulations between SWBT and the individual Petitioners have been filed with the Arbitrators.

Unbundled Elements

1. ACSI Ex. 5: "Agreement Concerning Co-Carrier Cross Connect."

2. ACSI Ex. 6: "Agreement Concerning ADSL and HDSL."

3. MCI Ex. 21: "Stipulation Concerning ADSL and HDSL."

The substantive terms of ACSI Ex. 6 and MCI Ex. 21 are identical.

Interconnection/Collocation

4. MCI Ex. 22: "Interconnection/Collocation."

5. AT&T Ex. 6: "Stipulation Regarding AIN SCP Access Issue."

6. AT&T Ex. 7: "Stipulation on Collocation Of Remote Switching Module Equipment."

7. AT&T Ex. 9: "Stipulation on Poles, Ducts, Conduits, and Rights-of-Way."

8. MCI Ex. 17: "Stipulation on Poles, Ducts, Conduits, and Rights-of-Way."

The substantive terms of AT&T Ex. 9 and MCI Ex. 17 are identical.

9. AT&T Ex. 59: "Stipulation on Intervals for Commitments on Make-Ready Work for the Placing of AT&T Facilities."

10. MCI Ex. 23: "Stipulation on Intervals for Commitments on Make-Ready Work for the Placing of AT&T Facilities."

The substantive terms of AT&T Ex. 59 and MCI Ex. 23 are identical.

11. AT&T Ex. 60: "Stipulation on Poles, Ducts, Conduits and Rights-of-Way Installation of Inner-Duct by AT&T."

12. MCI Ex. 26: "Stipulation on Poles, Ducts, Conduits and Rights-of-Way Installation of Inner-Duct by MCI."

In most respects, the substantive terms of AT&T Ex. 60 and MCI Ex. 26 are identical.

13. AT&T Ex. 61: "Stipulation on Poles, Ducts, Conduits and Rights-of-Way Availability of Unassigned Inner Ducts."

14. AT&T Ex. 62: "Stipulation on Poles, Ducts, Conduits and Rights-of-Way Immediate Availability of Unassigned Ducts."

15. MCI Ex. 18: "Stipulation on Poles, Ducts, Conduits and Rights-of-Way Immediate Availability of Unassigned Ducts."

The substantive terms of AT&T Ex. 62 and MCI Ex. 18 are identical.

16. AT&T Ex. 63: "Stipulation on Poles, Ducts, Conduits and Rights-of-Way Just and Reasonable Rates."

17. MCI Ex. 20: "Stipulation on Poles, Ducts, Conduits and Rights-of-Way Just and Reasonable Rates."

The substantive terms of AT&T Ex. 63 and MCI Ex. 20 are identical.

18. AT&T Ex. 64: "Stipulation Between SWBT and AT&T Regarding Time Frames Within Which Space on SWBT's Poles, Ducts, Conduits and Rights-of-Way Can Be Reserved for Future Use."

19. AT&T Ex. 65: "Stipulation As To The Degree To Which SWBT Should Modify Its Outside Plant Facilities To Accommodate New LSP's Space Requirements Before Declaring Space Unavailable."

20. MCI Ex. 25: "Stipulation As To The Degree To Which SWBT Should Modify Its Outside Plant Facilities To Accommodate New LSP's Space Requirements Before Declaring Space Unavailable."

The substantive terms of AT&T Ex. 65 and MCI Ex. 25 are identical.

21. AT&T Ex. 66: "Stipulation on Poles, Ducts, Conduits and Rights-of-Way Removal of Retired or Inactive Cables."

22. MCI Ex. 19: "Stipulation on Poles, Ducts, Conduits and Rights-of-Way Removal of Retired or Inactive Cables."

The substantive terms of AT&T Ex. 66 and MCI Ex. 19 are identical.

23. AT&T Ex. 67: "Stipulation on Poles, Ducts, Conduits and Rights-of-Way Repair/Maintenance/Emergency Duct."

24. AT&T Ex. 68: "Stipulation on Poles, Ducts, Conduits and Rights-of-Way Access To Public and Private Rights-of-Way."

25. AT&T Ex. 70: "Stipulation on Collocation Use of Electrical Power."

26. MCI Ex. 16: "Stipulation on Collocation Use of Electrical Power."

The substantive terms of AT&T Ex. 70 and MCI Ex. 16 are identical.

27. AT&T Ex. 71: "Interconnection Stipulation Regarding SWBT Providing Two-Way Trunks."

28. AT&T Ex. 73: "Stipulation on Poles, Ducts, Conduits and Rights-of-Way Infrequent Construction Techniques And Connectivity Solutions."

Resale

29. SWBT Ex. 9: "Stipulation Regarding Resale Services." (AT&T and MCI)

Numbering Issues

30. AT&T Ex. 58: "Stipulation Regarding Certain Numbering Issues."

Operational and Technical Issues

31. SWBT Ex. 15: "Stipulation Regarding Certain Operational And Technical Issues." (AT&T)

32. AT&T Ex. 17: "Stipulation Regarding Branding and Customized Routing for Operator Services and Directory Services."

33. MCI Ex. 24: "Stipulation Regarding Branding and Customized Routing for Operator Services and Directory Services."

The substantive terms of AT&T Ex. 17 and MCI Ex. 24 are identical.

III. DECISIONS ON ISSUES PRESENTED FOR ARBITRATION

The following decisions represent the Arbitrators' resolution of the issues presented for arbitration by SWBT, ACSI, AT&T, MCI, MFS, and TCG. The Arbitrators find that the following decisions, and the conditions imposed on the parties by these decisions, meet the requirements of FTA96 §251, and any applicable regulations prescribed by the Federal Communications Commission (FCC) pursuant to FTA96 §251. The following decisions establish rates for interconnection, services, and network elements according to the standards set forth in FTA96 §252(d). A schedule for implementation of the terms and conditions of this Award by the parties is described in the following decisions, and set forth in full in Section IV of this Award. *FTA96 §252(c).*

At the end of each decision, the Arbitrators have included a reference to (1) the section of FTA96 on which the decision is based; and (2) the identity of the Petitioner(s) seeking an arbitrated resolution of the issue.

A. UNBUNDLED ELEMENTS

1. SWBT must provide access to the following unbundled network elements without restriction. LSPs may not be required to own or control any of their own local exchange facilities before they can purchase or use unbundled elements to provide a telecommunications service. (1) local loop; (2) network interface devices; (3) local switching; (4) tandem switching; (5) interoffice transport; (6) signaling and call-related databases; (7) operations support systems; (8) operator services and directory assistance; and (9) cross-connect from SWBT main distribution frame (MDF) to an LSP's collocation space. SWBT must offer unbundled local loops with and without automated testing and monitoring services. If an LSP uses its own testing and monitoring services, SWBT still must treat the test reports as its own for purposes of procedures and time intervals for clearing trouble reports. *FTA96 §251(c)(3). (ACSI, AT&T, MCI, MFS)*

2. SWBT is not required to provide space on its Network Interface Devices (NIDs) to LSPs. *FTA96 §251(c)(3). (AT&T, MCI)*

3. The unbundled local loops provided by SWBT are not required to be capable of delivering optical levels of signaling, including Synchronous Optical Network (SONET) private line service. SWBT must offer SONET private line service for resale at a wholesale discount. *FTA96 §251(c)(3). (MCI)*

4. SWBT must provide dark fiber in the feeder segment of the loop as an unbundled network element under the following conditions: SWBT must offer its dark fiber to LSPs,

but may offer it pursuant to agreements that would permit revocation of an LSP's right to use the dark fiber upon twelve (12) months' notice by SWBT. To exercise its right of revocation, SWBT must demonstrate that the subject dark fiber is needed to meet SWBT's bandwidth requirements or the bandwidth requirements of another LSP. An LSP may not, in a twenty-four (24) month period, lease more than 25% of SWBT's excess dark fiber capacity in a particular feeder segment. If SWBT can demonstrate within a twelve (12) month period after the date of a dark fiber lease that the LSP is using the leased dark fiber capacity at a level of transmission less than OC-12 (622.08 million bits per second), SWBT may revoke the lease agreement with an LSP and provide the LSP a reasonable and sufficient alternative means of transporting the traffic. The Arbitrators find this requirement is necessary to ensure efficient use of dark fiber spectrum by various LSPs and SWBT. *FTA96 §251(c)(3). (AT&T, MCI)*

5. SWBT is not required to allow Signaling System 7 (SS7) advanced intelligent access from MCI's Service Control Point (SCP). When industry standards are established concerning connectivity of ILEC switches with LSP SCPs, parties may petition the Commission to require SWBT to provide such connectivity. This issue will be a subject of the review of interconnection issues to be conducted by the Commission on June 13, 1997. *FTA96 §251(c)(3). (MCI)*

6. SWBT must provide dark fiber in the dedicated interoffice transport segment of the network as an unbundled network element under the following conditions: SWBT must offer its dark fiber to LSPs who have collocation space in a SWBT tandem or end office, but may offer it pursuant to agreements that would permit revocation of an LSP's right to use the dark fiber upon twelve (12) months' notice by SWBT. To exercise its right of revocation, SWBT must demonstrate that the subject dark fiber is needed to meet SWBT's bandwidth requirements or the bandwidth requirements of another LSP. An LSP may not, in a twenty-four (24) month period, lease more than 25% of SWBT's excess dark fiber capacity in a particular dedicated interoffice transport segment. If SWBT can demonstrate within a twelve (12) month period after the date of a dark fiber lease that the LSP is using the leased dark fiber capacity at a level of transmission less than OC-12 (622.08 million bits per second), SWBT may revoke the lease agreement with the LSP and provide the LSP sufficient alternative means of transporting the traffic. The Arbitrators find this requirement is necessary to ensure efficient use of dark fiber spectrum by various LSPs and SWBT. *FTA96 §251(c)(3). (AT&T, MCI)*

7. SWBT must provide access to Digital Cross Connect Systems (DCS) functionality as an unbundled network element. SWBT is not required to install the unbundled DCS in an LSP's physical collocation space, but must allow virtual collocation of DCS as an unbundled network element. As an unbundled network

element, prices for DCS functionality shall be based on TELRIC; prior to the setting of permanent rates, SWBT may charge FCC tariffed rates. *FTA96 §251(c)(3). (MCI)*

8. SWBT must provide subloop elements as unbundled network elements in the following manner. (1) *Distribution*: SWBT must offer as an unbundled element the segment of the local loop extending between a remote terminal (RT) site (located in a hut, CEV, or cabinet) and the end user premises. SWBT is not required to offer the segment of the loop between a Feeder Distribution Interface (FDI) and the RT site, or the FDI and the end user premises, as a separate unbundled network element. (2) *Feeder*: in the feeder segment of the loop, only the dark fiber and the 4-wire copper cable that is conditioned for DS-1 must be offered as unbundled network elements. (3) *Digital Loop Carrier*: the DLC must be offered as an unbundled network element, but SWBT is not required to offer further unbundling of the DLC. The issue of the technical feasibility of further unbundling at the FDI will be a subject of the review of interconnection issues to be conducted by the Commission on June 13, 1997. *FTA96 §251(c)(3). (AT&T, MCI)*

9. SWBT is not required to include in its interconnection agreement with MCI the request stated in MCI Ex. 1 (Cullather Testimony), Attachment III, Section 15.1.2.1. SWBT must offer unbundled local loops with and without automated testing and monitoring services. If an LSP's testing produces incorrect information which results in SWBT dispatching a repair crew unnecessarily, then the LSP must pay SWBT the cost of the unnecessary trip. *FTA96 §251(c)(3). (AT&T, MCI)*

B. INTERCONNECTION/COLLOCATION

Methods of Interconnection.

10. Where the parties cannot reach agreements regarding space, the determination will be made by a third party engineer. The costs of the engineer's services will be paid jointly by SWBT and the LSP. SWBT must provide collocation at CEVs, huts, and cabinets (1) that serve as remote terminal sites and house SWBT network facilities such as loop concentrators or multiplexers; and (2) house interoffice network facilities, in the following manner: physical collocation must be provided on a first come, first served basis, provided there is space available for collocation and for reasonable security arrangements. If space is not available, SWBT must provide virtual collocation. SWBT is required to permit interconnection of an LSP's copper and coaxial cable only where the LSP can demonstrate that interconnection of its copper/coaxial facilities would not impair SWBT's ability to serve its own customers or subsequent interconnectors. *FTA96 §251(c)(6). (AT&T, MCI)*

11. SWBT is required to provide collocation space to LSPs only for equipment used for the purposes of interconnection or access to unbundled network elements. Equipment used for interconnection and access to unbundled network elements includes, but is not limited to (1) transmission equipment such as optical terminating equipment and mutliplexers; and (2) equipment being collocated to terminate basic transmission facilities pursuant to the FCC's expanded interconnection requirements (§§64.1401 and 64.1402) as of August 1, 1996, and the Texas expanded interconnection rule (P.U.C. Substantive Rule §23.92). SWBT is not required to permit collocation of equipment used to provide enhanced services because such equipment is not necessary for interconnection or access to unbundled network elements pursuant to FTA96 §251(c)(6). *(AT&T, MCI)*

Terms and Conditions.

12. SWBT must provide interconnection to LSPs at any technically feasible point with SWBT's network with quality at least equal to that which SWBT provides itself, its subsidiaries or affiliates, or any other party. At a minimum, SWBT must provide interconnection at the following points: (1) the line-side of the local switch; (2) the trunk-side of the local switch; (3) the trunk interconnection points for a tandem switch; (4) central cross-connect points; (5) out-of-band signaling transfer points; and (6) the points of access to unbundled elements. LSPs may test their interconnections rather than have SWBT perform that function; however, under this arrangement SWBT still must treat the test reports as its own for purposes of procedures and time intervals for clearing trouble reports. If an LSP's testing produces incorrect information which results in SWBT dispatching a repair crew unnecessarily, the the LSP must pay SWBT the cost of the unnecessary trip. *FTA96 §251(c)(2). (AT&T, MCI, TCG)*

13. SWBT must tariff the rates, terms, and conditions for physical collocation, rather than requiring negotiation of each collocation arrangement on an individual case basis. The Arbitrators order SWBT and the affected Petitioners to submit, by December 31, 1996, a mutually agreed upon list of central offices and other SWBT premises where physical collocation should be offered. If parties are unable to develop such a list, the affected Petitioners are ordered to designate, by December 31, 1996, the largest 100 central offices for purposes of collocation based on publicly available information such as access lines from the Access Lines Report. Unless an affected Petitioner indicates otherwise, all tandem offices including those connected to the designated central offices shall be tariffed for physical collocation, if physical collocation is determined to be technically feasible at these premises. In addition, CEVs, huts, and cabinets (serving as RT sites) located in the geographic area served by the designated central offices, as well as those housing interoffice facilities, shall also be tariffed for collocation, provided physical collocation is determined to be technically feasible at these premises. SWBT

shall file tariffs for the designated central offices, including tandem offices and other SWBT premises mentioned above, by February 15, 1997. The effective date for such tariff fillings shall be not later than 30 days after the filing date, unless suspended. For purposes of establishing rate elements such as central office space, power, cable space, cable placement/removal, and cross connects, SWBT may group central offices or other SWBT premises by exchange, LATA or some other reasonable criteria. The Arbitrators order the affected Petitioners to designate additional SWBT premises for purposes of collocation by June 30, 1997. SWBT shall file tariffs for such premises by August 15, 1997, with the effective date for these tariffs being no later than 30 days after the filing date, unless suspended. If a Petitioner is interested in collocating at any SWBT premise not identified by June 30, 1997 (the due date for the second list of potential collocation premises), the affected Petitioner shall negotiate with SWBT collocation at such premise. If such negotiations fail to produce an agreement, the Commission shall arbitrate the disputed issue. *FTA96 §251(c)(6). (AT&T, MCI, TCG)*

Access to Poles, Ducts, Conduits and Rights-of-Way.

14. SWBT must allow LSPs to select the space they will occupy on poles or in conduit systems based upon the same criteria SWBT applies to itself. To facilitate non-discrimination in the LSP's selection of space, SWBT must provide information to LSPs about the network guidelines and engineering protocols used by SWBT in determining the placement of facilities on poles and conduits. In addition, the facilities shall be placed (on poles, ducts, and conduits), constructed, maintained, repaired, and removed consistent with the criteria and procedures in current (as of the date when such work is performed) editions of the following publications: (a) the Blue Book Manual of Construction Procedures, Special Report SR-TAP-001421, published by Bell Communications Research, Inc. (Bellcore), and sometimes referred to as the "Blue Book"; (b) the National Electrical Safety Code (NESC), published by the Institute of Electrical and Electronic Engineers, Inc. (IEEE); (c) the National Electrical Code (NEC), published by the National Fire Protection Association (NFPA); (d) federal requirements such as those imposed by the Federal Energy Regulatory Commission (FERC) and Occupational Safety and Health Administration (OSHA); and (e) applicable state and local requirements. *FTA96 §224(f)(1) and §251(b)(4). (AT&T, MCI)*

15. The Arbitrators conclude that in situations where LSP personnel, certified based on industry standards, perform installation, maintenance and similar routine work at SWBT sites, SWBT should be given 48 hour notice so that SWBT may, at its option, send one or more employee to review such work. The LSP is not required to provide the 48-hour notice in case of emergencies; however, the Arbitrators expect such emergencies to be very infrequent. The affected LSP and SWBT shall share the cost of a single SWBT employee reviewing the work during emergency and non-emergency situations.

SWBT will not be compensated by the LSP for any additional employees reviewing the work. The SWBT employees assigned for review and inspection of LSP personnel work must be available during all normal business hours for such assignments to minimize inconvenience to the LSP. If the work at SWBT sites is performed by a contractor agreed upon by the LSP and SWBT, SWBT shall be responsible for the costs of its employees sent to inspect the contractor's work. However, if the LSP personnel perform work at the site of an interconnection point where the participation of SWBT personnel is integral for the successful completion of the work, the LSP is responsible for paying the costs of SWBT personnel reasonably needed for such work. *FTA96 §224(f)(1) and §251(b)(4). (AT&T, MCI)*

16. SWBT may recover the costs of modifying its outside plant facilities for LSP space requirements. SWBT may not require that all costs of the modification be paid up-front before work commences. The Arbitrators find that it is commercially reasonable for contractors to be paid half of their compensation at 50% completion of work, and half at 100% completion. To facilitate the sharing of costs by all parties benefiting from the modification, SWBT must establish a methodology whereby the LSP initiating the modification is charged for the work, and then reimbursed on a pro rata basis for any portion of the facility later used by SWBT or another LSP. *FTA96 §224(f)(1) and §251(b)(4). (AT&T, MCI)*

17. The Arbitrators note their concern that the 15-step process proposed by SWBT for administrative approval of LSP requests for pole attachments and conduit space may unnecessarily delay the fulfillment of valid LSP requests. The Arbitrators do not endorse the process proposed by SWBT; neither do they prohibit its use. The SWBT administrative approval process will be a subject of the June 13, 1997 review of interconnection issues conducted by the Commission. The Arbitrators encourage the parties to provide more streamlined alternatives to the 15-step approval process at the time of the six-month review. SWBT may charge reasonable, cost-based ancillary fees to recover administrative costs incurred in processing LSP requests for pole attachments and conduit space. If SWBT chooses to charge such fees, it must provide cost justification for the fees, consistent with the costing standards adopted in this proceeding. *FTA96 §224(f)(1) and §251(b)(4). (AT&T, MCI)*

C. RESALE

18. SWBT may retain the continuous property tariff restriction for Plexar and STS services, which has been found reasonable by the Commission. SWBT may not retain the limitation on aggregation for purposes of the resale of volume discount offers.

Additional tariff restrictions, other than the cross-class restriction allowed by FTA96 §251(c)(4)(B), are presumptively unreasonable. *FTA96 §251(c)(4)(B). (AT&T, MCI)*

19. SWBT is not required to provide a fresh look opportunity for its customers currently under term plans. *FTA96 §251(b) and (c). (AT&T, MCI)*

20. SWBT must give an LSP notice of new promotions or products at the time a Preliminary Rate Authority (PRA) is transmitted, or, in situations where a PRA would not be issued, within 90 days (45 days for price changes) of the expected change in services or operations that would affect the LSP. *FTA96 §251*(c)(4) and (5). *(AT&T, MCI)*

21. SWBT is not required to provide a wholesale discount to LSPs for promotions of 90 days or less. SWBT must, however, offer the promotion for resale. For promotions of more than 90 days, SWBT shall make the promotion available for resale at a wholesale discount according to the specific percent discount for the service as applied directly to the value of the promotional rate. *FTA96 §251*(c)(4) and (5). *(AT&T, MCI)*

D. NUMBERING ISSUES

22. SWBT is not required to make Route Index-Portability Hub (RI-PH) or Directory Number-Route Index (DN-RI) available to LSPs. SWBT shall test RI-PH and DN-RI for technical feasibility. SWBT shall attempt to obtain the testing protocols used by other RBOCs, such as Ameritech and BellSouth. SWBT shall attempt to obtain LSPs' agreement as to the appropriate testing protocols. If SWBT and an LSP cannot agree to the testing protocols, either party may petition the Commission for arbitration without waiting 135 days, as might otherwise be required under FTA96. SWBT shall attempt to obtain LSPs' agreement as to the results of the testing and whether RI-PH or DN-RI has been shown to be technically feasible. If SWBT and an LSP cannot agree to the results or the conclusion regarding technical feasibility, either party may petition the Commission for arbitration without waiting 135 days, as might otherwise be required under FTA96. *FTA96 §251*(b)(2). *(AT&T, MCI)*

23. SWBT and each LSP shall absorb its own costs of providing Interim Number Portability (INP). *FTA96 §251*(e)(2). (ACSI, AT&T, MCI, MFS, TCG)

24. SWBT and the LSP must implement a meet-point billing arrangement under which the forwarding carrier is allowed to retain any applicable terminating transport fees but no other portion of the switched access charges (such as Carrier Common Line and switching-related charges). *FTA96 §252(d). (AT&T, MCI)*

E. OPERATIONAL AND TECHNICAL ISSUES

Support Functions and Implementation Issues.

25. SWBT must provide real-time electronic interfaces that allow LSPs to perform preordering, ordering, provisioning, maintenance and repair, and billing for resale services and unbundled network elements. The interfaces must be provided on a non-discriminatory basis, and must be capable of performing the relevant functions in the same time intervals that SWBT performs similar functions for itself. SWBT must provide the items listed in AT&T Exhibit 15A (attached as *Exhibit E*) and the interfaces necessary for the preordering, ordering, provisioning, maintenance and repair, and billing for unbundled network elements, by the earlier of: (1) the availability dates listed in AT&T Exhibit 15A, Column entitled "SWBT Availability" (whether designated "commitment" or "target" in AT&T Exhibit 15A); or (2) June 1, 1997. SWBT must file monthly progress reports with the Commission that update the progress of implementation. Petitioners may file responses to SWBT's progress reports, if necessary. The first report shall be due January 15, 1997. On February 28, 1997, SWBT and the Petitioners will report to the Commission on the status of development and implementation of electronic interfaces. The development and implementation of electronic interfaces will also be a subject of the Commission's June 13, 1997 review of the implementation of the Arbitration Award. *FTA96 §251(c)(3). (AT&T, MCI)*

26. The Commission will consider SWBT's progress on development and implementation of electronic interfaces a factor in evaluating SWBT's compliance with the requirements for providing in-region interLATA service under FTA96 §271(c).

27. The record evidence indicates that the requested databases called "Centrex Business Group Information," "Intercept Information," "Operator Reference Information," and "Plant Inventory Data" do not exist. For "CMDS," SWBT must provide information to LSPs for which SWBT serves as host. The access requested to the other databases is denied. The Arbitrators have ordered provision of real-time electronic interfaces that will adequately serve the functions sought by MCI. Until the electronic interfaces are available, SWBT must provide information to MCI through a modified "Customer Record Information System" (CRIS) format in the same format it has agreed to provide to AT&T. *FTA96 §251(c)(3). (MCI)*

28. An LSP may require that, at the end of the first year of implementation of its interconnection agreement, SWBT submit to an audit or examination of services

performed under the interconnection agreement. Subsequent to the first year of implementation, the LSP may require that audits or examinations be performed if: (1) the LSP can show cause that it has a commercially reasonable basis to seek an audit or examination; and (2) the request for audit or examination specifically defines the particular services that it seeks to audit or examine. All audits requested by the LSP shall be conducted at its expense. The dispute resolution provisions of the relevant LSP/SWBT interconnection agreement shall be used to resolve disputes arising concerning requests for audits or examinations, or the results of the audits or examinations. *FTA96 §251(c)(3). (MCI)*

29. At an LSP's request, SWBT must: (1) maintain data that compares the installation intervals and maintenance/service response times experienced by the requesting LSP's customers to those experienced by SWBT customers and the customers of other LSPs; and (2) provide the comparative data to the LSP on a regular basis. If an LSP requests comparative data from SWBT in its interconnection agreement, the LSP must make a reasonable effort to define the specific data that it seeks to receive from SWBT. SWBT shall not levy a separate charge for provision of the requested information to the LSP. *FTA96 §251(c)(3). (MCI)*

30. The record reflects agreement by all parties that a CABS-like billing system is the best long run solution for SWBT/LSP billing. SWBT is ordered to implement a CABS-like billing system as soon as possible after the Ordering and Billing Forum (OBF) issues its final CABS release. If the OBF CABS release is not issued by May 1, 1997, MCI may, as part of its interconnection agreement, demand immediate action toward implementation of a CABS-like billing system for SWBT/MCI billing. Until CABS-like billing systems are available, SWBT must provide LSPs with CRIS data in a format that will allow the LSPs to audit and manipulate the data. *FTA96 §251(c)(3). (MCI)*

31. SWBT must notify AT&T and MCI of maintenance work in the following situations: (1) when maintenance activity is planned; (2) when there are unexpected major outages. When a network element is dedicated to one LSP, SWBT must work with that LSP to schedule the maintenance activity. SWBT must make reasonable accommodations to the LSP when scheduling the maintenance of the dedicated network element. *FTA96 §251(c)(3). (AT&T, MCI)*

Directory and Operator Services / Branding Issues.

32. The record evidence supports SWBT's position that the branding requested is technically infeasible at the present time. SWBT must: (1) unbrand through live operators for all LSPs in the same manner it has agreed to unbrand for AT&T (see AT&T Exhibit 17); and (2) undertake an expedited installation schedule for provision of

software modifications that will allow rebranding for automated systems to be completed by June 1, 1997. *FTA96 §251(c). (AT&T, MCI)*

33. When a SWBT employee visits the premises of an LSP customer, the SWBT employee must inform the customer that he or she is there on behalf of the customer's provider. Materials left at the customer premises (e.g., door hanger notifying the customer of the service visit) must also inform the customer that SWBT was on their premises on behalf of the customer's provider. *FTA96 §251(c). (AT&T, MCI)*

34. LSPs may negotiate with SWBT to brand the cover of the white pages telephone directory. This issue will be a subject of the review of interconnection issues to be conducted by the Commission on June 13, 1997. *FTA96 §251(b)(3). (AT&T, MCI, TCG)*

35. SWBT is not required to comply with rebranding requests not discussed in this Award.

Performance Standards and Penalties.

36. The Arbitrators find that monetary penalties for below standard performance are appropriate. The record evidence shows that SWBT's liquidated damages proposal is reasonable, and should serve as the standard monetary penalties language to be included in Petitioners' interconnection agreements. However, SWBT's proposal must be clarified to ensure that LSPs shall not be required to indemnify SWBT for SWBT's failure to meet its performance standards, whether or not such failures are intentional or unintentional. In the TCG/SWBT agreement, the Arbitrators order that the "Sole remedy" provision proposed by TCG be included in the agreement. *FTA96 §252(c). (AT&T, MCI, TCG)*

37. The Arbitrators find that the liability provisions proposed by SWBT are reasonable. SWBT is not required to accept TCG's proposed indemnity provisions, but must in all cases exclude from the indemnity provisions gross negligence and willful or intentional conduct by SWBT. *FTA96 §252(c). (AT&T, MCI, TCG)*

Telephone Directories.

38. LSPs are not required to pay a separate charge for inclusion of their customers' subscriber list information in SWBT white page directories. *FTA96 §251(b)(3). (MCI, TCG)*

39. The Arbitrators find that it is reasonable for LSPs to share costs related to the production of white pages telephone directories. The Arbitrators order that costs

associated with the production of white pages telephone directories shall be shared among LSPs and SWBT, on a flat-rate, per directory basis as described in Paragraph 80 of this Award. *FTA96 §251(b)(3). (MCI, TCG)*

40. SWBT is not required to make directory distribution options available at no charge to LSPs and their customers. *FTA96 §251(b)(3). (MCI, TCG)*

41. The Arbitrators find that it is reasonable for LSPs to share costs related to the distribution of white pages telephone directories. The Arbitrators order that costs associated with the distribution of white pages telephone directories shall be shared among LSPs and SWBT, on a flat-rate, per directory basis as directed by paragraph 80 of this Award. *FTA96 §251(b)(3). (MCI, TCG)*

42. The Arbitrators conclude that the number of informational pages available to LSPs should equal the number of informational pages available to SWBT. The charge per page shall be calculated as described in Paragraph 80 of this Award. *FTA96 §251(b)(3). (MCI, TCG)*

43. SWBT must provide nondiscriminatory access to all published subscriber listings, regardless of the underlying carrier. *FTA96 §222(e) and §251(b)(3). (AT&T)*

44. SWBT is not required to pay compensation to LSPs for providing LSP subscriber list information to SWBT. If SWBT sells an LSP's subscriber list information, the LSP is entitled to a pro rata share of the compensation SWBT receives, based on the proportion of the LSPs' listings to the total number of listings for which SWBT receives compensation. *FTA96 §251(b)(3). (AT&T, MCI)*

Emergency Services.

45. SWBT must provide MCI's 9-1-1 trunks the same level of priority service restoration as it affords its own 9-1-1 trunks. *FTA96 §251(c)(2). (MCI)*

46. MCI and other LSPs must be allowed access to systems used in populating and editing the 9-1-1 database, but SWBT is not required to provide such access until the additional hardware and software systems are installed that are necessary to make such access technically feasible. SWBT must notify MCI when the systems vendor has provided SWBT an expected date of availability of the necessary hardware/software. If the hardware/software solutions are not implemented by June 1, 1997, this issue will be a subject of the review of interconnection issues to be conducted by the Commission on June 13, 1997. *FTA96 §251(c)(2). (MCI)*

Access to Customer Payment History

47. The Arbitrators find that customer payment history is not Customer Proprietary Network Information (CPNI). CPNI is defined in FTA96 §222, and is limited to "information that relates to the quantity, technical configuration, type, destination, and amount of use of a telecommunications service..." Credit information is not included in the CPNI definition. The Arbitrators find that, in a competitive environment, customers should have the right to authorize release of their credit history information to an LSP. Therefore, SWBT is required to provide credit history information to MCI only upon receipt of an affirmative request by an end-user customer that MCI be provided the information. *FTA96 §251(c) (MCI)*

F. AVOIDED COST DISCOUNT

Choice of Avoided Cost Methodology.

48. An aggregate avoided cost methodology should be adopted. The Arbitrators' examination of the SWBT service-by-service avoided cost study and comparison with the parties' calculations (including SWBT) of aggregate avoided cost factors demonstrates that an aggregate methodology should be used for determining avoided costs in this proceeding. *FTA96 §251(d)(3). (AT&T, MCI)*

49. The evidence demonstrates that the SWBT service-by-service study raised four areas of serious concern: (1) widely divergent avoided cost estimates between services; (2) an extremely low average avoided cost that is well below the bottom of the range estimated by the FCC; (3) individual service discounts that differ greatly from the discounts developed in other state proceedings; and (4) the asymmetric information inherent in the particular design of the SWBT cost study makes an informed review of the study difficult for parties.

Of the twenty-five separate discounts originally calculated, twelve are negative or below 2 percent and five are above 10 percent.

If SWBT's service-by-service discounts were to be weighted and averaged together the overall discount would be less than 5 percent. This result is far below that predicted by the FCC. By way of comparison, in the FCC 96-98 Order, the FCC allows states to select a default discount between a range from 17 to 25 percent until the state adopts an avoided cost study (¶932) . The FCC thoroughly reviewed the avoided cost model submitted to the FCC by MCI. After making some modifications to the MCI model, the FCC

calculated a 20.11 percent aggregate discount for Southwestern Bell Corporation using 1995 data (¶930).

The extremely low level of certain business services discounts is troubling. According to the FCC, states that have set wholesale pricing standards similar to the standards in section 252(d)(3) of the FTA96 have the following business discounts:

California PacTel	17%
California GTE	12%
Colorado	16%
Georgia	17.3%
Illinois	20.07%
New York Nynex	17%
New York Rochester	13.5%

SWBT has not prepared its service-by-service avoided cost study in a manner that is conducive to review of the study by the parties to the arbitration. SWBT's cost study presents only those costs that it expects to avoid by selling services on a wholesale basis. Unfortunately, by only presenting the costs SWBT expects to avoid, and because other parties do not have access to the full range of service costs, the onus is upon parties to guess if there might be other costs that could also reasonably be avoided. An alternative method that could have been used by SWBT would have been to present the universe of costs associated with a service, and then point out the set of costs SWBT would avoid. Other parties would then be able to propose other costs in the universe that might be avoided. SWBT admitted that its service-by-service study relies on employees' expectations that the company's operating expenses will not decrease. However, the appropriate test is what operating expenses should be avoided in a wholesale environment.

Conversely, in an aggregate approach, all parties have equal access to the ARMIS data. SWBT, AT&T and MCI have submitted different estimates of the avoided cost discount based on the same underlying cost data. These estimates, and the specific methodology used to develop them, can be compared and contrasted with each other.

Because the service-by-service avoided cost estimates, on their face, are so inconsistent with the experiences of the FCC and other states, and because the cost studies were conducted in a manner that makes review by other parties exceedingly difficult, the aggregate avoided cost methodology is the appropriate method to determine avoided cost discounts in this proceeding. *FTA96 §252(d)(3). (AT&T, MCI)*

50. The calculation of the avoided cost discount is set forth in Appendix B to the Award. The Avoided Cost Discount is 21.6%. *FTA96 §252(d)(3). (AT&T, MCI)*

General Avoided Cost Issues

51. SWBT must calculate the avoided cost discount percentage as the ratio of avoided costs to revenues. The expenses and revenues used in the avoided cost calculation shall consist of Texas' regulated, unseparated expenses and revenues associated with the retail services subject to discount. For the purpose of calculating an avoided cost discount percentage, 1995 regulated, unseparated ARMIS data for Texas should be used. Because §252(d)(3) of the FTA96 mandates that the discount be applied to the retail rates of the ILEC, the Arbitrators find that revenues, rather than expenses, associated with retail services are the appropriate denominator. The Arbitrators find that unseparated expenses (numerator) and unseparated revenues (denominator) should be used in calculating the avoided cost discount percentage. The Arbitrators find that the following revenue accounts are not associated with retail services subject to resale and should not be included in the denominator:

Cellular Mobile	5003
Switched Access	5082
Special Access	5083
State Access	5084
Rent	5240
Carrier Billing	5270

Because the Arbitrators have included the EUCL in the denominator, when calculating the discount for basic local service, EUCL charges shall be included as part of the rate to which the discount is applied.

The Arbitrators find that the following expense account is not associated with retail services subject to resale and should not be included in the numerator:

Access	6540

The avoided cost amount will not be increased to account for additional access expenses. The Arbitrators find that if simplicity and ease of administration are relied upon, even in part, to select an aggregate avoided cost methodology over a service-by-service methodology, then simplicity and ease of administration must guide the implementation of an aggregate methodology. In other words, adjustments to the broad aggregate methodology are only permissible if they are simple, easily understood, and do not rely

on assumptions. For this reason the Arbitrators reject the additional access expense adjustments recommended by AT&T.

The avoided cost amount will not be increased to account for depreciation, return, and taxes. The Arbitrators find that the dollar amount of contribution to joint and common costs on a per unit basis from the wholesale service should be equal to the contribution from the retail service. Otherwise, SWBT would be forced to make less contribution and profit from its wholesale sales, and in order to maintain the current level of contribution and profit, could conceivably have to raise its retail rates. *FTA96 §252(d)(3). (AT&T, MCI)*

Wholesale Onset Costs.

52. No additional adjustment shall be made to the avoided cost discount calculation to account for wholesale onset costs. Wholesale onset costs are incorporated into the avoided cost discount as part of the 10 percent that is not avoided in accounts 6611, 6612, 6613, and 6623. *FTA96 §252(d)(3). (AT&T, MCI)*

53. Twenty percent (20%) of the expenses in operations testing (account 6533) and none of the operations plant administration expenses (account 6534) are presumed to be avoided. The credible evidence showed that LSPs will perform some of the initial testing in response to customer calls. *FTA96 §252(d)(3). (AT&T, MCI)*

54. Ninety percent (90%) of Uncollectibles (account 5301) are presumed to be avoided in the wholesale market. *FTA96 §252(d)(3). (AT&T, MCI)*

Aggregate Cost Study Issues.

55. Ninety percent (90%) of the expenses in sales (account 6612) and product advertising (account 6613) are presumed avoided. Eighty percent (80%) of the expenses in product management (account 6611) and customer services (account 6623) are presumed avoided. The record evidence demonstrates that there will be some product management, sales, product advertisement, and customer service expenses incurred to serve wholesale customers. *FTA96 §252(d)(3). (AT&T, MCI)*

56. Seventy-five percent (75%) of operator systems (account 6220), call completion (account 6621) and operator services depreciation (account 6560) are presumed to be avoided. Fifty-four and three-quarters percent (54.75%) of number services (account 6622) are presumed to be avoided. The record evidence demonstrated that some LSPs will provide their own operator, call completion, and number services, while others will

not. The Arbitrators find that the evidence supports averaging costs in this instance, and thus order that that 75 percent of accounts 6220, 6621, and 6560 be presumed avoided. For account 6622, the Arbitrators find that 27 percent of the expenses are incurred in the provision of white pages and that SWBT will continue to provide white pages in a wholesale environment. Therefore, 27 percent of this account, which represents the amount related to white pages, will not be avoided. Of the remaining 73 percent, 75 percent will be avoided consistent with the above discussion, resulting in a 54.75 percent total avoided amount for account 6622. *FTA96 §252(d)(3). (AT&T, MCI)*

G. RECIPROCAL COMPENSATION FOR TRANSPORT AND TERMINATION OF TRAFFIC.

57. When SWBT and an LSP jointly provide switched access services to an IXC, switched access revenues should be shared according to the meet point billing arrangements under §23.23(d)(6)(b). The Arbitrators decline to take action with respect to sharing of interstate access revenues. When SWBT and an LSP jointly provide intrastate switched access services to an IXC, and the LSP provides the entrance facilities, the tandem switching, and tandem-switched transport directly to SWBT end office, SWBT is allowed to assess the IXC the charge for performing the end office function (including the carrier common line charge (CCLC)) and keep 100% of the revenues for the end-office function, pursuant to meet point billing procedures established in P.U.C. Subst. Rule §23.23(d)(6)(B). The FCC 96-98 Order permitted ILECs to recover only 75% of the interstate residual interconnection charge (RIC) from purchasers of the unbundled switch because the FCC estimated that the remaining 25% of the interstate RIC reflects revenues associated with transport facilities. SWBT filed an application in May 1996 that would restructure the switched transport portion of its access tariff pursuant to P.U.C. Subst. Rule §23.23(d)(5)(D). Under that rule, the transport elements (entrance facilities, direct trunked transport, tandem switching and transport, and dedicated signaling) must be cost-based and priced at not less than 105% of the LRIC for the individual transport elements. The revenues not recovered through the transport elements are recovered through the make-whole rate element, the RIC. The intrastate RIC, unlike the interstate RIC, does not contain costs of other transport elements and, therefore, is a subsidy element in its entirety. Upon the effective date of the SWBT's intrastate restructured transport tariff, SWBT shall be allowed to assess and keep 100% of the end office revenues (including the Residual Interconnection Charge (RIC) and the CCLC) if an LSP provides all facilities except the end office function in a meet point billing arrangement.

With respect to the application of intrastate access charges to purchasers of unbundled network elements, under the Arbitrators' interpretation of FTA96, SWBT is not entitled to recover any access charges, including RIC and CCLC, from LSPs that interconnect for the provision of telephone exchange service and exchange access. FTA96 §251(c)(2)(A). Interconnection rates, including transport and termination, must be based on costs. FTA96 §252(d)(1) and (2). However, the Petitioners did not oppose a limited transition period during which SWBT would continue to recover access charges from purchasers of unbundled elements. The Arbitrators therefore conclude that SWBT shall not impose access charges on LSPs that purchase unbundled network elements, over and above the rates that LSPs have already paid for the unbundled network elements, with the following exceptions. Under the existing SWBT intrastate access tariff which does not contain a

RIC, SWBT is allowed to recover from purchasers of the unbundled local switch element only the CCLC for all intrastate toll minutes traversing its local switch. Upon the effective date of its restructured intrastate switched transport tariff, SWBT is allowed to recover from purchasers of the unbundled switch, the CCLC and 100% of the RIC for all intrastate toll minutes traversing its local switch. The recovery of the RIC and/or the CCLC shall terminate on the earlier of: (a) June 13, 1997, the date of the review of interconnection issues to be conducted by the Commission; (b) the date on which SWBT is authorized to offer in region inter-LATA service pursuant to FTA96 §271; or (c) the effective date of a Commission decision that SWBT may not assess such charges. *FTA96 §252(d). (TCG)*

58. Bill-and-Keep shall be the reciprocal compensation arrangement for the first nine months after the date upon which the first commercial call is terminated between SWBT and an LSP. At the completion of the nine-month period, if the difference between the traffic volumes flowing between the two networks exceeds 10% of the larger volume of traffic, the carriers shall assess each other symmetrical transport and termination rates (interim or permanent rates in effect at the end of the nine-month period) adopted in this proceeding. The 10% threshold should be calculated on a per-minute basis. When traffic exceeds the 10% threshold, SWBT and the LSP shall compensate each other for all calls unless the parties agree to apply the compensation rates only to the volume of traffic that exceeds 10%. The reciprocal compensation arrangements adopted herein apply to calls that originate and terminate within the mandatory single or multiexchange local calling area of SWBT including the mandatory EAS areas served by SWBT. If interconnecting carriers are unable to agree upon a measurement and billing method, carriers shall report the percentage of local usage (PLU) to each other for purposes of measurement and billing. If the audit process associated with the PLU method becomes problematic or is challenged in court, carriers may report such problems to the Commission within six months after the date carriers begin to assess reciprocal compensation rates on one another. At that time, the Commission may establish an alternative methodology that does not rely on self-reporting of traffic. *FTA96 §252(d)(2). (AT&T, MCI, TCG)*

59. Extended area traffic including optional extended area traffic shall not be considered as part of local calling areas, with one exception. Mandatory EAS traffic between SWBT exchanges shall be treated as local traffic for purposes of reciprocal compensation. However, in the interest of promoting competition, the interconnection rates for extended area traffic should be cost justified using the cost standards adopted in this proceeding. The EAS termination rate shall be the same as the local termination rate; however, the transport rates may be different from the transport rate for local calls. The variance in transport rates for EAS calls as compared to local calls may reflect the cost differences caused by the longer distance traveled by EAS calls or by the method used to transport EAS calls. Until cost-based interconnection rates are established for EAS

traffic, the interconnection rates in effect between SWBT and other incumbent LECs for such traffic shall apply. When cost-based interconnection rates for EAS are established, LSP traffic in SWBT's EAS areas shall be subject to the lesser of the cost-based interconnection rates established in this proceeding or the interconnection rates in effect between SWBT and other incumbent LECs for such traffic. LSPs are not precluded from establishing their own local calling areas or prices for purposes of retail telephone service offerings. *FTA96 §251(c)(2) and §252(d)(2). (AT&T)*

60. The Arbitrators do not adopt the Optional EAS/EMS additive proposed by SWBT. Rather, the Arbitrators order that the additive be in the amount of $6.25. *FTA96 §252(d). (AT&T, MCI)*

61. Transport and termination rates will vary according to whether the traffic is routed through a tandem switch or directly to the end-office switch. The transport and termination rates assessed on the originating carrier should reflect the functions performed by the terminating carrier in transporting and terminating the calls. To the extent new technologies such as fiber ring or wireless network enable an LSP's end office switch to perform functions similar to those performed by SWBT's tandem switch and thereby to serve a geographic area comparable to that served by SWBT's tandem switch, the transport and termination rates for calls terminated to the LSP's switch shall be SWBT's tandem interconnection rates adopted in this proceeding. However, if the LSP's end-office switch is able to serve the same geographic areas as SWBT's tandem switch *only by virtue of being connected to SWBT's tandem switch*, the LSP shall not charge SWBT the tandem interconnection rates because LSP's end office switch is not performing any functions equivalent to those performed by SWBT's tandem switch. *FTA96 §252(d). (AT&T, MCI)*

H. COSTING AND PRICING OF UNBUNDLED NETWORK ELEMENTS, INTERCONNECTION, COLLOCATION, AND CERTAIN SERVICES.[5]

Cost Models.

62. The Arbitrators find that the record evidence supports the following conclusions and requirements regarding cost study methodologies:

TELRIC methodology shall be used.

The Arbitrators find that using a TELRIC methodology similar to that described in the FCC 96-98 Order is consistent with the methodology adopted by the Commission in P.U.C. Subst. R. §23.91. Subst. R. §23.91 requires completion of basic network function (BNF), service, and groups of service cost studies. The TELRICs of the ten unbundled elements that this Award requires SWBT to provide should be comparable to the sum of the appropriate §23.91 BNF, service, and group of service LRICs associated with those elements.

There are two types of costs that are implicitly included in a TELRIC study that are separately identified in §23.91 studies. These are *excess capacity costs* and other *group common costs.*

An example will illustrate excess capacity costs. In the §23.91 process, the BNF LRICs of custom-calling features such as Call Waiting and Call Forwarding are calculated by using marginal (or capacity) costing as opposed to average costing. One of the differences between each type of costing lies in the different assumptions they make about the assignment of excess switch capacity caused by "lumpy investment." Lumpy investment occurs because some equipment cannot be purchased in discrete quantities that mirror actual demand and instead must be purchased with capacities that are significantly greater than actual demand. Using capacity costing, this excess capacity is attributed to all of the functions that the switch provides (Call Forwarding, interoffice switching, etc.) and is not directly assigned to a particular BNF or service. The excess capacity is separately identified as a shared cost to all switching functions and can then be allocated to individual switching services as appropriate in a pricing exercise. If average costing was used (as is done under TELRIC methodology), this excess capacity would automatically be allocated to each switch function within the cost study as if the provision of each function automatically caused a certain amount of excess capacity.

---

[5] The Arbitrators' decisions in ¶¶62-95 are based on FTA96 §251(c) and §252(d). All Petitioners are affected by the decisions in ¶¶62-95 of the Award.

There would be no need to allocate these excess capacity costs among the BNFs/services after the cost was computed, because the costs would already be allocated.

The second type of cost separately identified in a §23.91 study are group common costs. Using the example above, Call Waiting and Call Forwarding require a common switch software package. Because this software package is shared it is not reported as part of either the Call Waiting or Call Forwarding LRIC, but is instead reported in the Custom Calling Features *group of services* LRIC study. Similar to excess capacity, this group common cost would be allocated in a pricing exercise. A switching TELRIC study, however, will automatically include the common software costs in its result.

In conclusion, a TELRIC is generally equivalent to the sum of the individual BNF LRICs, the excess capacity costs, and the other group common costs that are calculated under Subst. R. §23.91. Therefore, the Arbitrators find the TELRIC methodology reasonable for use in setting rates in FTA96 arbitration proceedings.

SWBT's methodology shall be used to determine TELRIC.

The Arbitrators find that SWBT's costing methodology, with appropriate inputs, will better ensure that TELRIC will accurately reflect the forward looking costs SWBT incurs to provide unbundled network elements.

The Arbitrators find that the Hatfield Cost Model (HCM) has the advantage of being an "open" model, where all parties can know and understand the operations, inputs and outputs of the model. Several computer runs of the HCM were placed in the open record where any interested person could review the inputs and results. By contrast, the SWBT cost studies are proprietary and confidential, utilize inputs that are themselves subject to claims of confidentiality by vendors such as Bellcore and Northern Telecom, and result in record evidence which is filed under seal which restricts the number of people allowed to view it. While the Arbitrators find that the merits of the SWBT methodology outweigh the "openness" advantage of the HCM, they also find that the SWBT methodology must be made much more open.

The Arbitrators' choice of the SWBT methodology is conditioned on SWBT's cooperation in facilitating a thorough review of SWBT cost studies by the Petitioners. The Arbitrators recognize that Petitioners must have a reasonable opportunity to understand and evaluate SWBT's methodology and the value of inputs not specifically addressed in this Award. In the implementation phase of these proceedings, SWBT must provide all information that is reasonably necessary for Petitioners to evaluate SWBT's

cost studies, and must provide training for Petitioners' personnel in the use and formulation of the cost studies.

While the Arbitrators recognize the need for protective agreements to shield competitively sensitive information, the Arbitrators find that without adequate sharing of cost study information with Petitioners and the Commission, the use of SWBT's methodology cannot be justified. If, during the implementation phase of these proceedings, it becomes clear that limitations on the availability of necessary information are preventing an adequate review of SWBT's cost studies, the use of the Hatfield Cost Model (HCM) methodology advocated by several of the Petitioners will be ordered as a replacement for use of the SWBT methodology.

Both models have their advantages and disadvantages. The Arbitrators find that, on the whole, the advantages of the SWBT methodology outweigh its disadvantages, if the changes recommended by this Award are made. However, the HCM is supported by sufficient substantial evidence on the record that the Arbitrators are persuaded to utilize it, along with the SWBT methodology, in setting the interim rates in this Award. The following discussion details the basis for the Arbitrators' preference of the SWBT methodology over the HCM methodology.

Efficient Network Design.

One of the issues discussed in the selection of cost models concerns forward-looking technology and efficient network design. Both models assume the existing central office locations, but from there the models diverge. The HCM, using a "rectilinear" pattern, models a network that connects the population in each census block group (CBG) to the nearest central office. The HCM estimates that a 40 percent excess loop length factor resulting from the rectilinear pattern will account for the actual routing and avoidance of obstacles (such as lakes) required to install an actual network. SWBT maintains that the current network routes are least cost because they follow existing rights-of-way and the HCM does not add the costs associated with rights-of-way to its network costs. SWBT further argues its cost studies assume the use of forward-looking technology. SWBT's cost studies assume the presence of advanced digital loop technology that far exceeds that which is actually in place in their "in-ground" network. In addition, many of SWBT's technical assumptions may be adjusted by users. For example, the amount of actual excess capacity in the "in-ground" network can be adjusted for the forward-looking cost study by adjusting the appropriate fill factors. The Arbitrators finds that the use of existing network routes better represents the costs associated with construction and rights-of-way that SWBT actually incurs in the laying of its network. In addition, the assumption of forward-looking technology inherent in the choice of copper/fiber