

**ATTACHMENT 3**  
**UNBUNDLED ACCESS/ELEMENTS**  
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**UNBUNDLED ACCESS/ELEMENTS**

**1. Introduction**

- 1.1 *U S WEST shall provide unbundled Network Elements in accordance with this Agreement, the Act, FCC rules and regulations, and state rules, regulations and orders. The price for each Network Element is set forth in Attachment 1 of this Agreement. Except as otherwise set forth in this Attachment, AT&T may order Network Elements as of the Effective Date of this Agreement.*

**1.2 Standards for Network Elements**

**The following standards shall apply to each provision in Attachment 3. Failure to specifically reference this standard, or individual subsections 1.2.1 - 1.2.3 below, shall not be construed to mean this standard does not apply.**<sup>62</sup>

- 1.2.1 Pursuant to the Act, U S WEST shall provide nondiscriminatory access to the network elements specified in this Attachment 3 at any technically feasible point that is equal in quality to the access which U S WEST provides to itself, its customers or other CLECs and that is on rates, terms and conditions that are just, reasonable and nondiscriminatory.
- 1.2.2 For purposes of this Attachment 3, "rates, terms and conditions that are just, reasonable and nondiscriminatory" shall mean that (i) such terms and conditions are equal in quality to the terms and conditions that U S WEST provides to itself, or, (ii) where it is technically infeasible to provide such terms and conditions to AT&T, such terms and conditions are offered equally to all requesting carriers
- 1.2.3 U S WEST shall not offer to AT&T provisioning of or access to unbundled Network Elements that is not equal in quality to what U S WEST provides itself. For purposes of this Attachment 3, "equal in quality" shall mean, among other things, equal to the timeliness, responsiveness, accuracy and integrity of the provisioning of or access to the Network Element U S WEST provides itself.

## **1.2                    1.2        General Terms**

- 1.2.1 *U S WEST agrees to make available the following unbundled Network Elements which are addressed in more detail in the following sections of this Attachment: (a) local loop, (b) local and tandem switches (including all vertical switching features provided by such switches), (c) interoffice transmission facilities, (d) network interface devices, (e) signaling and call-related database facilities, (f) operations support systems functions, and (g) operator and directory assistance facilities.*<sup>63</sup>
- 1.2.2 **U S WEST shall offer each Network Element individually and in Combinations that are ordinarily combined in U S WEST's network with any other Network Element or Network Elements in order to permit AT&T to combine such Network Element or Network Elements obtained from U S WEST or with network components provided by itself or by third parties to provide Telecommunications Services to its subscribers. AT&T may purchase unbundled Network Elements individually or in Combinations that are ordinarily combined, without restrictions as to how those elements may be rebundled.**<sup>64</sup>

## **2.        Unbundled Network Elements**

<sup>62</sup> Per Order 27236 at 8. Subsection 1.2.1 – 1.2.3 per Sixth Order at p. 3.

<sup>63</sup> Per First Order at 9.

<sup>64</sup> Per First Order at 9; Per Third Order at 9-10.

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- 2.1 *U S WEST shall offer Network Elements to AT&T on an unbundled basis on rates, terms and conditions that are just, reasonable, and non-discriminatory in accordance with the terms and conditions of this Agreement.*
- 2.2 *U S WEST shall permit AT&T to connect AT&T's facilities or facilities provided to AT&T by third parties with each of U S WEST's unbundled Network Elements at any technically feasible point designated by AT&T.*
- 2.3 *AT&T may use one or more Network Elements to provide any feature, function, capability, or service option such Network Element(s) is capable of providing or any feature, function, capability, or service option described in the technical references identified herein, or as may otherwise be determined by AT&T.*
- 2.3.1 *AT&T may, at its option, designate any technically feasible method of access to unbundled Network Elements, including access methods currently or previously in use by U S WEST.*
- 2.4 *Intentionally deleted for numbering consistency.*
- 2.5 *For each Network Element, U S WEST shall provide a demarcation point (e.g., at a Digital Signal Cross Connect, DCS, Light Guide Cross Connect panel or a Main Distribution Frame) and, if necessary, access to the AT&T side of such demarcation point, which AT&T agrees is suitable. **Where U S WEST provides combined Network Elements at AT&T's direction, however, no demarcation point shall exist between such contiguous Network Elements.**<sup>65</sup>*
- 2.6 *[Intentionally left blank for numbering consistency]*
- 2.7 *This Attachment describes the initial set of Network Elements which AT&T and U S WEST have identified as of the Effective Date of this Agreement:*
- *Loop*
  - *Network Interface Device*
  - *Distribution (subject to the BFR)*
  - *Local Switching*
  - *Operator Systems*
  - *Shared Transport*
  - *Common Transport*
  - *Dedicated Transport*
  - *Signaling Link Transport*
  - *Signaling Transfer Points*
  - *Service Control Points/Databases*
  - *Tandem Switching*
  - *911*
  - *Directory Assistance*
- 2.8 *AT&T and U S WEST agree that the Network Elements identified in this Attachment are not all of the possible Network Elements.*

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<sup>65</sup> Per Order 27236 at 8.

2.9 *AT&T may identify additional or revised Network Elements as necessary to provide Telecommunications Services to its subscribers, to improve network or service efficiencies or to accommodate changing technologies, customer demand, or other requirements.*

2.9.1 *AT&T will request such Network Elements in accordance with the Bona Fide Request process described in Part A of this Agreement. Additionally, if U S WEST provides any Network Element that is not identified in this Agreement to itself, to its own subscribers, to a U S WEST Affiliate or to any other Person, U S WEST shall make available the same Network Element to AT&T on terms and conditions no less favorable to AT&T than those provided to itself or to any other party.*

### **3. Standards for Network Elements**

3.1 *Each Network Element shall be furnished at a service level equal to or better than the requirements set forth in the technical references identified herein for each such Network Element, as well as any performance or other requirements, identified in this Attachment, subject to Sections 1.3.1 and 1.3.2 of Part A of this Agreement.*

3.2 *If one or more of the requirements set forth in this Agreement are in conflict, the Parties agree to resolve such conflict in accordance with the dispute resolution provisions of Part A of this Agreement.*

3.2.1 *U S WEST shall provide to AT&T, upon request, engineering, design, performance and other network data sufficient for AT&T to determine that the requirements of this Section 3 are being met. In the event such data indicates that the requirements set forth herein are not being met, U S WEST shall, within ten (10) days, cure any design, performance or other deficiency and provide new data sufficient for AT&T to determine that such deficiencies have been cured.*

3.2.2 *U S WEST agrees to work cooperatively with AT&T to provide Network Elements that will meet AT&T's needs in providing Telecommunications Services to its subscribers.*

3.3 **Unless otherwise requested by AT&T, each Network Element or any Combination thereof and the connections between Network Elements provided by U S WEST to AT&T shall be made available to AT&T at any technically feasible point, that is equal to or better than the manner in which U S WEST provides such Network Elements, Combinations and connections to itself, its own subscribers, to a U S WEST Affiliate or to any other Person.<sup>66</sup>**

### **4. Description of Unbundled Elements**

#### **4.1 Tandem Switching**

*U S WEST will provide a tandem switching element ("Tandem Switching") on an unbundled basis. The tandem switch element includes the facilities connecting the trunk distribution*

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<sup>66</sup> Per Order 27236 at 8.

frames to the switch, and all the functions of the switch itself, including those facilities that establish a temporary transmission path between two (2) other switches. The definition of the tandem switching element also includes the functions centralized in tandems rather than in separate end office switches, such as call recording, the routing of calls to Operator Services, and signaling conversion functions.

**4.1.1 Definition:**

*Tandem Switching is the function that establishes a communications path between two (2) switching offices through a third switching office (the tandem switch) including, but not limited to, those of AT&T, U S WEST, independent telephone companies (ICOs), IXC's and wireless carriers.*

**4.2 Technical Requirements**

4.2.1 *Tandem Switching provided by U S WEST to AT&T shall have the same capabilities or equivalent capabilities as those described in Bell Communications Research TR-TSY-000540 Issue 2R2, Tandem Supplement, June 1, 1990. The requirements for Tandem Switching include, but are not limited to, the following:*

4.2.1.1 *Tandem Switching shall provide signaling to establish a tandem connection;*

4.2.1.2 *Tandem Switching shall provide screening (digit analysis) and routing as designated by AT&T;*

4.2.1.3 *Where technically feasible, Tandem Switching shall provide recording of all billable events designated by AT&T;*

4.2.1.4 *Tandem Switching shall allow passing of Advanced Intelligent Network triggers supporting AIN features;*

4.2.1.5 *Tandem Switching shall provide connectivity to Operator Systems as designated by AT&T;*

4.2.1.6 *Tandem Switching shall provide access to toll free number portability database where AT&T sends such traffic to a tandem;*

4.2.1.7 *Tandem Switching shall allow the passing of all functions associated with traffic for all trunk interconnection discussed under the "Network Interconnection" section of this Agreement (e.g., SS7, MF, DTMF, Dial Pulse, PRI-ISDN, DID, and CAMA-ANI (if appropriate for 911));*

4.2.1.8 *Tandem Switching shall provide connectivity to PSAPs where 911 solutions are deployed and the tandem is used for 911; and*

4.2.1.9 *Tandem Switching shall provide connectivity to Transit Traffic to and from other carriers.*

4.2.2 *Tandem Switching shall accept connections (including the necessary signaling and trunking interconnections) between end offices, other tandems, IXC's, ICO's, CAP's and CLEC switches.*

- 4.2.3 *Tandem Switching shall provide local tandeming functionality between two (2) end offices, including two (2) offices belonging to different CLECs (e.g., between an AT&T end office and the end office of another CLEC).*
- 4.2.4 *Tandem Switching shall preserve CLASS/LASS features and Caller ID as traffic is processed. Additional signaling information and requirements are provided in Section 15 of this Attachment.*
- 4.2.5 *Tandem Switching shall record billable events and send them to the area billing centers designated by AT&T. Billing requirements are specified in Attachment 5 of this Agreement.*
- 4.2.6 *U S WEST shall perform routine testing and fault isolation on the underlying switch providing Tandem Switching and all its Interconnections. When requested by AT&T, the results and reports of the testing shall be made immediately available to AT&T.*
- 4.2.7 *When requested by AT&T, U S WEST shall provide to AT&T for review performance data regarding traffic characteristics or other measurable elements with respect to AT&T traffic.*
- 4.2.8 *Tandem Switching shall control congestion using capabilities such as Automatic Congestion Control and Network Routing Overflow. Congestion control provided or imposed on AT&T traffic shall be at parity with controls being provided or imposed on U S WEST traffic (e.g., U S WEST shall not block AT&T traffic and leave its own traffic unaffected or less affected).*
- 4.2.9 *Tandem Switching shall route calls to U S WEST or AT&T endpoints or platforms (e.g., Operator Services and PSAPs) on a per call basis as designated by AT&T. Detailed primary and overflow routing plans for all interfaces available within the U S WEST switching network shall be mutually agreed to by AT&T and U S WEST. Such plans shall meet AT&T requirements for routing calls through the local network.*
- 4.2.10 *Tandem Switching shall process originating toll free traffic received from an AT&T local switch.*
- 4.2.11 *In support of AIN triggers and features, Tandem Switching shall provide SSP capabilities when these capabilities are not available from the Local Switching Network Element.*
- 4.2.12 *The Local Switching and Tandem Switching functions may be combined in an office. If this is done, both Local Switching and Tandem Switching shall provide all of the functionality required of each of those Network Elements in this Agreement.*

#### **4.3 Interface Requirements**

- 4.3.1 *Tandem Switching shall provide interconnection to the E911 PSAP where the underlying Tandem is acting as the E911 Tandem.*

- 4.3.2 *Tandem Switching shall interconnect, with direct trunks, to all carriers with which U S WEST interconnects.*
- 4.3.3 *U S WEST shall provide all signaling necessary to provide Tandem Switching with no loss of feature functionality.*
- 4.3.4 *For applicable call types, Tandem Switching shall interconnect with AT&T's switch, using two-way trunks, for traffic that is transiting via the U S WEST network to interLATA or intraLATA carriers. At AT&T's request, Tandem Switching shall record and keep records of traffic for billing.*
- 4.3.5 *At AT&T's request, Tandem Switching shall provide overflow routing of traffic from a given trunk group or groups onto another trunk group or groups according to the methodology employed by U S WEST as designated by AT&T.*
- 4.4 *Tandem Switching shall meet or exceed each of the requirements for Tandem Switching set forth in the following technical references:*
  - 4.4.1 *Bell Communications Research TR-TSY-000540 Issue 2R2, Tandem Supplement, June 1, 1990;*
  - 4.4.2 *GR-905-CORE covering CCSNIS;*
  - 4.4.3 *GR-1429-CORE for call management features; and*
  - 4.4.4 *GR-2863-CORE and GR-2902-CORE for CCS AIN interconnection.*

## **5. Shared Transport<sup>67</sup>**

- 5.1 **U S WEST will provide unbundled access to U S WEST transmission facilities between end offices, end offices and the tandem switch, and the tandem switch and end offices for completing local calls. Such transmission facilities would be shared with U S WEST and, as applicable, with other CLECs. Transport routing shall be on an identical basis as routing is performed by U S WEST, providing the same efficiencies that U S WEST employs for itself. Costs will be allocated appropriately based upon the transmission path taken by each call. Shared transport shall meet the technical specifications as itemized below for Common Transport.**
- 5.2 **Interim and permanent pricing of shared transport shall be as determined pursuant to Section 8.2 of Attachment 1 to this Agreement.**

## **6. Common Transport**

### **6.1 Definition**

*Common Transport is an interoffice transmission path between U S WEST Network Elements shared by carriers. Where U S WEST Network Elements are connected by intra-office wiring, such wiring is provided as a part of the Network Elements and is not Common*

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<sup>67</sup> Per Third Order at 10-12; Per Order 27236 at 8-10.

*Transport. U S WEST shall offer Common Transport as of the Effective Date of this Agreement, at DS-0, DS-1, DS-3, STS-1 or higher transmission bit rate circuits. Common Transport consists of U S WEST inter-office transport facilities and is distinct and separate from local switching.*

## **6.2 Technical Requirements**

- 6.2.1 *U S WEST shall be responsible for the engineering, provisioning, and maintenance of the underlying equipment and facilities used to provide Common Transport.*
- 6.2.2 *In accordance with Sections 1.3.1 and 1.3.2 of Part A of this Agreement, at a minimum, Common Transport shall meet all of the requirements set forth in the following technical references, as applicable for the transport technology being used:*
  - 6.2.2.1 *ANSI T1.101-1994, American National Standard for Telecommunications-Synchronization Interface Standard Performance and Availability;*
  - 6.2.2.2 *ANSI T1.102-1993, American National Standard for Telecommunications - Digital Hierarchy - Electrical Interfaces;*
  - 6.2.2.3 *ANSI T1.102.01-199x, American National Standard for Telecommunications - Digital Hierarchy - VT1.5;*
  - 6.2.2.4 *ANSI T1.105-1995, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Basic Description including Multiplex Structure, Rates and Formats;*
  - 6.2.2.5 *ANSI T1.105.01-1995, American National Standard for Telecommunications - Synchronous Optical Network (SONET) Automatic Protection Switching;*
  - 6.2.2.6 *ANSI T1.105.02-1995, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Payload Mappings;*
  - 6.2.2.7 *ANSI T1.105.03-1994, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Jitter at Network Interfaces;*
  - 6.2.2.8 *ANSI T1.105.03a-1995, American National Standard for Telecommunications - Synchronous Optical Network (SONET)-Jitter at Network Interfaces - DS-1 Supplement;*
  - 6.2.2.9 *ANSI T1.105.05-1994, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Tandem Connection;*

- 6.2.2.10 ANSI T1.105.06-199x, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Physical Layer Specifications;
- 6.2.2.11 ANSI T1.105.07-199x, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Sub STS-1 Interface Rates and Formats;
- 6.2.2.12 ANSI T1.105.09-199x, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Network Element Timing and Synchronization;
- 6.2.2.13 ANSI T1.106-1988, American National Standard for Telecommunications - Digital Hierarchy - Optical Interface Specifications (Single Mode);
- 6.2.2.14 ANSI T1.107-1988, American National Standard for Telecommunications - Digital Hierarchy - Formats Specifications;
- 6.2.2.15 ANSI T1.107a-1990, American National Standard for Telecommunications - Digital Hierarchy - Supplement to Formats Specifications (DS3 Format Applications);
- 6.2.2.16 ANSI T1.107b-1991, American National Standard for Telecommunications - Digital Hierarchy - Supplement to Formats Specifications;
- 6.2.2.17 ANSI T1.117-1991, American National Standard for Telecommunications - Digital Hierarchy - Optical Interface Specifications (SONET) (Single Mode - Short Reach);
- 6.2.2.18 ANSI T1.403-1989, Carrier to Subscriber Installation, DS-1 Metallic Interface Specification;
- 6.2.2.19 ANSI T1.404-1994, Network-to-Subscriber Installation - DS-3 Metallic Interface Specification;
- 6.2.2.20 ITU Recommendation G.707, Network node interface for the synchronous digital hierarchy (SDH);
- 6.2.2.21 ITU Recommendation G.704, Synchronous frame structures used at 1544, 6312, 2048, 8488 and 44736 kbit/s hierarchical levels;
- 6.2.2.22 Bellcore FR-440 and TR-NWT-000499, Transport Systems Generic Requirements (TSGR): Common Requirements;
- 6.2.2.23 Bellcore GR-820-CORE, Generic Transmission Surveillance: DS-1 & DS-3 Performance;
- 6.2.2.24 Bellcore GR-253-CORE, Synchronous Optical Network Systems (SONET); Common Generic Criteria;

- 6.2.2.25 *Bellcore TR-NWT 000507, Transmission, Section 7, Issue 5 (Bellcore, December 1993) (A module of LSSGR, FR-NWT-000064.);*
- 6.2.2.26 *Bellcore TR-NWT-000776, Network Interface Description for ISDN Subscriber Access;*
- 6.2.2.27 *Bellcore TR-INS-000342, High-Capacity Digital Special Access Service-Transmission Parameter Limits and Interface Combinations, Issue 1, February 1991;*
- 6.2.2.28 *Bellcore ST-TEC-000052, Telecommunications Transmission Engineering Textbook, Volume 2: Facilities, Third Edition, Issue 1, May 1989;and*
- 6.2.2.29 *Bellcore ST-TEC-000051, Telecommunications Transmission Engineering Textbook Volume 1: Principles, Third Edition, Issue 1, August 1989.*

## **7. Dedicated Transport**

### **7.1 Definition:**

- 7.1.1 *Dedicated Transport is an interoffice transmission path between AT&T designated locations to which AT&T is granted exclusive use. Such locations may include U S WEST central offices or other locations, AT&T network components, other carrier network components, or subscriber premises.*
- 7.1.2 *U S WEST shall offer Dedicated Transport in each of the following manners:*
  - 7.1.2.1 *as capacity on a shared facility;*
  - 7.1.2.2 *as a circuit (e.g., DS-1, DS-3, STS-1) dedicated to AT&T; and*
  - 7.1.2.3 *as a system (i.e., the equipment and facilities used to provide Dedicated Transport such as SONET ring) dedicated to AT&T.*
- 7.1.3 *When Dedicated Transport is provided as a circuit or as capacity on a shared facility, it shall include, as appropriate:*
  - 7.1.3.1 *multiplexing functionality;*
  - 7.1.3.2 *grooming functionality; and,*
  - 7.1.3.3 *redundant equipment and facilities necessary to support protection and restoration.*
- 7.1.4 *When Dedicated Transport is provided as a system, it shall include:*
  - 7.1.4.1 *transmission equipment such as multiplexers, line terminating equipment, amplifiers, and regenerators;*

7.1.4.2 *inter-office transmission facilities such as optical fiber, copper twisted pair, and coaxial cable;*

7.1.4.3 *redundant equipment and facilities necessary to support protection and restoration; and*

7.1.4.4 *access to the Digital Cross-Connect System ("DCS") functionality as an option in the same manner provided to IXCs that purchase transport services. DCS is described below in Section 7.5 of this Attachment.*

## **7.2 Technical Requirements**

*This Section sets forth technical requirements for all Dedicated Transport.*

7.2.1 *When U S WEST provides Dedicated Transport as a circuit or a system, the entire designated transmission circuit or system (e.g., DS-1, DS-3, STS-1) shall be dedicated to AT&T designated traffic.*

7.2.2 *U S WEST shall offer Dedicated Transport using currently available technologies including, but not limited to, DS-1 and DS-3 transport systems, SONET Bi-directional Line Switched Rings, SONET Unidirectional Path Switched Rings, and SONET point-to-point transport systems (including linear add-drop systems), at all available transmission bit rates.*

7.2.3 *When requested by AT&T, Dedicated Transport shall provide physical diversity. Physical diversity means that two (2) circuits are provisioned in such a way that no single failure of facilities or equipment will cause a failure on both circuits.*

7.2.4 *When physical diversity is requested by AT&T, U S WEST shall provide the maximum feasible physical separation between transmission paths for all facilities and equipment unless otherwise agreed to by AT&T.*

7.2.5 *Upon AT&T's written request and where available in the U S WEST network, U S WEST shall provide real time and continuous remote access to performance monitoring and alarm data affecting, or potentially affecting, AT&T's traffic.*

7.2.6 *U S WEST shall offer the following interface transmission rates for Dedicated Transport:*

7.2.6.1 *DS-1 (Extended SuperFrame - ESF/B8ZS, D4, and unframed applications shall be provided, except for those local/EAS tandems as designated by U S WEST);*

7.2.6.2 *DS-3 (C-bit Parity, M13, and unframed applications shall be provided);*

7.2.6.3 *SONET standard interface rates in accordance with ANSI T1.105 and ANSI T1.105.07 and physical interfaces per ANSI T1.106.06, including referenced interfaces. In particular, VT1.5 based STS-1s will be the interface at an AT&T service node; and*

- 7.2.6.4 *where available, SONET standard interface rates in accordance with International Telecommunications Union ("ITU") Recommendation G.707 and Plesiochronous Digital Hierarchy (PDH) rates per ITU Recommendation G.704.*
- 7.2.7 *U S WEST shall provide intraoffice wiring up to a suitable Point of Termination ("POT") between Dedicated Transport and AT&T designated equipment. U S WEST shall provide the following equipment for the physical POT:*
- 7.2.7.1 *DSX1 or DCS for DS-1s or VT1.5s;*
- 7.2.7.2 *DSX3 or DCS for DS-3s or STS-1s; and*
- 7.2.7.3 *Light guide cross-connect for optical signals (e.g., OC-3 and OC-12).*
- 7.2.8 *For Dedicated Transport provided as a system, U S WEST shall design the system including, but not limited to, facility routing and termination points, according to AT&T specifications.*
- 7.2.9 *Upon AT&T's request and where available, U S WEST shall provide AT&T with electronic provisioning control, of AT&T specified Dedicated Transport via Command-A-Link or equivalent interface in the same manner as is provided to IXCs.*
- 7.2.10 *U S WEST shall offer Dedicated Transport together with and separately from DCS.*

**7.3 Technical Requirements for Dedicated Transport Using SONET Technology.**  
*This Section sets forth additional technical requirements for Dedicated Transport using SONET technology including rings, point-to-point systems, and linear add-drop systems.*

- 7.3.1 *All SONET Dedicated Transport provided as a system shall:*
- 7.3.1.1 *be synchronized with a primary Stratum 1 level timing source;*
- 7.3.1.2 *provide SONET standard interfaces as available in the U S WEST network and consistent with generally accepted industry standards which properly interwork with SONET standard equipment from other vendors, including, but not limited to, SONET standard section, line and path performance monitoring, maintenance signals, alarms, and data channels;*
- 7.3.1.3 *provide Data Communications Channel ("DCC") or equivalent connectivity through the SONET transport system. Dedicated Transport provided over a SONET transport system shall be capable of routing DCC messages between AT&T and SONET network components connected to the Dedicated Transport. For example, if AT&T leases a SONET ring from U S WEST, that ring shall support DCC message routing between AT&T and SONET network components connected to the ring; and*
- 7.3.1.4 *support the following performance requirements for each circuit (STS-1, DS-1, DS-3, etc.):*

7.3.1.4.1 *no more than ten (10) Errored Seconds Per Day (Errored Seconds are defined in the technical reference at Section 7.4.5); and*

7.3.1.4.2 *no more than one (1) Severely Errored Second Per Day (Severely Errored Seconds are defined in the technical reference at Section 7.4.5).*

7.3.2 *SONET rings shall:*

7.3.2.1 *be provisioned on physically diverse fiber optic cables (including separate building entrances where available). "Diversely routed" shall be interpreted as the maximum feasible physical separation between transmission paths, unless otherwise agreed to by AT&T;*

7.3.2.2 *support dual ring interworking per SONET Standards where available in the U S WEST network;*

7.3.2.3 *provide the necessary redundancy in optics, electronics, and transmission paths such that no single failure will cause a service interruption;*

7.3.2.4 *where available, provide the ability to disable ring protection switching at AT&T's direction (selective protection lock-out). This requirement applies to line switched rings only;*

7.3.2.5 *where available, provide the ability to use the protection channels to carry extra traffic. This requirement applies to line switched rings only;*

7.3.2.6 *provide 50 millisecond restoration as defined in SONET standards;*

7.3.2.7 *where available, have settable ring protection switching thresholds that shall be set in accordance with AT&T's specifications;*

7.3.2.8 *where available, provide revertive protection switching with a settable wait to restore delay with a default setting of five (5) minutes. This requirement applies to line switched rings only;*

7.3.2.9 *provide non-revertive protection switching. This requirement applies to path switched rings only; and*

7.3.2.10 *adhere to the following availability requirements, where availability is defined in the technical reference set forth in Section 7.4.5:*

7.3.2.10.1 *no more than 0.25 minutes of unavailability per month; and*

7.3.2.10.2 *no more than 0.5 minutes of unavailability per year.*

7.4 *In accordance with Sections 1.3.1 and 1.3.2 of Part A of this Agreement, at a minimum, Dedicated Transport shall meet each of the requirements set forth in Section 7.2.3 of this Attachment and in the following technical references:*

- 7.4.1 *ANSI T1.105.04-1995, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Data Communication Channel Protocols and Architectures;*
- 7.4.2 *ANSI T1.119-1994, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Operations, Administration, Maintenance, and Provisioning (OAM&P) Communications;*
- 7.4.3 *ANSI T1.119.01-1995, American National Standard for Telecommunications - Synchronous Optical Network (SONET) Operations, Administration, Maintenance, and Provisioning (OAM&P) Communications Protection Switching Fragment;*
- 7.4.4 *ANSI T1.119.02-199x, American National Standard for Telecommunications - Synchronous Optical Network (SONET) Operations, Administration, Maintenance, and Provisioning (OAM&P) Communications Performance Monitoring Fragment; and*
- 7.4.5 *ANSI T1.231-1993 -American National Standard for Telecommunications - Digital Hierarchy - Layer 1 In-Service Digital Transmission Performance Monitoring.*

## **7.5 Digital Cross-Connect System**

### **7.5.1 Definition**

- 7.5.1.1 *Digital Cross-Connect System ("DCS") is a function which provides automated cross connection of Digital Signal level 0 (DS-0) or higher transmission bit rate digital channels within physical interface facilities. Types of DCSs include, but are not limited to, DCS 1/0s, DCS 3/1s, and DCS 3/3s, where the nomenclature 1/0 denotes interfaces typically at the DS-1 rate or greater with cross-connection typically at the DS-0 rate. This same nomenclature, at the appropriate rate substitution, extends to the other types of DCSs specifically cited as 3/1 and 3/3. Types of DCSs that cross-connect Synchronous Transport Signal level 1 (STS-1) or other Synchronous Optical Network (SONET) signals (e.g., STS-3) are also DCSs, although not denoted by this same type of nomenclature. DCS may provide the functionality of more than one of the aforementioned DCS types (e.g., DCS 3/3/1 which combines functionality of DCS 3/3 and DCS 3/1). For such DCSs, the requirements will be, at least, the aggregation of requirements on the "component" DCSs.*
- 7.5.1.2 *In locations where automated cross connection capability does not exist, a Digital Signal Cross-Connect ("DSX") or light guide cross-connect patch panels and D4 channel banks or other DS-0 and above multiplexing equipment used to provide the function of a manual cross connection will be made available.*
- 7.5.1.3 *Interconnection between a DSX or light guide cross-connect, to a switch, another cross-connect, or other service platform device, is included as part of DCS.*

## **7.6 DCS Technical Requirements**

- 7.6.1 *DCS shall provide completed end-to-end cross connection of the channels designated by AT&T.*
- 7.6.2 *DCS shall perform facility grooming, multipoint bridging, one-way broadcast, two-way broadcast, and facility test functions, where technically feasible.*
- 7.6.3 *DCS shall provide multiplexing, format conversion, signaling conversion, or other functions, where technically feasible.*
- 7.6.4 *The end-to-end cross connection shall be input to the underlying device used to provide DCS from an operator at a terminal or via an intermediate system. The cross connection assignment shall remain in effect whether or not the circuit is in use.*
- 7.6.5 *U S WEST shall administer and maintain DCS.*
- 7.6.6 *Where available, U S WEST shall provide various types of DCSs, including:*
  - 7.6.6.1 *DS-0 cross-connects (typically termed DCS 1/0);*
  - 7.6.6.2 *DS1/VT1.5 (Virtual Tributaries at the 1.5Mbps rate) cross-connects (typically termed DCS 3/1);*
  - 7.6.6.3 *DS-3 cross-connects (typically termed DCS 3/3);*
  - 7.6.6.4 *STS-1 cross-connects; and*
  - 7.6.6.5 *other technically feasible cross-connects designated by AT&T.*
- 7.6.7 *U S WEST shall provide immediate and continuous configuration and reconfiguration of the channels between the physical interfaces (i.e., U S WEST shall establish the processes to implement cross connects on demand), where available, based on engineering forecasts.*
- 7.6.8 *U S WEST shall provide scheduled configuration and reconfiguration of the channels between the physical interfaces (i.e., U S WEST shall establish the processes to implement cross connects on the schedule designated by AT&T) or, at AT&T's option, permit AT&T to control such configurations and reconfigurations, where available, based on engineering forecasts.*
- 7.6.9 *DCS shall continuously monitor protected circuit packs and redundant common equipment.*
- 7.6.10 *DCS shall automatically switch to a protection circuit pack on detection of a failure or degradation of normal operation.*
- 7.6.11 *DCS equipment shall be equipped with a redundant power supply or a battery back-up.*
- 7.6.12 *U S WEST shall have available and utilize spare maintenance facilities and equipment necessary for provisioning repairs.*

- 7.6.13 *At AT&T's option, U S WEST shall provide, where available, AT&T with real time performance monitoring and alarm data on the signals and the components of the underlying equipment used to provide DCS that actually impact or might impact AT&T's services. For example, this may include hardware alarm data and facility alarm data on a DS-3 in which an AT&T DS-1 is traversing.*
- 7.6.14 *At AT&T's option, U S WEST shall provide AT&T with real time ability to initiate tests on integrated equipment used to test the signals and the underlying equipment used to provide DCS, as well as other integrated functionality for routine testing and fault isolation where available.*
- 7.6.15 *Where available, DCS shall provide SONET to asynchronous gateway functionality (e.g., STS-1 to DS-1 or STS-1 to DS-3).*
- 7.6.16 *Where available, DCS shall perform optical to electrical conversion where the underlying equipment used to provide DCS contains optical interfaces or terminations (e.g., Optical Carrier level 3, i.e., OC-3, interfaces on a DCS 3/1).*
- 7.6.17 *Where available, DCS shall have SONET ring terminal functionality where the underlying equipment used to provide DCS acts as a terminal on a SONET ring.*
- 7.6.18 *DCS shall provide multipoint bridging of multiple channels to other DCSs. AT&T may designate multipoint bridging to be one-way broadcast from a single master to multiple tributaries, or two-way broadcast between a single master and multiple tributaries.*
- 7.6.19 *DCS shall multiplex lower speed channels onto a higher speed interface and demultiplex higher speed channels onto lower speed interfaces as designated by AT&T.*

#### **7.7 DCS Interface Requirements**

- 7.7.1 *U S WEST shall provide physical interfaces on DS-0, DS-1, and VT1.5 channel cross-connect devices at the DS-1 rate or higher. In all such cases, these interfaces shall be in compliance with applicable Bellcore, ANSI, ITU, and AT&T standards.*
- 7.7.2 *U S WEST shall provide physical interfaces on DS-3 channel cross-connect devices at the DS-3 rate or higher. In all such cases, these interfaces shall be in compliance with applicable Bellcore, ANSI, ITU, and AT&T standards.*
- 7.7.3 *U S WEST shall provide physical interfaces on STS-1 cross-connect devices at the OC-3 rate or higher. In all such cases, these interfaces shall be in compliance with applicable Bellcore, ANSI, ITU, and AT&T standards.*
- 7.7.4 *Interfaces on all other cross-connect devices shall be in compliance with applicable Bellcore, ANSI, ITU, and AT&T standards.*

- 7.8 *In accordance with Sections 1.3.1 and 1.3.2 of Part A of this Agreement, DCS shall, at a minimum, meet all the requirements set forth in the following technical references:*

- 7.8.1 *ANSI T1.102-1993, American National Standard for Telecommunications - Digital Hierarchy - Electrical Interfaces;*
- 7.8.2 *ANSI T1.102.01-199x, American National Standard for Telecommunications - Digital Hierarchy - VT1.5;*
- 7.8.3 *ANSI T1.105-1995, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Basic Description including Multiplex Structure, Rates and Formats;*
- 7.8.4 *ANSI T1.105.03-1994, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Jitter at Network Interfaces;*
- 7.8.5 *ANSI T1.105.03a-1995, American National Standard for Telecommunications - Synchronous Optical Network (SONET); Jitter at Network Interfaces - DS-1 Supplement;*
- 7.8.6 *ANSI T1.105.06-199x, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Physical Layer Specifications;*
- 7.8.7 *ANSI T1.106-1988, American National Standard for Telecommunications - Digital Hierarchy - Optical Interface Specifications (Single Mode);*
- 7.8.8 *ANSI T1.107-1988, American National Standard for Telecommunications - Digital Hierarchy - Formats Specifications;*
- 7.8.9 *ANSI T1.107a-1990, American National Standard for Telecommunications - Digital Hierarchy - Supplement to Formats Specifications (DS-3 Format Applications);*
- 7.8.10 *ANSI T1.107b-1991, American National Standard for Telecommunications - Digital Hierarchy - Supplement to Formats Specifications;*
- 7.8.11 *ANSI T1.117-1991, American National Standard for Telecommunications - Digital Hierarchy - Optical Interface Specifications (SONET) (Single Mode - Short Reach);*
- 7.8.12 *ANSI T1.403-1989, Carrier to Subscriber Installation, DS-1 Metallic Interface Specification;*
- 7.8.13 *ANSI T1.404-1994, Network-to-Subscriber Installation - DS-3 Metallic Interface Specification;*
- 7.8.14 *ITU Recommendation G.707, Network node interface for the synchronous digital hierarchy (SDH);*
- 7.8.15 *ITU Recommendation G.704, Synchronous frame structures used at 1544, 6312, 2048, 8488 and 44736 kbit/s hierarchical levels;*
- 7.8.16 *FR-440 and TR-NWT-000499, Transport Systems Generic Requirements (TSGR): Common Requirements;*

7.8.17 GR-820-CORE, *Generic Transmission Surveillance: DS1 & DS3 Performance*;

7.8.18 GR-253-CORE, *Synchronous Optical Network Systems (SONET): Common Generic Criteria*; and

7.8.19 TR-NWT-000776, *Network Interface Description for ISDN Subscriber Access*.

## 8. Loop

### 8.1 Definition

8.1.1 A Loop is a transmission facility between a distribution frame, or its equivalent, in a U S WEST central office or wire center, and the Network Interface Device (as defined herein) or network interface at a subscriber's premises, to which AT&T are granted exclusive use. This includes, but is not limited to, two-wire and four-wire analog voice-grade loops, and two-wire and four-wire loops that are conditioned to transmit the digital signals needed to provide ISDN, ADSL, HDSL, and DS-1 level signals. A Loop may be composed of the following components:

#### 7.1.1 Loop Concentrator/Multiplexer

- Loop Feeder
- Network Interface Device (NID)
- Distribution

8.1.1.1 AT&T may purchase Loop and NID on an unbundled basis. **AT&T shall use the Bona Fide Request process set forth in Part A of this Agreement to request unbundling of Loop Concentrator/Multiplexer, Loop Feeder and Distribution.**<sup>68</sup>

8.1.2 If U S WEST uses Integrated Digital Loop Carrier ("DLCs") systems to provide the local Loop, U S WEST will make alternate arrangements, equal in quality, to permit AT&T to order a contiguous unbundled local Loop. These arrangements may, at U S WEST's option, include the following: providing AT&T with copper facilities or universal DLC that meet established technical parameters, deploying Virtual Remote Terminals, allowing AT&T to purchase the entire Integrated DLC, or converting integrated DLCs to non-integrated systems.

8.1.3 U S WEST shall provide the BRI U interface using 2-wire copper loops in accordance with TR-NWT-000393, January 1991, *Generic Requirements for ISDN Basic Access Digital Subscriber Lines*.

### 8.2 Technical Requirements

Subdivided to each component as detailed below.

### 8.3 Interface Requirements

Subdivided to each component as detailed below.

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<sup>68</sup> Per First Order at 8.

## 8.4 Loop Components

### 8.4.1 Loop Concentrator/Multiplexer

#### 8.4.1.1 Definition:

8.4.1.1.1 The Loop Concentrator/Multiplexer is the Network Element that:

(a) aggregates lower bit rate or bandwidth signals to higher bit rate or bandwidth signals (multiplexing); (b) disaggregates higher bit rate or bandwidth signals to lower bit rate or bandwidth signals (demultiplexing); (c) aggregates a specified number of signals or channels to fewer channels (concentrating); (d) performs signal conversion, including encoding of signals (e.g., analog to digital and digital to analog signal conversion); and (e) in some instances performs electrical to optical (E/O) conversion.

8.4.1.1.2 The Loop Concentrator/Multiplexer function may be provided through a DLC system, channel bank, multiplexer or other equipment at which traffic is encoded and decoded, multiplexed and demultiplexed, or concentrated.

#### 8.4.1.2 Technical Requirements

8.4.1.2.1 The Loop Concentrator/Multiplexer shall be capable of performing its functions on the signals for the following services, as needed by AT&T to provide end-to-end service capability to its subscriber, including, but not limited to:

8.4.1.2.1.1 two-wire & four-wire analog voice grade loops;

8.4.1.2.1.2 two-wire & four-wire loops conditioned to transmit the digital signals needed to provide digital services;

8.4.1.2.1.3 4-wire digital data (2.4Kbps through 64Kbps and "n" times 64Kbps (where  $n < 24$ );

8.4.1.2.1.4 DS-3 rate private lines where available; and

8.4.1.2.1.5 Optical SONET rate private lines where available.

8.4.1.2.2 The Loop Concentrator/Multiplexer shall perform the following functions as appropriate:

8.4.1.2.2.1 analog to digital signal conversion of both incoming and outgoing (upstream and downstream) analog signals;

8.4.1.2.2.2 multiplexing of the individual digital signals up to higher transmission bit rate signals (e.g., DS-0, DS-1, DS-3, or optical SONET rates) for

transport to the U S WEST central office through the Loop Feeder; and

8.4.1.2.2.3 concentration of end-user subscriber signals onto fewer channels of a Loop Feeder (when available the concentration ratio shall be as specified from time to time by AT&T).

8.4.1.2.2.4 Concentration ratios shall not impair analog or digital performance.

8.4.1.2.3. AT&T may request U S WEST to provide power for the Loop Concentrator/Multiplexer through a non-interruptible source, if the function is per

8.4.1.2.4 In accordance with Sections 1.3.1 and 1.3.2 of Part A of this Agreement, the Loop Concentrator/Multiplexer shall be provided to AT&T in accordance with the following Technical References:

8.4.1.2.4.1 Bellcore TR-NWT-000057, Functional Criteria for Digital Loop Carrier Systems, Issue 2, January 1993;

8.4.1.2.4.2 Bellcore TR-NWT-000393, Generic Requirements for ISDN Basic Access Digital Subscriber Lines;

8.4.1.2.4.3 T1.106 - 1988, American National Standard for Telecommunications - Digital Hierarchy - Optical Interface Specifications (Single Mode);

8.4.1.2.4.4 ANSI T1.105-1995, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Basic Description including Multiplex Structure, Rates and Formats;

8.4.1.2.4.5 ANSI T1.102-1993, American National Standard for Telecommunications - Digital Hierarchy - Electrical Interfaces;

8.4.1.2.4.6 ANSI T1.403-1989, American National Standard for Telecommunications - Carrier to Subscriber Installation, DS-1 Metallic Interface Specification;

8.4.1.2.4.7 Bellcore GR-253-CORE, Synchronous Optical Network Systems (SONET), Common Generic Criteria;

8.4.1.2.4.8 Bellcore TR-TSY-000008, Digital Interface Between the SLC 96 Digital Loop Carrier

*System and a Local Digital Switch, Issue 2, August 1987;*

8.4.1.2.4.9 *Bellcore TR-NWT-000303, Integrated Digital Loop Carrier System Generic Requirements, Objectives and Interface, Issue 2, December 1992; Rev. 1, December 1993; Supplement 1, December 1993;*

8.4.1.2.4.10 *Bellcore TR-TSY-000673, Operations Systems Interface for an IDLC System, (LSSGR) FSD 20-02-2100, Issue 1, September 1989; and*

8.4.1.2.4.11 *Bellcore Integrated Digital Loop Carrier System Generic Requirements, Objectives and Interface, GR-303-CORE, Issue 1, September 1995.*

**8.4.1.3 Requirements for an Intelligent Loop Concentrator/ Multiplexer:**

8.4.1.3.1 *In addition to the basic functions described above for the Loop Concentrator/Multiplexer, the Intelligent Loop Concentrator/Multiplexer ("IC/M") shall provide facility grooming, facility test functions, format conversion and signaling conversion, as appropriate.*

8.4.1.3.2 *The underlying equipment that provides such IC/M function shall continuously monitor protected circuit packs and redundant common equipment.*

8.4.1.3.3 *The underlying equipment that provides such IC/M function shall automatically switch to a protection circuit pack on detection of a failure or degradation of normal operation.*

8.4.1.3.4 *The underlying equipment that provides such IC/M function shall be equipped with a redundant power supply or a battery back-up.*

8.4.1.3.5 *AT&T may request U S WEST to provide AT&T with real time performance monitoring and alarm data on IC/M elements that may affect AT&T's traffic. This includes IC/M hardware alarm data and facility alarm data on the underlying device that provides such IC/M function.*

8.4.1.3.6 *AT&T may request U S WEST to provide AT&T with real time ability to initiate tests on the underlying device that provides such IC/M function integrated test equipment as well as other integrated functionality for routine testing and fault isolation.*

**8.4.1.4 Interface Requirements**

- 8.4.1.4.1 *The Loop Concentrator/Multiplexer shall meet the following interface requirements, as appropriate for the configuration that AT&T designates:*
- 8.4.1.4.2 *The Loop Concentrator/Multiplexer shall provide an analog voice frequency copper twisted pair interface at the serving wire center.*
- 8.4.1.4.3 *The Loop Concentrator/Multiplexer shall provide digital 4-wire electrical interfaces at the serving wire center.*
- 8.4.1.4.4 *The Loop Concentrator/Multiplexer shall provide optical SONET interfaces at rates of O1.C-3, OC-12, OC-48, and OC-N.*
- 8.4.1.4.5 *The Loop Concentrator/Multiplexer shall provide the Bellcore TR-303 DS-1 level interface at the serving wire center. Loop Concentrator/Multiplexer shall provide Bellcore TR-08 modes 1&2 DS1 interfaces when designated by AT&T.*
- 8.4.1.4.6 *The Intelligent Loop Concentrator/Multiplexer shall be provided to AT&T in accordance with the Technical References set forth in Sections 8.4.1.2.4.8 through 8.4.1.2.4.11, above.*

#### 8.4.2 Loop Feeder

##### 8.4.2.1 Definition:

- 8.4.2.1.1 *The Loop Feeder is the Network Element that provides connectivity between (a) a Feeder Distribution Interface (FDI) associated with Loop Distribution and a termination point appropriate for the media in a central office, or (b) a Loop Concentrator/Multiplexer provided in a remote terminal and a termination point appropriate for the media in a central office.*
- 8.4.2.1.2 *Pursuant to a Bona Fide Request for unbundled feeder or distribution, U S WEST shall provide AT&T physical access to the FDI and the right to connect the Loop Feeder to the FDI.*
- 8.4.2.1.3 *Intentionally deleted for numbering consistency.*
- 8.4.2.1.4 *The physical medium of the Loop Feeder may be copper twisted pair, or single or multi-mode fiber or other technologies as designated by AT&T. In certain cases, AT&T will require a copper twisted pair loop even in instances where the medium of the Loop Feeder for services that U S WEST offers is other than a copper facility. Special construction charges may apply if no copper twisted pair facilities are available.*

##### 8.4.2.2 Requirements for Loop Feeder

8.4.2.2.1 *The Loop Feeder shall be capable of transmitting analog voice frequency, basic rate ISDN, digital data, or, where available in the network, analog radio frequency signals, as appropriate.*

8.4.2.2.2 *U S WEST shall provide appropriate power for all active elements in the Loop Feeder. U S WEST will provide appropriate power from a central office source, or from a commercial AC source with rectifiers for AC to DC conversion and 8-hour battery back-up when the equipment is located in an outside plant Remote Terminal ("RT").*

8.4.2.3 *Additional Requirements for Special Copper Loop Feeder Medium*

*In addition to the requirements set forth above, AT&T may require U S WEST to provide copper twisted pair Loop Feeder unfettered by any intervening equipment (e.g., filters, load coils, and range extenders), so that AT&T can use these Loop Feeders for a variety of services by attaching appropriate terminal equipment at the ends.*

8.4.2.4 *Additional Technical Requirements for DS-1 Conditioned Loop Feeder*

*In addition to the requirements set forth above, AT&T may designate that the Loop Feeder be conditioned to transport a DS-1 signal. The requirements for such transport are defined in the references below in Section 8.4.2.6.*

8.4.2.5 *Additional Technical Requirements for Optical Loop Feeder*

*In addition to the requirements set forth above, AT&T may designate that Loop Feeder will transport DS-3 and OC-n (where "n" is defined in the technical reference in Section 8.4.1.2.4.4). The requirements for such transport are defined in the references below in Section 8.4.2.6.*

8.4.2.6 *In accordance with Sections 1.3.1 and 1.3.2 of Part A of this Agreement, U S WEST shall offer Loop Feeder in compliance with the requirements set forth in the following Technical References:*

8.4.2.6.1 *Bellcore Technical Requirement TR-NWT-000499, Issue 5, December 1993, section 7 for DS-1 interfaces;*

8.4.2.6.2 *Bellcore TR-NWT-000057, Functional Criteria for Digital Loop Carrier Systems, Issue 2, January 1993;*

8.4.2.6.3 *Bellcore TR-NWT-000393, Generic Requirements for ISDN Basic Access Digital Subscriber Lines;*

8.4.2.6.4 *ANSI T1.106-1988, American National Standard for Telecommunications - Digital Hierarchy - Optical Interface Specifications (Single Mode);*

8.4.2.6.5 *ANSI T1.105-1995, American National Standard for Telecommunications - Synchronous Optical Network (SONET) - Basic Description including Multiplex Structure, Rates and Formats;*

- 8.4.2.6.6 *ANSI T1.102-1993, American National Standard for Telecommunications - Digital Hierarchy - Electrical Interfaces;*
- 8.4.2.6.7 *ANSI T1.403-1989, American National Standard for Telecommunications - Carrier to Subscriber Installation, DS-1 Metallic Interface Specification; and*
- 8.4.2.6.8 *Bellcore GR-253-CORE, Synchronous Optical Network Systems (SONET), Common Generic Criteria.*

#### 8.4.2.7 *Interface Requirements*

8.4.2.7.1 *The Loop Feeder point of termination (POT) within a U S WEST central office will be as follows:*

8.4.2.7.1.1 *Copper twisted pairs shall terminate on the MDF;*

8.4.2.7.1.2 *DS-1 Loop Feeder shall terminate on a DSX1, DCS1/0 or DCS3/1; and*

8.4.2.7.1.3 *Fiber optic cable shall terminate on a light guide termination panel or equivalent.*

8.4.2.7.2 *In accordance with Sections 1.3.1 and 1.3.2 of Part A of this Agreement, Loop Feeder shall be equal to or better than each of the applicable interface requirements set forth in the following technical references:*

8.4.2.7.2.1 *Bellcore TR-TSY-000008, Digital Interface Between the SLC 96 Digital Loop Carrier System and a Local Digital Switch, Issue 2, August 1987;*

8.4.2.7.2.2 *Bellcore TR-NWT-000303, Integrated Digital Loop Carrier System Generic Requirements, Objectives and Interface, Issue 2, December 1992; Rev. 1, December 1993; Supplement 1, December 1993; and*

8.4.2.7.2.3 *Bellcore Integrated Digital Loop Carrier System Generic Requirements, Objectives and Interface, GR-303-CORE, Issue 1, September 1995.*

## 9. **Distribution**

### 9.1 **Definition:**

- 9.1.1 *Distribution provides connectivity between the NID component of Loop Distribution and the terminal block on the subscriber-side of an FDI. The FDI is a device that terminates the Distribution Media and the Loop Feeder, and cross-connects them in order to provide a continuous transmission path between the NID and a telephone company central office. There are three (3) basic types of feeder-distribution connections: (a) multiple (splicing of multiple distribution pairs onto one (1) feeder pair); (b) dedicated ("home run"); and (c) interfaced ("cross-connected"). While older plant uses multiple and dedicated methods, newer plant and all plant that uses DLC or other pair-gain technology necessarily uses the interfaced connection method. The feeder-distribution interface ("FDI") in the interfaced design makes use of a manual cross-connection, typically housed inside an outside plant device ("green box") or in a vault or manhole.*
- 9.1.2 *The Distribution may be copper twisted pair, coax cable, single or multi-mode fiber optic cable or other technologies. A combination that includes two (2) or more of these media is also possible. In certain cases, AT&T shall require a copper twisted pair Distribution even in instances where the Distribution for services that U S WEST offers is other than a copper facility. Special construction charges may apply if no copper twisted pair facilities are available.*

## **9.2 Requirements for All Distribution**

- 9.2.1 *Distribution shall be capable of transmitting signals for the following services, as requested by AT&T:*
- 9.2.1.1 *two-wire & four-wire analog voice grade loops; and*
- 9.2.1.2 *two-wire & four-wire loops conditioned to transmit the digital signals needed to provide digital services.*
- 9.2.2 *Distribution shall transmit all signaling messages or tones. Where the Distribution includes any active elements that terminate any of the signaling messages or tones, these messages or tones shall be reproduced by the Distribution at the interfaces to an adjacent Network Element in a format that maintains the integrity of the signaling messages or tones.*
- 9.2.3 *U S WEST shall not interfere with AT&T's ability to support functions associated with provisioning, maintenance, performance monitoring and testing of the unbundled Distribution.*
- 9.2.4 *Distribution shall be equal to or better than all of the applicable requirements set forth in the following technical references:*
- 9.2.4.1 *Bellcore TR-TSY-000057, "Functional Criteria for Digital Loop Carrier Systems"; and*
- 9.2.4.2 *Bellcore TR-NWT-000393, "Generic Requirements for ISDN Basic Access Digital Subscriber Lines".*

## **9.3 Additional Requirements for Special Copper Distribution**

*In addition to Distribution that supports the requirements set forth in Section 9.2. above, AT&T may designate Distribution to be copper twisted pair unfettered by any intervening equipment (e.g., filters, load coils, range extenders) so that AT&T can use these loops for a variety of services by attaching appropriate terminal equipment at the ends.*

**9.4 Additional Requirements for Fiber Distribution**

*Fiber optic cable Distribution shall be capable of transmitting signals for the following services in addition to the those set forth in Section 9.2.1 above:*

9.4.1 *DS-3 rate private line service;*

9.4.2 *Optical SONET OC-n rate private lines (where "n" is defined in the technical reference in Section 8.4.1.2.4.4); and*

9.4.3 *Where available in the U S WEST network, Analog Radio Frequency based services (e.g., Cable Television (CATV)).*

**9.5 Additional Requirements for Coaxial Cable Distribution**

*Where available in the U S WEST network, coaxial cable (coax) Distribution shall be capable of transmitting signals for the following services in addition to those set forth in Section 9.2.1 above:*

9.5.1 *Broadband data, either one way or bi-directional, symmetric or asymmetric, at rates between 1.5 Mb/s and 45 Mb/s; and*

9.5.2 *Analog Radio Frequency based services (e.g., CATV).*

**9.6 Interface Requirements**

9.6.1 *Signal transfers between the Distribution and the NID and an adjacent Network Element shall have levels of degradation that are within the performance requirements set forth in Section 18.2 of this Attachment.*

9.6.2 *Distribution shall be at least equal to each of the applicable interface requirements set forth in the following technical references:*

9.6.2.1 *Bellcore TR-NWT-000049, "Generic Requirements for Outdoor Telephone Network Interface Devices", issued December 1, 1994;*

9.6.2.2 *Bellcore TR-NWT-000057, "Functional Criteria for Digital Loop Carrier Systems", issued January 2, 1993;*

9.6.2.3 *Bellcore TR-NWT-000393, "Generic Requirements for ISDN Basic Access Digital Subscriber Lines"; and*

9.6.2.4 *Bellcore TR-NWT-000253, SONET Transport Systems: Common Criteria (A module of TSGR, FR-NWT-000440), Issue 2, December 1991.*

**10. Local Switching**

**10.1 Definition:**

- 10.1.1 *Local Switching is the Network Element that provides the functionality required to connect the appropriate lines or trunks wired to the Main Distributing Frame ("MDF") or Digital Cross Connect ("DSX") panel to a desired line or trunk. The desired connection path for each call type will vary by subscriber and will be specified by AT&T as a routing scenario that will be implemented in advance as part of or after the purchase of the unbundled Local Switching. **Access to unbundled switching element provides access to all the features, functions, and capabilities of that switch.**<sup>69</sup> The Local Switching function also provides access to transport, signaling (ISDN User Part ("ISUP") and Transaction Capabilities Application Part ("TCAP"), and platforms such as adjuncts, Public Safety Systems (911), Operator Services, Directory Assistance Services and Advanced Intelligent Network ("AIN"). Remote Switching Module functionality is included in the Local Switching function. Local Switching shall also be capable of routing local, intraLATA, interLATA, and international calls to the subscriber's preferred carrier, call features (e.g., call forwarding) and Centrex capabilities.*
- 10.1.2 *Local Switching, including the ability to route to AT&T's transport facilities, dedicated facilities and systems, shall be unbundled from all other unbundled Network Elements, i.e., Operator Systems, Common Transport, **Shared Transport**<sup>70</sup> and Dedicated Transport.*

## 10.2 Technical Requirements

- 10.2.1 *Local Switching shall be equal to or better than the requirements for Local Switching set forth in Bellcore's Local Switching Systems General Requirements FR-NWT-000064.*
- 10.2.1.1 *U S WEST shall route calls to the appropriate trunk or lines for call origination or termination.*
- 10.2.1.2 *U S WEST shall route calls on a per line or per screening class basis to (a) U S WEST platforms providing Network Elements or additional requirements, (b) AT&T designated platforms, or (c) third-party platforms.*
- 10.2.1.3 *U S WEST shall provide to AT&T recorded announcements as furnished by AT&T and call progress tones to alert callers of call progress and disposition. The installation cost shall be borne by AT&T for such announcements and call progress tones to the extent they are different than those standardly used by U S WEST.*
- 10.2.1.4 *U S WEST shall change a subscriber from U S WEST's services to AT&T's services without loss of feature functionality, unless designated otherwise by AT&T.*
- 10.2.1.5 *U S WEST shall perform routine testing (e.g., Mechanized Loop Tests ("MLT") and test calls such as 105, 107 and 108 type calls) and fault*

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<sup>69</sup> Per First Order at 9.

<sup>70</sup> Per Third Order at 9-10; Per Order 27236 at 8-10.

*isolation on AT&T's unbundled Network Elements, as designated by AT&T.*

- 10.2.1.6 U S WEST shall repair and restore any equipment or any other maintainable component that may adversely impact AT&T's use of unbundled Local Switching.*
- 10.2.1.7 U S WEST shall control congestion points such as mass calling events and network routing abnormalities using capabilities such as Automatic Call Gapping, Automatic Congestion Control, and Network Routing Overflow. Application of such control shall be competitively neutral and not favor any user of unbundled switching or U S WEST.*
- 10.2.1.8 U S WEST shall perform manual call trace as designated by AT&T and shall permit subscriber originated call trace.*
- 10.2.1.9 U S WEST shall record all billable events, involving usage of the Network Element, and send the appropriate recording data to AT&T as further described in Attachment 5.*
- 10.2.1.10 For Local Switching used as E911 tandems, U S WEST shall allow interconnection with AT&T switches in that same local switch used as a E911 tandem and shall route calls to the appropriate Public Safety Access Point (PSAP). In the event the Local Switching element and the E911 tandem are contained within the same U S WEST switch, such trunking shall be provided on an intra-switch basis.*
- 10.2.1.11 Where U S WEST provides the following special services, it shall provide to AT&T:
  - 10.2.1.11.1 essential Service Lines;*
  - 10.2.1.11.2 Telephone Service Prioritization ("TSP");*
  - 10.2.1.11.3 related services for handicapped;*
  - 10.2.1.11.4 where U S WEST provides soft dial tone, it shall do so on a competitively-neutral basis; and*
  - 10.2.1.11.5 any other service required by law or regulation.**
- 10.2.1.12 U S WEST shall provide Switching Service Point ("SSP") capabilities and signaling software to interconnect the signaling links destined to the Signaling Transfer Point Switch ("STP"). In the event Local Switching is provided out of a switch without SS7 capability, the Tandem shall provide this capability as further described in Section 4\_ of this Attachment. These capabilities shall adhere to Bellcore specifications TCAP (GR-1432-CORE), ISUP (GR-905-CORE), Call Management (GR-1429-CORE), Switched Fractional DS1 (GR-1357-CORE), Toll Free Service (GR-1428-CORE), Calling Name (GR-1597-*

*CORE), Line Information Database (GR-954-CORE), and Advanced Intelligent Network (GR-2863-CORE).*

- 10.2.1.13 *U S WEST shall provide interfaces to adjuncts through industry standard and Bellcore interfaces. These adjuncts may include, but are not limited to, Service Node, Service Circuit Node, Voice Mail and Automatic Call Distributors. Examples of existing interfaces are ANSI ISDN standards Q.931 and Q.932.*
- 10.2.1.14 *Upon AT&T's request, U S WEST shall provide performance data regarding a subscriber line, traffic characteristics or other measurable elements to AT&T.*
- 10.2.1.15 *U S WEST shall offer all technically feasible Local Switching features, and, in providing such features, do so at parity with those provided by U S WEST to itself or any other Person.*

10.2.1.15.1 *Such feature offerings shall include, but are not limited to:*

*Basic and primary rate ISDN;  
Residential features;  
Custom Local Area Signaling Services (CLASS/LASS);  
Custom Calling Features; and  
Centrex (including equivalent administrative capabilities, such as subscriber accessible reconfiguration and detailed message recording).*

10.2.1.15.2 *AT&T may use the Bona Fide Request process set forth in Part A of this Agreement to request unbundling of Advanced Intelligent Network ("AIN") triggers supporting AT&T and U S WEST service applications in U S WEST's SCPs. U S WEST shall offer AIN-based services in accordance with applicable technical references. Such services may include, but are not limited to:*

10.2.1.15.2.1 *Off-Hook Immediate;*

10.2.1.15.2.2 *Off-Hook Delay;*

10.2.1.15.2.3 *Private EAMF Trunk;*

10.2.1.15.2.4 *Shared Interoffice Trunk (EAMF, SS7);*

10.2.1.15.2.5 *Termination Attempt;*

10.2.1.15.2.6 *3/6/10;*

10.2.1.15.2.7 *N11;*

10.2.1.15.2.8 *Feature Code Dialing;*

10.2.1.15.2.9 *Custom Dialing Plan(s), including 555 services; and*

10.2.1.15.2.10 *Automatic Route Selection.*

10.2.1.16 *U S WEST shall assign each AT&T subscriber line the class of service designated by AT&T (e.g., using line class codes or other switch specific provisioning methods), and at AT&T's option shall route directory assistance calls from AT&T subscribers as directed by AT&T. This includes each of the following call types:*

10.2.1.16.1 *0+/0- calls;*

10.2.1.16.2 *911 calls;*

10.2.1.16.3 *411/DA calls;*

10.2.1.16.4 *InterLATA calls specific to PIC or regardless of PIC;*

10.2.1.16.5 *IntraLATA calls specific to PIC or regardless of PIC;*

10.2.1.16.6 *Toll free calls, prior to database query;*

10.2.1.16.7 *Call forwarding of any type supported on the switch, to a line or a trunk; and*

10.2.1.16.8 *Any other customized routing that may be supported by the U S WEST switch.*

10.2.1.17 *U S WEST shall assign each AT&T subscriber line the class of service designated by AT&T (e.g., using line class codes or other switch specific provisioning methods) and shall route operator calls from AT&T subscribers as directed by AT&T at AT&T's option. For example, U S WEST may translate 0- and 0+ intraLATA traffic, and route the call through appropriate trunks to an AT&T Operator Services Position System ("OSPS"). Calls from Local Switching must pass the ANI-II digits unchanged.*

10.2.1.18 *If an AT&T customer subscribes to AT&T provided voice mail and messaging services, U S WEST shall redirect incoming calls to the AT&T system based upon designated service arrangements (e.g., busy, don't answer, number of rings). In addition, U S WEST shall provide a Standard Message Desk Interface-Enhanced (SMDI-E) interface to the AT&T system. U S WEST shall support the Inter-switch Voice Messaging Service (IVMS) capability.*

10.2.1.19 *Local Switching shall be offered in accordance with the requirements of the following technical references and their future releases:*

10.2.1.19.1 GR-1298-CORE, AIN Switching System Generic Requirements;

10.2.1.19.2 GR-1299-CORE, AIN Switch-Service Control Point (SCP)/Adjunct Interface Generic Requirements;

10.2.1.19.3 TR-NWT-001284, AIN 0.1 Switching System Generic Requirements; and

10.2.1.19.4 SR-NWT-002247, AIN Release 1 Update.

10.2.2 Interface Requirements:

10.2.2.1 U S WEST shall provide the following interfaces to Loops:

10.2.2.1.1 Standard Tip/Ring interface, including loopstart or groundstart, on-hook signaling (e.g., for calling number, calling name and message waiting lamp);

10.2.2.1.2 Coin phone signaling provided through a U S WEST coin phone port.

10.2.2.1.3 Basic Rate Interface ISDN adhering to ANSI standards Q.931, Q.932 and appropriate Bellcore Technical Requirements;

10.2.2.1.4 Two-wire analog interface to PBX to include reverse battery, E&M, wink start and DID;

10.2.2.1.5 Four-wire analog interface to PBX to include reverse battery, E&M, wink start and DID;

10.2.2.1.6 Four-wire DS-1 interface to PBX or subscriber provided equipment (e.g., computers and voice response systems);

10.2.2.1.7 Primary Rate ISDN to PBX adhering to ANSI standards Q.931, Q.932 and appropriate Bellcore Technical Requirements;

10.2.2.1.8 Switched Fractional DS-1 with capabilities to configure Nx64 channels (where "n" = 1 to 24); and

10.2.2.1.9 Loops adhering to Bellcore TR-NWT-08 and TR-NWT-303 specifications to interconnect Digital Loop Carriers.

10.2.2.2 U S WEST shall provide access to the following, but not limited to:

10.2.2.2.1 SS7 Signaling Network or Multi-Frequency trunking, if requested by AT&T;

10.2.2.2.2 Interface to AT&T operator services systems or Operator Services through appropriate trunk interconnections for the system; and

10.2.2.2.3 *Interface to AT&T Directory Assistance Services through the AT&T switched network or to Directory Services through the appropriate trunk interconnections for the system; and 950 access or other AT&T required access to interexchange carriers as requested through appropriate trunk interfaces.*

### **10.3 Customized Routing**

#### **10.3.1 Description**

*Customized routing will enable AT&T to direct particular classes of calls to particular outgoing trunks based upon line class codes. AT&T may use customized routing to direct its customers' calls to 411, 555-1212, 0+ or 0-, to its own Operator Services platform and Directory Assistance platform.*

#### **10.3.2 Limitations**

*Because there is a limitation in the technical feasibility of offering custom routing beyond the capacity of the 1A ESS switch, custom routing will be offered to CLECs on a first-come, first-served basis.*

### **10.4 Integrated Services Digital Network (ISDN)**

10.4.1 *Integrated Services Digital Network ("ISDN") is defined in two (2) variations. The first variation is Basic Rate ISDN ("BRI"). BRI consists of 2 Bearer (B) Channels and one Data (D) Channel. The second variation is Primary Rate ISDN ("PRI"). PRI consists of 23 B Channels and one D Channel. Both BRI and PRI B Channels may be used for voice, Circuit Switched Data ("CSD") or Packet Switched Data ("PSD"). The BRI D Channel may be used for call related signaling, non-call related signaling or packet switched data. The PRI D Channel may be used for call related signaling.*

#### **10.4.2 Technical Requirements ¾ ISDN**

10.4.2.1 *U S WEST shall offer Data Switching providing ISDN that, at a minimum:*

10.4.2.2 *provides integrated Packet handling capabilities;*

10.4.2.3 *allows for full 2B+D Channel functionality for BRI; and*

10.4.2.4 *allows for full 23B+D Channel functionality for PRI.*

10.4.2.5 *Each B Channel shall allow for voice, 64 Kbps CSD, and PSD of 128 logical channels at minimum speeds of 19 Kbps throughput of each logical channel up to the total capacity of the B Channel.*

10.4.2.6 *Each B Channel shall provide capabilities for alternate voice and data on a per call basis.*

10.4.2.7 *The BRI D Channel shall allow for call associated signaling, non-call associated signaling and PSD of 16 logical channels at minimum speeds of 9.6 Kbps throughput of each logical channel up to the total capacity of the D channel.*

10.4.2.8 The PRI D Channel shall allow for call associated signaling.

#### 10.4.3 Interface Requirements ¼ ISDN

10.4.3.1 U S WEST shall provide the BRI interface using Digital Subscriber Loops adhering to Bellcore TR-NWT-303 Specifications to Interconnect Digital Loop Carriers.

10.4.3.2 U S WEST shall offer PSD interfaces adhering to the X.25, X.75 and X.75' ANSI and Bellcore requirements.

10.4.3.3 U S WEST shall offer PSD trunk interfaces operating at 56 Kbps.

## 11. Network Interface Device

### 11.1 Definition:

11.1.1 The Network Interface Device ("NID") is a single-line termination device or that portion of a multiple-line termination device required to terminate a single line or circuit. One of the functions of the NID is to establish the network demarcation point between a carrier and its subscriber. The NID features two (2) independent chambers or divisions which separate the service provider's network from the subscriber's inside wiring. Each chamber or division contains the appropriate connection points or posts to which the service provider and the subscriber each make their connections.

11.1.2 AT&T may connect its NID to U S WEST's NID. **AT&T may connect its Loops directly to U S WEST's residential NIDs where protector space is available, provided that AT&T shall be responsible for the placement of additional protectors and shall indemnify U S WEST against any and all liability arising from AT&T's use of a U S WEST NID in that manner.**<sup>71</sup>

11.1.3 U S WEST will allow AT&T to locate dropwires, other than U S WEST's drop wires, inside an existing U S WEST combination NID used in the provisioning of telephone service for single tenant end users subject to the following conditions:

11.1.3.1 Sufficient space exists inside the combination NID to allow proper installation of equipment in accordance with the NID manufacturers specifications and per the National Electric Code;

11.1.3.2 In order to maintain maintenance integrity for the NID, AT&T will install its own overvoltage protection and customer bridging equipment, terminate the dropwires to that equipment, and assume all operational responsibilities and liabilities for that equipment;

In the event sufficient space is not available in the existing U S WEST NID, to accommodate additional drops, AT&T will be allowed to install and additional NID,

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<sup>71</sup> Per First Order at 9.

at its own expense and the AT&T's NID can be connected to the existing U S WEST NID;

If the existing NID is not the new generation modular type, AT&T may install a new NID. U S WEST will be allowed to move its drop wire to the new NID and remove the old NID;

Within ninety (90) days of the Effective Date of this Agreement, the Parties agree to jointly develop a satisfactory process to address the issues with access to single and multi-party NIDs.

- 11.1.4 With respect to multiple-line termination devices, AT&T shall specify the quantity of NIDs it requires within such device.

## **11.2 Technical Requirements**

- 11.2.1 The NID shall provide a clean, accessible point of connection for the inside wiring and for the Distribution Media and/or cross connect to AT&T's NID and shall maintain a connection to ground meeting the requirements as set forth below.
- 11.2.2 The NID shall be capable of transferring electrical analog or digital signals between the subscriber's inside wiring and the Distribution Media and/or cross connect to AT&T's NID.
- 11.2.3 All NID posts or connecting points shall be in place, secure, usable and free of any rust or corrosion. The protective ground connection shall exist and be properly installed. The ground wire shall be free of rust and corrosion and have continuity to ground.
- 11.2.4 The NID shall be capable of withstanding all normal local environmental variations.
- 11.2.5 Where the NID is not located in a larger, secure cabinet or closet, the NID shall be protected from vandalism. The NID shall be accessible to AT&T designated personnel. In cases where entrance to the subscriber premises is required to give access to the NID, AT&T shall obtain entrance permission directly from the subscriber.
- 11.2.6 U S WEST shall offer the NID together with, and separately from, the Distribution Media component of Loop Distribution.

## **11.3 Interface Requirements**

- 11.3.1 The NID shall be the interface to subscribers' premises wiring for all loops.
- 11.3.2 The NID shall be at least equal to all the industry standards for NIDs set forth in the following technical references:
- 11.3.2.1 Bellcore Technical Advisory TA-TSY-000120 "Subscriber Premises or Network Ground Wire";

- 11.3.2.2 *Bellcore Generic Requirement GR-49-CORE "Generic Requirements for Outdoor Telephone Network Interface Devices";*
- 11.3.2.3 *Bellcore Technical Requirement TR-NWT-00239 "Indoor Telephone Network Interfaces";*
- 11.3.2.4 *Bellcore Technical Requirement TR-NWT-000937 "Generic Requirements for Outdoor and Indoor Building Entrance"; and*
- 11.3.2.5 *Bellcore Technical Requirement TR-NWT-0001 33 "Generic Requirements for Network Inside Wiring."*

## **12. Operator Systems**

*See Part A.*

## **13. E911**

*See Part A.*

## **14. Directory Assistance Data**

*See Part A.*

## **15. Signaling Link Transport**

### **15.1 Definition:**

*Signaling Link Transport is a set of two (2) or four (4) dedicated 56 Kbps transmission paths between AT&T-designated Signaling Points of Interconnection ("SPOI") that provides appropriate physical diversity and a cross connect at a U S WEST STP site.*

### **15.2 Technical Requirements**

- 15.2.1 *Signaling Link Transport shall consist of full duplex mode 56 Kbps transmission paths.*
- 15.2.2 *Of the various options available, Signaling Link Transport shall perform in the following two ways:*
  - 15.2.1.1 *as an "A-link" which is a connection between a switch or SCP and a home Signaling Transfer Point Switch ("STPS") pair; and*
  - 15.2.1.2 *as a "D-link" which is a connection between two (2) STP pairs in different company networks (e.g., between two (2) STP pairs for two (2) (CLECs)).*
- 15.2.3 *Signaling Link Transport shall consist of two (2) or more signaling link layers as follows:*
  - 15.2.3.1 *An A-link layer shall consist of two (2) links.*
  - 15.2.3.2 *A D-link layer shall consist of four (4) links.*
- 15.2.4 *A signaling link layer shall satisfy a performance objective such that:*

- 15.2.4.1 *there shall be no more than two (2) minutes down time per year for an A-link layer transport only, and*
- 15.2.4.2 *there shall be negligible (less than 2 seconds) down time per year for a D-link layer transport only.*
- 15.2.5 *Where available, a signaling link layer shall satisfy interoffice and intraoffice diversity of facilities and equipment, such that:*
  - 15.2.5.1 *no single failure of facilities or equipment causes the failure of both links in an A-link layer (i.e., the links should be provided on a minimum of two (2) separate physical paths end-to-end); and*
  - 15.2.5.2 *no two concurrent failures of facilities or equipment shall cause the failure of all four (4) links in a D-link layer (i.e., the links should be provided on a minimum of three (3) separate physical paths end-to-end).*
- 15.2.6 *For requested link layers, U S WEST will provide AT&T with the level of diversity available.*

**15.3 Interface Requirements**

- 15.3.1 *There shall be a DS-1 (1.544 Mbps) interface at the AT&T-designated SPOIs. Each 56 Kbps transmission path shall appear as a DS-0 channel within the DS-1 interface.*

**16. Signaling Transfer Points (STPs)**

**16.1 Definition:**

*Signaling Transfer Points ("STP"s) provide functionality that enable the exchange of SS7 messages among and between switching elements, database elements and signaling transfer points.*

**16.2 Technical Requirements**

- 16.2.1 *STPs shall provide signaling access to all other Network Elements connected to the U S WEST SS7 network. These include:*
  - 16.2.1.1 *U S WEST Local Switching or Tandem Switching;*
  - 16.2.1.2 *U S WEST Service Control Points/DataBases connected to or resident on service control points;*
  - 16.2.1.3 *Third-party local or tandem switching systems connected to the U S WEST signaling network; and*
  - 16.2.1.4 *Third-party-provided STPs connected to the U S WEST signaling network.*

- 16.2.2 *The connectivity provided by STPs shall fully support the functions of all other Network Elements connected to U S WEST's SS7 network. This includes the use of U S WEST's SS7 network to convey messages which neither originate nor terminate at a signaling end point directly connected to the U S WEST SS7 network (i.e., transit messages). When the U S WEST SS7 network is used to convey transit messages, there shall be no alteration of the Integrated Services Digital Network User Part ("ISDNUP") or Transaction Capabilities Application Part ("TCAP") user data that constitutes the content of the message.*
- 16.2.3 *If a U S WEST tandem switch routes traffic, based on dialed or translated digits, on SS7 trunks between an AT&T local switch and third party local switch, U S WEST's SS7 network shall convey the TCAP messages necessary to provide Call Management features (automatic callback, automatic recall, and screening list editing) between the AT&T local STPs and the STPs that provide connectivity with the third party local switch, even if the third party local switch is not directly connected to U S WEST's STPs.*
- 16.2.4 *STPs shall provide all functions of the MTP as specified in ANSI T1.111 (Reference 12.5.2). This includes:*
- 16.2.4.1 Signaling Data Link functions, as specified in ANSI T1.111.2;*
  - 16.2.4.2 Signaling Link functions, as specified in ANSI T1.111.3; and*
  - 16.2.4.3 Signaling Network Management functions, as specified in ANSI T1.111.4.*
- 16.2.5 *STPs shall provide all functions of the SCCP necessary for Class 0 (basic connectionless) service, as specified in ANSI T1.112. In particular, this includes Global Title Translation ("GTT") and SCCP Management procedures, as specified in ANSI T1.112.4.*
- 16.2.6 *In cases where the destination signaling point is either a U S WEST local or tandem switching system or data base, or is an AT&T or third party local or tandem switching system directly connected to U S WEST's SS7 network, U S WEST STPs shall perform final GTT of messages to the destination and SCCP Subsystem Management of the destination. In all other cases, STPs shall perform intermediate GTT of messages to a gateway pair of STPs in an SS7 network connected with the U S WEST SS7 network, and shall not perform SCCP Subsystem Management of the destination.*
- 16.2.7 *STPs shall also provide the capability to route SCCP messages based on ISNI, as specified in ANSI T1.118, when this capability becomes available on U S WEST STPs.*
- 16.2.8 *STPs shall provide all functions of the OMAP commonly provided by STPs, as specified in the reference in Section 16.5.6. This includes:*
- 16.2.8.1 MTP Routing Verification Test ("MRVT"); and,*
  - 16.2.8.2 SCCP Routing Verification Test ("SRVT").*

16.2.9 *In cases where the destination signaling point is either a U S WEST local or tandem switching system or database, or is an AT&T or third party local or tandem switching system directly connected to the U S WEST SS7 network, STPs shall perform MRVT and SRVT to the destination signaling point. In all other cases, STPs shall perform MRVT and SRVT to a gateway pair of STPs in an SS7 network connected with the U S WEST SS7 network. This requirement shall be superseded by the specifications for inter-network MRVT and SRVT if and when these become approved ANSI standards and available capabilities of U S WEST STPs.*

16.2.10 *STPs shall be equal to or better than the following performance requirements:*

16.2.10.1 *MTP Performance, as specified in ANSI T1.111.6; and*

16.2.10.2 *SCCP Performance, as specified in ANSI T1.112.5.*

### **16.3 Interface Requirements**

16.3.1 *U S WEST shall provide the following STPs options to connect AT&T or AT&T-designated local switching systems or STPs to the U S WEST SS7 network:*

16.3.1.1 *An A-link interface from AT&T local switching systems.*

16.3.2 *Each type of interface shall be provided by one or more sets (layers) of signaling links, as follows:*

16.3.2.1 *An A-link layer shall consist of two (2) links.*

16.3.3 *The Signaling Point of Interconnection ("SPOI") for each link shall be located at a cross-connect element, such as a DSX-1, in the central office where the U S WEST STPs are located. There shall be a DS-1 or higher rate transport interface at each of the SPOIs. Each signaling link shall appear as a DS-0 channel within the DS-1 or higher rate interface.*

*U S WEST shall offer higher rate DS-1 signaling for interconnecting AT&T local switching systems or STPs with U S WEST STPs as soon as these become approved ANSI standards and available capabilities in U S WEST's network.*

16.3.4 *U S WEST shall provide MTP and SCCP protocol interfaces that shall conform to all relevant sections in the following specifications:*

16.3.4.1 *Bellcore GR-905-CORE, Common Channel Signaling Network Interface Specification (CCSNIS) Supporting Network Interconnection, Message Transfer Part (MTP), and Integrated Services Digital Network User Part (ISDNUP); and*

16.3.4.2 *Bellcore GR-1432-CORE, CCS Network Interface Specification (CCSNIS) Supporting Signaling Connection Control Part (SCCP) and Transaction Capabilities Application Part (TCAP).*

### **16.4 Message Screening**

- 16.4.1 *U S WEST shall set message screening parameters in order to accept messages from AT&T local or tandem switching systems destined to any signaling point in the U S WEST SS7 network with which the AT&T switching system has a signaling relation.*
- 16.4.2 *U S WEST shall set message screening parameters in order to accept messages from AT&T local or tandem switching systems destined to any signaling point or network interconnected to the U S WEST SS7 network with which the AT&T switching system has a signaling relation.*
- 16.4.3 *U S WEST shall set message screening parameters in order to accept messages destined to an AT&T local or tandem switching system from any signaling point or network interconnected to the U S WEST SS7 network with which the AT&T switching system has a signaling relation.*
- 16.4.4 *U S WEST shall set message screening parameters in order to accept and send messages destined to an AT&T SCP from any signaling point or network interconnected to the U S WEST SS7 network with which the AT&T SCP has a signaling relation.*

#### **16.5 STP Requirements**

- 16.5.1 *Subject to the provisions of Sections 1.3.1 and 1.3.2 of Part A of this Agreement, STPs shall be equal to or better than all of the requirements for STPs set forth in the following technical references:*
- 16.5.2 *ANSI T1.111-1992 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Message Transfer Part (MTP);*
- 16.5.3 *ANSI T1.111A-1994 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Message Transfer Part (MTP) Supplement;*
- 16.5.4 *ANSI T1.112-1992 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Signaling Connection Control Part (SCCP);*
- 16.5.5 *ANSI T1.115-1990 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Monitoring and Measurements for Networks;*
- 16.5.6 *ANSI T1.116-1990 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Operations, Maintenance and Administration Part (OMAP);*
- 16.5.7 *ANSI T1.118-1992 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Intermediate Signaling Network Identification (ISNI);*
- 16.5.8 *Bellcore GR-905-CORE, Common Channel Signaling Network Interface Specification (CCSNIS) Supporting Network Interconnection, Message Transfer Part (MTP), and Integrated Services Digital Network User Part (ISDNUP); and*

- 16.5.9 *Bellcore GR-1432-CORE, CCS Network Interface Specification (CCSNIS) Supporting Signaling Connection Control Part (SCCP) and Transaction Capabilities Application Part (TCAP).*

## **17. Service Control Points/Databases**

### **17.1 Definition:**

- 17.1.1 *Databases are the Network Elements that provide the functionality for storage of, access to, and manipulation of information required to offer a particular service and/or capability. Databases include, but are not limited to: Number Portability, LIDB, Toll Free Number Database, Automatic Location Identification/Data Management System and AIN.*
- 17.1.2 *A Service Control Point ("SCP") is a specific type of Database Network Element functionality deployed in a Signaling System 7 ("SS7") network that executes service application logic in response to SS7 queries sent to it by a switching system also connected to the SS7 network. SCPs also provide operational interfaces to allow for provisioning, administration and maintenance of subscriber data and service application data (e.g., a toll free database stores subscriber record data that provides information necessary to route toll free calls).*

### **17.2 Technical Requirements for SCPs/Databases**

*Requirements for SCPs/Databases within this section address storage of information, access to information (e.g., signaling protocols and response times), and administration of information (e.g., provisioning, administration, and maintenance). All SCPs/Databases shall be provided to AT&T in accordance with the following requirements, except where such a requirement is superseded by specific requirements set forth in Subparagraphs 17.3 through 17.7 of this Attachment:*

- 17.2.1 *U S WEST shall provide interconnection to SCPs through the U S WEST designated STPs using SS7 network and protocols, as specified in Section 16 of this Attachment, with TCAP as the application layer protocol.*
- 17.2.2 *Regional SCP pairs shall be available pursuant to applicable technical reference documents.*
- 17.2.3 *U S WEST shall provide to AT&T database provisioning consistent with the provisioning requirements of this Agreement (e.g., data required, edits, acknowledgments, data format and transmission medium and notification of order completion).*
- 17.2.4 *The operational interface provided by U S WEST shall complete Database transactions (i.e., add, modify, delete) for AT&T subscriber records stored in U S WEST databases at parity with which U S WEST provisions its own subscriber records.*
- 17.2.5 *U S WEST shall provide Database maintenance consistent with the maintenance requirements as specified in this Agreement (e.g., notification of U S WEST network affecting events, testing, dispatch schedule and measurement and exception reports).*

17.2.6 *When and where available, U S WEST shall provide billing and recording information to track Database usage consistent with Connectivity Billing and recording requirements as specified in this Agreement (e.g., recorded message format and content, timeliness of feed, data format and transmission medium).*

17.2.7 *U S WEST shall provide SCPs/Databases in accordance with the physical security requirements specified in this Agreement.*

17.2.8 *U S WEST shall provide SCPs/Databases in accordance with the logical security requirements specified in this Agreement.*

### **17.3 Number Portability Database**

#### **17.3.1 Definition:**

*The Number Portability ("NP") Database supplies routing numbers for calls involving numbers that have been ported from one local service provider to another. NP database functionality shall also include Global Title Translations ("GTT") for calls involving ported numbers even if U S WEST provides GTT functionality in another Network Element. This Section 17.3 supplements the requirements of Sections 18.2 and 18.7. U S WEST shall provide the NP database in accordance with industry standards which shall supersede the following as needed.*

#### **17.3.2 Requirements**

17.3.2.1 *U S WEST shall make U S WEST NP database available for AT&T switches to query to obtain the appropriate routing number on calls to ported numbers or the industry specified indication that the number is not ported for non-porting numbers in NPA-NXXs that are opened to portability. The specified indication will also be provided when the NPA-NXX is not open to portability.*

17.3.2.2 *Query responses shall provide such additional information (e.g., Service Provider identification) as may be specified in the NP implementation in the relevant regulatory jurisdiction.*

17.3.2.3 *U S WEST shall complete CLASS or LIDB queries routed to the U S WEST network by AT&T switches and return the appropriate response to the querying source.*

17.3.2.4 *The NP database shall provide such other functionality as has been specified in the regulatory jurisdiction in which portability has been implemented.*

17.3.2.5 *Unavailability of the NP database query and GTT applications shall not exceed four (4) minutes per year.*

17.3.2.6 *The U S WEST NP database shall respond to a round trip query within 500 milliseconds or as amended by industry standards.*

#### **17.3.3 Interface Requirements**

*U S WEST shall interconnect the signaling interface between the AT&T or other local switch and the NP Database using the TCAP protocol as specified in the technical references in this Agreement, together with the signaling network interface as specified in the technical references in this Agreement, and such further requirements (e.g., AIN or IN protocols) as may be specified by regulatory or other bodies responsible for implementation of number portability.*

#### **17.4 Line Information Database (LIDB)**

*This Section 17.4 defines and sets forth additional requirements for the Line Information Database.*

##### **17.4.1 Definition:**

*The Line Information Database ("LIDB") is a transaction-oriented database accessible through Common Channel Signaling ("CCS") networks. It contains records associated with subscriber Line Numbers and Special Billing Numbers (in accordance with the requirements in the technical reference in Section 17.6.5). LIDB accepts queries from other Network Elements, or AT&T's network, and provides appropriate responses. The query originator need not be the owner of LIDB data. LIDB queries include functions, such as screening billed numbers, that provide the ability to accept Collect or Third Number Billing calls and validation of Telephone Line Number based non-proprietary calling cards. The interface for the LIDB functionality is the interface between the U S WEST CCS network and other CCS networks. LIDB also interfaces to administrative systems. The administrative system interface provides work centers with an interface to LIDB for functions such as provisioning, auditing of data, access to LIDB measurements and reports.*

##### **17.4.2 Technical Requirements**

- 17.4.2.1** *U S WEST shall enable AT&T to store in U S WEST's LIDB any line number or special billing number. AT&T will provide U S WEST a non-binding LIDB forecast. Prior to the availability of permanent NP, U S WEST shall enable AT&T to store in U S WEST's LIDB any subscriber Line Number or Special Billing Number record for AT&T resale, unbundled Network Elements and facility based customers, in accordance with the technical reference in Section 17.6.5, whether ported or not, for which the NPA-NXX or NXX-0/1XX Group is supported by that LIDB.*
- 17.4.2.2** *Prior to the availability of permanent NP, U S WEST shall enable AT&T to store in U S WEST's LIDB any subscriber Line Number or Special Billing Number record for AT&T resale, unbundled Network Elements and facility based customers, in accordance with the technical reference in Section 17.6.5, whether ported or not, and NPA-NXX and NXX-0/1XX Group Records, belonging to an NPA-NXX or NXX-0/1XX owned by AT&T.*
- 17.4.2.3** *Subsequent to the availability of permanent NP, U S WEST shall enable AT&T to store in U S WEST's LIDB any subscriber Line Number or Special Billing Number record for AT&T resale, unbundled Network Elements and facility based customers, in accordance with the technical reference in Section 17.6.5, whether ported or not, regardless of the number's NPA-NXX or NXX-0/1XX.*

- 17.4.2.4 *U S WEST shall perform the following LIDB functions (i.e., processing of the following query types as defined in the technical reference in Section 17.6.5) for AT&T's subscriber records in LIDB:*
- 17.4.2.4.1 *Billed Number Screening (provides information such as whether the Billed Number may accept Collect or Third Number Billing calls);*
  - 17.4.2.4.2 *Calling Card Validation; and*
  - 17.4.2.4.3 *Originating Line Number Screening (OLNS), when available.*
- 17.4.2.5 *U S WEST shall process AT&T's subscriber records in LIDB at least at parity with U S WEST subscriber records, with respect to other LIDB functions (as defined in the technical reference in Section 17.6). U S WEST shall indicate to AT&T what additional functions, if any, are performed by LIDB in its network. Within ninety (90) days after the Effective Date of this Agreementrequest, the Parties shall develop an interim procedure to process AT&T subscriber records.*
- 17.4.2.6 *Within two (2) weeks after a request by AT&T, U S WEST shall provide AT&T with a list of the subscriber data items which AT&T would have to provide in order to support each required LIDB function. The list shall indicate which data items are essential to LIDB function, and which are required only to support certain services. For each data item, the list shall show the data formats, the acceptable values of the data item and the meaning of those values.*
- 17.4.2.7 *U S WEST shall provide LIDB performance in accordance with section 17.6.5.*
- 17.4.2.8 *U S WEST shall provide AT&T with the capability to provision (e.g., to add, update, and delete) NPA-NXX and NXX-0/IXX Group Records, and Line Number and Special Billing Number Records, associated with AT&T subscribers, directly into U S WEST's LIDB provisioning process. Within ninety (90) days after the Effective Date of this Agreementrequeust, the Parties shall establish an interim process to meet the requirements of this Section.*
- 17.4.2.9 *Unless directed otherwise by AT&T, in the event end user subscribers change their local service provider to AT&T, U S WEST shall maintain subscriber data (for line numbers, card numbers, and for any other types of data maintained in LIDB) so that such subscribers shall not experience any interruption of service due to the lack of such maintenance of subscriber data.*
- 17.4.2.10 *All additions, updates and deletions of AT&T data to the LIDB shall be made solely at the direction of AT&T.*
- 17.4.2.11 *U S WEST shall provide priority updates to LIDB for AT&T data upon AT&T's request (e.g., to support fraud protection).*

- 17.4.2.12 *When available, U S WEST shall provide AT&T the capability to directly obtain, through an electronic interface, reports of all AT&T data in LIDB. Within ninety (90) days after the Effective Date of this Agreementrequest, the Parties shall establish an interim process to meet the requirements of this Section.*
- 17.4.2.13 *[Intentionally left blank for numbering consistency]*
- 17.4.2.14 *U S WEST shall perform backup and recovery of all of AT&T's data in LIDB as frequently as U S WEST performs backup and recovery for itself and any other Person, including sending to LIDB all changes made since the date of the most recent backup copy. Backup will be performed weekly. When needed, recovery will take place within twenty-four (24) hours.*
- 17.4.2.15 *U S WEST shall provide to AT&T access to LIDB measurements and reports at least at parity with the capability U S WEST has for its own subscriber records and that U S WEST provides to any other party. Such access shall be electronic. Within ninety (90) days after the Effective Date of this Agreementrequest, the Parties shall establish an interim process to meet the requirements of this Section.*
- 17.4.2.16 *U S WEST shall provide AT&T with LIDB reports of data which are missing or contain errors, as well as any misroute errors, within the same time period as U S WEST provides such reports to itself. Within ninety (90) days after the Effective Date of this Agreementrequest, the Parties shall establish a process to meet the requirements of this Section.*
- 17.4.2.17 *U S WEST shall prevent any access to or use of AT&T data in LIDB by U S WEST personnel or by any other party not authorized in writing by AT&T.*
- 17.4.2.18 *If and when technically feasible, U S WEST shall provide AT&T performance of the LIDB Data Screening function, which allows a LIDB to completely or partially deny specific query originators access to LIDB data owned by specific data owners (in accordance with the technical reference in Section 17.6.5) for subscriber data that is part of an NPA-NXX or NXX-0/IXX wholly or partially owned by AT&T at least at parity with U S WEST subscriber data. U S WEST shall obtain from AT&T the screening information associated with LIDB Data Screening of AT&T data in accordance with this requirement.*
- 17.4.2.18.1 *The Parties agree to investigate technical feasibility of variable LIDB database screening to accomplish 17.4.2.18 above.*
- 17.4.2.19 *U S WEST shall accept queries to LIDB associated with AT&T subscriber records, and shall return responses in accordance with the requirements of this Section 17.*

### 17.4.3 Interface Requirements

*U S WEST shall offer LIDB in accordance with the requirements of this Section 17.4.3.*

- 17.4.3.1 *The interface to LIDB shall be in accordance with the technical reference in Section 17.6.3.*
- 17.4.3.2 *The CCS interface to LIDB shall be the standard interface described in Section 17.6.3.*
- 17.4.3.3 *The LIDB Database interpretation of the ANSI-TCAP messages shall comply with the technical reference in Section 17.6.4. Global Title Translation shall be maintained in the signaling network in order to support signaling network routing to the LIDB.*

### **17.5 Toll Free Number Database**

*The Toll Free Number Database is an SCP that provides functionality necessary for toll free (e.g., 800 and 888) number services by providing routing information and additional vertical features during call set-up in response to queries from SSPs. This Section 17.5 supplements the requirements of Section 17.2 and 17.7. U S WEST shall provide the Toll Free Number Database in accordance with the following subsections.:*

#### **17.5.1 Technical Requirements**

17.5.1.1 *U S WEST shall make the U S WEST Toll Free Number Database available, through its STPs, for AT&T to query from AT&T's designated switch including U S WEST unbundled Local Switching.*

17.5.1.2 *The Toll Free Number Database shall return carrier identification and, where applicable, the queried toll free number, translated numbers and instructions as it would in response to a query from a U S WEST switch.*

#### **17.5.2 Interface Requirements**

*The signaling interface between the AT&T or other local switch and the Toll-Free Number Database shall use the TCAP protocol as specified in the technical reference in Section 17.6.1, together with the signaling network interface as specified in the technical references in Sections 17.6.2 and 17.6.6.*

17.6 *SCPs/Databases shall be at least equal to all of the requirements for SCPs/Databases set forth in the following technical references:*

- 17.6.1 *GR-246-CORE, Bell Communications Research Specification of Signaling System Number 7, Issue 1 (Bellcore, December 199X);*
- 17.6.2 *GR-1432-CORE, CCS Network Interface Specification (CCSNIS) Supporting Signaling Connection Control Part (SCCP) and Transaction Capabilities Application Part (TCAP) (Bellcore, March 1994);*
- 17.6.3 *GR-954-CORE, CCS Network Interface Specification (CCSNIS) Supporting Line Information Database (LIDB) Service 6, Issue 1, Rev. 1 (Bellcore, October 1995);*

- 17.6.4 *GR-1149-CORE, OSSGR Section 10: System Interfaces, Issue 1 (Bellcore, October 1995) (Replaces TR-NWT-001149);*
- 17.6.5 *GR-1158-CORE, OSSGR Section 22.3: Line Information Database 6, Issue (Bellcore, October 1995); and*
- 17.6.6 *GR-1428-CORE, CCS Network Interface Specification (CCSNIS) Supporting Toll Free Service (Bellcore, May 1995).*
- 17.7 *Advanced Intelligent Network ("AIN") Access, Service Creation Environment and Service Management System ("SCE/SMS") Advanced Intelligent Network Access*
- 17.7.1 *U S WEST shall provide mediated access to all U S WEST service applications, current or future (if technically feasible), resident in U S WEST's SCP through U S WEST's STPs. Such access may be from AT&T's switch or U S WEST's unbundled local switch.*
- 17.7.2 *SCE/SMS AIN Access shall provide AT&T the ability to create service applications in the U S WEST SCE and deploy those applications via the U S WEST SMS to the U S WEST SCP. This interconnection arrangement shall provide AT&T access to the U S WEST development environment and administrative system in a manner at least at parity with U S WEST's ability to deliver its own AIN-based services. SCE AIN Access is the development of service applications within the U S WEST Service Creation Environment capability. SMS AIN Access is the provisioning of service applications via the U S WEST Service Management System capability. AIN trigger provisioning will be accomplished through the U S WEST local unbundled switching.*
- 17.7.3 *Services Available. U S WEST shall make SCE hardware, software, testing and technical support (e.g., technical contacts, system administrator) resources available to AT&T. Scheduling of SCE resources shall allow AT&T at least equal priority to U S WEST.*
- 17.7.4 *Multi-user Access. The U S WEST SCE/SMS shall allow for multi-user access with proper source code management and other logical security functions.*
- 17.7.5 *Partitioning. When available, the U S WEST SCP shall partition and protect AT&T service logic and data from unauthorized SMS capability and SCE capability access, execution or other types of compromise.*
- 17.7.6 *Training and Documentation. U S WEST shall provide training and documentation for AT&T development staff only in cases in which such training or documentation is not reasonably available from another source. If training or documentation is required in accordance with this Section, it will be provided in a manner at least at parity with that provided by U S WEST to its development staff. Training will be conducted at a mutually agreed upon location.*
- 17.7.7 *Access Environment. When AT&T selects SCE/SMS AIN Access, U S WEST shall provide for a secure, controlled access environment on-site. When available, AT&T may request mutually agreed upon remote data connections (e.g., dial up, LAN, WAN).*

- 17.7.8 *Data Exchange.* When AT&T selects SMS AIN Access, U S WEST shall allow AT&T to download data forms and/or tables to the U S WEST SCP, via the U S WEST SMS capability, in the same fashion as U S WEST downloads such forms and/or tables for itself.
- 17.7.9 *Certification Testing.* Certification testing is typically a two step process that includes an off-line unit test followed by an on-line controlled introduction testing into one of each of the U S WEST switch types capable of supporting the service. Services created by AT&T will require certification testing by U S WEST before the services can be provisioned in the network. The scheduling of U S WEST certification testing resources for new AT&T services will be jointly coordinated and prioritized between U S WEST and AT&T. AT&T testing requirements will be given equal priority with both U S WEST and other provider's requirements. In most circumstances, such testing will be completed within sixty (60) days from the date the application is submitted by AT&T to U S WEST for certification. In circumstances involving complex applications requiring additional time for testing, U S WEST may request additional time and AT&T will not unreasonably withhold approval of such request. The certification testing procedures described in this Section may be augmented as mutually agreed to by the Parties.
- 17.7.10 *Access Standard.* SCPs/Databases shall offer SCE/SMS AIN Access in accordance with the requirements of GR-1280-CORE, AIN Service Control Point (SCP) Generic Requirements.
- 17.8 *[Intentionally left blank for numbering consistency]*
- 17.9 *AT&T will provide to U S WEST timely non-binding forecasts of SS7 call transactions, link requirements, database query volumes, etc., as needed for sizing the individual network capabilities that AT&T will utilize under the terms of this Agreement.*
- 17.10 *CCS Service includes:*
- 17.10.1 *Entrance Facility - The entrance facility connects AT&T's signaling point of interface with the U S WEST Serving Wire Center ("SWC").*
- 17.10.2 *Direct Link Transport ("DLT") - The DLT connects the AT&T SWC to the U S WEST STP.*
- 17.10.3 *STP Port - The STP port provides the switching function at the STP. One (1) STP port is required for each DLT link. The port provides access to the SCP.*
- 17.11 *Advanced Intelligent Network ("AIN") triggers will be provided only to access U S WEST databases. Access to AIN functions is available only through the STP. If AT&T requires other access, it will submit a Bona Fide Request.*

## **18. Additional Requirements**

*This Section 18 of Attachment 3 sets forth the additional requirements for unbundled Network Elements which U S WEST agrees to offer to AT&T under this Agreement.*

## 18.1 Cooperative Testing

### 18.1.1 Definition:

*Cooperative Testing means that U S WEST shall cooperate with AT&T upon request or as needed to (a) ensure that the Network Elements and Ancillary Functions and additional requirements being provided to AT&T by U S WEST are in compliance with the requirements of this Agreement, (b) test the overall functionality of various Network Elements and Ancillary Functions provided by U S WEST to AT&T in **combination**<sup>72</sup> with each other or in combination with other equipment and facilities provided by AT&T or third parties, and (c) ensure that all operational interfaces and processes are in place and functioning properly and efficiently for the provisioning and maintenance of Network Elements and Ancillary Functions and so that all appropriate billing data can be provided to AT&T.*

### 18.1.2 Requirements

*Within forty-five (45) days of the Effective Date of this Agreement after request, AT&T and U S WEST will agree upon a process to resolve technical issues relating to interconnection of AT&T's network to U S WEST's network and Network Elements and Ancillary Functions. The agreed upon process shall include procedures for escalating disputes and unresolved issues up through higher levels of each Party's management. If AT&T and U S WEST do not reach agreement on such a process within the 45-day time period, any issues that have not been resolved by the Parties with respect to such process shall be submitted to the dispute resolution procedures set forth in Part A of this Agreement unless both Parties agree to extend the time to reach agreement on such issues.*

*18.1.2.1 U S WEST shall provide AT&T access for testing at any interface between a U S WEST Network Element or **Combinations**<sup>73</sup> and AT&T equipment or facilities. Such test access shall be sufficient to ensure that the applicable requirements can be tested by AT&T. This access shall be available seven (7) days per week, twenty-four (24) hours per day.*

*18.1.2.2 AT&T may test any interfaces, Network Elements or Ancillary Functions and additional requirements provided by U S WEST to AT&T pursuant to this Agreement.*

*18.1.2.3 U S WEST shall provide engineering data as requested by AT&T for the loop components as set forth in this Attachment which AT&T may desire to test. Such data shall include equipment engineering and cable specifications, signaling and transmission path data.*

*18.1.2.4 The Parties shall establish a process to provide engineering/office support information on unbundled Network Elements (e.g., central office layout and design records and drawings, system engineering and other applicable documentation) pertaining to a Network Element or Ancillary Function or the underlying equipment that is then providing a Network Element or Ancillary Function to AT&T.*

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<sup>72</sup> Per Order 27236 at 8.

<sup>73</sup> Per Order 27236 at 8.

- 18.1.2.5 Upon request from AT&T, U S WEST shall provide to AT&T all applicable test results from U S WEST testing activities on a Network Element or Ancillary Function or additional requirement or the underlying equipment providing a Network Element or Ancillary Function or additional requirements. AT&T may review such test results and may notify U S WEST of any detected deficiencies.
- 18.1.2.6 U S WEST shall temporarily provision AT&T designated Local Switching features for testing. Within sixty (60) days of the Effective Date of this Agreement after request, AT&T and U S WEST shall mutually agree on the procedures to be established between U S WEST and AT&T to expedite such provisioning processes for feature testing.
- 18.1.2.7 Upon AT&T's request, U S WEST shall make available technical support to meet with AT&T representatives to provide required support for Cooperative Testing. U S WEST shall define the process to gain access to such technical support.
- 18.1.2.8 Dedicated Transport and Loop Feeder may experience alarm conditions due to in-progress tests. U S WEST shall notify AT&T upon removal of such facilities from service.
- 18.1.2.9 U S WEST shall exercise its best efforts to notify AT&T prior to conducting tests or maintenance procedures on Network Elements or Ancillary Functions or on the underlying equipment that is then providing a Network Element or Ancillary Function, that will likely cause a service interruption or degradation of service.
- 18.1.2.10 U S WEST shall provide a single point of contact to AT&T that is available seven (7) days per week, twenty-four (24) hours per day for trouble status, sectionalization, resolution, escalation, and closure. Such staff shall be adequately skilled to allow expeditious problem resolution.
- 18.1.2.11 U S WEST shall make available to AT&T access to 105 responders, 100-type test lines, or 102-type test lines associated with any circuits under test.
- 18.1.2.12 AT&T and U S WEST shall complete Cooperative Testing in accordance with the procedures set forth in Attachment 5.
- 18.1.2.13 U S WEST shall participate in Cooperative Testing requested by AT&T whenever it is deemed necessary by AT&T to insure service performance, reliability and subscriber serviceability.
- 18.1.2.14 AT&T may accept or reject the Network Element ordered by AT&T if, upon completion of cooperative acceptance testing, the tested Network Element does not meet the requirements stated herein.

## 18.2 Performance

The issue of performance measurements and standards is to be addressed pursuant to the terms of Section 52 of Part A of this Agreement.

### 18.3 Protection, Restoration, and Disaster Recovery

#### 18.3.1 Scope:

*This Section refers specifically to requirements on the use of redundant network equipment and facilities for protection, restoration, and disaster recovery.*

### 18.4 Synchronization

#### 18.4.1 Definition:

*Synchronization is the function which keeps all digital equipment in a communications network operating at the same average frequency. With respect to digital transmission, information is coded into discrete pulses. When these pulses are transmitted through a digital communications network, all synchronous Network Elements are traceable to a stable and accurate timing source. Network synchronization is accomplished by timing all synchronous Network Elements in the network to a stratum 1 traceable source so that transmission from these network points have the same average line rate.*

#### 18.4.2 Technical Requirements

*The following requirements are applicable to the case where U S WEST provides synchronization to equipment that AT&T owns and operates within a U S WEST location. In addition, these requirements apply to synchronous equipment that is owned by U S WEST and is used to provide a Network Element to AT&T.*

*18.4.2.1 The synchronization of clocks within digital networks is divided into two parts: intra-building and inter-building. Within a building, a single clock is designated as the Building Integrated Timing Supply ("BITS"), which provides all of the DS-1 and DS-0 synchronization references required by other clocks in such building. This is referred to as intra-building synchronization. The BITS receives synchronization references from remotely located BITS such as a primary reference source. Synchronization of BITS between buildings is referred to as inter-building synchronization.*

*18.4.2.2 To implement a network synchronization plan, clocks within digital networks are divided into four stratum levels. All clocks in strata 2, 3, and 4 are synchronized to a stratum 1 clock, that is, they are traceable to a stratum 1 clock. A traceable reference is a reference that can be traced back through some number of clocks to a stratum 1 source. Clocks in different strata are distinguished by their free running accuracy or by their stability during trouble conditions such as the loss of all synchronization references.*

##### 18.4.2.2.1 Intra-Building

*Within a building, there may be different kinds of equipment that require synchronization at the DS-1 and DS-0 rates. Synchronization at the DS-1 rate is accomplished by the frequency synchronizing presence of buffer*

stores at various DS-1 transmission interfaces. Synchronization at the DS-0 rate is accomplished by using a composite clock signal that phase synchronizes the clocks. Equipment requiring DS-0 synchronization frequently does not have adequate buffer storage to accommodate the phase variations among different equipment. Control of phase variations to an acceptable level is accomplished by externally timing all interconnecting DS-0 circuits to a single clock source and by limiting the interconnection of DS-0 equipment to less than 1,500 cable feet. Therefore, a BITS shall provide DS-1 and composite clock signals when the appropriate composite signal is a 64-kHz  $5/8^{\text{th}}$  duty cycle, return to zero with a bipolar violation every eighth pulse (B8RZ).

#### 18.4.2.2.2 Inter-Building

U S WEST shall provide inter-building synchronization at the DS-1 rate, and the BITS shall accept the primary and/or secondary synchronization links from BITS in other buildings where necessary. From hierarchical considerations, the BITS shall be the highest stratum clock within the building and U S WEST shall provide operations capabilities. When available, such capability includes, but is not limited to, synchronization reference provisioning; synchronization reference status inquiries; timing mode status inquiries; and alarm conditions.

#### 18.4.3 Synchronization Distribution Requirements

18.4.3.1 Central office BITS shall contain redundant clocks meeting or exceeding the requirements for a stratum 3 clock as specified in ANSI T1.101-1994 and ANSI T1.105.09 and Bellcore GR-NWT-001244 Clocks for the Synchronized Network: Common Genetic Criteria.

18.4.3.2 Central office BITS shall be powered by primary and backup power sources.

18.4.3.3 If both reference inputs to the BITS are interrupted or in a degraded mode (meaning off frequency greater than twice the minimum accuracy of the BITS, loss of frame, excessive bit errors, or in Alarm Indication Signal), then the stratum clock in the BITS shall provide the necessary bridge in timing to allow the network to operate without a frame repetition or deletion (slip free) with better performance than specified in these technical references specified in 18.4.3.1.

18.4.3.4 DS-1s multiplexed into a SONET synchronous payload envelope within an STS-n (where "n" is defined in ANSI T1.105-1995) signal shall not be used as reference facilities for network synchronization.

18.4.3.5 The total number of Network Elements cascaded from the stratum 1 source shall be minimized.

18.4.3.6 A Network Element shall receive the synchronization reference signal only from another Network Element that contains a clock of equivalent or superior quality (stratum level).

- 18.4.3.7 *U S WEST shall select for synchronization those facilities shown to have the greatest degree of availability (absence of outages).*
- 18.4.3.8 *Where possible, all primary and secondary synchronization facilities shall be physically diverse (this means the maximum feasible physical separation of synchronization equipment and cabling).*
- 18.4.3.9 *No timing loops shall be formed in any combination of primary and secondary facilities.*
- 18.4.3.10 *U S WEST shall continuously monitor the BITS for synchronization related failures.*
- 18.4.3.11 *U S WEST shall continuously monitor all equipment transporting synchronization facilities for synchronization related failures.*
- 18.4.3.12 *For non-SONET equipment, U S WEST shall provide synchronization facilities which, at a minimum, comply with the standards set forth in ANSI T1.101-1994.*
- 18.4.3.13 *For SONET equipment, U S WEST shall provide synchronization facilities that have time deviation (TDEV) for integration times greater than 0.05 seconds and less than or equal to ten (10) seconds, that is less than or equal to 100 nanoseconds. TDEV, in nanoseconds, for integration times greater than ten (10) seconds and less than 1000 seconds, shall be less than 31.623 times the square-root of the integration time.*

## **18.5 SS7 Network Interconnection**

### **18.5.1 Definition:**

*SS7 Network Interconnection is the interconnection of AT&T local Signaling Transfer Point (STPs) with U S WEST STPs. This interconnection provides connectivity that enables the exchange of SS7 messages among U S WEST switching systems and databases, AT&T local or tandem switching systems, and other third-party switching systems directly connected to the U S WEST SS7 network.*

### **18.5.2 Technical Requirements**

- 18.5.2.1 *SS7 Network Interconnection shall provide signaling connectivity to all components of the U S WEST SS7 network through U S WEST STPs. These include:*
- 18.5.2.1.1 *U S WEST local or tandem switching systems;*
  - 18.5.2.1.2 *U S WEST databases; and*
  - 18.5.2.1.3 *other third-party local or tandem switching systems.*
- 18.5.2.2 *The connectivity provided by SS7 Network Interconnection shall support the functions of U S WEST switching systems and databases and AT&T*

or other third-party switching systems with A-link access to the U S WEST SS7 network.

- 18.5.2.3 SS7 Network Interconnection shall provide transport for certain types of Transaction Capabilities Application Part ("TCAP") messages. If traffic is routed based on dialed or translated digits between an AT&T local switching system and a U S WEST or other third-party local switching system, either directly or via a U S WEST tandem switching system, then it is a requirement that the U S WEST SS7 network convey via SS7 Network Interconnection the TCAP messages necessary to provide Call Management services (Automatic Callback, Automatic Recall, and Screening List Editing) between the AT&T local STPs and the U S WEST or other third-party STPs.
- 18.5.2.4 When the capability to route messages based on Intermediate Signaling Network Identifier ("ISNI") is generally available on U S WEST STPs, the U S WEST SS7 Network shall also convey TCAP messages using SS7 Network Interconnection in similar circumstances where the U S WEST switch routes traffic based on a Carrier Identification Code ("CIC").
- 18.5.2.5 SS7 Network Interconnection shall provide all functions of the MTP as specified in ANSI T1. 111. This includes:
- 18.5.2.5.1 Signaling Data Link functions, as specified in ANSI T1.111.2;
  - 18.5.2.5.2 Signaling Link functions, as specified in ANSI T1.111.3; and
  - 18.5.2.5.3 Signaling Network Management functions, as specified in ANSI T1.111.4.
- 18.5.2.6 SS7 Network Interconnection shall provide all functions of the SCCP necessary for Class 0 (basic connectionless) service, as specified in ANSI T1.112.
- 18.5.2.7 Where the destination signaling point is a U S WEST switching system or database, or is another third-party local or tandem switching system directly connected to the U S WEST STPs (SS7 network), SS7 Network Interconnection shall include final GTT of messages to the destination and SCCP Subsystem Management of the destination.
- 18.5.2.8 Where the destination signaling point is an AT&T local or tandem switching system, SS7 Network Interconnection shall include intermediate GTT of messages to a gateway pair of AT&T local STPs, and shall not include SCCP Subsystem Management of the destination.
- 18.5.2.9 SS7 Network Interconnection shall provide all functions of the Integrated Services Digital Network User Part (ISDNUP), as specified in ANSI T1.113.
- 18.5.2.10 SS7 Network Interconnection shall provide all functions of the TCAP, as specified in ANSI T1.114.

18.5.2.11 *If and when inter-network MTP Routing Verification Test (MRVT) and SCCP Routing Verification Test (SRVT) become approved ANSI standards and available capabilities of both U S WEST and AT&T STPs, SS7 Network Interconnection shall provide these functions of the OMAP.*

18.5.2.11.1 *The Parties shall develop a mutually agreed upon interim process for MRVT and SRVT within ninety (90) days of the Effective Date of this Agreement. Either Party shall be allowed to shut off MRVT/SRVT for preservation of network integrity.*

18.5.2.12 *SS7 Network Interconnection shall be equal to or better than the following performance requirements:*

18.5.2.12.1 *MTP Performance, as specified in ANSI T1.111.6;*

18.5.2.12.2 *SCCP Performance, as specified in ANSI T1.112.5; and*

18.5.2.12.3 *ISDNUP Performance, as specified in ANSI T1.113.5.*

### 18.5.3 *Interface Requirements*

18.5.3.1 *U S WEST shall offer the following SS7 Network Interconnection options to connect AT&T or AT&T-designated STPs to the U S WEST STPs (SS7 network):*

18.5.3.1.1 *D-link interface from AT&T STPs.*

18.5.3.2 *Each interface shall be provided by one or more sets (layers) of signaling links, as follows:*

18.5.3.2.1 *A D-link layer shall consist of four links.*

18.5.3.3 *The Signaling Point of Interconnection ("SPOI") for each link shall be located at a cross-connect element, (e.g., DSX-1) in the central office where the U S WEST STPs is located. There shall be a DS-1 or higher rate transport interface at each of the SPOIs. Each signaling link shall appear as a DS-0 channel within the DS-1 or higher rate interface. U S WEST shall offer higher rate DS-1 signaling links for interconnecting AT&T local switching systems or STPs with U S WEST STPs as soon as these become approved ANSI standards and available capabilities of U S WEST STPs.*

18.5.3.3.1 *In each LATA, there will be two (2) SPOIs. The requirement for two SPOIs is driven by the critical importance attached by the Parties to signaling link diversity.*

18.5.3.3.2 *Each Party will designate one (1) of the two (2) SPOIs in a reasonable and efficient location in the LATA. A SPOI can be any existing cross connect point in the LATA.*

- 18.5.3.3.3 *Each signaling link requires a port on each Party's STP.*
- 18.5.3.4 *Where available, the U S WEST central office shall provide intraoffice diversity between the SPOIs and the U S WEST STPs, so that no single failure of intraoffice facilities or equipment shall cause the failure of both D-links in a layer connecting to U S WEST's STPs.*
- 18.5.3.5 *The protocol interface requirements for SS7 Network Interconnection include the MTP, ISDNUP, SCCP and TCAP. These protocol interfaces shall conform to the following specifications:*
- 18.5.3.5.1 *Bellcore GR-905-CORE, Common Channel Signaling Network Interface Specification (CCSNIS) Supporting Network Interconnection, Message Transfer Part (MTP), and Integrated Services Digital Network User Part (ISDNUP);*
- 18.5.3.5.2 *Bellcore GR-1428-CORE, CCS Network Interface Specification (CCSNIS) Supporting Toll Free Service;*
- 18.5.3.5.3 *Bellcore GR-1429-CORE, CCS Network Interface Specification (CCSNIS) Supporting Call Management Services; and*
- 18.5.3.5.4 *Bellcore GR-1432-CORE, CCS Network Interface Specification (CCSNIS) Supporting Signaling Connection Control Part (SCCP) and Transaction Capabilities Application Part (TCAP).*
- 18.5.3.6 *To the extent technically feasible, U S WEST shall set message screening parameters to block accept messages from AT&T local or tandem switching systems destined to any signaling point in the U S WEST SS7 network with which the AT&T switching system has a legitimate signaling relation.*
- 18.5.4 *SS7 Network Interconnection shall be equal to or better than all of the requirements for SS7 Network Interconnection set forth in the following technical references:*
- 18.5.4.1 *ANSI T1.110-1992 American National Standard Telecommunications Signaling System Number 7 (SS7) - General Information;*
- 18.5.4.2 *ANSI T1.111-1992 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Message Transfer Part (MTP);*
- 18.5.4.3 *ANSI T1.111A-1994 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Message Transfer Part (MTP) Supplement;*

- 18.5.4.4 *ANSI T1.112-1992 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Signaling Connection Control Part (SCCP);*
- 18.5.4.5 *ANSI T1.113-1995 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Integrated Services Digital Network (ISDN) User Part;*
- 18.5.4.6 *ANSI T1.114-1992 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Transaction Capabilities Application Part (TCAP);*
- 18.5.4.7 *ANSI T1.115-1990 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Monitoring and Measurements for Networks;*
- 18.5.4.8 *ANSI T1.116-1990 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Operations, Maintenance and Administration Part (OMAP);*
- 18.5.4.9 *ANSI T1.118-1992 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Intermediate Signaling Network Identification (ISNI);*
- 18.5.4.10 *Bellcore GR-905-CORE, Common Channel Signaling Network Interface Specification (CCSNIS) Supporting Network Interconnection, Message Transfer Part (MTP), and Integrated Services Digital Network User Part (ISDNUP);*
- 18.5.4.11 *Bellcore GR-954-CORE, CCS Network Interface Specification (CCSNIS) Supporting Line Information Database (LIDB) Service;*
- 18.5.4.12 *Bellcore GR-1428-CORE, CCS Network Interface Specification ("CCSNIS") Supporting Toll Free Service;*
- 18.5.4.13 *Bellcore GR-1429-CORE, CCS Network Interface Specification (CCSNIS) Supporting Call Management Services; and*
- 18.5.4.14 *Bellcore GR-1432-CORE, CCS Network Interface Specification (CCSNIS) Supporting Signaling Connection Control Part (SCCP) and Transaction Capabilities Application Part (TCAP).*

## **ATTACHMENT 4** **INTERCONNECTION** **TABLE OF CONTENTS**

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### **INTERCONNECTION**

#### **1. Definitions**

- 1.1 *For purposes of this Attachment 4, "Interconnection" is the linking of the U S WEST and AT&T networks for the mutual exchange of traffic. Interconnection does not include the transport and termination of traffic. Interconnection is provided by virtual or physical collocation, entrance facilities or meet point arrangements.*

#### **2. General Description**

- 2.1 *U S WEST will provide Interconnection at any technically feasible point, subject to negotiations between the Parties; such points may include, but not be limited to, a Meet Point, the line side distribution frame of the local switch, the trunk side distribution frame of the local switch, trunk interconnection points of the tandem switch, central office cross-*

connect points, and Signaling Transfer Points necessary to exchange traffic and access call related databases.

- 2.2 **AT&T shall designate at least one POI in the LATA in which AT&T originates local traffic and interconnects with U S WEST. Where U S WEST demonstrates that such point of interconnection is not technically feasible, U S WEST may disagree with the point of interconnection, and the parties shall resolve such disagreement pursuant to the ADR process set forth in this Interconnection Agreement. In addition, where U S WEST can show that there exists a substantially more economical means for making interconnection at a point that will provide AT&T with at least the same functionality that would exist if the interconnection were made at the point and in the fashion proposed by AT&T, U S WEST may disagree with the point of interconnection, and the parties shall resolve such disagreement pursuant to the ADR process set forth in this Interconnection Agreement.<sup>74</sup> AT&T will be responsible for engineering and maintaining its network on its side of the POI. If and when the Parties choose to interconnect at a mid-span meet, AT&T and U S WEST will jointly provision the fiber optic facilities that connect the two (2) networks and shall share the financial and other responsibilities for that facility.**
- 2.3 *Within ten (10) Business Days of AT&T's request for any POI, U S WEST shall provide any information in its possession or available to it regarding the environmental conditions of the interconnection route or location including, but not limited to, the existence and condition of asbestos, lead paint, hazardous substance contamination, or radon. Information is considered "available" under this Agreement if it is in U S WEST's possession, or in the possession of a current or former agent, contractor, employee, lessor, or tenant of U S WEST's.*
- 2.4 *U S WEST shall allow AT&T to perform any environmental site investigations, including, but not limited to, asbestos surveys, AT&T deems to be necessary in support of its collocation needs. AT&T shall advise U S WEST in writing of its intent to conduct any such investigations, and shall receive written approval from U S WEST to proceed with the investigation, which approval shall not be unreasonably withheld. AT&T shall indemnify U S WEST in accordance with the provisions of Section 18 of Part A of this Agreement for any loss or claim for damage suffered by U S WEST as a result of AT&T's actions during any site inspection.*

### **3. Location of Interconnection**

- 3.1 *AT&T will be responsible for implementing and maintaining its network on its side of the POI. U S WEST will be responsible for implementing and maintaining its network on its side of the POI. If and when the Parties choose to interconnect at a Meet Point, AT&T and U S WEST will jointly provision the fiber optic facilities that connect the two networks and shall proportionately share the financial and other responsibilities for that facility based on the reasonably negotiated Meet Point percentage.*
- 3.2 *If interconnection is complicated by the presence of environmental contamination or hazardous materials, and an alternative route is available, U S WEST shall make such alternative route available for AT&T's consideration.*

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<sup>74</sup> Per First Order at 2, Second Order at 1. Second Order at 2.

#### **4. Collocation**

4.1 *Interconnection may be accomplished through either virtual or physical Collocation. The terms and conditions under which Collocation will be available are described in Part A of this Agreement.*

#### **5. Entrance Facility**

5.1 *Interconnection may be accomplished using an entrance facility without the need for collocation. An entrance facility extends from the Point of Interface to a point within a U S WEST central office.*

#### **6. Quality of Interconnection**

6.1 *U S WEST will not, for the purpose of Interconnection, provide to AT&T less favorable terms and conditions than it provides itself or any other Person or in a manner less efficient than it would impose on itself or any other Person. The quality of Interconnection will be at least equal to that U S WEST provides to itself or any other Person. To the extent that AT&T requests higher or lower quality Interconnection, AT&T agrees to use the Bona Fide Request process described in Part A of this Agreement.*

#### **7. Points of Interconnection**

7.1 *Upon a request for specific point to point routing, U S WEST will make available to AT&T information indicating the location and technical characteristics of U S WEST's network facilities. The following alternatives are negotiable and include, but are not limited to: (a) a DS-1 or DS-3 entrance facility, where facilities are available (where facilities are not available and U S WEST is required to build special or additional facilities, special construction charges may apply); (b) virtual collocation; (c) physical collocation; and (d) negotiated Meet Point facilities. Each Party is responsible for providing its own facilities up to the Meet Point. The Parties will negotiate the facilities arrangement between their networks.*

#### **8. Trunking Requirements**

8.1 *U S WEST agrees to provide designed interconnection facilities that meet the same industry standards for technical criteria and service standards, such as the probability of blocking in peak hours and transmission standards.*

8.2 *The Parties shall initially reciprocally terminate local exchange traffic and intraLATA/interLATA toll calls originating on each other's networks as follows:*

**8.2.1** *There shall be no restrictions on traffic types carried. AT&T may combine Toll and Local Traffic originating in AT&T's switches and terminating in U S WEST end offices and tandems on the same trunk group under the following conditions:*

- 8.2.1.1** When Local Traffic is carried on trunks with IntraLATA/InterLATA Toll Traffic, the Local Traffic shall be less than 20% of all such traffic on an aggregate basis. Trunks which carry only Local Traffic shall not be included in this calculation.
- 8.2.1.2** When Local Traffic is carried on trunks with IntraLATA/InterLATA Toll Traffic, at least 80% of such traffic shall be transported over direct trunks from the AT&T switch to the U S WEST End Office Switch. Trunks which carry only Local Traffic shall not be included in this calculation.
- 8.2.1.3** A verifiable and auditable means of assuring AT&T is in compliance with the preceding Sections 8.2.1.1 and 8.2.1.2 must be provided by AT&T to U S WEST.
- 8.2.1.4** Management controls for network traffic shall be as specified in Section 13 of this Attachment.<sup>75</sup>
- 8.2.2** *Until the access structure is revised, to accommodate non-segregated traffic, pursuant to rules promulgated by the FCC or the Commission, two-way trunk groups will be established wherever practical, based upon AT&T's request. If Local Traffic and Toll Traffic are combined in one (1) trunk group, AT&T shall provide a measure of the amount of Local and Toll Traffic relevant for billing purposes to U S WEST. U S WEST may audit the traffic reported to it by AT&T if it has reason to believe the reported measurement is not accurate. Such audit shall be conducted in accordance with the Audit Section set forth in this Agreement.<sup>76</sup> Exceptions to this provision will not be based on technical infeasibility, but will be based on billing, signaling, and network requirements. For example, exceptions include: (a) billing requirements - switched access vs. local traffic, (b) signaling requirements - MF vs. SS7, (c) network requirements - Directory Assistance traffic to TOPS tandems, and (d) one-way trunks for 911/E911. The following is the current list of traffic types that require separate trunk groups, unless otherwise specifically stated in this Agreement:*
- (a) *intraLATA toll and interLATA switched access trunks*
  - (b) *EAS/local trunks*
  - (c) *Directory Assistance trunks*
  - (d) *911/E911 trunks*
  - (e) *Operator Services trunks*
  - (f) *Non-U S WEST toll (transit toll to other providers)*
  - (g) *Non-U S WEST local (transit local to other providers)*
  - (h) *Commercial Mobile Radio Service/Wireless traffic*

<sup>75</sup> Per Fourth Order at pages 1-2

<sup>76</sup> Per Fourth Order at pages 1-2.

**8.2.3 If U S WEST can demonstrate that any need for network reinforcement would not be otherwise necessary but for the combined transport of CLEC local and toll traffic through U S WEST's access tandem switch, it shall be entitled to a sharing of the costs of such reinforcement; such cost-sharing to be on a basis that is to be determined by agreement of the parties to be equitable under the particular circumstances involved; provided, however, that any CLEC that is required to participate in such cost-sharing may, at its election, transfer its local traffic to a separate trunk group in lieu of participating in such cost-sharing arrangement.<sup>77</sup>**

8.3 *Separate trunk groups will be established connecting AT&T's switch or AT&T's Operator Service center to U S WEST's Operator Service center for operator-assisted busy line interrupt/verify. For traffic from the U S WEST network to AT&T for Operator Services, U S WEST will provide one (1) trunk group per LATA NPA\_ served by the local U S WEST switch.*

8.4 *Trunk Servicing*

8.4.1 *Orders between the Parties to establish, add, change or disconnect trunks shall be processed by use of an Access Service Request ("ASR") or another industry standard for local service ordering.*

8.4.2 *As further described in this Agreement, both Parties will jointly manage the capacity of Local Interconnection trunk groups. U S WEST's trunk servicing group will send a Trunk Group Service Request ("TGSR"), or another industry standard eventually adopted to replace the TGSR, to AT&T to trigger changes U S WEST desires to the Local Interconnection trunk groups based on U S WEST's capacity assessment. AT&T will issue an ASR or other industry ordering standard to U S WEST:*

(a) *within ten (10) Business Days after receipt of the TGSR, upon review of and in response to U S WEST's TGSR, or*

(b) *at any time, as a result of AT&T's own capacity management assessment, to begin the provisioning process. The interval used for the provisioning of Local Interconnection trunk groups shall be no longer than the standard interval for the provisioning of U S WEST's Switched Access service and shall be consistent with U S WEST's actual provisioning intervals for its own Switched Access customers.*

8.4.3 *U S WEST will attempt to meet AT&T's requested due date for the provision of Local Interconnect trunk groups. Where the installation of Local Interconnection trunk groups is required within a time that is shorter than the standard interval, the Parties will make all reasonable efforts and cooperate in good faith to ensure that the mutually agreed upon due date is met.*

8.4.4 *Orders that comprise a major project may be submitted at the same time, in which case their implementation shall be jointly planned and coordinated. Major projects are those that require the coordination and execution of multiple orders or related activities between and among U S WEST and AT&T/MCI work groups,*

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<sup>77</sup> Per Fourth Order at pages 1-2.

*including, but not limited to, the initial establishment of Local Interconnection or Meet Point trunk groups and service in an area, NXX code moves, re-homes, facility grooming, or network rearrangements.*

## 8.5 Trunking Requirements

- 8.5.1 *Trunk group connections will be made at a DS-1 or multiple DS-1 level for exchange of EAS/local, intraLATA toll, wireless/Commercial Mobile Radio Service, and Switched Access Traffic. Ancillary Service trunk groups will be made below a DS-1 level, as agreed to by the Parties.*
- 8.5.2 *Where CCS is not available, in-band multi-frequency (MF) wink start signaling will be provided. This MF arrangement will require a separate local trunk circuit between AT&T's switch and U S WEST's tandems. Reference Technical Pub. TR-314 and TR394.*
- 8.5.3 **The proper mix of direct trunked and tandem switched transport of DS-1 equivalency (24 voice grade trunks) is a reasonable standard that the Parties shall follow. A mix of direct-trunked and tandem-switched transport may maximize the efficiency and economy of network operations. AT&T may, at its option, examine pursuant to the BFR process whether (a) this standard is unnecessary and causes it to bear significant expense in a particular case or (b) experience and knowledge that it has gained over time under the Interconnection Agreement show that a difference standard is appropriate.<sup>78</sup>**

## 9. Service Interruptions

- 9.1 *Standards and procedures for notification of trunk disconnects will be jointly developed by the Parties within ninety (90) days of the Effective Date of this Agreement after request. Neither Party shall be expected to maintain active status for a trunk disconnected by the other Party for an extended or indefinite period of time.*
- 9.2 *The characteristics and methods of operation of any circuits, facilities or equipment of either Party connected with the services, facilities or equipment of the other Party pursuant to this Agreement shall not: (a) interfere with or impair service over any facilities of the other Party; its Affiliates, or its connecting and concurring carriers involved in its services; (b) cause damage to their plant; (c) violate any applicable law or regulation regarding the invasion of privacy of any communications carried over the Party's facilities; or (d) create hazards to the employees of either Party or to the public.*
- 9.3 *Each Party shall be solely responsible, and bear the expense, for the overall design of its services. Each Party shall also be responsible for any redesign or rearrangement of its services that may be required because of changes in facilities, operations or procedures, minimum network protection criteria, and operating or maintenance characteristics of the facilities. If one Party creates a circumstance causing additional costs to the other Party, the other Party may collect construction charges from the first Party.*

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<sup>78</sup> Per First Order at 3.

- 9.4 *To facilitate trouble reporting and to coordinate the repair of the service provided by each Party to the other under this Agreement, each Party shall designate and define a Trouble Reporting Control Office ("TRCO") for such service. Each Party shall furnish a trouble reporting telephone number for the designated TRCO. This number shall have access to the location where facility records are normally located and where current status reports on any trouble reports are readily available. Current and historical trouble reports will be made available, if necessary. Alternative out-of-hours procedures shall be established to ensure access to a location that is staffed and has the authority to initiate corrective action.*
- 9.5 *Where new facilities, services and arrangements are installed to rectify the service interruption, the TRCO shall ensure that continuity exists and take appropriate transmission measurements before advising the other Party that the new circuit is ready for service.*
- 9.6 *The Parties shall cooperate in isolating trouble conditions. Before either Party reports a trouble condition, it shall use reasonable efforts to isolate the trouble.*
- 9.7 *In cases where a trouble condition affects a significant portion of the other Party's service, the Parties shall assign the same priority provided to other interconnecting carriers.*

## **10. Forecasting<sup>79</sup>**

- 10.1 Interconnecting carriers and US WEST have an obligation to participate in joint planning meetings at quarterly intervals to establish trunk design and provisioning requirements. The planning process shall will include the issues of network capacity, forecasting, and compensation calculation, where appropriate.**
- 10.2 In order to support these planning meetings, the Parties agree to provide mutual trunk forecast information to ensure customer call completion between the Parties networks. Such forecasts will be for Local Interconnection Service (LIS) trunking, which affects the switch hook capacity of each Party. LIS trunk forecasts drive switch growth jobs that provide switch hook capacity.**
- 10.2.1 The Parties shall provide to each other quarterly forecasts that give to the other all information that the recipient needs to plan, design, and install on a timely basis all trunking facilities that are necessary to exchange traffic between them.**
- 10.2.2 At least two weeks prior to each joint planning meeting, both Parties shall provide information on major network projects anticipated for the following year, where such projects may affect the other Party s forecast or interconnection requirements. Major network projects include trunking or network rearrangements, shifts in anticipated traffic patterns, or other activities that are reflected by a significant increase or decrease in trunking demand for the following forecasting period.**

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<sup>79</sup> Per Sixth Order at 13-18.

- 10.2.3** The quarterly forecasts shall include forecasted requirements for each trunk group identified in Paragraph 8.2.1 of this Attachment. In addition, for tandem-switched traffic, the forecast shall include the quantity of tandem-switched traffic forecasted for each subtending end office. For traffic terminated at a Party's access tandem, the information shall include that which is required by the party to plan for appropriate handling of the traffic. To the extent historical traffic data can be shared between the Parties, the accuracy of the forecasts will improve. Forecasts shall be for a minimum of three (3) (current and plus-1 and plus-2) years.
- 10.2.4** The Parties recognize that many types of growth jobs generally require a six (6) month minimum time frame for completion. The Parties obligation to provide timely information for these jobs will recognize this time frame.
- 10.2.5** The forecast, project, and supporting information provided in writing or at planning meetings under this section shall be deemed to be confidential and proprietary for purposes of Section 28 of this agreement.
- 10.3** Each Party shall provide a specified point of contact for planning, forecasting, and trunk servicing purposes.
- 10.4** Trunking can be established to tandems or end offices or a combination of both via either one-way or two-way trunks. Trunking will be at the DS-0 level, DS-1 level, DS-3 level, or at any other technically feasible level, subject to network disclosure requirements of the FCC. Initial trunking will be established between AT&T's switching centers and US WEST's access tandem(s). The Parties will utilize direct end office trunking under the following conditions:
- 10.4.1** Tandem exhaust - If a tandem through which the parties are interconnected is unable to, or is forecasted to be unable to, support additional traffic loads for any period of time, the Parties will mutually agree on an end office trunking plan that will alleviate the tandem capacity shortage and ensure completion of traffic between AT&T and US WEST subscribers.
- 10.4.2** Traffic volume - The Parties shall install and retain direct end office trunking sufficient to handle actual or reasonably forecasted traffic volumes, whichever is greater, between an AT&T switching center and a US WEST end office where the local traffic exceeds or is forecasted to exceed 512 CCS at the busy hour.
- 10.4.3** Mutual agreement - The Parties may install direct end office trunking upon mutual agreement in the absence of conditions (1) or (2) above, which agreement shall not unreasonably be withheld.

**10.5** The Parties shall have a mutual obligation to work to resolve forecast differences within a time frame that will permit the timely construction of facilities that are necessary to meet forecasts. This obligation shall include good faith efforts to institute and complete the use of the dispute resolution procedures of Section 27 to resolve such differences. Upon the request of either Party, the Parties shall negotiate in good faith to develop expedited rules and procedures that will allow the use of Section 27 procedures to resolve forecast differences on a basis that will permit the timely construction of facilities that may prove necessary.

**10.6 Compensation in the Event of Capacity Surpluses**

The constructing Party may seek compensation for the actual cost of construction of facilities that prove unnecessary under the following conditions:

(A) One party, not necessarily the one seeking compensation under this provision, must have promptly requested resolution of forecast differences under Section 10.5 above.

(B) The initiation of such a request under Section 10.5 shall be sufficient notice to each Party that it is at risk of having to make compensation under this section, whether or not such request comes to final resolution by a third party on a timely basis.

(C) Compensation to the constructing Party shall only be awarded if greater than 20 percent (in addition to any spare or reserve capacity already included as a result of the application of demonstrable planning guidelines or criteria) of the capacity in the constructed facilities is actually unused because of an over-forecast by the other Party. For example, no compensation is to be awarded if capacity unused due to the over-forecast is 20 percent. If such unused capacity is 25 percent, then the constructing Party shall be entitled to payment for all 25 percent of such capacity. Moreover, usage of the facilities by all parties, including but not limited to the constructing Party and any persons not party to this agreement, shall be accumulated for purposes of determining the used portion of such facilities. The basis for measuring the difference in actual versus forecasted capacity at each point in time shall be made by comparing actual use at that time against use forecasted to exist at that time.

(D) The constructing Party shall be obliged to show that it has undertaken reasonable means to mitigate the revenue impacts of such unused capacity.

(E) The Party responsible for making compensation under this section shall have the right to elect to make a one-time payment of the fully allocated costs of such unused capacity or to make recurring payments at prices set forth in this agreement. In the case of the former election, the Party so responsible shall have the right to use the capacity without further charge for the capacity itself (as opposed to its operation and maintenance) by the

constructing Party. In the case of the latter election, the constructing Party shall have the continuing obligation to mitigate revenue impacts and it shall credit the other Party at the prices set forth in this agreement for all use of such capacity by any other person, including but not limited to the constructing Party and any persons not party to this agreement.

#### **10.7 Compensation in the Event of Capacity Shortages**

Regardless of the level of facility needs determined through forecasts, the Parties agree that they will undertake the following measures upon request of the other to provide LIS trunking facilities to meet any actual unmet needs:

(A) Release the Party's own underutilized trunks for the purpose of providing sufficient interconnection capacity between them.

(B) Request that other providers release unneeded trunks to which they are entitled to have access ( brokering ). The brokering process will be conducted in a manner that does not result in the disclosure of either Party's confidential or proprietary information to third parties, including such other providers.

(C) Expedite trunk installation or augmentation.

10.7.1 Where the unmet needs are among needs that can be shown to be included within (a) an agreed upon forecast or (b) a forecast level determined to be appropriate through the dispute resolution procedures described in Section 10.5, there shall be no recovery from the other Party for the costs of taking any of the aforementioned three measures. Where the unmet needs exceed those included in either of the above two types of forecasts, a Party who requests the other to take either of those measures shall pay to the other Party its reasonable costs for undertaking those measures that are undertaken at the direction of the requesting Company.

10.7.2 In addition to the measures set forth in section 10.7.1, a Party that requests LIS trunking facilities in excess of a forecast such as those described in section 10.7.1 may select the following options:

(A) Cancel its request.

(B) Pay the other Party's reasonable costs for expedited construction of the additional facilities.

10.7.3 Where there has been neither of the two types of forecasts described in section 10.7.1, a Party who requests facilities in excess of those that would have been required to meet its forecast shall be liable to bear the cost of efforts to mitigate the impacts of an actual shortage under the following conditions:

(A) One party, not necessarily the one seeking compensation under this provision must have promptly requested resolution of forecast differences under Section 10.5 above.

(B) The initiation of such a request under Section 10.5 shall be sufficient notice to each Party that it is at risk of having to make compensation under this section, whether or not such request comes to final resolution by a third party on a timely basis.

(C) Compensation shall only be awarded to the extent that the forecast of the requesting Party is determined to be greater than what was reasonable at the time that the requesting Party made it. Moreover, compensation shall be limited to the mitigation costs; the prices for the trunking itself shall be as provided elsewhere in this agreement, in order to preclude double compensation.

10.8 In the event that the parties agree to a forecast, or in the event that their differences with respect to a forecast are resolved under Section 27 procedures in a manner that supports timely capacity installations, neither Party shall be liable to the other for compensation related to capacity surpluses or shortages, except in either of the following two situations:

where a Party can demonstrate that the other Party's grossly negligent or intentional errors or omissions contributed substantially to the production of such an agreed to or resolved forecast.

where circumstances beyond the control of either Party result in the failure of forecasted demand arise and a constructing Party is left without reasonable assurances that it will be able to recover its investment in the constructed facilities during their expected life.

10.9 The compensation provisions of this section shall not be construed to diminish any rights that a Party may have to compensation or damages under any other provision of this agreement.

## 10. Forecasting

U S WEST proposed language.

10.1 Interconnecting Carriers have an obligation to participate in joint planning meetings, at quarterly intervals to establish trunk design and provisioning requirements. The Parties agree to provide mutual trunk forecast information to ensure customer call completion between the Parties' networks. Such forecasts will be for Local Interconnection Service (LIS) trunking, which impacts the switch hook capacity of each Party. LIS trunk forecasts drive switch growth jobs that provide switch hook capacity.

- 10.2 Switch growth jobs are custom jobs with a six (6) month minimum time frame from the vendors. To align with the timeframe needed to provide capacity, including engineering, ordering, installation and make-ready activities required by the forecast, the Parties agree to utilize the attached timeline (attachment 1, example only) and appropriate LIS Trunk Forecast Forms.
- 10.3 Each Party will utilize the Forecasting Advance Interval, which covers a seven (7) month forecast, (provided according to the above mentioned timeline), as though it were building for actual orders.
- 10.4 Co-Providers will follow the contractual agreements for appropriate trunking; for the appropriate sizing of trunks and local tandem and end office routing. In the event of a dispute of forecast quantities, the Parties should build to at least the minimum, rather than not building at all.
- 10.5 Joint planning meetings/calls will be used to bring clarity to the process. Each Party will provide adequate information associated with the forecast questions, in addition to its' forecasts. During the joint planning meetings, both Parties shall provide information on major network projects anticipated for the following year, which may impact the other Party's forecast or interconnection requirements. No later than two weeks prior to the joint planning meetings, the Parties shall exchange information to facilitate the planning process.
  - 10.5.1 Co-Provider shall provide:
    - 10.5.1.1 Trunk Forecast Questionnaire Information, as appropriate.
    - 10.5.1.2 Any alternate tandem arrangements.
  - 10.5.2 U S WEST shall provide the following information through the Local Exchange Routing Guide or the ICONN Database:
    - 10.5.2.1 U S WEST Tandems and end offices (LERG)
    - 10.5.2.2 CLLI codes (LERG)
    - 10.5.2.3 Business/Residence line counts (ICONN)
    - 10.5.2.4 Switch type (LERG or ICONN)
    - 10.5.2.5 Current and planned switch generics (ICONN)
- 10.6.3 Through the U S WEST home page the following information shall be provided on a Co-Provider specific basis:
  - 10.6.3.1 Trunk blocking reports for existing trunk groups; e.g., direct end office and and local tandem connected LIS trunks, and a summary report for common trunk groups behind the local tandem that are blocking within specific thresholds or bands. This information will be provided pursuant to approved contracts and/or Commission rules.

- 10.6.3.2 Deployment information for specific technical capabilities; e.g. ISDN deployment, 64 CCC, etc., through U S WEST Network Disclosure.
- 10.7 The initial joint planning meeting shall discuss the U S WEST Trunk Group Servicing Request (TGSR) process, which is utilized to notify of the need to take action and place orders against the forecasted trunk requirements.
- 10.8 The Parties shall work cooperatively in the joint planning meetings to reach agreement on the trunk forecast requirements. In the event a dispute arises regarding these requirements, the Parties shall attempt, in good faith, to resolve the matter informally. If the parties fail to reach resolution, the Agreement's procedures for formal dispute resolution shall apply.
- 10.9 The Parties agree to the following terms for the forecasting process:
- 10.9.1 Forecasts will be provided using Trunk Forecast Questionnaire Information.
- 10.9.2 Forecasts shall be deemed confidential and proprietary.
- 10.10 As mutual providers of enabling infrastructure, both Parties are responsible for the provision of LIS trunking facilities necessary to meet the agreed upon forecasted trunk requirements. In the event sufficient facilities are not in place to meet the forecasts demand, the Parties agree to: (1) initiate the broker function to obtain unused facilities, (2) delay turn-up of the enabling provider's own trunks, (3) release the Party's own underutilized trunks and reuse them to meet order request, or (4) expedite trunk augmentation and waive expedite charges.
- 10.10.1 Except in extenuating circumstances out of the Party's control; e.g. generic or processor upgrades that would preclude turn-up of trunks, the Parties agree to use the above process to make facilities available to each other.
- 10.11 The Parties agree that orders placed in excess of the agreed upon forecasted trunk requirements and/or non-forecasted orders, will be considered and may be subject to the following options. The orders, when taken, will be compared to the current forecast on record. If the orders exceed the forecast, the following options will be available to the Co-Provider:
- 10.11.1 Wait for the next forecasted cycle (cancel the order).
- 10.11.2 Pay excess construction /escalation charges for the additional facilities.
- 10.11.3 As the service provider to perform a broker function and request other providers to release unneeded forecasted trunks. This process shall be conducted in a confidential manner, so that neither Party's proprietary information will be disclosed to third parties, including the service providers referenced in this section.

- 10.12 For orders not placed to the forecast by the end of the forecast cycle, the Parties agree that a stranded capacity charge shall apply. The providing party may require payment for capacity built but not ordered, for stranded capacity or canceled orders. Brokered capacity will not be included for computing stranded capacity charges.
- 10.13 The Parties agree that trunk utilization charges will apply to under-utilized trunks, in the cycle following the trunk turn-up. The providing Party may require payment from the other Party associated with trunks that are utilized less than sixty percent (60%) over a six month period of time. Such payments may continue until utilization levels meet or exceed sixty percent (60%).
- 10.1 The Parties agree that during the first year of Interconnection, joint forecasting and planning meetings will take place no less frequently than once per quarter.
- 10.2 The Parties shall establish joint forecasting responsibilities for traffic utilization over trunk groups. Intercompany forecast information must be provided by the Parties to each other four (4) times a year. The quarterly forecasts shall include forecasted requirements for each trunk group identified in Paragraph 8.2.1 of this Attachment. In addition, for tandem-switched traffic, the forecast shall include the quantity of tandem-switched traffic forecasted for each subtending end office. The Parties recognize that, to the extent historical traffic data can be shared between the Parties, the accuracy of the forecasts will improve. Forecasts shall be for a minimum of three (3) (current and plus-1 and plus-2) years and shall include:
- 10.2.1 the use of Common Language Location Identifier (CLLI-MSG), which is described in Bellcore documents BR 795-100-100 and BR 795-400-100; and
- 10.2.2 a description of major network projects anticipated for the following six (6) months that could affect the other Party. Major network projects include trunking or network rearrangements, shifts in anticipated traffic patterns, or other activities that are reflected by a significant increase or decrease in trunking demand for the following forecasting period. This planning will include the issues of network capacity, forecasting and compensation calculation, where appropriate.
- 10.2.3 If forecasts vary significantly, the Parties shall meet to review and reconcile such forecasts.
- 10.2.3.1 If the Parties are unable to reach such a reconciliation, the Local Interconnection trunk groups shall be provisioned to the higher forecast the average of the two higher forecasts. At the end of three (3) months, the utilization of the Local Interconnection trunk groups will be reviewed and if the average CCS utilization for the third month is under seventy five percent (75%) of capacity, either Party

may issue an order to resize the trunk group, which shall be left with not less than twenty five percent (25%) excess capacity.

- 10.2.3.2 If the Parties agree on the original forecast and then it is determined that a trunk group is under seventy five percent (75%) of CCS capacity on a monthly-average basis for each month of any three-month period, either Party may issue an order to resize the trunk group, which shall be left with not less than twenty five percent (25%) excess capacity. In all cases, grade of service objectives identified in this Agreement shall be maintained.
- 10.3 Each Party shall provide a specified point of contact for planning, forecasting and trunk servicing purposes.
- 10.4 Trunking can be established to tandems or end offices or a combination of both via either one-way or two-way trunks. Trunking will be at the DS-0 level, DS-1 level, DS-3 level, or any other technically feasible level, subject to network disclosure requirements of the FCC. Initial trunking will be established between AT&T's switching centers and U S WEST's access tandem(s). The Parties will utilize direct end office trunking under the following conditions:
- 10.4.1 Tandem exhaust - If a tandem through which the Parties are interconnected is unable to, or is forecasted to be unable to, support additional traffic loads for any period of time, the Parties will mutually agree on an end office trunking plan that will alleviate the tandem capacity shortage and ensure completion of traffic between AT&T and U S WEST subscribers.
- 10.4.2 Traffic volume - The Parties shall install and retain direct end office trunking sufficient to handle actual or reasonably forecasted traffic volumes, whichever is greater, between an AT&T switching center and a U S WEST end office where the local traffic exceeds or is forecasted to exceed 512 CCS at the busy hour.
- 10.4.3 Mutual agreement - The Parties may install direct end office trunking upon mutual agreement in the absence of conditions (1) or (2) above, which agreement shall not unreasonably be withheld.

*10.510 Grade of Service:*

*A blocking standard of one percent (1%) during the average busy day-busy hour, as defined by each Party's standards, for final trunk groups between an AT&T end office and a U S WEST access tandem carrying Meet Point traffic shall be maintained. All other final trunk groups are to be engineered with a blocking standard of one percent (1%). Direct end office trunk groups are to be engineered with a blocking standard of one percent (1%).*

## **11. Signaling**

- 11.1 *Signaling protocol. The Parties will interconnect their networks using SS7 signaling as defined in GR-317 and GR-394, including ISDN User Part ("ISUP") for trunk signaling and Transaction Capabilities Application Part ("TCAP") for CCS-based features in the interconnection of their networks. All appropriate industry standards for signaling interoperability will be followed.*
- 11.2 *The Parties will provide CCS to each other in conjunction with all trunk groups supporting Local, Transit, and Toll Traffic. The Parties will cooperate on the exchange of TCAP messages to facilitate full interoperability of CCS-based features between their respective networks, including all CLASS features and functions. All CCS signaling parameters will be provided, including automatic number identification (ANI), originating line information (OLI), calling party category, charge number, etc. For terminating Feature Group D, the Parties will pass CPN if it receives CPN from Feature Group D carriers. All privacy indicators will be honored. Where available, network signaling information such as Transit Network Selection ("TNS") parameter (CCS platform) and CIC/OZZ information (non-CCS environment) will be provided by the Parties wherever such information is needed for call routing or billing. The Parties will follow all appropriate industry standards pertaining to TNS and CIC/OZZ codes.*
- 11.3 *Standard Interconnection facilities shall be Extended Superframe (ESF) with B8ZS line code. Where ESF/B8ZS is not available, AT&T will agree to using other Interconnection protocols on an interim basis until the standard ESF/B8ZS is available. U S WEST will provide anticipated dates of availability for those areas not currently ESF/B8ZS compatible.*
- 11.4 *Where AT&T is unwilling to utilize an alternate Interconnection protocol, AT&T will provide U S WEST an initial forecast of 64 Kbps clear channel capability ("64K CCC") trunk quantities within thirty (30) days of the Effective Date of this Agreement after request consistent with the forecasting agreements between the Parties. Upon receipt of this forecast, the Parties will begin joint planning for the engineering, procurement, and installation of the designated 64K CCC Local Interconnection trunk groups and the associated B8ZS Extended Super Frame facilities, for the purpose of transmitting 64K CCC data calls between AT&T and U S WEST. Where additional equipment is required, such equipment will be obtained, engineered, and installed on the same basis and with the same intervals as any similar growth job for an IXC, AT&T or U S WEST internal customer demand for 64K CCC trunks. Where technically feasible, these trunks will be established as two-way.*

## **12. Ordering**

- 12.1 **AT&T may order Interconnection points using the ASR process or other industry standard for local service ordering.<sup>80</sup>**
- 12.2 **The specific time frames for responding to interconnection requests are identified in Attachment 5.**
- 12.3 *[Intentionally left blank for numbering Consistency].*
- 12.4 *AT&T shall, on each order for Local Interconnection trunks, specify the AT&T NXXs that are assigned to the trunks.*

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<sup>80</sup> Per First Order at 2.

### **13. Network Management**

#### *13.1 Protective Protocols*

*Either Party may use protective network traffic management controls such as 7-digit and 10-digit code gaps on traffic toward each others network when required to protect the public switched network from congestion due to facility failures, switch congestion or failure or focused overload.*

#### *13.2 Rerouting Protocols*

*Where the capability exists, originating or terminating traffic reroutes may be implemented by either Party to temporarily relieve network congestion due to facility failures or abnormal calling patterns. Reroutes will not be used to circumvent normal trunk servicing. Rerouting controls will only be used when mutually agreed to by the Parties.*

#### *13.3 Mass Calling*

*AT&T and U S WEST shall cooperate and share pre-planning information, where available and in compliance with federal and state regulations, regarding cross-network call-ins expected to generate large or focused temporary increases in call volumes, to prevent or mitigate the impact of these events on the public switched network. Furthermore, INP numbers may only be used consistent with network efficiency and integrity, i.e., inhibitions on mass calling events.*

### **14. Usage Measurement**

#### *14.1 When applicable, each Party shall provide to the other:*

*14.1.1 Bellcore AMA formatted records to generate bills to the other Party;*

*14.1.2 measurement of minutes of use over Local Interconnection trunk groups in actual conversation seconds. The total conversation seconds over each individual Local Interconnection trunk group will be totaled for the entire monthly bill-round and then rounded to the next whole minute; and*

*14.1.3 within twenty (20) calendar days after the end of each quarter (commencing with the first full quarter after the Effective Date of this Agreementrequest), a usage report with the total traffic volume described in terms of minutes and messages and by call type (i.e., local, toll, and other) terminated to each other over SS7 local interconnection trunk groups.*

### **15. Audiotext and Mass Announcement Services**

*The Parties agree that access to the audiotext, mass announcement and information services of one Party may be made available to the other Party upon execution of a separate agreement or an amendment to this Agreement.*

### **16. Interconnection to Network Elements**

16.1 *Technical Requirements*

- 16.1.1 *When requested by AT&T, U S WEST shall provide Interconnection between U S WEST Network Elements provided to AT&T and AT&T's network at transmission rates designated by AT&T. If additional equipment beyond that which U S WEST currently has in place is planning to put in place or is otherwise required to have in place is required to meet such transmission rates, the installation and/or acquisition of such equipment shall be accomplished pursuant to the ordering process set forth in this Agreement.*
- 16.1.2 *Traffic shall be combined and routed as follows:*
- 16.1.2.1 *At AT&T's request, U S WEST shall receive AT&T traffic destined to the U S WEST Operator Systems Network Element, on trunks from an AT&T end-office or an AT&T tandem.*
- 16.1.2.2) *At AT&T's request, U S WEST shall receive AT&T CAMA-ANI (Centralized Automatic Message Accounting - Automatic Number Identification) traffic destined to the U S WEST 911 PSAPs, or E911 tandems, on trunks from an AT&T end-office.*
- 16.1.2.3 *At AT&T's request, U S WEST shall receive AT&T SS7 traffic destined to any U S WEST E911 tandem on trunks from an AT&T end-office, when SS7 E911 signaling is available in U S WEST's network.*
- 16.1.3 *When requested by AT&T and a third party carrier, U S WEST shall provide interconnections between AT&T's network, and the other carrier's network through the U S WEST network at transmission rates designated by AT&T, including, but not limited to, DS-1, DS-3, and STS-1, where available. U S WEST shall combine and route traffic to and from other local carriers and interLATA carriers through the U S WEST network, and, at AT&T's request, U S WEST shall record and keep records of such traffic for AT&T billing purposes to the extent possible.*
- 16.1.4 *U S WEST shall provide two-way trunk groups for Interconnections. At AT&T's request, and consistent with an efficient network architecture, U S WEST shall provide unidirectional traffic on such trunks, in either direction, effectively operating them as if they were one-way trunk groups.*
- 16.1.5 *All trunking provided by U S WEST shall adhere to the applicable performance requirements set forth in the "General Performance Requirements" section of this Agreement, pursuant to Sections 1.3.1 and 1.3.2 of Part A of this Agreement.*
- 16.1.6 *At AT&T's request, U S WEST shall work cooperatively with AT&T to provide for overflow routing from a given trunk group or groups onto another trunk group or groups as AT&T designates.*
- 16.1.7 *U S WEST and AT&T shall agree on the establishment of two-way trunk groups for the exchange of traffic for other IXCs. These trunk groups can be provided in a meet point arrangement.*

16.1.8 *Interconnection shall be made available upon AT&T's request at any technically feasible Point of Interface. All trunk interconnections shall be provided, including SS7, MF, DTMF, DialPulse, PRI-ISDN (where available), DID (Direct Inward Dialing), CAMA-ANI, and trunking necessary so that INP can be provided.*

## 16.2 *Trunk Interface Requirements*

### 16.2.1 *E911 Trunks*

16.2.1.1 *U S WEST shall allow AT&T to provide direct trunking to each U S WEST E911 end office or tandem, as is appropriate for the applicable serving area. These trunks are to be provided as one-way trunks from a given AT&T end office to the U S WEST E911 end office or tandem.*

16.2.1.2 *U S WEST shall provide for overflow E911 traffic in the same manner that U S WEST provides E911 overflow for itself.*

### 16.2.2 *S911 Trunks*

*If and when S911 tandems become available in the U S WEST network, U S WEST shall allow AT&T to provide direct trunking to each U S WEST S911 tandem. Such SS7 trunks are to be provided as one-way trunks from a given AT&T end-office to the U S WEST S911 tandem.*

### 16.2.3 *Local Switch and Access Tandem Trunks*

16.2.3.1 *U S WEST shall provide trunks groups provisioned exclusively to carry intraLATA Toll Traffic, as designated by AT&T.*

16.2.3.2 *U S WEST shall provide trunk groups provisioned exclusively to carry interLATA traffic, as designated by AT&T.*

16.2.3.3 *U S WEST shall provide SS7 trunks which provide SS7 Interconnection. At AT&T's request, MF trunks may be substituted for SS7 trunks where applicable.*

16.2.3.4 *U S WEST shall simultaneously route calls based on dialed digits (in accordance with the standard GR-317-CORE), and Carrier Identification Code (in accordance with the standard GR-394-CORE) over a single SS7 trunk group.*

### 16.2.4 *U S WEST Operator Services Trunk*

*U S WEST shall provide Operator Services trunks as one-way trunks from the U S WEST network to the AT&T network.*

16.3 *Network Interconnection between U S WEST and AT&T shall meet or exceed all of the requirements for network Interconnection set forth in the following technical references:*

- 16.3.1 *GR-317-CORE, Switching System Generic Requirements for Call Control Using the Integrated Services Digital Network User Part (ISDNUP), Bellcore, February 1994;*
- 16.3.2 *GR-394-CORE, Switching System Generic Requirements for Interexchange Carrier Interconnection Using the Integrated Services Digital Network User Part (ISDNUP), Bellcore, February 1994;*
- 16.3.3 *FR-NWT-000271, OSSGR Operator Services Systems Generic Requirements, Bellcore, 1994 Edition; and*
- 16.3.4 *FR-NWT-000064, LATA Switching Systems Generic Requirements (LSSGR), Bellcore, 1994 Edition.*

## **17. Reciprocal Traffic Exchange**

### **17.1 Scope**

*Reciprocal traffic exchange addresses the exchange of traffic between AT&T end users and U S WEST end users. If such traffic is local, the provisions of this Agreement shall apply. Where either Party acts as an intraLATA toll provider or interLATA IXC or where either Party interconnects and delivers traffic to the other from third parties, each Party shall bill such third parties the appropriate charges pursuant to its respective tariffs or contractual offerings for such third party terminations. Absent a separately negotiated agreement to the contrary, compensation for reciprocal traffic exchange applies solely to traffic exchanged directly between the Parties without the use of third party transit providers.*

### **17.2 Responsibilities of the Parties**

- 17.2.1 *U S WEST and AT&T agree to treat each other fairly, nondiscriminatorily, and equally for all items included in this Agreement, or related to the support of items included in this Agreement.*
- 17.2.2 *AT&T and U S WEST agree to exchange such reports and/or data as provided in this Agreement to facilitate the proper billing of traffic. Either Party may request an audit of such usage reports in accordance with the procedures described in Section 49 of Part A of this Agreement.*
- 17.2.3 *[Intentionally left blank for numbering consistency]*
- 17.2.4 *AT&T/MCI and U S WEST shall share responsibility for all Control Office functions for Local Interconnection trunks and trunk groups, and both Parties shall share the overall coordination, installation, and maintenance responsibilities for these trunks and trunk groups.*
- 17.2.5 *The Party that performs the End Office function is responsible for all Control Office functions for the meet point trunking arrangement trunks and trunk groups, and shall be responsible for the overall coordination, installation, and maintenance responsibilities for these trunks and trunk groups.*

**17.2.6 AT&T and U S WEST shall:**

- 17.2.6.1 *Provide trained personnel with adequate and compatible test equipment to work with each other's technicians.*
- 17.2.6.2 *Notify each other when there is any change affecting the service requested, including the due date.*
- 17.2.6.3 *Coordinate and schedule testing activities of their own personnel, and others as applicable, to ensure its Interconnection trunks/trunk groups are installed per the Interconnection order, meet agreed-upon acceptance test requirements, and are placed in service by the due date.*
- 17.2.6.4 *Perform sectionalization to determine if a trouble is located in its facility or its portion of the Interconnection trunks prior to referring the trouble to each other.*
- 17.2.6.5 *Advise each other's Control Office if there is an equipment failure which may affect the interconnection trunks.*
- 17.2.6.6 *Provide each other with a trouble reporting/repair contact number that is readily accessible and available twenty-four (24) hours per day, seven (7) days per week. Any changes to this contact arrangement must be immediately provided to the other Party.*
- 17.2.6.7 *Provide to each other test-line numbers and access to test lines.*
- 17.2.6.8 *Cooperatively plan and implement coordinated repair procedures for the meet point and Local Interconnection trunks and facilities to ensure trouble reports are resolved in a timely and appropriate manner.*

**17.3 Types of Traffic**

- 17.3.1 *The types of traffic to be exchanged or provided under this Agreement include, but are not limited to, the following:*
  - 17.3.1.1 *EAS/Local Traffic,*
  - 17.3.1.2 *Transit Traffic,*
  - 17.3.1.3 *Switched Access Traffic,*
  - 17.3.1.4 *Ancillary traffic includes all traffic destined for Ancillary Services, or that may have special billing requirements, including, but not limited to, the following:*
    - (a) *Directory Assistance*
    - (b) *911/E911*
    - (c) *Operator call termination (busy line interrupt and verify)*
    - (d) *800/888 database dip*

- (e) LIDB
- (f) Information services requiring special billing.

17.3.1.5 Unless otherwise stated in this Agreement, ancillary traffic will be exchanged in accordance with whether the traffic is Local/EAS, intraLATA toll, or Switched Access.

#### 17.4 Transport and Termination of Exchange Traffic

##### 17.4.1 Termination of Local Traffic

Local Traffic will be terminated pursuant to the Reciprocal Compensation described in Attachment 1. **AT&T is not entitled to charge the tandem rate for transport and termination.**<sup>81</sup>

##### 17.4.2 EAS/Local Traffic

As negotiated between the Parties, the exchange of local traffic between the Parties may occur in several ways.

(a) While the Parties anticipate the use of two-way trunks for the delivery of Local Traffic, either Party may elect to provision its own one-way trunks for delivery of Local Traffic to be terminated on the other Party's network at the "initial" point of interconnection;

(b) The Parties may elect to purchase transport services from each other or from a third party. Such transport delivers the originating Party's Local Traffic to the terminating Party's end office or tandem for call termination. Transport may be purchased as either tandem switched transport (which is included in the tandem call termination rate) or direct trunk transport;

(c) To the extent that AT&T has established a Collocation arrangement at a U S WEST end office location, and has available capacity, the Parties agree that AT&T shall provide two-way direct trunk facilities, when required, from that end office to the AT&T switch. In all other cases, the direct facility may be provisioned by U S WEST or AT&T or a third party. If both AT&T and U S WEST desire to provision the facility and cannot otherwise agree, the Parties may agree to resolve the dispute through the submission of competitive bids.

##### 17.4.3 Transit Traffic

17.4.3.1 U S WEST will accept traffic originated by AT&T and will terminate it at a point of interconnection with another CLEC, Exchange Carrier, IXC or Wireless Carrier. U S WEST will provide this transit service through Tandem Office Switches. AT&T may also provide U S WEST with transit service.

17.4.3.2 The Parties expect that all networks involved in transporting Transit Traffic will deliver calls to each involved network with CCS/SS7 protocol and the appropriate ISUP/TCAP message to facilitate full interoperability and billing

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<sup>81</sup> Per First Order at 3.

functions. In all cases, the originating company is responsible to follow the EMR standard and to exchange records with both the transiting company and the terminating company, to facilitate the billing process to the originating network.

17.4.3.3 The Parties will use industry standards developed to handle the provision and billing of Switched Access by multiple providers (MECAB, MECOD and the Parties' FCC tariffs).

#### 17.4.4 Toll Traffic

Toll Traffic routed to an access tandem, or directly routed to an end office, will be terminated as Switched Access Service.

### 17.5 Interface Code Availability And Optional Features

#### 17.5.1 Interface Code Availability

Supervisory Signaling specifications, and the applicable network channel interface codes for Local Interconnection trunks, are the same as those used for Feature Group D Switched Access Service, as described in the Parties' applicable Switched Access tariffs.

#### 17.5.2 Optional Features

##### 17.5.2.1 Inband MF or SS7 Out of Band Signaling

Inband MF signaling and SS7 out-of-band signaling are available for local trunks. MF signaling or SS7 out-of-band signaling must be requested on the order for the new local trunks. Provisioning of the local trunks equipped with MF signaling or SS7 out-of-band signaling is the same as that used for Feature Group D Switched Access. Common Channel Signaling Service, as described in this Agreement, must be ordered by AT&T when SS7 out-of-band signaling is requested on local trunks.

##### 17.5.2.2 Clear Channel Capability

Clear channel capability permits 24 DS-0-64 kbit/s services or 1.536 Mbit/s of information on the 1.544 Mbit/s line rate. Clear channel capability is available for local trunks equipped with SS7 out-of-band signaling. Clear channel capability is only available on trunks to U S WEST's access tandem switch or U S WEST's end office switches (where available). Clear channel capability must be requested on the order for the new local trunks. The provisioning of the local trunks equipped with clear channel capability is the same as that used for Feature Group D Switched Access Service. U S WEST will provide AT&T with a listing of U S WEST end offices, local tandems and access tandems equipped with clear channel capability. (Clear channel capability is not available on trunks to U S WEST's local tandem switches or end offices where it is currently not deployed. AT&T agrees to use the Bona Fide Request process to request clear channel capability for such additional switches. Prices for such additional clear channel capability, if any, will be established through the BFR process).

### 17.6 Measuring Local Interconnection Minutes

17.6.1 *Measurement of terminating Local Interconnection minutes, as calculated per Attachment 5, begins when the terminating local entry switch receives answer supervision from the called end user's end office indicating the called end user has answered. The measurement of terminating call usage over local trunks ends when the terminating local entry switch receives disconnect supervision from either the called end user's end office, indicating the called end user has disconnected, or AT&T's Point of Interconnection, whichever is recognized first by the entry switch.*

17.6.2 *U S WEST and AT&T are required to provide each other the proper call information (e.g., originated call party number and destination call party number, etc.) to enable each Party to issue bills in a complete and timely fashion.*

17.7 *Testing*

17.7.1 *Acceptance Testing*

*At the time of installation of a local trunk group, and at no additional charge, the Parties will cooperatively test the same parameters tested for terminating Feature Group D Switched Access Service.*

17.7.2 *Testing Capabilities*

17.7.2.1 *Terminating Local Interconnection trunk testing is provided where equipment is available, with the following test lines: seven-digit access to balance (100 type), milliwatt (102 type), nonsynchronous or synchronous, automatic transmission measuring (105 type), data transmission (107 type), loop-around, short circuit, open circuit, and non-inverting digital loopback (108 type).*

17.7.2.2 *In addition to Local Interconnection trunk acceptance testing, other tests are available (e.g., additional cooperative acceptance testing, automatic scheduled testing, cooperative scheduled testing, manual scheduled testing, and non-scheduled testing) at the applicable tariff rates.*

17.10. *Mileage Measurement*

*Where required, the mileage measurement for Local Interconnection facilities and trunks is determined in the same manner as the mileage measurement for Feature Group D Switched Access Service.*

**ATTACHMENT 5**  
**BUSINESS PROCESS REQUIREMENTS**  
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# 1. Standards/General Business Requirements

## 1.1 Standards.

The following standards shall apply to each provision in Attachment 5. Failure to specifically reference this standard, or individual subsections 1.1.1 - 1.1.3 below, shall not be construed to mean this standard does not apply.<sup>82</sup>

**1.1.1 Pursuant to the Act, U S WEST shall provide business processes specified in this Attachment 3 that is equal in quality to the business processes which U S WEST provides to itself, its customers or other CLECs and that is on rates, terms and conditions that are just, reasonable and nondiscriminatory.**

1.1.2 For purposes of this Attachment 3, "rates, terms and conditions that are just, reasonable and nondiscriminatory" shall mean that (i) such terms and conditions are equal in quality to the terms and conditions that U S WEST provides to itself, or, (ii) where it is technically infeasible to provide such terms and conditions to AT&T, such terms and conditions are offered equally to all requesting carriers

1.1.3 U S WEST shall not offer to AT&T provisioning of or access to unbundled Network Elements through such business processes that is not equal in quality to what U S WEST provides itself. For purposes of this Attachment 5, "equal in quality" shall mean, among other things, equal to the timeliness, responsiveness, accuracy and integrity of the provisioning of or access to the Network Element U S WEST provides itself through such business processes.

**1.1.4 These provisions in Sections 1.1 through 1.3 shall apply to each provision in Attachments 5. Failure to specifically reference these Sections 1.1 through 1.3, or individual subsections shall not be construed to mean these guiding principles do not apply. 1.1.1 Pursuant to the Act, U S WEST shall provide business processes specified in this Attachment 3 that is equal in quality to the business processes which U S WEST provides to itself, its customers or other CLECs and that is on rates, terms and conditions that are just, reasonable and nondiscriminatory.**

1.1.2 For purposes of this Attachment 3, "rates, terms and conditions that are just, reasonable and nondiscriminatory" shall mean that (i) such terms and conditions are equal in quality to the terms and conditions that U S WEST provides to itself, or, (ii) where it is technically infeasible to provide such terms and conditions to AT&T, such terms and conditions are offered equally to all requesting carriers

1.1.3 U S WEST shall not offer to AT&T provisioning of or access to unbundled Network Elements through such business processes that is not equal in quality to what U S WEST provides itself. For purposes of this Attachment 5, "equal in quality" shall mean, among other things, equal to the timeliness, responsiveness, accuracy and integrity of the provisioning of or access to the Network Element U S WEST provides itself through such business processes.

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<sup>82</sup> Per Order 27236 at 8; Subsection 1.2.1 – 1.2.3 per Sixth Order at p. 3.  
USWC/AT&T Interconnection Agreement – Idaho

## **1.2. General Business Requirements**

### **1.2.21.1 U S WEST Contact with Subscribers**

*1.12.21.1.1 AT&T at all times shall be the primary contact and account control for all interactions with its subscribers, except as specified by AT&T. AT&T subscribers include active Customers as well as those for whom service orders are pending.*

*1.12.12.1.2 U S WEST shall ensure that any U S WEST personnel who may receive customer inquiries, or otherwise have opportunity for subscriber contact: (i) provide appropriate referrals and telephone numbers to subscribers who inquire about /AT&T services or products; (ii) do not in any way disparage AT&T or its products or services during such inquiry or subscriber contact; and (iii) do not provide information about U S WEST products or services during that same inquiry or subscriber contact.*

*1.12.21.1.3 AT&T shall ensure that any AT&T personnel who may receive customer inquiries, or otherwise have opportunity for subscriber contact: (i) provide appropriate referrals and telephone numbers to subscribers who inquire about U S WEST services or products; (ii) do not in any way disparage U S WEST, or its products or services during such inquiry or subscriber contact; and (iii) do not provide information about AT&T products or services during that same inquiry or subscriber contact.*

*1.12.21.1.4 U S WEST shall not use AT&T's request for subscriber information, order submission or any other aspect of AT&T's processes or services to aid U S WEST's marketing or sales efforts.*

### **1.2.31.2 Expedite, Escalation and Disaster Procedures**

*1.12.3.1.2.1 No later than sixty (60) days after the Effective Date of this Agreementrequest, U S WEST and AT&T shall develop mutually acceptable escalation and expedite procedures which may be invoked at any point in the Service Ordering, Provisioning, Maintenance and Subscriber Usage Data transfer processes to facilitate rapid and timely resolution of disputes. Within the said sixty (60) day period, U S WEST and AT&T will establish intercompany contact lists for purposes of handling subscriber and other matters which require attention/resolution outside of normal business procedures. To the extent possible, U S WEST shall notify AT&T of any changes to its escalation contact list at least one (1) week before such changes are effective.*

*1.12.3.1.2.2 No later than sixty (60) days after the Effective Date of this Agreementrequest, U S WEST and AT&T shall jointly establish contingency and disaster recovery plans for those cases in which normal Service Ordering, Provisioning, Maintenance, Billing and other procedures for U S WEST's unbundled Network Elements, features, functions and resale services are inoperable.*

### **1.2.41.3 Operational and Technological Changes**

1.12.41.3.1 U S WEST shall notify AT&T of any material operational or technological (e.g., network, systems interfaces) changes related to any services, interconnection methods, or Network Elements purchased by AT&T. At the time U S WEST decides to make such a change, U S WEST will notify AT&T in sufficient time to allow AT&T to make necessary adjustments to accommodate the change, but in no case with less than thirty (30) days' notice, unless otherwise agreed to by the Parties. Objections to the proposed change must be given in writing to U S WEST in a reasonable time. For the purposes of this Section, material changes shall be defined as those changes which will likely impact current interactions between AT&T (or its customers) and U S WEST.

1.12.1.34.2 U S WEST agrees to notify AT&T whenever an AT&T subscriber who is provided local service through services for resale, INP/NP, or unbundled Network Elements changes AT&T PIC status.

### **1.2.51.4 Customer of Record**

1.12.5.1.4.1 Providing AT&T has obtained proper Customer Authorization, U S WEST shall recognize AT&T as the Customer of Record for all Network Elements or services for resale ordered by AT&T and shall send all notices, invoices, and information which pertain to such ordered services directly to AT&T. AT&T will provide U S WEST with addresses to which U S WEST shall send all such notices, invoices, and information.

### **1.2.61.5 Work Center Interface Procedures**

1.12.61.5.1 U S WEST and AT&T shall, within ninety (90) days of the Effective Date of this Agreement after request, develop and implement Work Center Interface Procedures for each function/ business process necessary for fulfilling the terms of this Agreement.

## **1.2.2 Service Offerings**

### **1.2.2.1 Changes in Retail Service Offerings**

1.12.2.1.1 Pursuant to Section 23.2 of this Agreement, U S WEST shall provide summaries to AT&T describing the proposed change(s) of services which are available for resale pursuant to this Agreement.

1.12.2.1.2 [Intentionally left blank for numbering consistency]

1.12.2.1.3 U S WEST shall provide AT&T with access to new services, features, and functions concurrent with U S WEST's notice to AT&T of such changes, so that AT&T may evaluate these services.

### **1.2.2.2 Essential Services**

1.12.2.2.1 U S WEST shall designate trunks or lines as an Essential Service Line (ESL) or Telecommunications Service Priority (TSP), whichever is applicable, upon AT&T's request, based on industry standards.

### **1.2.2.3 Blocking Services**

1.12.2.3.1 Upon request from AT&T, U S WEST shall provide blocking in accordance with U S WEST standard intervals for 700, 900, and 976 services, or other services of similar type as may now exist or may be developed in the future according to industry standards, and shall provide Billed Number Screening (BNS), including required LIDB updates, or equivalent service for blocking completion of bill-to-third party and collect calls, on a line, trunk, or individual service basis.

### **1.2.2.4 Training Support**

1.12.2.4.1 U S WEST will train its employees who may communicate with AT&T subscribers to treat AT&T in a nondiscriminatory manner. U S WEST will solicit and may take into account input from AT&T in the development of such training and will permit AT&T to review, but not approve, such training. Such training will comply with the branding requirements of this Agreement.

1.12.2.4.2 U S WEST or its agent shall train AT&T employees on U S WEST's systems and processes necessary to assure the accuracy of required information exchange between AT&T. Information/materials provided to AT&T should include, at a minimum, operational and procedural information, and U S WEST-specific system access/interface instruction for performing similar functions.

### **1.2.2.5 Carrier Identification Codes**

U S WEST shall provide to AT&T the active Carrier Identification Codes (CIC) for both Dial 1 and toll free (e.g., 800, 888) services for each of its access tandems pursuant to industry guidelines.

## **2. Pre-Ordering**

### **2.1 General Business Requirements**

#### **2.1.1 Street Address Guide (SAG)**

Within sixty (60) days after the Effective Date of this Agreement request, U S WEST shall provide to AT&T the SAG data, or its equivalent, in a mutually agreed to format. All changes to the SAG shall be provided to AT&T on a weekly basis.

## **2.1.2 CLASS and Custom Features**

2.1.2.1 AT&T may order the entire set of CLASS and Custom features and functions, or a subset of any one or any combination of such features. In addition, U S WEST shall provide AT&T with a list of features and functions available on an end office by end office basis.

## **2.1.3 Customer Payment History**

2.1.3.1 AT&T and U S WEST agree to make available to a mutually agreed upon third-party credit reporting agency, on a timely basis, such of the following Customer payment history information available for each person or entity that applies for local service or intraLATA toll Telecommunications Service(s) from either carrier:

- 2.1.3.1.1 Applicant's name;
- 2.1.3.1.2 Applicant's address;
- 2.1.3.1.3 Applicant's previous phone number, if any;
- 2.1.3.1.4 Amount, if any, of unpaid balance in applicant's name;
- 2.1.3.1.5 Whether applicant is delinquent on payments;
- 2.1.3.1.6 Length of service with prior local or intraLATA toll provider;
- 2.1.3.1.7 Whether applicant had local or intraLATA toll service terminated or suspended within the last six (6) months with an explanation of the reason therefore; and,
- 2.1.3.1.8 Whether applicant was required by prior local or intraLATA toll provider to pay a deposit or provide another form of security including the amount of each.

2.1.3.2 Such information shall be provided on the condition that the credit reporting agency only make such information available to the carrier to which the person or entity in question has applied for Telecommunication Service.

## **2.1.4 Number Administration/Number Reservations**

2.1.4.1 Until Number Administration functions are assumed by a neutral third party in accordance with FCC rules and regulations, U S WEST shall assign NXXs to AT&T on a non-discriminatory and equivalent basis following NANP guidelines. In addition, U S WEST shall provide testing and loading of AT&T's NXX on the same basis as U S WEST provides itself or its Affiliates. Further, in U S WEST's role as number administrator, it shall provide AT&T with access to abbreviated dialing codes, access arrangements for 555 line numbers, and the ability to obtain telephone numbers, including vanity numbers, while a customer is on the phone with AT&T. U S WEST shall provide the same range of number choices to AT&T, including choice of exchange number, as U S WEST provides its own customers. Reservation and aging of numbers shall remain U S WEST's responsibility.

2.1.4.2 AT&T may reserve blocks of U S WEST telephone numbers in accordance with U S WEST's tariffs, or in the same manner U S WEST reserves telephone numbers for its own use.

- 2.1.4.3 *Where AT&T has obtained its own NXX, but has purchased U S WEST services for resale or Network Elements, U S WEST agrees to recognize the AT&T NXX in U S WEST's switch according to the local calling area defined by AT&T and approved by the Commission.*
- 2.1.4.4 *For resale and the unbundled switching element, U S WEST shall accept AT&T orders for vanity numbers and blocks of numbers for use with complex services including, but not limited to, DID, CENTREX, and hunting arrangements, as requested by AT&T on a non-discriminatory, equivalent basis following NANP guidelines.*
- 2.1.4.5 *For simple services, U S WEST shall provide real-time electronic interfaces to AT&T to obtain telephone number confirmation while the customer is on the line. When real time electronic interfaces are not available for simple services number reservations, U S WEST shall provide alternative means for confirmation of the number reservation while the customer is on the line. For number reservations associated with complex services, U S WEST shall provide confirmation of the number reservation within forty-eight (48) hours of AT&T's request or within such time as U S WEST may provide to itself or Affiliates, whichever is less.*

2.1.4.6 *Number Resources Arrangements*

- 2.1.4.6.1 *Nothing in this Agreement shall be construed in any manner to limit or otherwise adversely impact either Party's right to the request and assignment of any NANP number resources including, but not limited to, central office (NXX) codes pursuant to the Central Office Code Assignment Guidelines (last published by the Industry Numbering Committee ("INC") as INC 95-0407-008, Revision 4/19/96, formerly ICCF 93-0729-010).*
- 2.1.4.6.2 *To the extent U S WEST serves as Central Office Code Administrator for a given region, U S WEST will support all AT&T requests related to central office code (NXX) administration and assignments in the manner required and consistent with the Central Office Code Assignment Guidelines.*
- 2.1.4.6.3 *[Intentionally left blank for numbering consistency]*
- 2.1.4.6.4 *The Parties will comply with (NXX) administration requirements as prescribed by the FCC, the Commission, and accepted industry guidelines.*
- 2.1.4.6.5 *It shall be the responsibility of each Party to program and update its own switches and network systems pursuant to the Local Exchange Routing Guide ("LERG") guidelines to recognize and route traffic to the other Party's assigned NXX codes at all times. Neither Party shall impose any fees or charges whatsoever on the other Party for such activities. The Parties will cooperate to establish procedures to ensure the timely activation of NXX assignments in their respective networks.*

- 2.1.4.6.6 *Each Party shall be responsible for notifying its customers of any changes in numbering or dialing arrangements to include changes such as the introduction of new NPAs or new NXX codes.*
- 2.1.4.6.7 *Until an impartial entity is appointed to administer telecommunications numbering, U S WEST will assign NXX codes to AT&T in accordance with national guidelines at no charge and on a nondiscriminatory basis.*
- 2.1.4.6.8 *Each Party is responsible for administering NXX codes assigned to it. Each Party is responsible for obtaining Local Exchange Routing Guide (LERG) listings of CLLI codes assigned to its switches. Each party shall use the LERG published by Bellcore or its successor for obtaining routing information and shall provide all required information to Bellcore for maintaining the LERG in a timely manner.*
- 2.1.4.7 *U S WEST shall provide provisioning support outside of scheduled work hours on a nondiscriminatory exception basis as requested by AT&T. Such support may be subject to a minimum labor charge.*
- 2.1.4.8 *Service Assurance Warranties and Incentives: U S WEST shall provide to AT&T service assurance warranties and incentives as U S WEST provides such service warranties and incentives to its own end users or any other Person except as otherwise provided by the Commission.*
- 2.1.4.9 *Availability of Network Capacity: Consistent with AT&T's forecasts, U S WEST shall deploy and keep deployed network facilities for AT&T services in a non-discriminatory manner and in the same manner as U S WEST makes such facilities available to itself for its services.*
- 2.1.4.10 *Workcenter Interface Methods and Procedures: U S WEST and AT&T shall finalize interface methods and procedures between their respective work centers detailing systems and processes for ordering and provisioning. Such methods and procedures shall be completed within one hundred twenty (120) days after a written request of either Party. The lack of workcenter interface methods and procedures shall not inhibit the provision of services under this Agreement.*

## **2.2 Service Order Process Requirements**

2.2.1 *[ Intentionally left blank for numbering consistency]*

2.2.2 *Specific Unbundling Requirements*

**2.2.2.1 When ordering a Combination, AT&T shall have the option of ordering all features, functions and capabilities of each Network Element.<sup>83</sup>**

2.2.2.2 *When AT&T orders Network Elements, U S WEST shall provision all features, functions, and capabilities appropriate to the Network Elements which may include, but are not limited to:*

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<sup>83</sup> Per Order 27236 at 8.

2.2.2.2.1 *the basic switching function of connecting lines to lines, lines to trunks, trunks to lines, and trunks to trunks, as well as the same basic capabilities made available to U S WEST's Customers, such as telephone number, white page listing, and dial tone; and*

2.2.2.2.2 *all other features the switch has activated, including, but not limited to, custom calling, custom local area signaling service features and Centrex, as well as any technically feasible customized routing functions provided by the switch.*

## 2.3 Systems Interfaces and Information Exchanges

### 2.3.1 General Requirements

*[Intentionally left blank for numbering consistency]*

#### 2.3.2 Pre-Ordering and Provisioning for Resale Services and Unbundled Network Elements

2.3.2.1 *U S WEST shall provide to AT&T a list of all intraLATA and interLATA carriers available for Customer selection on a central office level.*

2.3.2.2 *[Intentionally left blank for numbering consistency].*

2.3.2.3 *U S WEST shall provide AT&T with access to Customer Profile Information (CPI) without requiring AT&T to produce a signed Letter of Authorization (LOA) subject to proof of authorization requirements contained in this Agreement, based on AT&T's blanket representation that the Customer has authorized AT&T to obtain such CPI.*

2.3.2.3.1 *CPI shall be in a mutually agreed to format at the line and/or trunk level. U S WEST shall provide to AT&T a real-time, electronic interface to U S WEST Customer information systems which will allow AT&T to obtain the Customer profile, which may include, but not be limited to, Customer name, service addresses, billed telephone number(s), and identification of features and services provided by U S WEST on the Customer accounts, and to obtain information on all features and services available in the end office where Customer's services are currently provisioned. The preceding information may not include services deemed not to be Telecommunications Services by the Commission.*

2.3.2.3.1.1 *Until access is available via a real-time, electronic interface for CPI, U S WEST agrees that AT&T can obtain CPI in an interim mutually agreed to manner and in accordance with Section 3.2 of this Attachment to facilitate the service order process.*

2.3.2.5 *U S WEST shall provide to AT&T, upon request, a list of all current features and functions technically available from each switch, by switch CLLI. **Planned services shall be provided to AT&T at least thirty (30) days prior to their***

availability. U S WEST shall be permitted to charge AT&T any efficient, incremental costs associated with providing the required information.<sup>84</sup>

2.3.2.6 [Intentionally left blank for numbering consistency]

2.3.2.7 *Pending or Held Orders:* U S WEST shall provide, when available, the AT&T information regarding a subscribers previous pending or held orders. If the subscriber has a pending or held order, the status of the order shall not be negatively impacted as a result of the subscriber changing local service providers (i.e. due date for pending service changed to later date).

2.3.2.8 *Special Construction:* When U S WEST determines that special construction is required, U S WEST shall notify AT&T on a timely basis of special construction requirements and charges, and obtain AT&T authorization before beginning such construction.

### **2.3.3 Pre-Ordering and Provisioning for Unbundling**

2.3.3.1 U S WEST shall provide to AT&T, upon reasonable request, sufficient engineering design and layout information for Network Elements for specific applications.

2.3.3.2 U S WEST shall provide to AT&T, upon request, advance information of the details and requirements for planning and implementing NPA splits in accordance with NANP Guidelines.

2.3.3.3 U S WEST shall make engineering support available to AT&T as is normal and customary in the provision of Telecommunications Services, Network Elements, **Combinations**<sup>85</sup> or Ancillary Functions as described in this Agreement. AT&T may request additional engineering support.

## **3. Ordering and Provisioning**

### **3.1 General Business Requirements**

#### **3.1.1 Ordering and Provisioning Parity**

U S WEST shall provide AT&T with the same level of ordering and provisioning support as U S WEST provides itself in accordance with standards and performance measurements that U S WEST uses and/or which are required by law, regulatory agency, or by U S WEST's own internal procedures, whichever are the most rigorous. These standards shall apply to the quality of the technology, equipment, facilities, processes, and techniques (including, but not limited to, such new architecture, equipment, facilities, and interfaces as U S WEST may deploy) that U S WEST provides to AT&T under this Agreement.

#### **3.1.2 Interconnection Service Center (ISC)/Single Point of Contact (SPOC)**

<sup>84</sup> Per First Order at 17; Per Third Order at 12.

<sup>85</sup> Per Order 27236 at 8.

- 3.1.2.1 *U S WEST shall provide a Systems Interface Help Desk or equivalent which shall serve for all activities involved in the electronic interface for ordering and provisioning of U S WEST's unbundled Network Elements, features, functions, and Resale Services.. The Systems Interface Help Desk or equivalent shall be available twenty-four (24) hours a day, seven (7) days a week.*
- 3.1.2.2 *U S WEST shall provide a Single Point of Contact ("SPOC") and shall provide to AT&T toll-free nationwide telephone numbers (available during U S WEST's scheduled work hours) answered by competent, knowledgeable personnel, trained to answer questions and resolve problems in connection with the ordering and provisioning of unbundled Network Elements, features, functions, capabilities, and Resale Services. U S WEST will provide sufficient resources to provide equivalent, or as otherwise agreed to by the Parties, service to AT&T.*
- 3.1.2.3 *In addition to the electronic interfaces provided for elsewhere in this Agreement, U S WEST shall provide, as requested by AT&T through the SPOC, provisioning and dispatch in the form of coordinated scheduling, status, and dispatch capabilities equivalent to that which U S WEST provides itself or as otherwise agreed to by the Parties.*

### **3.1.3 Carrier Selection**

- 3.1.3.1 *For Services for Resale or unbundled Network Elements, U S WEST shall provide to AT&T, no later than January 1, 1997, the capability to order local service, and intraLATA, and interLATA, toll services by entering AT&T subscriber's choice of carrier on a single order. U S WEST will offer other carrier selection choices as they become available. U S WEST shall provide AT&T with the capability to order separate interLATA and intraLATA carriers on a line or trunk basis where 1+ presubscription is available.*
- 3.1.3.2 *Where intraLATA 1+ presubscription is not available, or if the subscriber does not select an intraLATA toll carrier, U S WEST agrees to provide intraLATA toll services for resale to AT&T and to recognize the end user as the customer of AT&T for intraLATA toll. AT&T shall designate the default carrier for all other toll calls if the subscriber does not select a carrier. In all cases, U S WEST will route toll calls to the appropriate carrier as designated by AT&T.*

### **3.1.4 Notification to Long Distance Carrier**

- 3.1.4.1 *U S WEST will not accept PIC change requests through the CARE process for AT&T local service customers. AT&T's long distance operations may obtain such CARE transactions for AT&T long distance customers from the customer's local service provider. U S WEST agrees to notify IXCs using OBF approved CARE transactions, whenever an IXC Customer who is provided local service through Services for Resale, INP/NP, or unbundled Network Elements changes PIC status.*
- 3.1.4.2 *U S WEST shall implement new Transaction Code Status Indicators ("TCSIs") 2033, 2233, 3147, and 3148. The new local service provider identification ("LSPID") will be included on these transactions if the new Local Service*

*Provider agrees U S WEST should provide the information to a long distance provider as defined by the OBF in support of Local Resale.*

*3.1.4.2 U S WEST shall implement new Transaction Code Status Indicators ("TCSIs") 2033, 2233, 3147, and 3148. The new local service provider identification ("LSPID") will be included on these transactions if the new lLocal sService pProvider agrees U S WEST should provide the information to a long distance provider as defined by the OBF in support of lLocal Rresale. U S WEST shall implement TCSIs used in conjunction with the new local service provider ("LSP") identification code for handling account maintenance, customer service, and trouble administration issues. These TCSIs include 4001/02/05, 4201-4205, 4301, 2033, 2233, 3147, 3148, 3149, and others as the OBF may define.*

*3.1.4.2.1 In addition, U S WEST shall implement TCSIs, when available, used in conjunction with the new Ported Telephone Number field to link "shadow" and ported telephone numbers in support of Interim Number Portability. These TCSIs include 2231, 3150, 3151, and others as the OBF may define.*

### **3.1.5 Ordering Interconnection**

*The Parties agree to utilize the OBF-ASR process for ordering interconnection trunks, which is the same process used to order Access Services. When the ordering Party requests facilities, routing, or optional features different than those determined to be available, the Parties will work cooperatively in determining an acceptable configuration based on available facilities, equipment and routing plans.*

## **3.2 Service Order Process Requirements**

### **3.2.1 OBF Compliance**

*3.2.1.1 U S WEST and AT&T shall generally follow the OBF-developed ordering and provisioning process guidelines. These processes include, but are not limited to, pre-order service inquiry, pre-order service inquiry response, firm order, acknowledgment/rejection, firm order confirmation, delay notification, and completion notification. U S WEST agrees to work cooperatively to generally comply with future OBF developed guidelines.*

### **3.2.2 Service Migrations and New Customer Additions**

*3.2.2.1 For resale services, U S WEST shall not require a disconnect order from a Customer, another local service provider, or any other entity, to process an AT&T order to establish AT&T Local Service and/or migrate a Customer to AT&T local service.*

*3.2.2.2 For resale services, U S WEST shall not disconnect any Customer service or existing features available under this Agreement at any time during the migration of that Customer to AT&T service without AT&T prior agreement.*

3.2.2.3 For services provided through unbundled Network Elements, U S WEST shall recognize AT&T as an agent for the Customer in coordinating the disconnection of services provided by another CLEC or U S WEST.

3.2.2.4 Unless otherwise directed by AT&T, when AT&T orders resale services or Network Elements all trunk or telephone numbers currently associated with existing services shall be retained without loss of feature capability and without loss of associated ancillary services including, but not limited to, Directory Assistance and 911/E911 capability for those services or features which U S WEST controls and which are available under this Agreement.

3.2.2.5 For Customer conversions requiring coordinated cut-over activities, U S WEST and AT&T will agree on a scheduled conversion time(s), which will be a designated two-hour time period within a designated date. Unless expedited, U S WEST and AT&T shall schedule the cut-over window at least forty-eight (48) hours in advance, and as part of the scheduling, U S WEST shall estimate for AT&T the duration of any service interruption that the cut-over might cause. The cut-over time will be defined as a thirty (30) minute window within which both the AT&T and U S WEST personnel will make telephone contact to complete the cut-over.

3.2.2.5.1 U S WEST will coordinate activities of all U S WEST work groups involved with the conversion. This coordination will include, but not be limited to, work centers charged with manual cross-connects, electronic cross-connect mapping, and switch translations (including, but not limited to, implementation of interim local number portability translations).

3.2.2.5.2 As soon as possible, but in no event later than one (1) hour after completion, U S WEST will notify AT&T when coordinated cut-over is complete.

3.2.2.5.3 End user service interruption shall not exceed twenty (20) minutes during any cut-over. The average interruption caused by the cut-over of AT&T Customers shall not exceed ten (10) minutes. However, if any service interruption is to exceed twenty (20) minutes, U S WEST will immediately notify AT&T of such delay.

3.2.2.5.4 Within the appointed thirty (30) minute cut-over time, the U S WEST person will call the AT&T person designated to perform cross-connection work and when the U S WEST person is reached in that interval such work will be promptly performed. If the AT&T person is not ready within the appointed interval, and if AT&T had not called to reschedule the work at least two (2) hours prior to the start of the interval, U S WEST and AT&T will reschedule the work order and AT&T will pay the non-recurring installation charge for the Unbundled Loops scheduled for the missed appointment. In addition, non-recurring installation charges for the rescheduled appointment will apply. If the U S WEST person is not available or not ready at any time during the thirty (30) minute interval, AT&T and U S WEST will reschedule and U S WEST will waive the non-recurring charge.

*for the Unbundled Loops scheduled for that interval. If a Party unreasonably prolongs or extends the time required to accomplish the coordinated cut-over, that Party shall be responsible for the reasonable labor charges incurred by the other Party as a result of that delay. Delays caused by the customer are the responsibility of AT&T. In addition, if AT&T has ordered INP as a part of the Unbundled Loop installation, U S WEST will coordinate implementation of INP with the Unbundled Loop installation.*

- 3.2.2.6 *Service Order: U S WEST shall provide AT&T the capability to issue a service order for unbundled Network Elements, **Combinations**<sup>86</sup>, And Resale Services.*
- 3.2.2.7 *PLOC Changes: U S WEST shall provide AT&T the capability to transfer a customer with no feature changes to AT&T through a streamlined PLOC (Primary Local Carrier) transfer process.*
- 3.2.2.8 *Status: U S WEST shall provide the AT&T status on a service order when the status of the order changes.*
- 3.2.2.9 *Modifies: U S WEST shall provide AT&T the capability to modify the service order any time after it has been issued, however, U S WEST may require the issuance of a supplemental or change order.*
- 3.2.2.10 *Cancel: U S WEST shall provide AT&T the capability to cancel the service order any time after it has been issued.*
- 3.2.2.11 *Coordinated Service Orders: U S WEST shall provide AT&T the capability to relate coordinated services orders, and identify those service orders that require coordination with AT&T, or the subscriber, or the subscriber's vendor. When so identified, U S WEST will follow any specific instructions indicated on the service order so that the subscriber's service is not negatively affected by the service turn-up activity.*
- 3.2.2.12 *Expedite Process: U S WEST and AT&T shall mutually develop expedite procedures to be followed when AT&T determines an expedite is required to meet subscriber service needs.*
- 3.2.2.13 *Expedites: U S WEST shall provide AT&T the capability to expedite a service order. Within two (2) business hours after a request from AT&T for an expedited order, U S WEST shall notify AT&T of U S WEST's confirmation to complete, or not complete, the order within the expedited interval.*

### **3.2.3 Intercept Treatment and Transfer of Service Announcements**

- 3.2.3.1 *U S WEST shall provide unbranded intercept treatment and transfer of service announcements to AT&T Customers. U S WEST shall provide such treatment and transfer of service announcement for all service disconnects, suspensions, or transfers, in the same manner as that which U S WEST*

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<sup>86</sup> Per Order 27236 at 8.  
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*provides to its own end users. U S WEST's current standard time periods for providing such announcements is three (3) months for residential service and twelve (12) months for business service. AT&T may request extensions at parity with that which U S WEST provides to its end-users.*

- 3.2.3.2 Pursuant to this Agreement, AT&T shall provide unbranded intercept treatment and transfer of service announcements to U S WEST Customers. AT&T shall provide such treatment and transfer of service announcement for all service disconnects, suspensions, or transfers, at parity with that which AT&T provides its own end users. AT&T standard time periods for providing such announcements is three (3) months for residential service and twelve (12) months for business service. U S WEST may request extensions at parity with that which AT&T provides its end-users.*

### **3.2.4 Due Date**

- 3.2.4.1 U S WEST and AT&T shall mutually agree on what services and circumstances are subject to the standard interval process to determine the due date or the requested/committed due date process.*

- 3.2.4.2 For those services and circumstances that U S WEST and AT&T agree shall be handled by the standard interval process, U S WEST shall supply AT&T with standard due date intervals on a nondiscriminatory basis to be used by AT&T personnel to determine service installation dates. Under those circumstances U S WEST shall complete the provisioning within the standard interval.*

*3.2.4.2.1 If AT&T requests a due date earlier than the standard due date interval, then expedite charges may apply.*

- 3.2.4.3 For those services and circumstances that U S WEST and AT&T agree shall be handled by the requested/committed due date process, AT&T may request a due date on each order. U S WEST will provide an offered due date on a nondiscriminatory basis. If AT&T accepts the offered due date then such date shall become the committed due date. U S WEST will complete the order on the committed due date unless otherwise authorized by AT&T.*

*3.2.4.3.1 If AT&T requires a due date earlier than the U S WEST offered due date and U S WEST agrees to meet the AT&T required due date then that required due date becomes the committed due date and expedite charges may apply.*

- 3.2.4.4 Subsequent to an initial order submission, AT&T may request a new/revised due date that is earlier than the committed due date. If U S WEST agrees to meet that new/revised due date, then that new/revised due date becomes the committed due date and expedite charges may apply.*

- 3.2.4.5 Any special or preferred scheduling options available, internally or externally, to U S WEST for ordering and provisioning services shall also be available to AT&T.*

### **3.2.5 Customer Premises Inspections and Installations**

- 3.2.5.1 AT&T shall perform or contract for all needs assessments, including equipment and installation requirements, at the Customer premises.
- 3.2.5.2 U S WEST shall provide AT&T with the ability to schedule dispatches for work under this Agreement.
- 3.2.5.3 U S WEST shall provide, at AT&T's request, extended demarcation beyond the NID using intrabuilding riser and lateral beyond the NID. This provision shall not require U S WEST to provide inside wire.

### **3.2.6 Firm Order Confirmation (FOC)**

- 3.2.6.1 U S WEST shall provide to AT&T, via an electronic interface, a Firm Order Confirmation ("FOC") for each AT&T order. The FOC shall contain on a per line and/or trunk basis an enumeration of AT&T ordered unbundled Network Elements (and the specific U S WEST naming convention applied to that Network Element or **Combination**<sup>87</sup>), features, functions, Resale Services, options, physical interconnection, quantity, and U S WEST committed due date for order completion.
- 3.2.6.2 For a revised FOC, U S WEST shall provide order detail on a per line or per trunk level basis, as well as the order detail from the prior FOC.

### **3.2.7 Order Rejections**

- 3.2.7.1 U S WEST shall reject and return to AT&T any order that U S WEST cannot provision, due to technical reasons, missing information, or jeopardy conditions in accordance with performance measurements as defined herein. When an order is rejected, U S WEST shall, in its rejection notification, specifically describe all of the reasons for which the order was rejected. U S WEST shall not reject any orders on account of the requested due date.
- 3.2.7.2 On an exception basis, to the extent that errors cannot be corrected pursuant to electronic interface processes, U S WEST agrees to accept verbal order corrections from AT&T. U S WEST shall timely inform AT&T by telephone of any minor issues which can be handled over the phone. As required AT&T will provide a supplemental order reflecting changes to the original service order.

### **3.2.8 Service Order Changes**

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<sup>87</sup> Per Order 27236 at 8.  
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- 3.2.8.1 *If an installation or other AT&T-ordered work request requires a change from the original AT&T service order in any manner, U S WEST shall call AT&T in advance of performing the installation or other work to obtain authorization. U S WEST shall then provide AT&T an estimate of additional labor hours and/or materials. After all installation or other work is completed, U S WEST shall notify AT&T of actual labor hours and/or materials used in accordance with regular service order completion schedules.*
- 3.2.8.1.1 *If additional work is completed on a service order, as approved by AT&T, the cost of the additional work must be reported to AT&T in accordance with regular service order completion schedules.*
- 3.2.8.1.2 *If a service order is partially completed, notification must identify the work that was done and the work remaining to be completed.*
- 3.2.8.2 *If an AT&T Customer requests a service change at the time of installation or other work being performed by U S WEST on behalf of AT&T, U S WEST, while at the Customer premises, shall direct the AT&T Customer to contact AT&T so as to avoid unnecessary delays in service activation should the U S WEST representative leave Customer premises prior to completing the installation.*

### **3.2.9 Jeopardy Situations**

*To the extent jeopardy information is available, U S WEST shall provide to AT&T notification of any jeopardy situations prior to the committed due date, missed appointments and any other delay or problem in completing work specified on AT&T service order as detailed on the FOC, in accordance with the Performance Measurements as defined herein.*

### **3.2.10 Cooperative Testing**

#### **3.2.10.1 Network Testing**

3.2.10.1.1 *To the extent that USWC provides testing for services offered to its end users and to the extent U S WEST provides testing for itself, U S WEST shall perform all pre-service testing prior to the completion of the AT&T order, including testing on local service facilities and switch translations, including, but not limited to, verification of features, functions, and services ordered by AT&T.*

3.2.10.1.2 *The Parties agree to cooperate in testing that is required to complete service orders.*

#### **3.2.10.2 Systems and Process Testing**

3.2.10.2.1 *Upon AT&T's request, U S WEST shall cooperate with AT&T to ensure that all operational interfaces and processes are in*

*place and functioning properly and efficiently. Testing shall simulate actual operational procedures and systems interfaces to the greatest extent possible. AT&T may request cooperative testing to ensure service performance, reliability, and Customer service ability.*

### **3.2.11 Service Suspensions/Restorations**

3.2.11.1 *For services other than non-switched, upon AT&T's request through a Suspend/Restore Order, U S WEST shall suspend or restore the functionality of any Network Element, feature, function, or Resale Service. U S WEST shall provide restoration priority on a per Network Element or **Combination**<sup>88</sup> basis in a manner that conforms with AT&T requested priorities and any applicable regulatory rules and regulations or government requirements.*

### **3.2.12 Disconnects**

3.2.12.1 *U S WEST shall provide to AT&T daily information in a mutually agreed upon format notifying AT&T of any services disconnected from AT&T. This report will itemize a change in local service provider or outward line movement on service order activity.*

### **3.2.13 Order Completion Notification**

3.2.13.1 *Upon completion of a service order by U S WEST in its system(s), U S WEST shall submit to AT&T an order completion which details the work performed (including a list of features and functions installed), the date completed, charges associated with the order, and verification of accurate service completion. Notification shall be provided in accordance with mutually agreed upon intervals.*

3.2.14 *Intentionally left blank for numbering consistency.*

### **3.2.15 Specific Unbundling Requirements**

3.2.15.1 *Prior to providing service in a specific geographic area or when AT&T requires a change of network configuration, AT&T may elect to place an order with U S WEST requiring U S WEST to prepare Network Elements and switch translations in advance of orders for additional Network Elements from AT&T.*

3.2.15.2 **When AT&T orders combinations of currently connected Network Elements, U S WEST shall ensure that such Network Elements**

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<sup>88</sup> Per Order 27236 at 8.  
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remain connected and functional without any disconnection or disruption.<sup>89</sup>

**3.2.15.3 Order combinations of Contiguous Network Elements shall be available to be ordered (i) on a case-by-case basis for those Network Elements that are Customer-specific; or (ii) on a common-use (non-end user specific) basis for those Network Elements that are shared by multiple Customers.<sup>90</sup>**

*3.2.15.4 Individual Network Elements shall be identified and ordered by AT&T so that they can be provisioned together.*

*3.2.15.5 U S WEST shall provide technical assistance to AT&T with respect to unbundled Network Elements pursuant to Section 2.3.3.3 of this Attachment.*

*3.2.15.6 Each order for Network Elements will contain administration, bill, contact, and Customer information, as defined by the OBF.*

*3.2.15.7 When ordering unbundled switch ports, AT&T is requested to specify the desired signaling (e.g. loop start, ground start or loop reverse battery options).*

*3.2.15.7.1 To the extent AT&T requires an Unbundled Loop to provide ISDN, HDSL, ADSL, DS1 service or other channel performance options, such requirements will be identified on the order for Unbundled Loop Service.*

*3.2.15.7.2 The actual loop facilities provided may utilize various technologies or combinations of technologies. Basic Unbundled Loops provide an analog facility to AT&T.*

### **3.2.16 Interim Interfaces**

*3.2.16.1 U S WEST will offer interim interfaces via Interconnect Mediated Access as documented in Document Number T-12-99-116472-00-02, current as of the Effective Date of this Agreement, or as mutually agreed to by the Parties.*

*3.2.16.2 Until the electronic interface described in Section 3.2.16.1 is available for the required services, U S WEST agrees that the Interconnect Service Center (ISC) or similar function will accept AT&T orders. Orders will be transmitted to the ISC via mutually agreed procedures.*

*3.2.16.3 Until industry standards are completed and implemented pursuant to Section 3.3.2 of this Attachment, U S WEST and AT&T agree to use interim interfaces as described in Section 3.2.16.1 above.*

### **3.2.17 Ordering and Maintenance**

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<sup>89</sup> <sup>89</sup> Per Order 27236 at 8.

<sup>90</sup> Per Order 27236 at 8.

- 3.2.17.1 For the purpose of ordering unbundled Network Elements or **Combinations**<sup>91</sup>, AT&T shall provide a blanket letter of authorization to U S WEST indicating that it shall be duly authorized by its customer to process such service orders.
- 3.2.17.2 If there is a conflict between an end user (and/or its respective agent) and AT&T regarding the disconnection or provision of unbundled Network Elements or **Combinations**<sup>92</sup>, U S WEST will honor the latest dated proof of authorization designating an agent by the end user or its respective agent. Compensation for unauthorized disconnections or transfers shall be in accordance with § 258 of the Act or by Commission rule.
- 3.2.17.3 AT&T has primary responsibility for its own end user base and will have the responsibility for resolution of any service trouble report(s) from its customers. U S WEST will work cooperatively with AT&T to resolve trouble reports when the trouble condition has been isolated and found to be within a portion of U S WEST's network. Where available, AT&T must provide to U S WEST switch-based test results when testing its customer's trouble prior to U S WEST performing any repair functions. The Parties will cooperate in developing mutually acceptable test reports.
- 3.2.17.4 In the event of a transfer of the end user's service for unbundled Network Elements from one provider to AT&T, AT&T shall issue a request for transfer of service to U S WEST and the provider from whom the service is being transferred. In the event of a transfer of the end user's service for unbundled Network Elements from AT&T to another provider, AT&T shall submit to U S WEST a disconnect order for such unbundled Network Elements or **Combinations**<sup>93</sup> to facilitate the cessation of billing by U S WEST. The Parties agree to develop procedures to handle the transfer of an end user service from one provider to another.
- 3.2.17.5 [Intentionally left blank for numbering consistency.]
- 3.2.17.6 When ordering Unbundled Loops, AT&T is responsible for obtaining or providing facilities and equipment that are compatible with the loop.
- 3.2.17.7 To the extent a U S WEST provided unbundled loop is provisioned without U S WEST provided unbundled switching, AT&T will have responsibility for testing the unbundled loop. If, at AT&T's request, U S WEST must dispatch to perform tests on an unbundled loop, and the fault is not in U S WEST facilities, a charge may apply.
- 3.2.17.8 To the extent a U S WEST provided unbundled loop is provisioned without unbundled U S WEST provided unbundled switching, AT&T will be responsible for providing the AT&T switch interface, if applicable, on the U S WEST MDF interface to facilitate plant test.

### 3.3 Systems Interfaces and Information Exchanges

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<sup>91</sup> Per Order 27236 at 8.

<sup>92</sup> <sup>92</sup> Per Order 27236 at 8.

<sup>93</sup> Per Order 27236 at 8

### **3.3.1.1 Operational Systems Interfaces - Interface Implementation Timetable**

*3.3.1.1.1 U S WEST's initial operational systems interfaces deployment on January 1, 1997, will support Pre-ordering, Ordering, Provisioning and Repair capabilities for POTS (non-design) services and billing capabilities for most U S WEST product offerings. Subsequent phases of the plan incorporate the capabilities to support designed services for Pre-ordering, Ordering, Provisioning, and Maintenance and Repair. Time frames for delivery of the operational support systems for designed services are estimated to be in the 2nd and 3rd quarters of 1997.*

*3.3.1.1.2 U S WEST will develop long term mediated access.*

### **3.3.2 Permanent Access to Systems Interfaces**

*3.3.2.1 U S WEST shall provide to AT&T a real-time, electronic interface(s) for transferring and receiving information and executing Service Pre-Ordering, Ordering, Provisioning, Maintenance and Repair transactions for unbundled Network Elements and Resale Services, and any other database access required by FCC rules and regulations. In addition U S WEST shall also provide the electronic interfaces specified in this Agreement which support business processes or database access. The interface(s) shall be capable of supporting all of the steps in the OBF developed ordering and provisioning process. These steps include pre-order service inquiry, pre-order service inquiry response, firm order acknowledgment/rejection, firm order confirmation, and completion notification.*

*3.3.2.1.1 The Parties will jointly review each OBF standard upon completion. The review shall be completed within thirty (30) days, unless otherwise agreed to by the Parties. The review shall result in a mutual agreement on whether the new standard will be deployed. Within thirty (30) days of agreement to deploy the new standard, the Parties shall agree on a schedule for such deployment.*

*3.3.2.2 U S WEST shall provide AT&T a common electronic interface that will permit the transmittal of business and residential transactions.*

### **3.3.3 Ordering and Provisioning for Resale Services**

U S WEST shall provide a real time electronic interface with at least the following specifications:

*3.3.3.1 U S WEST shall provide to AT&T a real-time, electronic interface to U S WEST information systems to allow AT&T to assign telephone number(s) (if the Customer does not already have a telephone number or requests a change of telephone number).*

- 3.3.3.2 *For resold services not subject to standard intervals, U S WEST shall provide to AT&T a real-time, electronic interface to schedule dispatch and installation appointments.*
- 3.3.3.3 *U S WEST shall provide to AT&T a real-time, electronic interface to U S WEST Customer information systems which will allow AT&T to determine if a service call is needed to install the line or service.*
- 3.3.3.5 *U S WEST shall provide to AT&T a real-time, electronic interface which transmits status information on service orders.*

### **3.3.4 Ordering and Provisioning for Unbundling**

- 3.3.4.1 *For unbundled Network Elements not subject to standard intervals, U S WEST shall provide to AT&T, when available, a real-time, electronic interface which will allow AT&T to schedule appointments, and adjust pending order due dates in real-time.*
- 3.3.4.2 *U S WEST shall provide AT&T with results from mechanized loop tests.*
- 3.3.4.3 *U S WEST shall provide AT&T with confirmation of circuit assignments.*

## **3.4 Standards**

### **3.4.1 General Requirements**

- 3.4.1.1 *AT&T and U S WEST shall agree upon the appropriate ordering and provisioning codes to be used for each Network Element or **Combinations**<sup>94</sup> thereof. These codes shall apply to all aspects of the unbundling of that Network Element or **Combination**<sup>95</sup> of Network Elements and shall be known as data elements as defined by the Telecommunications Industry Forum Electronic Data Interchange Service Order Subcommittee (TCIF-EDI-SOSC), or as mutually agreed.*

## **4. Connectivity Billing and Recording**

*This Section 4 describes the requirements for U S WEST to bill and record all charges AT&T incurs for purchasing services under this Agreement.*

### **4.1 Procedures**

- 4.1.1 *The Parties recognize that deviations and discrepancies may occur from the various industry standards and other standards referenced in this Agreement. Subject to such discrepancies and deviations, U S WEST shall comply with these various standards. Discrepancies and deviations will be documented and reviewed.*
  - 4.1.1.1 *Within forty-five (45) days after the Effective Date of this Agreement request, the Parties will develop processes by which U S WEST*

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<sup>94</sup> Per Order 27236 at 8.

<sup>95</sup> Per Order 27236 at 8.

*will inform AT&T of deviations from standards for billing. The Parties agree that they will negotiate discrepancies and deviations in good faith. Further, the Parties agree that those documented deviations from such standards documented by U S WEST to AT&T shall supersede sections of technical standards applicable to such deviations referenced in this Agreement.*

- 4.1.2 *U S WEST shall record and bill in accordance with this Agreement those charges AT&T incurs as a result of AT&T purchasing from U S WEST services, as set forth in this Agreement (hereinafter "Connectivity Charges").*
- 4.1.3 *U S WEST shall format each bill for Connectivity Charges (hereinafter "Connectivity Bill") in accordance with the CRIS, CABS or SECAB standard as appropriate to the services billed.*
- 4.1.4 *Each service purchased by AT&T shall be assigned a separate and unique billing code or identifier in the form agreed to by the Parties and such code or identifier shall be provided to AT&T on each Connectivity Bill in which charges for such services appear. Each such billing code or identifier shall enable AT&T to identify the service as purchased by AT&T.*
- 4.1.5 *Each Connectivity Bill shall set forth the quantity and description of each such service provided and billed to AT&T. All Connectivity Charges billed to AT&T shall indicate the state from which such charges were incurred.*
- 4.1.6 *U S WEST shall bill AT&T for each service supplied by U S WEST to AT&T pursuant to this Agreement at the rates set forth in Attachment 1 to this Agreement.*
- 4.1.7 *U S WEST shall bill AT&T for the Connectivity Charges incurred; provided however, that, for those usage based Connectivity Charges where actual charge information is not determinable by U S WEST because the jurisdiction (i.e., interstate, interstate/interLATA, intrastate, intrastate/ intraLATA, local) of the traffic is unidentifiable, or for any other reason, the Parties shall jointly develop a process to determine the appropriate charges.*
- 4.1.8 *Measurement of usage-based Connectivity Charges shall be in actual conversation seconds. For local interconnection traffic provided under Attachments 3 and 4 of this Agreement, the total conversation time per chargeable traffic types shall be totaled for the entire monthly bill cycle, rounded to the next whole minute and then billed at the contract rate. For Resold Services provided under Attachment 2 of this Agreement the total conversation time shall be measured in accordance with U S WEST's retail tariff and billed at the contract rate.*
- 4.1.9 *U S WEST shall provide to AT&T at no additional charge a Single Point of Contact for handling any Connectivity Billing questions or problems that may arise during the implementation and performance of the terms and conditions of this Agreement.*
- 4.1.10 *U S WEST shall provide a Single Point of Contact for the handling of any data exchange questions or problems that may arise during the implementation and performance of the terms and conditions of this Agreement.*
- 4.1.11 *As soon as possible after the Effective Date of this Agreement, each Party shall provide the other Party written notice of which form of the monthly Connectivity Bill is to be deemed the official bill to assist the Parties in resolving any conflicts that may arise*

*between the official bill and another form of bill received via a different media which purportedly contains the same charges as are on the official bill.*

- 4.1.12 *If either Party requests an additional copy(ies) of a bill, such Party shall pay the other Party a reasonable fee per additional bill copy, unless such copy was requested due to errors, omissions, or corrections or the failure of the transmission to comply with the specifications set forth in this Agreement.*
- 4.1.13 *When sending Connectivity Bills via electronic transmission, to avoid transmission failures or the receipt of Connectivity Billing information that cannot be processed, AT&T shall provide U S WEST process specifications. U S WEST shall comply with mutually agreed upon processing specifications when U S WEST transmits Connectivity Billing data to AT&T. AT&T shall provide to U S WEST notice if a Connectivity Billing transmission is not received that does not meet mutually agreed upon AT&T specifications. Faulty or failed transmissions shall be corrected and resubmitted to AT&T, at U S WEST's sole expense.*
- 4.1.14 *U S WEST shall deliver to a location specified by AT&T, billing information via Connect Direct, magnetic tape or paper, as agreed to by AT&T and U S WEST. In the event of an emergency, system failure or other such condition which prevents U S WEST from transmitting via Connect Direct, U S WEST shall notify AT&T of such difficulties within two (2) hours of detection. U S WEST shall deliver to a location specified by AT&T billing information via magnetic tape or paper, as agreed to by AT&T and U S WEST. The Parties acknowledge that all tapes transmitted to the other Party via U.S. Mail or overnight delivery service and which contain Connectivity Billing data shall not be returned to the sending party.*
- 4.1.15 *[Intentionally left blank for numbering consistency]*
- 4.1.16 *Billed amounts, which are being reasonably disputed or reasonably queried, or for which reasonable claims have been filed, are not due for payment until such disputes, claims or queries have been fully resolved by both AT&T and U S WEST.*

#### **4.1.17 Bill Reconciliation**

- 4.1.17.1 *Each Party agrees to notify the other Party upon the discovery of a billing discrepancy ("Notice of Discrepancy".)*
- 4.1.17.2 *In the event of such Notice of Discrepancy, the Parties shall endeavor to resolve the discrepancy within sixty (60) calendar days after the Notice of Discrepancy is issued using normal business procedures. If the discrepancy is disputed, resolution of such dispute is expected to occur at the first level of management resulting in a recommendation for settlement of the dispute and closure of a specific billing period.*
- 4.1.17.3 *Closure of a specific billing period shall occur by joint agreement of the Parties whereby the Parties agree that such billing period is closed to any further analysis and financial transactions, except those resulting from an Audit. Closure shall take place within nine (9) months of the Bill Date. The month being closed represents those Connectivity Charges that were billed or should have been billed by the applicable bill date.*

- 4.1.17.4 *If the dispute is not resolved within the allotted time frame, the following resolution procedure shall begin:*
- 4.1.17.4.1 *If the dispute is not resolved within sixty (60) days of the Notice of Discrepancy, the dispute shall be escalated to the second level of management for resolution.*
  - 4.1.17.4.2 *If the dispute is not resolved within ninety (90) days of Notice of Discrepancy, the dispute shall be escalated to the third level of management for resolution.*
  - 4.1.17.4.3 *If the dispute is not resolved within one hundred and twenty (120) days of the Notice of Discrepancy, upon the written request of either Party within such one hundred and twenty (120) day period, the dispute may be resolved pursuant to the dispute resolution provision set forth in Part A of this Agreement.*
- 4.1.18 *U S WEST shall reimburse AT&T for incorrect Connectivity Billing charges, including, without limitation: overcharges, services ordered or requested but not delivered, interrupted services, services of poor quality and installation problems, if such problems are caused by U S WEST. Such reimbursements shall be set forth in the appropriate section of the Connectivity Bill pursuant to appropriate standards.*
- 4.1.17 *The Parties agree to record call information in accordance with this Section 4.1. To the extent technically feasible, each Party shall record all call detail information associated with every call that one Party bills to the other Party. AT&T may request, through the BFR process the recording of call records and/or call detail information that is not currently recorded by U S WEST. These records shall be provided and retained pursuant to Section 5 of this Attachment.*
- 4.1.18 *When AT&T collocates with U S WEST in U S WEST's facility as described in this Agreement, capital expenditures (e.g., costs associated with building the "cage"), shall not be included in the Connectivity Bill provided to AT&T pursuant to this Attachment 5. All such capital expenses shall be given a unique BAN and invoice number. All invoices for capital expenses shall be sent to the location specified by AT&T for payment. All other non-capital recurring collocation expenses shall be billed to AT&T in accordance with this Agreement. (The CABS/SECABS Billing Output Specifications (BOS) documents provide the guidelines on how to bill the Connectivity Charges associated with collocation.)*

#### **4.1.19 Local Number Portability**

- 4.1.19.1 *In accordance with the terms and conditions set forth in this Agreement, U S WEST shall record and provide to AT&T all detail information associated with an alternately billed call to an AT&T local exchange customer whose telephone number has been ported from U S WEST under INP as further described in this Agreement.*

#### **4.1.20 Meet Point Billing**

- 4.1.20.1 *AT&T and U S WEST will establish meet-point billing ("MPB") arrangements in accordance with the Meet Point Billing guidelines adopted by and contained in the OBFs MECAB and MECOD documents, except as otherwise mutually agreed to by the Parties. Both Parties will use their best reasonable efforts, individually and collectively, to maintain provisions in their respective federal and state access tariffs, and/or provisions within the National Exchange Carrier Association (NECA) Tariff No. 4, or any successor tariff to reflect the MPB arrangements identified in this Agreement, in MECAB and in MECOD.*
- 4.1.20.2 *The Parties will agree on a meet point percentage to enable the joint provisioning and billing of Switched Access Services to third parties in conformance with the Meet Point Billing guidelines adopted by and contained in the Ordering and Billing Forum's MECAB and MECOD documents and referenced in U S WEST's Switched Access Tariffs. The Parties understand and agree that MPB arrangements are available and functional only to/from Interexchange Carriers who directly connect with the tandem(s) that AT&T sub-tends in each LATA.*
- 4.1.20.3 *The Parties will use reasonable efforts, individually and collectively, to maintain provisions in their respective federal and state access tariffs, and/or provisions within the National Exchange Carrier Association (NECA) Tariff No. 4, or any successor tariff, sufficient to reflect this MPB arrangement, including MPB percentages.*
- 4.1.20.4 *AT&T and U S WEST will implement the "Multiple Bill/Single Tariff" option in order to bill any interexchange carrier (IXC) for that portion of the network elements provided by AT&T and U S WEST. For all traffic carried over the MPB arrangement, AT&T and U S WEST shall bill IXCs all applicable elements at the rates specified in their respective tariffs.*
- 4.1.20.5 *U S WEST shall provide to AT&T the billing name, billing address, and carrier identification code (CIC) of the IXCs that may utilize any portion of AT&T network in an AT&T/U S WEST MPB arrangement in order to comply with the MPB Notification process as outlined in the MECAB document. Such information shall provide to AT&T in the format and via the medium that the Parties agree. If U S WEST does not have a CIC for any IXC that will utilize a portion of AT&T network in an AT&T/U S WEST MPB arrangement, and for whom U S WEST must supply to AT&T MPB billing information, then until such carrier has obtained a CIC, U S WEST will submit the LEC's CIC on those MPB records provided to AT&T for MPB. U S WEST understands and agrees that it will be solely responsible for obtaining any reimbursements from such carriers who have utilized the jointly provided networks of U S WEST and AT&T.*
- 4.1.20.6 *U S WEST and AT&T agree that in an MPB arrangement where one party provides local transport and the other party provides the end office switching, the party who provides the end office switching is entitled to bill any residual interconnection charges (RIC) and common carrier line (CCL) charges associated with the traffic. The Parties further agree that in those MPB situations where one party sub-tends the other party's access tandem, the party providing the access tandem is only entitled to bill the access tandem fee and any associated local transport charges. The Parties also agree that*

the party who provides the end office switching is entitled to bill end office switching fees, local transport charges, RIC and CCL charges, as appropriate, and such other applicable charges.

- 4.1.20.7 U S WEST and AT&T will record and transmit MPB information in accordance with the standards and in the format set forth in this Attachment. U S WEST and AT&T will coordinate and exchange the billing account reference ("BAR") and billing account cross reference (BACR) numbers for the MPB arrangements described in this Agreement. Each party will notify the other if the level of billing or other BAR/BACR elements change, resulting in a new BAR/BACR number.
- 4.1.20.8 If MPB data is not processed and delivered by either U S WEST or AT&T and sent to the other party within ten (10) calendar days of the relevant recording period and in turn such party is unable to bill the IXC for the appropriate charges, the party who failed to deliver the data will be held liable for the amount of the unbillable charges.
- 4.1.20.9 If MPB data is not submitted within ten (10) calendar days of the relevant recording period or is not in the proper format as set forth in this Agreement, and if as a result the other party is delayed in billing the IXC for the appropriate charges it incurs, the delaying party shall pay the other party a late MPB data delivery charge which will be the total amount of the delayed charges times a monthly rate that shall not exceed 1.5% which may be levied by law for commercial transactions, compounded daily for the number of days from the date the MPB charges should have been received to and including the date the MPB charge information is actually received.
- 4.1.20.10 Errors in MPB data exchange by the Parties may be discovered by AT&T, U S WEST or the billable IXC. Both AT&T and U S WEST agree to provide the other Party with notification of any discovered errors within two (2) Business Days of the discovery. The other Party shall correct the error within eight (8) Business Days of notification and resubmit the data. In the event the errors cannot be corrected within the time period specified above, the erroneous data shall be considered lost. If MPB data is lost due to uncorrectable errors or otherwise, the Parties shall follow the procedures set forth in Section 5 of this Attachment and compensate the other for the lost MPB billing data.
- 4.1.20.11 In the event AT&T purchases from U S WEST Network Elements, or **Combination**<sup>96</sup> thereof, in a LATA other than the LATA to or from which the MPB services are homed and in which U S WEST operates an access tandem, U S WEST shall, except in instances of capacity limitations, permit and enable AT&T to sub-tend to the U S WEST access tandem switch(es) nearest to the AT&T rating point(s) associated with the NPA-NXX(s) to/from which the MPB services are homed. In such event, AT&T shall be responsible for the transport facilities crossing LATA boundaries. In instances of capacity limitation at a given access tandem switch, AT&T shall be allowed to subtend to the next nearest U S WEST access tandem switch in which sufficient capacity is available. The MPB percentages for

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<sup>96</sup> Per Order 27236 at 8.

*each new rating point/access tandem pair shall be calculated in accordance with MECAB and MECOD.*

## **4.2 Information Exchange and Interfaces**

- 4.2.1 *U S WEST shall provide AT&T a monthly Connectivity Bill that includes all Connectivity Charges incurred by and credits and/or adjustments due to AT&T for those services ordered, established, utilized, discontinued or performed pursuant to this Agreement. For each account, U S WEST shall issue one (1) bill per month and the billing cycle shall be on a calendar basis. Each Connectivity Bill provided by U S WEST to AT&T shall include:*
- 4.2.1.1 *all non-usage sensitive charges incurred for the current bill period.*
  - 4.2.1.2 *any known unbilled non-usage sensitive charges for prior periods;*
  - 4.2.1.3 *usage sensitive charges for the current relevant bill period, (from the last bill date and extending up to, and including, the current bill date);*
  - 4.2.1.4 *any known unbilled usage sensitive charges for prior periods; and*
  - 4.2.1.5 *any known unbilled adjustments.*
- 4.2.3 *The bill date must be present on each bill transmitted by U S WEST to AT&T, must be a valid calendar date, and not more than ninety (90) days old. Connectivity Bills shall not be rendered for any Connectivity Charges which are incurred under this Agreement on or before two hundred and seventy (270) days preceding the bill date, except as otherwise permitted by law.*
- 4.2.4 *On each bill where "Jurisdiction" is identified, local and local toll charges shall be identified as 'Local' and not as interstate, interstate/interLATA, intrastate, or intrastate/intraLATA. U S WEST shall provide from and through dates for charges rendered on all Connectivity Bills.*
- 4.2.5 *U S WEST shall separately identify business charges from residence charges, as appropriate and shall assign a specific adjustment or reference number provided by AT&T to each adjustment and credit included on the Connectivity Bill.*
- 4.2.6 *U S WEST and AT&T shall issue all Connectivity Bills in accordance with the terms and conditions set forth in this Section 4. On Connectivity Bills U S WEST renders to AT&T, Billing Account Numbers (BANs) shall be thirteen (13) character alpha/numeric and there shall only be one (1) BAN per State unless otherwise agreed to by the Parties. The Bill Date shall be the same day month to month. Each Party shall provide the other Party at least thirty (30) calendar days written notice prior to changing, adding or deleting a BAN. The Parties shall provide one (1) Connectivity Billing invoice associated with each BAN. Each invoice must contain an invoice number (which will vary from month to month). On each bill associated with a BAN, the appropriate invoice number and the charges contained on such invoice must be reflected. All Connectivity Bills must be received by the other Party no later than ten (10) calendar days from bill date and at least thirty-five (35) calendar days prior to the payment due date (as described in Part A of this Agreement), whichever is earlier. Any Connectivity Bill received on a Saturday, Sunday or a day designated as a bank holiday will be deemed received the next Business Day. If either Party fails to receive Connectivity Billing data and*

information within the time period specified above, then the payment due date will be extended by the number of days receipt has been delayed.

- 4.2.7 U S WEST shall issue all Connectivity Bills containing such billing data and information in accordance with the most current version of CRIS or CABS /SECABS published by Bellcore, or its successor, or such later versions as are adopted by Bellcore, or its successor as appropriate to the services being billed. To the extent that there are no CRIS, CABS, or SECAB standards governing the formatting of certain data, such data shall be issued in the format mutually agreed to by U S WEST and AT&T, and in accordance with Attachment 6 to this Agreement.
- 4.2.8 As detailed in the MECAB document, AT&T and U S WEST will exchange all information necessary to bill third parties for switched access services traffic jointly handled by AT&T and U S WEST via the meet point arrangement in a timely fashion. Information shall be exchanged in Exchange Message Record ("EMR") format (Bellcore Standard BR 010-200-010, as amended) on magnetic tape or via a mutually acceptable electronic file transfer protocol. The Parties will exchange records pursuant to this paragraph without additional compensation.
- 4.2.9 U S WEST and AT&T agree that each Party shall transmit Connectivity Billing information and data in the appropriate format as provided herein, electronically via Connect Direct to the other Party at the location specified by such Party. AT&T data centers will be responsible for originating the calls for data transmission. U S WEST shall transmit in accordance with the technical specifications mutually agreed upon by the Parties. AT&T will supply to U S WEST its RACF ID and password before the first transmission of data via Connect Direct. Any changes to either Party's Connect Direct Node ID must be sent to the other Party no later than thirty (30) calendar days before the changes take effect.
- 4.2.10 In emergency situations when tape transmittal has been used U S WEST shall adhere to the tape packaging requirements set forth in this Agreement. Where magnetic tape shipping containers are transported in freight compartments, adequate magnetic field protection shall be provided by keeping a 6-inch distance from any magnetic field generating device (except a magnetron-tape device). U S WEST shall only use those shipping containers that contain internal insulation to prevent damage. U S WEST shall clearly mark on the outside of each shipping container its name, contact and return address. U S WEST shall not ship any Connectivity Billing tapes in unprotected tape canisters.
- 4.2.11 All emergency billing data transmitted via tape must be provided on a cartridge (cassette) tape and must be of high quality, conform to the Parties' record and label standards, 9-track, odd parity, 6250 BPI group coded recording mode and extended binary-coded decimal interchange code (EBCDIC). Each reel of tape must be 100% tested at 20% or better "clipping" level with full width certification and permanent error free at final inspection. AT&T reserves the right to destroy a tape that has been determined to have unrecoverable errors. AT&T also reserves the right to replace a tape with one of equal or better quality.
- 4.2.12 The header record will be formatted in accordance with the appropriate IBM, CABS or EDI standards as mutually agreed upon by the Parties.
- 4.2.13 A single 6-digit serial number must appear on the external (flat) surface of the tape for visual identification. This number shall also appear in the "dataset serial number field" of

*the first header record of the IBM standard tape label. This serial number shall consist of the character "V" followed by the reporting location's four digit Originating Company Code and a numeric character chosen by the sending Party. The external and internal label shall be the same. The dataset name shall appear on the flat side of the reel and also in the "data set name field" on the first header record of the IBM standard tape label. U S WEST's name, address, and contact shall appear on the flat side of the cartridge or reel.*

- 4.2.14 Tape labels shall conform to IBM OSVS Operating System Standards contained in the IBM Standard Labels Manual. IBM standard labels are 80-character records recorded in EBCDIC, odd parity.*
- 4.2.15 U S WEST shall conform to the Standard Volume Label Format which will be mutually agreed upon by the Parties.*
- 4.2.16 U S WEST shall use the IBM Standard Dataset Label Format which will be mutually agreed upon by the Parties.*
- 4.2.17 U S WEST shall use test and production dataset format which will be mutually agreed upon for all Connectivity Bills.*

### **4.3 Standards**

- 4.3.1 At least thirty (30) calendar days prior to U S WEST sending AT&T a mechanized bill for the first time via electronic transmission, U S WEST shall send to AT&T connectivity bill data in the appropriate mechanized format (e.g., CABS or SECAB) for testing to ensure that bills can be processed and that bills comply with the requirements of this Attachment. After receipt of the test data from U S WEST AT&T will notify U S WEST if the connectivity billing transmission meets AT&T testing specifications. If the transmission fails to meet the mutually agreed upon test and production dataset format, then, U S WEST shall make the necessary corrections within a mutually agreeable time frame. At least three (3) sets of testing data must meet AT&T testing specifications prior to U S WEST sending AT&T a mechanized production connectivity bill for the first time via electronic transmission or tape. Thereafter, U S WEST may begin sending AT&T production connectivity bills via electronic transfer on the next bill date, or within ten (10) calendar days, whichever is later.*
- 4.3.2 U S WEST shall also provide to AT&T a designated point of contact, U S WEST's applicable operating company number ("OCN") at least thirty (30) days prior to testing and at least thirty (30) days prior to a change of OCN.*
- 4.3.3 At least ninety (90) days prior to any change in existing formats or change to a different format, U S WEST shall send to AT&T connectivity bill data in the appropriate mechanized format for testing to ensure that the bills can be processed and that the bills comply with the requirements of this Attachment. U S WEST agrees that it shall not send to AT&T bill data in the new mechanized format until such bill data has met the testing specifications as set forth in this section.*
- 4.3.4 During the testing period, in addition to CONNECT DIRECT, U S WEST shall also transmit to AT&T Connectivity Billing data and information via paper or tape as specified by AT&T. Test tapes shall be sent to an AT&T specified location.*
- 4.3.5 For Connectivity Bills issued in CABS or SECAB format, U S WEST agrees that if it transmits data to AT&T in a mechanized format, U S WEST shall also comply with the*

following specifications which are not contained in CABS or SECAB guidelines but which are necessary for AT&T to process Connectivity Billing information and data:

4.3.5.1 The bill date shall not contain spaces or non-numeric values.

4.3.5.2 Each Connectivity Bill must contain at least one (1) detail record.

4.3.5.3 Any "from" date should be less than or equal to the associated "thru" date and neither date can contain spaces.

4.3.5.4 The invoice number must not have embedded spaces or low values.

4.3.6 U S WEST agrees that in order to ensure the proper performance and integrity of the entire Connectivity Billing process, U S WEST shall be responsible and accountable for transmitting to AT&T an accurate and current bill. U S WEST agrees to implement control mechanisms and procedures to render a bill that accurately reflects the services ordered and used by AT&T.

## 5. Provision Of Customer Usage Data

This Section 5 sets forth the terms and conditions for U S WEST's provision of Recorded Usage Data (as defined in this Attachment 5) to AT&T and for information exchange regarding long distance billing.

### 5.1 Procedures

#### 5.1.1 General

5.1.1.1 U S WEST shall comply with various industry, OBF, and other standards referred to throughout this Agreement. To satisfy these requirements, the Parties agree to a mutual interpretation of all standards referred to in this Section.

5.1.1.2 The Parties shall mutually agree to OBF standards and the additional standards outlined in this Agreement when recording and transmitting Usage Data.

5.1.1.3 As new standards are developed and adopted by industry, U S WEST and AT&T will negotiate mutually agreeable implementation of those standards.

5.1.1.4 U S WEST shall record all usage to be billed to AT&T originating from, terminating to or billed to AT&T Customers using U S WEST services ordered by AT&T. Recorded Usage Data includes, but is not limited to, the following categories of information:

Call Attempts

Completed Calls

Use of CLASS/LASS/Custom Features

Calls To Information Providers Reached Via U S WEST Facilities And Contracted By U S WEST

Calls To Directory Assistance Where U S WEST Provides Such Service To An AT&T Customer

Calls Completed Via U S WEST-Provided Operator Services Where U S WEST Provides Such Service To AT&T Local Service Customer

*For U S WEST-Provided Centrex Service, Station Level Detail Records Shall Include Complete Call Detail And Complete Timing Information*

- 5.1.1.5 *Retention of Records: U S WEST shall maintain a machine readable back-up copy of the message detail provided to AT&T for a minimum of forty-five (45) calendar days. U S WEST shall provide any data back-up to AT&T upon the request of AT&T.*
- 5.1.1.6 *U S WEST shall provide to AT&T Recorded Usage Data for AT&T Customers only. U S WEST shall not submit other carrier local usage data as part of the AT&T Recorded Usage Data.*
- 5.1.1.7 *U S WEST shall not bill to AT&T Customers any recurring or non-recurring charges for service provided by U S WEST to AT&T except where explicitly permitted to do so within a written agreement between U S WEST and AT&T.*
- 5.1.1.8 *The Parties shall record and rate all calls to Information Service Providers (e.g., 976 service calls) and shall bill such calls directly the calling party's local service provider. In the event a Party's end-user disputes such a call, that Party may recourse consistent with the recourse arrangement the billing Party has with its information service provider.*
- 5.1.1.9 *U S WEST shall provide Recorded Usage Data to AT&T billing locations as designated by AT&T.*
- 5.1.1.10 *U S WEST shall establish an Interconnect Service Center (ISC) or similar function to serve as AT&T single point of contact to respond to AT&T call usage, data error, and record transmission inquiries.*
- 5.1.1.10.1 *U S WEST shall provide AT&T with a single point of contact and Remote Identifiers for each sending location.*
- 5.1.1.11 *AT&T shall provide a single point of contact responsible for receiving usage transmitted by U S WEST and receiving usage tapes from a courier service in the event of a facility outage.*
- 5.1.1.12 *U S WEST shall bill and AT&T shall pay the charges for Recorded Usage Data. Billing and payment shall be in accordance with the applicable terms and conditions set forth in Connectivity Billing and Recording Section of this Attachment 5.*
- 5.1.1.13 *Without waiver of, and in addition to the Audit and Examination rights set forth in the General Section of this Agreement, upon reasonable notice and at reasonable times, a Party or its authorized representatives may examine the recording Party's AMA records which relate to perceived problems with the recordings of the usage data relating to the billed Party under this Attachment.*

## **5.1.2 Charges**

- 5.1.2.1 *The parties may charge fees for recording, rating or transmitting usage data. For the six (6) months following the initial recording, rating or transmitting of non-test usage data, the Parties shall not charge each other.*
- 5.1.2.2 *No charges shall be assessed for incomplete call attempts.*

### **5.1.3 Central Clearinghouse & Settlement**

- 5.1.3.1 *U S WEST shall support and participate with AT&T to develop an in and out-collect process developed for intra-region alternately billed messages.*
- 5.1.3.2 *U S WEST shall settle with AT&T for both intra-region and inter-region billing exchanges of calling card, bill-to-third party, and collect calls, including settlement through the CMDS CATS system for inter-region billing.*

### **5.1.4 Lost Data**

- 5.1.4.1 *Loss of Recorded Usage Data - AT&T recorded usage data determined to have been lost, damaged or destroyed as a result of an error or omission by U S WEST in its performance of the recording function shall, upon AT&T request, be recovered by U S WEST at no charge to AT&T. In the event the data cannot be recovered by U S WEST, U S WEST shall estimate the messages and associated revenue, with assistance from AT&T, based upon the method described below. This method shall be applied on a consistent basis, subject to modifications agreed to by U S WEST and AT&T. This estimate shall be used to adjust amounts AT&T owes U S WEST for services U S WEST provides in conjunction with the provision of recorded usage data.*
- 5.1.4.2 *Partial Loss - U S WEST shall review its daily controls to determine if data has been lost. When there has been a partial loss, actual message and minute volumes shall be reported, if possible. Where actual data are not available, a full day shall be estimated for the recording entity, as outlined in the following paragraphs. The amount of the partial loss is then determined by subtracting the data actually recorded for such day from the estimated total for such day.*
- 5.1.4.3 *Complete Loss - Estimated message and minute volumes for each loss consisting of an entire AMA tape or entire data volume due to its loss prior to or during processing, loss after receipt, degaussed before processing, receipt of a blank or unreadable tape, or lost for other causes, shall be reported.*
- 5.1.4.4 *Estimated Volumes - From message and minute volume reports for the entity experiencing the loss, U S WEST shall secure message/minute counts for the four (4) corresponding days of the weeks preceding that in which the loss occurred and compute an average of these volumes. U S WEST shall apply the appropriate average revenue per message*

("ARPM") mutually agreed upon to the estimated message volume to arrive at the estimated lost revenue.

- 5.1.4.5 *If the day of loss is not a holiday but one (1) (or more) of the preceding corresponding days is a holiday, U S WEST shall use additional preceding weeks in order to procure volumes for two (2) non-holidays in the previous two (2) weeks that correspond to the day of the week that is the day of the loss*
- 5.1.4.6 *If the loss occurs on a weekday that is a holiday (except Christmas and Mother's Day), U S WEST shall use volumes from the two (2) preceding Sundays.*
- 5.1.4.7 *If the loss occurs on Mother's Day or Christmas, U S WEST shall use volumes from that day in the preceding year multiplied by a growth rate mutually agreed upon by the Parties.*
- 5.1.4.8 *AT&T may also request data be provided that has previously been successfully provided by U S WEST to AT&T. U S WEST shall re-provide such data, if available, at a mutually agreed to charge by the Parties.*

### **5.1.5 Testing, Changes and Controls**

- 5.1.5.1 *The Recorded Usage Data, EMR format, content, and transmission process shall be tested as mutually agreed to by the Parties.*
- 5.1.5.2 *Interface Testing: The purpose of this test is to ensure that the usage records can be sent by U S WEST to AT&T and can be accepted and processed by AT&T. U S WEST shall provide a test file to AT&T designated Regional Processing Center (RPC) in the format that shall be used for live day-to-day processing. The file's test content and volume shall be mutually agreed to by the Parties. AT&T shall review the file and verify that it conforms to its data center requirements. AT&T shall notify U S WEST in writing whether the format is acceptable. AT&T shall also provide U S WEST with the agreed-upon control reports as part of this test.*
- 5.1.5.3 *Operational Test: The purpose of this test is to ensure that volumes of usage in consecutive sequence can be extracted, distributed, and processed by U S WEST and AT&T.*
- 5.1.5.4 *For testing purposes U S WEST shall provide AT&T with U S WEST recorded usage for a minimum of five (5) consecutive days. AT&T shall provide U S WEST with the message validation reports associated with test usage.*
- 5.1.5.5 *Test File: Test data should be transported via CONNECT DIRECT whenever possible. In the event that courier service must be used to transport test media, the physical tape characteristics to be used are described in this Attachment.*
- 5.1.5.6 *Periodic Review: Control procedures for all usage transferred between U S WEST and AT&T shall require periodic review. This review may be*

*included as part of an annual audit of U S WEST by AT&T or as part of the normal production interface management function. Breakdowns which impact the flow of usage between U S WEST and AT&T must be identified and jointly resolved as they occur. The resolution may include changes to control procedures, as similar problems would be avoided in the future. Any changes to control procedures shall be mutually agreed upon by AT&T and U S WEST.*

**5.1.5.7 U S WEST Software Changes:**

**5.1.5.7.1** *When U S WEST plans to introduce any software changes which impact the format or content structure of the usage data feed to AT&T, designated U S WEST personnel shall notify AT&T no less than one hundred twenty (120) calendar days before such changes are implemented.*

**5.1.5.7.2** *U S WEST shall communicate the projected changes to the appropriate groups in AT&T so that potential impacts on AT&T processing can be determined.*

**5.1.5.7.3** *AT&T personnel shall review the impact of the change on the entire control structure and the Post Conversion Test Plan, herein. AT&T shall negotiate any perceived problems with U S WEST and shall arrange to have the data tested utilizing the modified software.*

**5.1.5.7.4** *If it is necessary for U S WEST to request changes in the schedule, content or format of usage data transmitted to AT&T, U S WEST shall notify AT&T.*

**5.1.5.8. AT&T Requested Changes:**

**5.1.5.8.1** *AT&T may request changes in the schedule, content, format of the usage data transmitted from U S WEST, as deemed necessary by AT&T.*

**5.1.5.8.2** *When the negotiated changes are to be implemented, AT&T and/or U S WEST shall arrange for testing of the modified data in a Post Conversion Test Plan designed to encompass all types of changes to the usage data transferred by U S WEST to AT&T and the methods of transmission for that data.*

**5.1.5.9 U S WEST System Change Description:**

**5.1.5.9.1** *For a U S WEST system change, U S WEST shall provide AT&T with an overall description of the change, stating the objective and a brief explanation of the reasons for the change.*

**5.1.5.9.2** *During the initial negotiations regarding the change, U S WEST shall provide a list of the specific records and/or*

*systems impacted by the change to designated AT&T personnel.*

*5.1.5.9.3 U S WEST shall also provide AT&T a detailed description of the changes to be implemented. It shall include sufficient detail for designated AT&T personnel to analyze and estimate the effects of the changes and to design tests to verify the accuracy of the implementation.*

*5.1.5.10 Change Negotiations:*

*5.1.5.10.1 AT&T shall be notified in writing of all proposed change negotiations initiated by U S WEST in writing. In turn, AT&T shall notify U S WEST in writing of proposed change negotiations initiated by AT&T.*

*5.1.5.10.2 After formal notification of planned changes, whether originated by U S WEST or AT&T, designated AT&T personnel shall schedule negotiation meetings as required with designated U S WEST personnel. The first meeting should produce the overall change description (if not previously furnished) and the list of records and/or systems affected.*

*5.1.5.10.3 In subsequent meetings, U S WEST shall provide the detailed description of changes to be implemented. After reviewing the described changes, designated AT&T personnel shall negotiate a detailed test procedure with U S WEST.*

*5.1.5.11 Changes to controls: AT&T may request changes to the control structure. The Parties shall mutually agree to the requested changes.*

*5.1.5.12 Verification Of Changes*

*5.1.5.12.1 Based on the detailed description of changes furnished by U S WEST, AT&T and U S WEST personnel shall:*

*Determine the type of change(s) to be implemented;  
Develop a comprehensive test plan;  
Negotiate scheduling and transfer of modified data with U S WEST;  
Negotiate testing of modified data with the appropriate AT&T RPC;  
Negotiate processing of verified data through the AT&T billing system with the RPC;  
Arrange for review and verification of testing with appropriate AT&T groups;  
Arrange for review of modified controls, if applicable.*

*5.1.5.13 Introduction of Changes:*

*5.1.5.13.1 When all the testing requirements have been met and the results reviewed and accepted, designated AT&T and U S WEST personnel shall:*

*Negotiate an implementation schedule; and  
Verify the existence of a contingency plan with the appropriate AT&T personnel; and  
Arrange for the follow-up review of changes with appropriate AT&T personnel; and  
Arrange for appropriate changes in control program, if applicable; and  
Arrange for long-term functional review of impact of changes on the AT&T billing system, i.e., accuracy, timeliness, and completeness.*

## **5.2 Information Exchange and Interfaces**

### **5.2.1 Core Billing Information**

- 5.2.1.1 *Recorded Usage Data includes all intraLATA toll and local usage. U S WEST shall provide AT&T with unrated EMR records associated with all intraLATA toll and local usage which they record on AT&T's behalf. Any category, group and/or record types approved in the future for U S WEST shall be included if they fall within the definition of Local Service Resale. AT&T shall be given notification thirty (30) days prior to implementation of a new type, category and/or record.*
- 5.2.1.2 *U S WEST shall provide rated EMR records only when explicit consent for sending such records has been obtained from AT&T.*
- 5.2.1.3 *All messages recorded by a Party and billed to the other Party are to be transmitted to the billed Party. Recorded usage includes all usage billable to the other Party.*
- 5.2.1.4 *Data Delivery Schedules: Data shall be delivered to AT&T by U S WEST daily (Monday through Friday except holidays) unless otherwise negotiated. AT&T and/or U S WEST Data Center holidays are excluded. U S WEST and AT&T shall exchange schedules of designated Data Center holidays.*

### **5.2.2 Local Account Maintenance**

- 5.2.2.1 *When AT&T purchases local service from U S WEST, and, as appropriate, when AT&T purchases certain unbundled Network Elements, U S WEST shall provide AT&T with local account maintenance as described herein.*
- 5.2.2.2 *When notified by a CLEC that an AT&T customer has switched to CLEC's service, U S WEST shall provision the change and notify AT&T via Connect:Direct within twenty-four (24) hours of the provisioning that the customer has changed to another service provider ("OutPLOC").*
- 5.2.2.3 *When notified by AT&T that a customer has changed his/her PIC only from one interexchange carrier to another, U S WEST shall provision the PIC only change.*
- 5.2.2.4 *If notified by an IXC using a '01' PIC order record that a AT&T customer has changed his/her PIC only, U S WEST shall reject the order and notify*

that IXC using an industry standard '3148' record with the operating company number of AT&T indicated, that a '01' care PIC record should be sent to AT&T for processing.

### **5.2.3 Product/Service Specific**

- 5.2.3.1 Subject to conditions specified in Section 5.1.1(c) of this Attachment 5, U S WEST shall provide a Specialized Service/Service Provider Charge record to support the Special Features Star Services if these features are part of U S WEST's offering. Such record shall be an EMR 10-01-18 record or industry standard record as may subsequently be mutually agreed to by the Parties. Such record shall be a 10-01-18 record or Bellcore assigned record as may be subsequently agreed to by the Parties.

### **5.2.4 Emergency Information**

- 5.2.4.1 U S WEST shall provide the transport facility for transmitting usage and billing data between the U S WEST location and the AT&T location. U S WEST shall transmit via CONNECT DIRECT whenever possible. In the event usage transfer cannot be accommodated by CONNECT DIRECT because of extended (one (1) Business Day or longer) facility outages, U S WEST shall contract for a courier service to transport the data via tape.

- 5.2.4.2 The Parties shall mutually agree to the following standards when emergency data is transported to AT&T on tape or cartridge via a courier. The data shall be in fixed or variable block format as mutually agreed to by the Parties:

Tape: 9-track, 6250 (or 1600) BPI (Bytes per inch)

Cartridge: 38,000 BPI (Bytes per inch)

LRECL: 2,472 Bytes

Parity: Odd

Character Set: Extended Binary Coded Decimal Interchange Code (EBCDIC)

External labels: Exchange Carrier Name, Dataset Name (DSN) and volume serial number

Internal labels: IBM Industry OS labels shall be used. They consist of a single volume label and two (2) sets of header and trailer labels.

- 5.2.4.1 To the extent the above standards are changed or revised, the Parties may agree to negotiate the incorporation of such new standards.

### **5.2.5 Rejected Recorded Usage Data**

- 5.2.5.1 At the discretion of AT&T, any messages that cannot be rated and/or billed by AT&T may be returned to U S WEST via CONNECT DIRECT. Returned messages shall be sent directly to U S WEST in EMR format. Standard EMR return codes shall be utilized.

## 5.2.6 Interfaces

- 5.2.6.1 *The Parties shall transmit formatted Recorded Usage Data via Connect Direct.*
- 5.2.6.2 *AT&T shall notify U S WEST of resend requirements if a pack or entire dataset must be replaced due to pack rejection, damage in transit, dataset name failure, etc.*
- 5.2.6.3 *Critical edit failure on the pack header or pack trailer records shall result in pack rejection (e.g., detail record count not equal to grand total included in the pack trailer). Notification of pack rejection shall be made by AT&T within one (1) Business Day of processing. Rejected packs shall be corrected by U S WEST and retransmitted to AT&T within twenty-four (24) hours or within an alternate time frame negotiated on a case by case basis.*
- 5.2.6.4 *A pack shall contain a minimum of one (1) message record or a maximum of 9,999 message records plus a pack header record and a pack trailer record. A file transmission contains a maximum of ninety-nine (99) packs. A dataset shall contain a minimum of one (1) pack. U S WEST shall provide AT&T one dataset per sending location, with the agreed upon RAO/OCN populated in the header and trailer records.*

## 5.2.7 Formats & Characteristics

- 5.2.7.1 *Rated in collect messages should be transmitted via the CONNECT DIRECT and can be intermingled with the unrated messages. No special packing is needed.*
- 5.2.7.2 *EMR: U S WEST shall provide Recorded Usage Data in the EMR format and by category, group and record type, and shall be transmitted, via a direct feed, to AT&T. The types of EMR records that AT&T can expect to receive from U S WEST, includes, but is not limited to the following:*

<i>Header Record</i>	<i>20-21-01, 20-20-01 or 20-24-01</i>
<i>Trailer Record</i>	<i>20-21-02, 20-20-02 or 20-24-02</i>
<i>Detail Records *</i>	<i>01-01-01, 06, 08, 14, 17, 18, 31, 32, 35, 37, 80, 81, 82, 10-01-01, 06, 08, 14, 17, 18, 31, 32, 35, 37</i>
<i>Credit Records</i>	<i>03-01-01, 06, 08, 14, 17, 18, 31, 32, 35, 37, 80, 81, 82,</i>
<i>Rated Credits</i>	<i>41-01-01, 06, 08, 14, 17, 18, 31, 32, 35, 37, 80, 81, 82,</i>
<i>Cancel Records</i>	<i>51-01-01, 06, 08, 09, 14, 17, 18, 31, 32, 35, 37, 80, 81, 82,</i>
<i>Correction Records</i>	<i>71-01-01, 06, 08, 14, 17, 18, 31, 32, 35, 37, 80, 81, 82,</i>

*\* Category 01 is utilized for rated messages; Category 10 is utilized for unrated messages. Category 10 records are to have indicator 13 populated with a value of 5*

*5.2.7.2.1 To the extent the above standards are changed or revised, the Parties may agree to incorporate such new standards.*

- 5.2.7.3 *U S WEST shall comply with the most current version of Bellcore standard practice guidelines for formatting EMR records.*

- 5.2.7.4 *The Interfacing Bell RAO, OCN, and remote identifiers shall be used by AT&T to control invoice sequencing and each shall have its own invoice controls. The OCN shall also be used to determine where the message returns file, containing any misdirected and unguidable usage, shall be sent.*
- 5.2.7.5 *The file's Record Format (RECFM) shall be Variable Block or fixed as negotiated, Size and the Logical Record Length (LRECL) shall be as mutually agreed to by the Parties.*
- 5.2.7.6 *Intentionally left blank for numbering consistency..*
- 5.2.7.7 *U S WEST shall transmit the usage to AT&T using dataset naming conventions mutually agreed upon by the Parties.*

## **5.2.8 Controls**

- 5.2.8.1 *AT&T shall test and certify the CONNECT DIRECT interface to ensure the accurate receipt of Recorded Usage Data.*
- 5.2.8.2 *Header and trailer records shall be populated in positions 13-27 with the following information:*

<i>Position</i>	
<i>13-14</i>	<i>Invoice numbers (1-99)</i>
<i>15-16</i>	<i>Bell Co. ID number</i>
<i>17-19</i>	<i>Interfacing Bell RAO Code</i>
<i>20-23</i>	<i>AT&amp;T OCN - value 7229</i>
<i>24-27</i>	<i>Reseller OCN</i>

*The trailer grand total record count shall be populated with total records in pack (excluding header & trailer)*

- 5.2.8.3 *Control Reports: AT&T accepts input data provided by U S WEST in EMR format in accordance with the requirements and specifications detailed in this Attachment 5. In order to ensure the overall integrity of the usage being transmitted from U S WEST to AT&T, data transfer control reports shall be required. These reports shall be provided by AT&T to U S WEST on a daily or otherwise negotiated basis and shall reflect the results of the processing for each pack transmitted by U S WEST.*
- 5.2.8.4 *Control Reports - Distribution: Since U S WEST is not receiving control reports, dataset names shall be established during detailed negotiations.*
- 5.2.8.5 *Message Validation Reports: AT&T shall provide Message Validation reports to the designated U S WEST System Control Coordinator once a day (or as otherwise agreed to by the Parties). These reports shall be provided for all data received within U S WEST Local Resale feed and shall be transmitted Monday through Friday.*

5.2.8.6 *Incollect Pack Processing: This report provides vital statistics and control totals for packs rejected and accepted and dropped messages. The information is provided in the following report formats and control levels:*

*U S WEST Name; and  
Reseller total messages processed in a pack; and  
Packs processed shall reflect the number of messages initially erred and accepted within a pack; and  
Reseller total packs processed.*

### 5.3 Standards

- 5.3.1 *When requested for security purposes and on an exception basis when a reasonable need is demonstrated, a Party shall provide the other Party with Recorded Usage Data within two (2) hours of the call completion or within the same period that the recording Party would have that data for itself under similar circumstances. If not available in EMR format, the Recorded Usage Data may be provided in AMA format.*
- 5.3.2 *U S WEST shall include the Working Telephone Number (WTN) of the call originator on each EMR call record.*
- 5.3.3 *End user Customer usage records and station level detail records shall be in packs in accordance with EMR standards or applicable industry standards as defined in Section 5.3.1 of this Attachment.*
- 5.3.4 *U S WEST shall provide Recorded Usage Data once a day to AT&T on a schedule to be determined by the Parties, Monday through Friday, excluding holidays. The Parties shall work together to reach agreement on an acceptable holiday schedule. U S WEST shall provide to AT&T the Recorded Usage Data not more than one Business Day after termination of the call for which usage data is to be provided.*
- 5.3.5 *U S WEST shall segregate and organize the Recorded Usage Data in accordance with Section 5.2.7 of this Attachment.*

5.4 Standards for Reporting and Transmitting Usage Data  
*This subject is to be addressed according to the procedures set forth in Section 52 of Part A of this Agreement*

5.5 Reporting  
*This subject is to be addressed according to the procedures set forth in Section 52 of Part A of this Agreement*

## 6. Maintenance

6.1 Interim Maintenance and Repair Processes  
*This subject is to be addressed according to the procedures set forth in Section 52 of Part A of this Agreement*

### 6.2 General Requirements

- 6.2.1 *U S WEST shall provide repair, maintenance, testing, and surveillance for all Telecommunications Services and unbundled Network Elements and Combinations<sup>97</sup> in accordance with the terms and conditions of this Agreement.*
- 6.2.1.1 *U S WEST shall provide AT&T with the same level of maintenance support as U S WEST provides itself in accordance with standards and performance measurements that U S WEST uses and/or which are required by law, regulatory agency, or by U S WEST's own internal procedures, whichever are the most rigorous. These standards shall apply to the quality of the technology, equipment, facilities, processes, and techniques (including, but not limited to, such new architecture, equipment, facilities, and interfaces as U S WEST may deploy) that U S WEST provides to AT&T under this Agreement.*
- 6.2.1.2 *U S WEST shall provide a SPOC (Single Point of Contact) for Residence, and a SPOC for Business for AT&T to report via telephone (800 number) maintenance issues and trouble reports twenty four (24) hours a day and seven (7) days a week. The SPOC Residence 800 number, and SPOC Business 800 number, will be the numbers for all of U S WEST's 14 states.*
- 6.2.1.3 *U S WEST shall provide AT&T maintenance dispatch personnel on the same schedule that it provides its own Customers.*
- 6.2.2 *AT&T shall handle all interaction with AT&T Customers including all calls regarding service problems, scheduling of technician visits, and notifying the Customer of trouble status and resolution. When a U S WEST Technician is on site, the customer will be statused in accordance with standard U S WEST procedures.*
- 6.2.3 *AT&T and U S WEST will provide their respective customers with the correct telephone numbers to call for access to their respective repair bureaus.*
- 6.2.4 *Customers of AT&T shall be instructed to report all cases of trouble to AT&T as appropriate. Customers of U S WEST shall be instructed to report all cases of trouble to U S WEST as appropriate. AT&T and U S WEST will provide their respective repair contact numbers to one another on a reciprocal basis.*
- 6.2.5 *U S WEST shall cooperate with AT&T to meet maintenance standards for all Telecommunications Services, unbundled network elements and Combinations<sup>98</sup> ordered under this Agreement. Such maintenance standards shall include, without limitation, standards for testing, network management, call gapping, and notification of upgrades as they become available.*
- 6.2.6 *All U S WEST employees or contractors who perform repair service for AT&T Customers shall follow mutually agreed to procedures in all their communications with AT&T Customers. At a minimum, these procedures, and protocols shall ensure that: (1) U S WEST employees or contractors shall perform repair service that is at least equal in quality to that provided to U S WEST Customers; (2) trouble calls from AT&T Customers shall receive response time priority that is at least equal to that of U S WEST Customers, regardless of whether the Customer is an AT&T Customer or a U S WEST Customer.*

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<sup>97</sup> Per Order 27236 at 8.

<sup>98</sup> Per Order 27236 at 8.

- 6.2.7 *In responding to repair calls, neither Party shall make disparaging remarks about each other, nor shall they use repair calls as the basis for internal referrals or to solicit customers to market services. Either Party may respond with accurate information in answering customer questions.*
- 6.2.8 *U S WEST shall perform scheduled maintenance, including, without limitation, required and recommended maintenance intervals and procedures, for all Telecommunications Services, Network Elements and **Combinations**<sup>99</sup> provided to AT&T under this Agreement equal in quality to that currently provided by U S WEST in the maintenance of its own network.*
- 6.2.8.1 *U S WEST shall exercise its best efforts to provide the designated AT&T SPOC at least sixty (60) days advance notice of any scheduled activity which will likely impact AT&T customers.*
- 6.2.8.2 *Plans for significant service affecting activities shall include, at a minimum, the following information: location and type of facilities, specific work to be performed, date and time work is scheduled to commence, work schedule to be followed, date and time work is scheduled to be completed, estimated number of work hours for completion. Examples of such activities include, but are not limited to: office conversions, cable facility rolls, and tandem re-homes.*
- 6.2.9 *U S WEST shall exercise its best efforts to notify AT&T of all non-scheduled activities to be performed by U S WEST on any network element, including, without limitation, any hardware, equipment, software, or system, providing service functionality which will likely impact AT&T Customers.*
- 6.2.9.1 *U S WEST shall provide to the designated SPOC maximum advance notice of such non-scheduled activities in the same time and manner that it provides to its operation service centers.*
- 6.2.9.2 *U S WEST shall perform emergency maintenance as promptly as possible to maintain or restore service and shall promptly advise the AT&T designated SPOC of any such actions it takes.*
- 6.2.10 *U S WEST shall provide AT&T a detailed description of any and all emergency restoration plans and disaster recovery plans which are in place during the term of this Agreement. Such plans shall include, at a minimum, the following: (a) provisions for immediate notification to AT&T of the existence, location, and source of any emergency network outage potentially affecting an AT&T Customer; (b) establishment of a single point of contact responsible for initiating and coordinating the restoration of all Local Services and Network Elements or **Combinations**;<sup>100</sup> (c) methods and procedures to provide AT&T with real-time access to information relating to the status of restoration efforts and problem resolution during the restoration process; (d) an inventory and description of mobile restoration equipment, by location; (e) methods and procedures for reprovisioning of all Telecommunications Services and network elements or **Combinations**<sup>101</sup> after*

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<sup>99</sup> Per Order 27236 at 8.

<sup>100</sup> Per Order 27236 at 8.

<sup>101</sup> Per Order 27236 at 8.

*initial restoration, (f) equal priority, as between AT&T Customers and U S WEST Customers, for restoration efforts, consistent with FCC Service Restoration guidelines, including, without limitation, deployment of repair personnel, and access to spare parts and components, and (g) a mutually agreeable process for escalation of maintenance problems, including a complete, up-to-date list of responsible contacts, each available twenty-four (24) hours per day, seven (7) days per week.*

- 6.2.10.1 *For purposes of this subsection 6, an emergency network outage is defined as 5,000 or more blocked call attempts in a ten (10) minute period for all Customers in a single exchange.*
- 6.2.10.2 *AT&T and U S WEST will work cooperatively to assess up chain (end office to tandem calls), down chain (tandem to end office calls), and overall customer impact. U S WEST categorizes, reports and reacts to network outages using FCC reporting criteria and U S WEST Abnormal Condition Report Criteria.*
- 6.2.11 *U S WEST and AT&T shall establish mutually acceptable methods and procedures for the immediate handling of misdirected calls from AT&T customers to U S WEST requesting repair. The Customer shall be informed that AT&T is its local service provider (LSP), and the U S WEST representative will provide the AT&T customer with the appropriate telephone number of the AT&T repair center. If the LSP screen indicator is not available, the U S WEST representative will ask the AT&T customer if it knows the name of its LSP. The U S WEST representative will provide the AT&T customer with the appropriate number of the AT&T repair center. These calls are limited to repair information only, and are not to be used for marketing purposes.*
- 6.2.12 *When electronic interface is available, U S WEST shall inform AT&T of repair completion and trouble reason within ten (10) minutes upon completion. If no electronic interface is available, AT&T will provide a SPOC for U S WEST to call as soon as possible after repair completion. U S WEST shall notify AT&T that the trouble has been cleared. This is done on a real-time basis. Therefore the technician will notify AT&T in a similar manner, for both dispatched-in and dispatched-out troubles. The report shall not be considered closed until such notification is made. AT&T will contact its Customer to determine if repairs were completed and confirm the trouble no longer exists.*
- 6.2.13 *U S WEST and AT&T shall mutually develop escalation procedures to be followed if, in AT&T judgment, any performance standard defined in this Agreement is not met for any individual trouble report. The escalation procedures to be provided shall include names and telephone numbers of U S WEST management personnel who are responsible for maintenance issues and who will be contacted when a trouble condition is escalated.*
- 6.2.14 *In the event U S WEST shall fail to conform to any specified performance and service quality standards, identified elsewhere in this Agreement (mutually agreed to), U S WEST shall perform and deliver to AT&T, a standard root cause analysis of the reasons for U S WEST's failure to conform, and U S WEST shall correct said cause as soon as possible, at its own expense.*
- 6.2.15 *Dispatching of U S WEST technicians to AT&T Customer premises shall be accomplished by U S WEST pursuant to a request received from AT&T. AT&T shall*

*be able to schedule maintenance appointments in intervals at parity with U S WEST upon opening of trouble report.*

6.2.16 *[Intentionally left blank for numbering consistency]*

6.2.17 *U S WEST shall supply AT&T with a unique number to identify each AT&T initial trouble report opened.*

6.2.17.1 *U S WEST and AT&T agree to a trouble priority and severity coding format for all trouble reports handled between the two companies. Troubles are prioritized according to appointment schedules:*

6.2.17.1.1 *Priority 1 = Out of Service*

6.2.17.1.2 *Priority 2 = Affecting Service*

6.2.17.1.3 *Priority 3 = Feature Trouble*

6.2.17.2 *Customer has the ability to escalate.*

6.2.18 *U S WEST shall provide for resale any maintenance/protection plans for services offered under this Agreement to AT&T that it offers U S WEST's own Customers.*

6.2.19 *U S WEST's current trouble reporting system does not provide the capability to reopen a closed trouble report. Therefore, U S WEST shall allow AT&T to designate that a trouble report is associated with the initial trouble report which was closed in the past twenty-four (24) hours without repairs being performed to the Customer's satisfaction. U S WEST shall measure the frequency of these types of repeated reports and will demonstrate non-discriminatory treatment to AT&T.*

## **6.2.20 Additional Unbundling Requirements**

6.2.20.1 *When trouble is reported by a Customer served through unbundled Network Elements, AT&T will test its network to identify any problems. If no problems are identified with the AT&T network, AT&T will open a trouble report with U S WEST and provide switch-based test results to the U S WEST technician. U S WEST shall then test its portion of the network and perform repairs as required in the time frames set forth below in this Attachment.*

6.2.20.1.1 *If U S WEST tests the unbundled loop and no trouble found ("NTF"), the same shall be reported back to AT&T. If, upon testing the unbundled loop, the trouble is isolated to the Customer side of the NID (inside wire, CPE, etc.), AT&T shall be billed a trouble isolation charge ("TIC"). If, after AT&T has opened a trouble ticket, it cancels the trouble ticket before a U S WEST technician has been dispatched on the trouble, no charges will apply. If the U S WEST technician has been dispatched on the reported trouble before the trouble ticket is canceled by AT&T, a TIC will be applied.*

6.2.20.1.2 *AT&T will coordinate combined testing or repair activities until trouble is resolved. U S WEST shall provide repair*

updates to AT&T. For trouble isolation both Parties will cooperatively test to isolate the trouble as required.

### 6.3 Systems Interfaces and Information Exchanges

- 6.3.1 *U S WEST shall cooperate with AT&T to establish real-time, electronic interface by AT&T to U S WEST's maintenance systems and databases. This system shall be based on existing and future uniform industry standards being worked in T1M1 standards committee and Electronics Communications Implementation Committee ("ECIC") industry forum.*
- 6.3.1.1 *An electronic bond will be a system to system connection with immediate update capability. In no way shall this interface cause AT&T personnel to use U S WEST systems via remote hook up or any other means of access.*
- 6.3.1.2 *This interface shall allow AT&T personnel to perform the following functions for AT&T Customers: (i) enter trouble reports in the U S WEST maintenance systems for an AT&T Customer, (ii) retrieve and track current status on all AT&T Customer trouble report; (iii) receive "estimated time to repair" (ETTR) on a real-time basis; (iv) receive immediate notification in the event a repair person is unable to be present for, or anticipates missing, a scheduled repair appointment, and (v) retrieve all time and material charges that apply to AT&T at the time of ticket closure (itemized by time spent, price of materials used, procedures employed, amounts incurred in each such category, and total by Customer, per event (vi) receive automated notification of case closure.*
- 6.3.1.3 *Automated interfaces must be provided into a centralized operations support systems data base for real time network monitoring to proactively identify potential service degradation. Such systems must monitor and report on the integrity of the U S WEST network, isolate trouble and where applicable (e.g., when an unbundled loop is connected to an unbundled port or when an unbundled loop includes such equipment as DCS, D4, etc.), initiate repair operations, test individual unbundled loops and generate maintenance and repair notices that impact any end user's ability to complete calls. Ongoing maintenance practices on such unbundled loops must be equal to or exceed the practices employed by U S WEST for facilities used to provide Services For Resale.*
- 6.3.1.4 *U S WEST agrees to develop and implement, as soon as possible, with a target date of November 1, 1997 the electronic interfaces described above.*
- 6.3.2 *U S WEST agrees that AT&T may report troubles directly to a single U S WEST Repair/Maintenance Center for both residential and business Customers. The Repair Center will have two separate numbers, one for residence and one for business. CLEC's will be treated in the same manner as U S WEST customers.*
- 6.3.3 *U S WEST shall perform all testing for Resale Services. U S WEST shall provide the capability for AT&T to receive MLT test results while AT&T customer is on line during the initial trouble report, when technically feasible in the U S WEST network.*

- 6.3.3.1 *U S WEST shall provide test results to AT&T, if appropriate, for trouble clearance. In all instances, U S WEST will provide AT&T with the disposition of the trouble.*
- 6.3.4 *U S WEST shall provide to AT&T the ability to obtain the status on open maintenance trouble reports via telephone or by another interface as agreed to by the Parties. U S WEST agrees to provide the status of residence and small business trouble reports upon AT&T request.*
- 6.3.5 *U S WEST agrees to provide to AT&T the status for open maintenance trouble reports for large business Customers anytime the status of the trouble report changes or at AT&T request.*
- 6.3.6 *U S WEST agrees that AT&T may call U S WEST to verify central office features and functions as they relate to an open trouble report. U S WEST agrees to work with AT&T on the initial trouble report to isolate the cause of the trouble and, where possible, resolve the feature/function related trouble at that time.*
- 6.3.7 *U S WEST agrees to proactively advise AT&T of any central office failure that is known at the time of any inquiry or trouble report. U S WEST agrees to continue to work with AT&T toward implementing a process to meet AT&T requirements for notification of switch failures as soon as possible.*
- 6.3.8 *U S WEST agrees to provide an Estimated Time To Repair (ETTR) on all residence and small business trouble reports.*
- 6.3.9 *U S WEST agrees to develop, with AT&T cooperation, mutually acceptable workcenter interface agreements to document methods and procedures for interim and final interfaces for each service within (30) thirty days the Effective Date of this Agreement of AT&T notice to U S WEST of it's initiation of that service.*
- 6.3.9.1 *After the initial deployment of the workcenter processes, U S WEST agrees to continue working with the AT&T to further develop, improve and refine the operational process described in this Agreement.*
- 6.3.10 *U S WEST agrees to provide AT&T repair history of previous trouble reports on customer service of open trouble report.*
- 6.3.11 *U S WEST shall provide AT&T the capability to cancel a trouble report.*
- 6.3.12 *U S WEST shall provide AT&T with the capability to modify a trouble report.*

#### **6.4 Standards**

- 6.4.1 *Maintenance charges for premises visits by U S WEST employees or contractors shall be billed by AT&T to its Customer.*
- 6.4.1.1 *U S WEST employees or contractors shall present the Customer with an AT&T provided, AT&T-branded form detailing the time spent, the materials used and an indication that the trouble has either been resolved, or that additional work will be necessary in accordance with the provisions of this Agreement.*

6.4.1.2 *If additional work is required, U S WEST employees or contractors shall call AT&T from Customer premises so that AT&T can schedule a new appointment with U S WEST and Customer at the same time.*

6.4.2 *U S WEST agrees to work with AT&T to support expeditious development of an industry standard trouble report entry format and agrees to implement such standard within sixty (60) days after final resolution by the Network Operation Forum (NOF).*

## 6.5 Performance Measurements and Reporting

### 6.5.1 Cycle Time Measurements

*This subject is to be addressed according to the procedures set forth in Section 52 of Part A of this Agreement.*

## **7. Miscellaneous Services and Functions**

### 7.1 Permanent Systems Interfaces and Exchanges

7.1.1 *This subject is to be addressed according to the procedures set forth in Section 52 of Part A of this Agreement.*

### 7.2 Standards

*This subject is to be addressed according to the procedures set forth in Section 52 of Part A of this Agreement.*

### 7.3 Performance Measurements and Reporting

*This subject is to be addressed according to the procedures set forth in Section 52 of Part A of this Agreement.*