

INTERFACE REQUIREMENTS FOR PRE-ORDERING, ORDERING, PROVISIONING, MAINTENANCE AND REPAIR, AND BILLING

1. Purpose

- 1.1 This Attachment 6 sets forth the interface requirements for pre-ordering, ordering and provisioning, maintenance and repair, and billing, where CO-PROVIDER provides service to its customers through resale of U S WEST Local Resale or through the use of Unbundled Network Elements and Combinations.

2. Use of Standards

- 2.1 As described below, CO-PROVIDER and U S WEST agree to implement each interface described below based upon existing and evolving industry standards or as mutually agreed upon. The Parties shall transition the electronic interfaces to industry standards within a time frame mutually agreed to.

3. Reimbursement

- 3.1 Reimbursement for operational interfaces shall be as determined by the appropriate regulatory agency as set forth in this Agreement.

4. Scope

- 4.1 This Attachment addresses the real-time transaction-based protocols and transport networks that will be used to exchange information for:

- Preorder/Ordering/Provisioning for Service Resale (SR) and Customer-Specific Unbundled Network Elements (UNEs)
- Maintenance/Repair for SR and UNEs

It also addresses the batch protocols and transport networks that will be used to exchange information for:

- Recorded Customer Usage for SR and UNE
- Wholesale Billing for SR and UNE
- Recorded Usage Receivables for UNE
- Local Account Maintenance for SR and UNE
- Directory Assistance Database

The preceding list of information to be exchanged is intended to be exemplary and does not represent a comprehensive list of such information to be exchanged between the parties.

- 4.2 CO-PROVIDER and U S WEST will use at least one method of exchanging preorder information which will be real-time transaction-based. CO-PROVIDER and U S WEST may also assess and determine the arrangements and conditions to support Batch file transmittal for certain types of preorder information related to the Street Address Guide and Switch/Feature/Facility availability.

5. System Interfaces

- 5.1 For Pre-order, Order and Provisioning, an exchange protocol, such as that based upon a subset of Common Management Interface Protocol (CMIP) transactions referred to as Electronic Communications-Lite (EC-Lite), will be used to transport Electronic Data Interchange (EDI) formatted content. CO-PROVIDER and U S WEST will use a TCP/IP based transport network for the exchange of EDI transactions. CO-PROVIDER and U S WEST will translate ordering and provisioning requests from the Ordering and Billing Forum (OBF) forms into EDI transactions using mutually agreed to mappings. The Service Order SubCommittee (SOSC) of the Telecommunications Industry Forum/Electronic Data Interchange (TCIF/EDI) committee interpretations of the 850, 855, 860, 864, 865, 870, and 977 transactions, in accordance with the OBF forms, will be used to convey all the necessary data to connect, modify or disconnect local exchange services.
 - 5.2 For Maintenance and Repair, the CMIP transactions referred to as Electronic Bonding - Trouble Administration (EB-TA) will be used. CO-PROVIDER and U S WEST will use an X.25 transport network which is the currently defined standard.
 - 5.3 For Billing, CO-PROVIDER and U S WEST will use EDI 811 and OBF Billing Output Specification (BOS) formats via CONNECT:Direct. Section 13 further defines the conditions when one or the other format will be used.
 - 5.4 For Local Account Maintenance (LAM), CO-PROVIDER and U S WEST agree to use CONNECT:Direct.
 - 5.5 For Directory Assistance Database Information, CO-PROVIDER and U S WEST agree to use a batch protocol and transport network that is yet to be determined and will be addressed in the Joint Implementation Agreement ("JIA") described in Section 18 of this Attachment 6.
 - 5.6 Modifications to OBF forms that are required due to the absence of, or existence of unnecessary data fields, contents, or formats will be addressed in the JIA described in Section 18 this Attachment 6.
- 6. Real Time Performance**
- 6.1 The pre-order real time interface will support the CO-PROVIDER customer contact as executed within CO-PROVIDER's Sales and Service Centers. Gateway-to-gateway query-response cycle time performance requirements will be specified as part of the JIA described in Section 18 of this Attachment 6.
 - 6.2 The transaction response time U S WEST provides to CO-PROVIDER Sales and Service Center will be equal in quality with that which U S WEST provides to itself or other telecommunications carriers. For purposes of this Attachment, U S WEST agrees to provide CO-PROVIDER benchmarking information for end-user performance based on transaction volumes (nominal - light volume, standard - typical volume, and worst case - heavy volume). CO-PROVIDER may request an improvement in the transaction response time U S WEST provides to CO-PROVIDER's Sales and Service Center above that which U S WEST provides to itself or other telecommunications carriers through the BFR process (as that process is defined in Part A of this Agreement), should cycle times not meet CO-PROVIDER's business requirements.

7. Compliance with Industry Standards

- 7.1 CO-PROVIDER and U S WEST agree to discuss the modification of these interfaces based upon evolving standards (e.g., data elements, protocols, transport networks, etc.) and guidelines issued by or referenced by relevant Alliance for Telecommunication Industry Solution (ATIS) committees. Establishment of new, or changes to industry standards and guidelines will be reviewed on no less than an annual basis commencing on the Effective Date of this Agreement. This review will consider standards and guidelines that have reached final closure as well as those published in final form. Both parties agree to evaluate evolving standards and mutually determine the relevant modification to be implemented based upon the latest approved version adopted or the latest version reflecting final closure by the relevant (ATIS) committee or subcommittee. The parties will use reasonable effort to reach closure upon the necessary changes within no more than three (3) months of initiating each review and to implement the changes within nine (9) months or earlier, if reasonably possible, unless there is mutual agreement to a different implementation schedule.
- 7.2 In the course of establishing operational ready system interfaces between U S WEST and CO-PROVIDER to support Local Resale delivery, CO-PROVIDER and U S WEST may need to define and implement system interface specifications that are supplemental to existing standards. Where mutually agreed to, CO-PROVIDER and U S WEST will submit such specifications to the appropriate standards committee and will work towards its acceptance as a standard.

8. Scheduled Availability

- 8.1 CO-PROVIDER and U S WEST agree to an operational/production readiness as soon as possible with a target date of November 1, 1997 for the delivery of all systems interfaces described within this document, with the mutual understanding that (1) product delivery content is dependent on requirements definition and the time required to develop to these requirements and (2) operational readiness is dependent upon satisfactory test results for the transaction volumes projected by CO-PROVIDER. CO-PROVIDER and U S WEST agree to work to mutually identify, prioritize and track those functions which may need to be positioned in a subsequent systems interface delivery. These functions will be jointly reviewed to define the time frame for development of subsequent releases of the system interfaces and establish mutually agreeable delivery dates.
- 8.2 CO-PROVIDER and U S WEST agree that project schedules, timelines, milestone deliverables, reporting processes, among others, will be specified in the JIA (Section 18 of this Attachment 6). These schedules and deliverables will be reviewed and revised as needed as part of regularly scheduled meetings conducted throughout the development/implementation cycle.

9. Pre-Order

- 9.1 The Parties agree that the exchange of preordering information for resale services and for services provided using UNEs will be transmitted over the same interface.
- 9.2 CO-PROVIDER and U S WEST will establish a transaction-based electronic communications interface based upon the most current (as of the Effective Date of this Agreement) version of the Service Order Subcommittee (SOSC) implementation guideline for Electronic Data Interchange (EDI). An exchange protocol, such as Electronic Communications-Lite (EC-Lite) will be used to transport EDI formatted content

necessary to perform inquiries including but not limited to: switch/feature/facility availability, address verification, telephone number assignment, appointment scheduling, and customer service record requests. Without limiting other restrictions which may apply, customer service records are provided for the limited purpose of supporting the resale of U S WEST local exchange services by CO-PROVIDER or the sale of unbundled elements on behalf of that Customer. The use of records in a manner not associated with the ordering process, is expressly forbidden, and is a violation of the terms of this Agreement.

10. Order and Provisioning

- 10.1 When CO-PROVIDER is the customer of record for the resold local exchange service(s), the exchange of information relating to the ordering and provisioning of local exchange service will be based upon the American National Standards Institute (ANSI) Accredited Standards Committee (ASC) X12 Standards as documented by the SOSC of the Telecommunications Industry Forum/Electronic Data Interchange (TCIF/EDI) committee. The Implementation Guidelines for Electronic Data Interchange EDI Guidelines Customer Services Issue 7 will be used as a baseline for implementation despite the fact that this document may not have reached final approval stage by the Effective Date of this Agreement. An exchange protocol, such as EC-Lite will be used to transport EDI formatted content. The information exchange will be forms-based, using Local Service Request (LSR) Form, End User Information Form, and the Resale Service Form developed by the OBF as specified in the August 1996 version of the OBF forms in Bellcore SR STS-4710XX, and for Directory Listings, included with a local service request, as specified in SR STS-471102.
- 10.2 The end-user specific UNE order will be based upon OBF LSR forms. The applicable SOSC implementation guidelines described previously also apply to the End-user Specific Provisioning UNE orders. U S WEST and CO-PROVIDER agree that the information exchange will be forms-based using the Local Service Request Form, End User Information Form, Loop Service Form (which may ultimately be renamed the Loop Element form) and Port Form (which may ultimately be renamed the Switch Element Form) developed by the OBF. End-user-specific Network Elements, or Combinations thereof, to be supported in UNE orders shall be as permitted in this Agreement for unbundled Network Elements and subject to FCC and state regulatory requirements.
- 10.3 Subject to regulatory direction or mutual agreement relative to the requirement of providing combinations of UNE components, CO-PROVIDER and U S WEST will establish a method to relate, track and process as a single entity the individual U S WEST provided End-user-specific UNE components specified at the time of the initial order.
- 10.4 CO-PROVIDER and U S WEST will use the same transaction-based protocol, such as EC-Lite, and transport network specified for service resale for End-user specific UNE orders.
- 10.5 The ordering of common use (non-end-user-specific) UNEs, as may be permitted under the Interconnection Agreement for unbundled elements and subject to FCC and state regulatory requirements, will be supported by a process separate from that described in the preceding paragraphs for end-user-specific UNEs, such system to be the same or similar to the mechanized process used for trunk service requests or another process or system as appropriate and determined by mutual agreement. Unless U S WEST is otherwise required by CO-PROVIDER, this process will not employ the electronic interfaces specified in this Attachment 6, unless modified by separate agreement. U S WEST will support, if and to the extent required by law, this Agreement or mutually

agreed to, Interconnection and operation of End-user-specific UNEs used in combination with common use UNEs. The systems and ordering process as outlined herein is separate and apart from the BFR process agreed to by the Parties. The JIA (Section 18 of this Attachment 6) will address the details related to defining a mechanism to correlate End-user-specific UNE orders placed via system interfaces with Common Use UNEs that may have been previously ordered.

- 10.6 U S WEST will accept an 860 transaction that contains the complete refresh of the previously provided order information (under the original 850 transaction) simultaneously with the delivery of supplemental (new/revised) information from CO-PROVIDER, subject to mutually agreed upon business rules. This treatment with respect to the 860 transaction will be accepted by both parties until the SOSC explicitly clarifies the information exchanges associated with supplementing orders, or CO-PROVIDER and U S WEST mutually agree to change the treatment.

11. Maintenance and Repair

- 11.1 The exchange of maintenance and repair information, for both U S WEST retail local exchange services to be resold by CO-PROVIDER and for services CO-PROVIDER provides using a U S WEST UNE or combinations of U S WEST UNEs, will be transmitted over the same interface.
- 11.2 For the purpose of exchanging fault management information, CO-PROVIDER and U S WEST will establish an electronic bonding interface, based upon ANSI standards T1.227-1995 and T1.228-1995, and Electronic Communication Implementation Committee (ECIC) Trouble Report Format Definition (TRFD) Number 1 as defined in ECIC document ECIC/TRA/95-003, and all standards referenced within those documents. The parties will use the functions currently implemented for reporting access circuit troubles. These functions include, but are not limited to: Enter Trouble, Request Trouble Report Status, Add Trouble Information, Modify Trouble Report Attributes, Trouble Report Attribute Value Change (AVC) Notification and Cancel Trouble Report, all of which are fully explained in ANSI T1.227/T1.228-1995. Additional functions not currently implemented by the parties or defined by the standards may be supported by mutual agreement (e.g. Test Access and Trouble History).
- 11.3 Modifications that are required due to the absence of, or existence of unnecessary data fields, contents, or formats will be addressed in the JIA described in Section 18 of this Attachment 6.

12. Recorded Customer Usage

- 12.1 U S WEST will record the mutually agreed upon Customer usage data that CO-PROVIDER requires for its retail local service Customers. The content of such data will be based upon a mutually agreeable interpretation of the BellCore Exchange Message Record (EMR) format to be documented within the JIA. U S WEST will provide electronic transmission of the recorded data using CONNECT:Direct daily on Monday through Friday (excluding holidays) on a schedule to be determined in the JIA. This interface and format will be used to deliver recorded usage when CO-PROVIDER is reselling retail local exchange services of U S WEST and when usage is associated with Customers served by CO-PROVIDER through one or more UNEs provided by U S WEST. CO-PROVIDER and U S WEST will mutually agree upon the conditions when Customer usage data recording will be provided on behalf of CO-PROVIDER.

13. Billing Format for Service Resale (SR) and Unbundled Network Elements (UNE) Payables

- 13.1 Billing information for unbundled loop and port elements that are flat-rated will be provided in a single EDI 811 format across all U S WEST regions via Connect:Direct. Billing information for unbundled trunks/interoffice transport elements that are flat-rated will be provided in a BOS format via Connect:Direct and will appear in the Customer Service Record of the facility bill. Billing information for SR products and services that are flat rated will be provided in a single EDI 811 format across all U S WEST regions via Connect:Direct. Exceptions include, but are not limited to, frame relay which will be provided in a BOS format via Connect:Direct. The display of rating codes and the associated charge will be mutually agreed upon in both formats. Charges associated with a specific loop will reflect the circuit ID format.
- 13.2 For usage-rated billing, U S WEST will issue bills to CO-PROVIDER for SR/UNE in the formats described under the flat-rated SR/UNE billing section. Usage-rated billing for SR/UNE will be uniquely identified and displayed in the Usage Sections of the bill. For products using BOS format, jurisdiction will be specified per BOS guidelines. Conversation time, by chargeable traffic type, will be displayed and billed per applicable tariffs. Delivery of usage-rated SR/UNE bills will be provided as described under the flat-rated SR/UNE billing section.
- 13.3 UNEs which U S WEST agrees to provide, under the terms and conditions of the Agreement, or to the extent required by law, that are recombined as a single service, will be grouped together by U S WEST and displayed together on the bill.

14. Recorded UNE Local or Access Usage Receivables

- 14.1 U S WEST will record all agreed upon originating and terminating usage billed to and associated with a UNE provided by U S WEST to CO-PROVIDER. The usage recorded will be in the same BellCore Exchange Message Record format discussed within Section 12 and will be subject to the same terms and conditions for modification and/or replacement of the format as discussed in Section IX.
- 14.2 CO-PROVIDER and U S WEST will mutually agree upon the Local and Long Distance access customer usage data recording that U S WEST will provide to CO-PROVIDER consistent with FCC and State regulatory guidelines and requirements, so that CO-PROVIDER may bill other carriers for the local and exchange access usage charges to which CO-PROVIDER is entitled, if any. CO-PROVIDER and U S WEST will perform mutually agreeable systems testing, as documented in the JIA (Section 18 of this Attachment 6), as soon as possible with a target date of November 1, 1997.
- 14.3 U S WEST will provide electronic transmission of the recorded usage using CONNECT:Direct daily on Monday through Friday on a schedule to be determined in the JIA (excluding holidays). The same or similar interface used for delivery of recorded customer usage, discussed in Section 12, will be used for delivery of the recorded usage discussed in this section.

15. Local Account Maintenance

- 15.1 When acting as the switch provider for CO-PROVIDER, where CO-PROVIDER either is reselling retail services of U S WEST or employing UNEs to provide local service, U S WEST will notify CO-PROVIDER whenever the local service Customer transfers service from CO-PROVIDER to another local service provider. U S WEST will provide this notification via CONNECT:Direct using a mutually agreeable 4-digit Local Use Transaction Code Status Indicator (TCSI) that will be used to indicate that the retail customer is terminating local service with CO-PROVIDER. This notice will be provided

on the next processing day after implementing the transfer, where processing days are Monday through Friday (excluding holidays). The TCSI, sent by U S WEST, will be in the 960 byte industry standard CARE record format.

- 15.2 CO-PROVIDER and U S WEST will process account changes that affect only the pre-subscribed intraLATA and/or interLATA toll provider (PIC) via a change service order form using the same EC-Lite transaction based protocol and transport network employed for ordering resale service as specified in Section 10.
 - 15.3 When appropriate regulatory guidelines exist, U S WEST will use the industry standard CARE message TCSI 3148 to reject an IXC-initiated change of the Primary Interexchange Carrier (PIC), where U S WEST is the switch provider either for the retail local services of U S WEST that CO-PROVIDER resells or UNEs of U S WEST that CO-PROVIDER employs in providing service.
 - 15.4 Agreement by U S WEST and CO-PROVIDER to the Local Account Maintenance described above does not, in any way, set a precedence or remove any obligation for U S WEST and CO-PROVIDER to work towards an industry solution for supporting customer movement between and among other ILECs and CLECs.
- 16. Directory Assistance Database**
- 16.1 CO-PROVIDER and U S WEST will use a batch protocol and transport network to exchange Directory Assistance Database information similar to existing U S WEST listings products (i.e., DA EUSL, DA EUSL Updates). The specific protocol and transport network to be used has not been determined or mutually agreed to and will be specified in the JIA.
 - 16.2 Without limiting other restrictions which may apply, directory service Listing products are provided for the limited purpose of supporting provision of services as outlined in this Agreement. The use of Listings in a manner not associated with this use, is expressly forbidden, and is a violation of the terms of this Agreement.
- 17. Testing and Acceptance**
- 17.1 The Parties will test the interfaces developed under this Attachment 6. The intent of the end-to-end integrity testing is to establish, through the submission and processing of test cases, that transactions agreed to by CO-PROVIDER and U S WEST will successfully process, in a timely and accurate manner, through both parties' supporting OSS as well as the interfaces. Irreconcilable differences regarding the interpretation of operational status of the interfaces will be handled through the dispute resolution process as defined in Section 27 of Part A of this Agreement.
 - 17.2 An interoperability testing suite shall ensure the implementation of functions, capabilities, and acceptance criteria enumerated in the JIA, with both Parties agreeing to resolve any material defects in the software.
 - 17.3 The test process shall include a series of tests in which the transactions, representative of the predominant business transactions associated with local customer servicing, are performed side-by-side using the mediated access gateway interface to U S WEST Legacy systems and the Legacy system interface utilized by U S WEST service representatives and repair attendants. The purpose of this series of tests will be to verify that the performance and response times visible to a user of the mediated access gateway for nominal and worst case scenarios are provided with the same level of quality as U S WEST provides to itself or others in accordance with the Act.

- 17.4 U S WEST does not warrant that its systems and access to those systems will be error-free.
- 17.5 Products and services already billed via the Integrated Access Billing System (IABS) will be included in the existing pre-bill certification process for general availability and a re-certification process conducted in accordance with current practices. For products and services billed outside of IABS, the parties will work towards establishing a mutually agreed upon pre-bill certification process.
- 17.6 CO-PROVIDER and U S WEST agree that metrics are required in order to monitor the performance and assure the on-going delivery of non-discriminatory access to U S WEST systems for pre-order/ordering/provisioning, maintenance/repair, billing, and Directory Assistance databases. A performance measurement plan that addresses the definition, measurement, and review of quality, timeliness, accuracy and availability of each interface and associated transactions or files will be jointly developed and documented within the JIA for each interface.
- 17.7 CO-PROVIDER and U S WEST agree to periodic status meetings to review the overall progress toward introducing fully operational interfaces capabilities as soon as possible, with a target date of November 1, 1997.
- 17.8 Results of testing shall be considered Confidential Information, except that such results may be provided pursuant to this Agreement and law.

18. Joint Implementation Agreement Development

- 18.1 CO-PROVIDER and U S WEST recognize that the preceding provisions are not sufficient to resolve all, technical and operational details related to the interfaces described. Therefore, CO-PROVIDER and U S WEST agree to document the additional, technical and operational details in the form of a Joint Implementation Agreement ("JIA"). The purpose of the JIA is to establish the working details of the systems interfaces between the two parties, and as such, they will not be submitted to the Commission for approval as amendments to this Agreement. These JIA may be modified, by mutual agreement, over the life of this Agreement without subjecting the balance of this Agreement to renegotiation or modification.
- 18.2 Both parties further agree that any technical, operational or implementation issues directly associated with the systems interfaces, once identified at the working team level, may be escalated by the initiative of either party thirty (30) days after an issue is identified. The escalation will proceed first to the senior management of both companies who will seek to resolve the issue. Within fourteen (14) days after the Effective Date of this Agreement, CO-PROVIDER and U S WEST will document the agreed upon escalation process including the names and contact information of responsible senior management. If an issue is not resolved within thirty (30) days following receipt of the issue by senior management, either party may submit the issue to the dispute resolution process contained in Section 27 of Part A of this Agreement.
- 18.3 CO-PROVIDER and U S WEST will document an overall project implementation schedule within sixty (60) days after the Effective Date of this Agreement. This schedule will be mutually binding and can be modified by mutual consent.
- 18.4 In addition, CO-PROVIDER and U S WEST agree to document both a topical outline for the JIA, and establish a schedule for identifying, discussing, resolving and documenting resolution of issues related to each aspect of the JIA topical outline for each interface discussed in this document. In no case will either end-to-end integrity testing or load testing begin without both parties mutually agreeing that each interface JIA documents

the intended operation of the interface scheduled for testing. In the event the parties can not agree prior to one hundred and twenty (120) days of the operational/production readiness date for delivery of all system interfaces described within this Attachment, disputes over the sufficiency of documentation will be submitted to arbitration pursuant to the dispute resolution process contained in Section 27 of Part A of this Agreement.

- 18.5 By mutual agreement, specific paragraphs or entire sections of the Interconnection Agreement may be identified and documented to serve the purpose described for the Joint Implementation Agreement for specific interfaces. Any issues identified and subsequently resolved through either the end-to-end integrity or load testing processes will be incorporated into the impacted interface section of the JIA within thirty (30) days of issue resolution.
- 18.6 An illustrative outline for a JIA follows:
- Introduction
 - Purpose of Joint Implementation Agreement
 - Terms of Agreement
 - "System" Interface
 - Business Process and Data Requirements
 - Overall Responsibilities
 - Identification & Definitions of Activities
 - Information To Be Provided Per Transaction
 - Process Information for Each Activity & Transaction
 - Delivery Criteria
 - Data Standard
 - Message Protocol
 - Transmission Protocol
 - Destination
 - Frequency Of Data
 - Deviations to Generic Specification
 - Error Processing
 - Process for Notification of Late Transmittals
 - Escalation & Expedite Procedures
 - Transaction Response Times
 - File Format Specifications
 - Rules for the Physical Interface
 - File Structure
 - Data Format
 - Error Controls
 - Physical Tape Specifications
 - Site Information
 - Contact Person
 - Transmission Hours
 - Testing
 - Cooperative Testing
 - Pairwise Testing
 - ETE Testing
 - Test Order ETE (Employees)
 - Future Testing Requirements
 - Interface Metrics
 - Data Timeliness
 - Data Completeness

- Data Accuracy
- Contact Information
 - Contacts/Escalation Contacts
 - Schedules for Center Operations (days/hours of Operation)
- Data Requirements
 - Retention of Data
 - Back-up and Recovery Procedures
 - Disaster Recovery
 - System Change Notification
 - Guarding of Proprietary Data
- Reporting Information
 - Reports to be Generated
 - Frequency
 - Data Requirements
 - Transmission
- Change Control Process
- Issue Resolution Process
- Termination of Interface Notification