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BEFORE THE ARIZONA CORPORATION COMMISSION

Arizona Corporation Commission

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IN THE MATTER OF U S WEST)
COMMUNICATIONS, INC.'S)
COMPLIANCE WITH SECTION 271)
OF THE TELECOMMUNICATIONS)
ACT OF 1996)

Docket No. T-00000A-97-0238

INTERIM REPORT OF THE
ARIZONA CORPORATION COMMISSION STAFF

I. INTRODUCTION

Pursuant to the Commission's December 3, 1999 Procedural Order, the Arizona Corporation Commission ("Commission" or "ACC") Staff hereby submits its Interim Report on the issues raised by the parties in their comments on the Master Test Plan Version 4.0 ("MTP"). Three parties submitted comments on the MTP: U S WEST Communications, Inc. ("U S WEST"), AT&T Communications of the Mountain States, Inc. and TCG Phoenix (collectively "AT&T") and MCI WorldCom, Inc. ("MWIW"). A copy of the MTP, with the revisions underscored, is attached to this Report.

II. DISCUSSION

A. AT&T's Comments on the MTP

The first issue raised by AT&T involved MTP Section 3.1.2 and the accompanying diagram "Exhibit II Billing Architecture", which AT&T claimed made no provision for the processes U S WEST uses to bill access charges to interexchange carriers ("IXCs"). AT&T Comments at pps. 1-2. Staff agrees with the comments of AT&T on this point, and accordingly has added on pps. 11 through 13 of the MTP, a new diagram depicting U S WEST's processes for billing access charges and a description of this process as suggested by AT&T.

1 AT&T next commented that MTP Section 6.8 contains an incorrect Success
2 criterion for the Capacity Test. AT&T Comments at p. 3. The Commission Staff agrees and the
3 last bullet in Section 6.8 which reads: “non flow-through orders will not be processed” has been
4 moved to Section 6.9.

5 AT&T’s third comment related to the Interface Development Evaluation, Section
6 7.2 of the MTP. AT&T states that CGT and U S WEST agreed that the evaluation would
7 consider the development of all OSS interfaces. AT&T Comments at p. 4. AT&T states that the
8 MTP now provides, however, that the evaluation is limited to “just the pre-ordering and ordering
9 electronic interfaces and the IMA-GUI interface...” AT&T Comments at p. 4. To address its
10 concern, AT&T proposes to revise Section 7.2.4 of the MTP to include all OSS interfaces in the
11 evaluation. Staff believes AT&T’s concern is legitimate and has made all of the amendments to
12 Section 7.2.4 that AT&T requested.

13 AT&T’s final concern related to Section 7.2.5 of the MTP, relates to the Change
14 Management Process Evaluation. AT&T argues that this Section needs to be revised to include a
15 review of U S WEST’s ability to implement at least one significant software release. AT&T
16 Comments at p. 7. Staff has accepted the changes recommended by AT&T, and has incorporated
17 them into the MTP.

18 **B. U S WEST’s Comments on the MTP**

19 The first issue raised by U S WEST is a general concern that while the MTP
20 represents the parties’ agreements regarding technical parameters of the test, it should be
21 understood that the MTP does not in any way represent any agreement as to legal positions. U S
22 WEST Comments at p. 2. U S WEST pointed to several provisions in the MTP to illustrate its
23 point. U S WEST Comments at p. 2. Staff agrees with this general observation and has revised
24 Section 8.1 of the MTP to more accurately reflect the test’s purpose. In addition, Staff has
25 incorporated the revision to Section 5.8 of the MTP which provides that the appropriate standard
26 in the Retail Parity Evaluation is that “the BOC must provide access to competing carriers in
27 substantially the same time and manner as it provides to itself.” U S WEST Comments, p. 3.
28

1 Lastly, U S WEST in Appendix A to its Comments pointed out several minor
2 typographical and/or grammatical errors which the Staff has incorporated.

3 **C. MCIW's Comments on the MTP**

4 MCIW's first comment on the MTP related to the definition of Unbundled
5 Network Elements – Platform (“UNE-P”) contained in Appendices E and B, which MCIW
6 claimed were inconsistent. MCIW Comments at pps. 1-2. Staff agrees and has replaced the
7 definition contained in Appendix E with the definition found in Appendix B so that the two
8 definitions are now consistent. Staff also incorporated language in the definition that recognizes
9 the need to develop a more precise definition.

10 MCIW next requests that the MTP be modified to specify the full production line
11 of UNE-P that will be tested. MCIW Comments at p. 2. According to MCIW, Testing Scenarios
12 for UNE-P should include the following: new, disconnect, conversion “as is”, conversion “as
13 specified” and conversion with “directory listing change(s) (DL).” MCIW Comments at p. 2.
14 Staff agrees that this should be done, however, this can be most appropriately accomplished
15 through the TAG process and modification of the Test Standards Document (“TSD”).

16 MCIW's second concern relates to Subsection 3.3.2 of the MTP which is the
17 Retail Parity Evaluation. MCIW states that the first sentence of that Subsection suggests that
18 only the GUI interfaces are being evaluated for parity, instead of all OSS interfaces. MCIW
19 Comments at p. 3. MCIW requests an amendment to this Subsection to include an evaluation of
20 all of U S WEST's OSS interfaces. Staff has incorporated an amendment to Subsection 3.3.2 of
21 the MTP to include the evaluation of six Test Scenarios covering U S WEST's EDI and EB-TA
22 interfaces. The language also states that U S WEST will be given an opportunity to review those
23 six Test Cases.

24 MCIW's third concern is with Section 4 of the MTP, the Functionality Test. In
25 response to MCIW's concerns regarding Subsection 4.1, Staff has added the following language
26 as requested by MCIW: “Determine if a participant CLEC can initiate a Mechanized Loop Test
27 (“MLT”) for a reported trouble through EB-TA and determine if the Pseudo-CLEC can initiate a
28 Mechanized Loop Test (“MLT”) for a reported trouble through IMA.” In response to MCIW's

1 concerns regarding Subsections 4.7 and 4.9 that three billing cycles (rather than two) should be
2 used to adequately evaluate and validate ordered products in the initial bill, changes or
3 corrections to those products, if necessary, and in the final bill to verify disconnect, Staff has
4 modified the language of 4.7.3.3 to state that if there appears to be a need for a third billing cycle
5 in some instances, the matter will be referred to the TAG.

6 Finally, MCIW asks that the Performance Measurement Program Audit Report
7 and Performance Standards PO-1 and OP-8 agreed to at a recent TAG meeting be included in the
8 MTP. Staff has included the Performance Measurement Program Audit Report as Appendix G
9 and has incorporated PO-1 and OP-8 into Appendix B as requested.

10 **III. CONCLUSION**

11 Staff respectfully requests that the MTP, as revised herein, be approved.

12 RESPECTFULLY SUBMITTED this 4th day of May, 2000.

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**MASTER PLAN FOR
TESTING U S WEST'S
OPERATIONS
SUPPORT SYSTEM IN
ARIZONA**

April 6, 2000

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DCI - Draft Arizona OSS Test Plan due to the ACC	8/20/99
DCI - Draft Arizona OSS Test Plan to be distributed to U S WEST and CLECs	8/30/99
DCI - Draft Arizona OSS Test Plan to be presented at 1 st Workshop	9/13/99
DCI - Test Plan Revision: Issue 1.1	9/23/99
DCI - Test Plan Revision: Issue 1.2	10/7/99
DCI - Test Plan Revision: Issue 1.3	10/15/99
DCI - Test Plan Revision: Issue 1.4	11/1/99
DCI - Test Plan Revision: Issue 1.5	11/15/99
DCI - Test Plan Revision: Issue 1.6	11/16/99
DCI - Test Plan Revision: Issue 1.7	11/17/99
DCI - Test Plan Revision: Issue 2.1	12/10/99
DCI Transferred MTP Document to CGT	1/14/00
CGT - Draft 3.0 Changed Cover Sheet to CGT. Changed contact information. Incorporated Workshops #2 & #3 into Appendix A. Incorporated separate Appendices into one document. Replaced Appendix B content with U S WEST Service Performance Indicator Definitions Version 4.3 dated January 24, 2000. Deleted content of Appendix D as it is incorporated in new Appendix B content. Distributed to TAG.	1/31/00
CGT - Draft 3.1	2/18/00
CGT - Draft 3.2	3/7/00
CGT - Final MTP Version 4.0	3/23/00
ACC Staff - Approval of MTP Version 4.0 with Amendments	4/6/00

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TABLE OF CONTENTS

1.	Executive Overview	1
2.	Introduction	4
2.1.	Purpose	4
2.2.	Overall Approach	4
2.2.1.	Test Exception Process	6
2.2.2	Test Advisory Group	7
2.2.3	Master Issues Log	7
2.2.4	Additional Tests	8
2.2.5	Section 271 Web-site	8
2.3.	Document History	8
3.	Scope	9
3.1.	System Architecture Overview	9
3.1.1	IMA, EDI and EB-TA Mediated Access Architecture	9
3.1.2	Billing Architecture	11
3.2.	Assumptions	14
3.3.	Overview of Test Types	15
3.3.1	Functionality Test	15
3.3.2	Retail Parity Evaluation	15
3.3.3	Capacity Test	16
3.3.4	Relationship Management Test	17
3.3.5	Performance Measurement Evaluation	17
3.4.	Product Types/Order Types	17
4.	Functionality Test	19
4.1	Functionality Test Purpose	19
4.2	Functionality Test Scope	20
4.2.1	Pre-Order/Order/Provisioning Processes	21
4.2.2	Maintenance and Repair Interfaces	21
4.2.3	Billing Interfaces	21
4.3	Functionality Test Coverage and Scenarios	22
4.3.1	Pre-Ordering/Ordering	22
4.3.2	Ordering/Provisioning	23
4.3.3	Back-End Processing	24
4.3.4	Billing	24
4.3.5	Maintenance and Repair	24
4.4	Functionality Test Volumes	25
4.5	Functionality Test Data	25
4.6	Functionality Test Participants	26
4.7	Functionality Test Phases	27
4.7.1	Test Planning	27

ACC U S WEST OSS TEST PLAN

4.7.1.1	Test Planning Activities	27
4.7.1.2	Test Planning Entrance Criteria	27
4.7.1.3	Test Planning Exit Criteria	28
4.7.2	Test Preparation	28
4.7.2.1	Test Preparation Phase Activities-(by Test Administrator)	28
4.7.2.2	Test Preparation Entrance Criteria	28
4.7.2.3	Test Preparation Exit Criteria	28
4.7.3	Test Execution	28
4.7.3.1	Test Execution Phase Activities	29
4.7.3.2	Test Execution Entrance Criteria	29
4.7.3.3	Test Execution Exit Criteria	29
4.7.4	Test Analysis and Reporting	30
4.7.4.1	Test Analysis and Reporting Phase Activities (by TA)	30
4.7.4.2	Test Analysis and Reporting Entrance Criteria	30
4.7.4.3	Test Analysis and Reporting Exit Criteria	30
4.8	Functionality Test Success Criteria	30
4.9	Functionality Test Assumptions	31
5.	Retail Parity Evaluation	31
5.1	Retail Parity Evaluation Purpose	31
5.2.	Retail Parity Evaluation Scope	31
5.3	Retail Parity Evaluation Coverage and Scenarios	32
5.4	Retail Parity Evaluation Volumes	33
5.5	Retail Parity Evaluation Data	33
5.6	Retail Parity Evaluation Participant	33
5.7	Retail Parity Evaluation Phases	33
5.7.1	Test Planning	33
5.7.1.1	Test Planning Activities	33
5.7.1.2	Test Planning Entrance Criteria	34
5.7.1.3	Test Planning Exit Criteria	34
5.7.2	Test Preparation	34
5.7.2.1	Test Preparation Phase Activities	34
5.7.2.2	Test Preparation Entrance Criteria	35
5.7.2.3	Test Preparation Exit Criteria	35
5.7.3	Test Execution	35
5.7.3.1	Test Execution Activities	35
5.7.3.2	Test Execution Entrance Criteria	35
5.7.3.3	Test Execution Exit Criteria	36
5.8	Retail Parity Evaluation Success Criteria	36
5.9	Retail Parity Evaluation Assumptions	37
6.	Capacity Test	38
6.1	Capacity Test Purpose	38
6.2	Capacity Test Scope	38
6.3	Capacity Test Coverage and Scenarios	39

ACC U S WEST OSS TEST PLAN

6.4	Capacity Test Volumes	39
6.5	Capacity Test Data	40
6.6	Capacity Test Participants	40
6.7	Capacity Test Phases	41
6.7.1	Test Planning	41
6.7.1.1	Test Planning Activities	41
6.7.1.2	Test Planning Entrance Criteria	41
6.7.1.3	Test Planning Exit Criteria	41
6.7.2	Test Preparation	42
6.7.2.1	Test Preparation Activities	42
6.7.2.2	Test Preparation Entrance Criteria	42
6.7.2.3	Test Preparation Exit Criteria	42
6.7.2.4	Test Execution	42
6.7.3.1	Test Execution Activities	43
6.7.3.2	Test Execution Entrance Criteria	43
6.7.3.3	Test Execution Exit Criteria	43
6.7.4	Test Analysis and Reporting	43
6.7.4.1	Test Analysis and Reporting Activities	43
6.7.4.2	Test Analysis and Reporting Entrance Criteria	44
6.7.4.3	Test Analysis and Reporting Exit Criteria	44
6.8	Capacity Test Success Criteria	44
6.9	Capacity Test Assumptions	44
6.10	Systems Scalability	44
6.11	Staff Scalability	45
7.	Relationship Management Evaluation	45
7.1	Relationship Management Purpose	45
7.2	Relationship Evaluation Scope	45
7.2.1	CLEC Account Establishment Evaluation	47
7.2.1.1	Entrance Criteria	48
7.2.1.2	Exit Criteria	48
7.2.2	CLEC Account Management Evaluation	48
7.2.2.1	Entrance Criteria	48
7.2.2.2	Exit Criteria	49
7.2.3	CLEC Training Evaluation	50
7.2.3.1	Entrance Criteria	50
7.2.3.2	Exit Criteria	50
7.2.4	Interface Development Evaluation	51
7.2.4.1	Entrance Criteria	53
7.2.4.2	Exit Criteria	53
7.2.5	Change Management Evaluation	53
7.2.5.1	Entrance Criteria	55
7.2.5.2	Exit Criteria	55

8.	Performance Measurement	55
8.1	Performance Measurement Evaluation Purpose	55
8.2	Performance Measurement Evaluation Scope	56
8.3	Performance Measurement Evaluation Coverage and Scenarios	57
8.3.1	Review of Data Collection Process	57
8.3.2	Historical Data Evaluation	57
8.3.3	Functionality and Capacity Test Performance Measurements	58
8.4	History of Arizona 271 PID Documents	57
8.5	Performance Measurement Evaluation Test Plan	58
8.5.1	Review of Data Collection Process	58
8.5.2	Historical Data Evaluation	59
8.5.3	Functionality Testing and Capacity Testing	59
8.6	Performance Measurement Evaluation Entrance and Exit Criteria	60
8.7	Performance Measurement Evaluation Participants	60
8.8	Performance Measurement Evaluation Assumptions	60
9.	Roles and Responsibilities	61
9.1	The ACC	60
9.2	DCI	61
9.3	Test Administrator	61
9.4	Participating CLECs	62
9.5	Pseudo-CLEC	63
9.6	U S WEST	63
9.7	TAG	64
10.	Proposed Schedule and Timeline	66
11.	Conclusion and Summary	67
APPENDICES		
APPENDIX A	Test Scenarios	XX
APPENDIX B	U S WEST Service Performance Indicators	XX
APPENDIX C	Performance Measures	XX
APPENDIX D	Performance Measurements and Benchmarks	XX
APPENDIX E	Glossary/Terminology	XX
APPENDIX F	Openness Report	XX
APPENDIX G	Performance Measurement Audit	XX

1. Executive Overview

U S WEST Communications, Inc. (U S WEST) has filed a notice with the Arizona Corporation Commission (ACC) indicating that it will file an application with the Federal Communications Commission (FCC), pursuant to Section 271 of the Telecommunications Act of 1996 (1996 Act), to provide interLATA telecommunications services that originate in Arizona. The FCC has indicated that for U S WEST to obtain 271 relief, it must demonstrate that it provides to Competitive Local Exchange Carriers (CLECs) non-discriminatory access to its Operational Support Systems (OSS) and that its systems are operationally ready and capable of handling reasonably foreseeable demand, with CLEC input. OSS are composed of various "back office" systems, databases and personnel that an incumbent LEC uses to commercially provision telecommunications service to its customers, resellers, and the purchasers of unbundled network elements. See Local Competition First Report and Order, 22 FCC paras. 516-28 (rel. August 8, 1996).

The ACC issued a Procedural Order on June 8, 1999 in Docket No. T-00000A-97-0238 which required parties to submit comments on appropriate OSS (performance) standards which could be used to assess whether U S WEST meets the requirements of Section 271 pertaining to non-discriminatory access to its OSS. On the basis of responses to the June 8, 1999 Order, a second Procedural Order was issued on July 2, 1999 which initiated a series of collaborative workshops to determine the appropriate OSS performance standards for U S WEST.

The ACC had previously retained Doherty and Company, Inc. (DCI) to assist Commission Staff in evaluating the access that U S WEST provides to its OSS. DCI's initial scope of work included an evaluation of the functionality of U S WEST's OSS. On the basis of the July 2, 1999 Order, the ACC expanded DCI's scope of work to include preparation of a Draft OSS Master Test Plan. DCI's Draft Master Test Plan was distributed to all participants in the Arizona 271 proceeding. Following the first workshop, a Request for Proposal (RFP) for conducting a comprehensive Third Party Test of U S WEST's OSS was issued. Parties were allowed to comment on the proposals submitted and the ACC subsequently conducted a series of vendor interviews. Selections of a Third Party Test Administrator and a Third Party Test Transaction Generator were made in the fourth quarter of 1999.

Participant comments and suggestions concerning the Draft Master Test Plan defined the agenda for the remaining workshops. At the last workshop, the parties established a Test Advisory Group (TAG) comprised of CLECs, U S WEST, and the ACC Staff to work through OSS testing issues on an ongoing basis. Through these workshops and subsequent TAG meetings, significant changes were made to the Master Test Plan, based on CLEC inputs and comments. The Master Test Plan was finalized, subject to ACC approval, by the Third Party Test Administrator, Cap Gemini Telecommunications, Inc. on March 23, 2000.

The overall purpose of the collaborative test process, to be validated by an independent third party retained by the ACC, is to demonstrate for the ACC, the FCC and the Department of Justice (DOJ) the extent of operational readiness, performance, and capability of U S WEST to provide CLECs with non-discriminatory access to OSS for pre-ordering, ordering, provisioning, billing, repair and maintenance. In addition, colocation and database updates will also be evaluated. The Third Party Test Administrator's detailed test procedures and criteria, including entrance and exit standards, will be set forth in the Arizona Test Standards Document, which is currently being finalized through the collaborative TAG process. This collaborative approach will enable the CLECs to identify their specific testing needs and concerns, and provide them an opportunity to offer significant input to the test. The test includes an assessment of the functionality and capacity of U S WEST's OSS. The test will be conducted primarily in a production environment in addition to normal retail and CLEC activity. The test consists of:

- **Functionality Test** – The Functionality Test (FT) is designed to provide information that the ACC can use to address the ability of U S WEST's OSS to provide operational functionality to CLECs. The test will include a test of U S WEST's processes including pre-ordering, ordering, provisioning, maintenance & repair (M&R), and billing. The test will focus on resale, UNE-P, UNE-Loop, UNE-Loop with number portability, and number portability. These tests involve the collection of data in a controlled manner pursuant to specified test procedures, using specified input data.
- **Retail Parity Evaluation** – The Retail Parity Evaluation (PE) test is designed to provide the ACC with information with which to directly evaluate parity of U S WEST's OSS. This test is a comparison of the ability of a CLEC representative using one of U S WEST's OSS interfaces to provide an overall comparable level of service and experience to the level of service and experience that a U S WEST representative can provide using U S WEST's standard internal OSS interfaces. The Retail Parity Evaluation test is designed to provide the ACC with information with which to directly evaluate parity of U S WEST's OSS versus U S WEST retail operations. This test provides for comparing OSS responsiveness as well as comparing the quality of the data accessed by the representatives. This test provides for comparing OSS responsiveness as well as comparing the quality of the data screens presented to the representative.
- **Capacity Test** – The Capacity Test (CT) is designed to provide information which the ACC can use to assess the capability of U S WEST's OSS to handle loads equal to or greater than those projected by the various CLEC participants for estimated volumes projected one year from the date of the running of the Capacity Test. These volumes will be determined by the Test Administrator using projected volumes provided by both U S WEST and the CLECs. This test will include a review of procedures associated with computer systems scalability and staff scalability to determine, under stated assumptions, whether or not U S WEST systems, operations and processes

are predictably capable of handling CLEC loads in the future, both projected and unexpected.

- **Relationship Management Evaluation** – The Relationship Management Evaluation will provide information that the ACC can use to determine whether the methods, procedures and information which U S WEST employs to communicate with the CLECs are effective. The evaluation will examine: 1) the CLEC Account Establishment Process, 2) the CLEC Account Management Processes, 3) the CLEC Training Process, 4) the Interface Development Process, and 5) the U S WEST Co-provider Industry Change Management Process.
- **Performance Measurement Evaluation** – The Performance Measurement Evaluation (PM) is designed to provide the ACC with statistically valid assessments of the performance measures established to evaluate U S WEST performance in providing service to the CLECs. The assessment will include reviews of Performance Measurement data collection and analysis (including an evaluation of the processes and procedures that U S WEST employs to collect data and calculate performance measurements), a performance evaluation over a three-month consecutive period specified by the ACC, Functionality and Capacity tests and Performance Measurement verification. Additionally, the assessment will determine if the reported U S WEST results and data are consistent with how the performance measures are described in the Service Performance Indicator Definitions (PID) (Appendix B)

The testing evaluation will involve the following support mechanisms during testing:

- **Test Exception Process:** This is a formal process which includes retesting when an interface, system or process tested by the Pseudo-CLEC/Test Administrator does not meet established criteria, standards or expectations, in order to resolve the test exception.
- **A Test Advisory Group:** (TAG), consisting of the ACC, its consultant, the Test Administrator, the Pseudo-CLEC, U S WEST and those CLECs and other participants who wish to participate will be established. Its purpose will be to act as a communications mechanism to advise all parties of test results, exceptions, and corrective action and to provide CLEC feedback on the testing.

This Master Test Plan sets forth the approach, scope and focus, timeline, roles and responsibilities, testing phases (planning, preparation, execution, and analysis/reporting), and all associated required activities for the testing of the CLEC access that U S WEST provides to its OSS.

Many parties will need to cooperate regarding, and be accountable for, implementation of this test, including the Test Administrator, participating CLECs, the Pseudo-CLEC, the ACC, the ACC Staff, DCI, and U S WEST. U S WEST will also provide personnel to develop and execute cases on the retail side of the Retail Parity Test. The ACC Staff and the Test Administrator will oversee the execution of the testing and assess its results. CLECs and U S WEST will conduct testing in a production environment as appropriate (i.e., the test participant will use systems for those interfaces that are connected to U S WEST's production OSS). This Master Test Plan provides a framework for the test participants to develop more detailed test plans.

2. Introduction

2.1 Purpose

The FCC has indicated that for U S WEST to obtain Section 271 authority, it must demonstrate that:

- It provides to CLECs non-discriminatory access to its OSS for pre-ordering, ordering, provisioning, repair and maintenance, and billing: For those capabilities that have a retail analog (e.g., ordering resale), U S WEST must provide access in substantially the same time and manner that it provides itself.
- For those capabilities without a retail analog (e.g., ordering a loop), U S WEST must provide access that allows an efficient competitor a meaningful opportunity to compete.
- Its systems are operationally ready and capable of handling reasonably foreseeable demand.

U S WEST's successful execution of this comprehensive independent Third Party Test Plan will demonstrate to the ACC, the DOJ and the FCC the operational readiness, performance, and capacity of the access to OSS that U S WEST provides to CLECs.

2.2 Overall Approach

To implement this test, the ACC has retained Cap Gemini Telecommunications (CGT) to act as the Third Party Test Administrator to validate results of testing the access to OSS that U S WEST provides to CLECs, and provide day to day supervision of the test program. The Third Party Test Administrator will provide a final report and evaluation to the ACC.

Hewlett Packard (HP) has been retained to participate in the testing as a 'Pseudo-CLEC' or Third Party Test Transaction Generator. The Pseudo-CLEC will develop an ~~Interconnect Mediated Access (IMA)~~ interface to U S WEST's Electronic Data Interchange (EDI) interface for use in the testing. The Pseudo-

CLEC will also develop the transaction generator to execute Test Cases for both the Functionality and Capacity Tests. MCIW agreed at the second workshop, to enter repair orders through its Electronic Bonding – Trouble Administration (EB-TA) interface on the Pseudo-CLEC's behalf.

The ACC will approve the appropriate CLEC and Pseudo-CLEC involvement and participation as described herein and as developed through the workshop and TAG process. U S WEST will be responsible for many aspects of this testing effort. For those test cases generated by participating CLECs, U S WEST will process the pre-order, order, repair and billing transactions in a production environment. Additionally, U S WEST will provide subject matter experts (SMEs) to assist in test definition, root cause analysis, and other tasks requiring in-depth knowledge of and experience with U S WEST's OSS and associated methods and procedures. Section 9 further defines roles and responsibilities of all test participants.

The testing will include the functionality for pre-order/order, provisioning, maintenance and repair, and billing. Specific product types to be included are resale (with parity tests against the retail equivalents), UNE-P, UNE-L (with and without number portability), and number portability. The exact methodology which will be utilized for the Capacity Test is documented in the Test Standards Document which will be approved by the TAG prior to the start of tests, unless the parties agree otherwise or the Commission so orders. Other areas tested will include Retail Parity, Relationship Management and Performance Measurement, as set forth herein and in the Test Standards Document.

It is important for U S WEST to maintain a level of 'blindness' as the tests are formulated and executed. In general, tests will be performed by CLEC and Pseudo-CLEC test participants in a live environment. The Test Administrator will maintain the greatest degree of 'blindness' as practical. The level of blindness will be governed in part by the January 25, 2000 paper entitled Arizona Corporation Commission Staff Report on the Process Issues Raised by the Competitive Local Exchange Carriers (hereinafter entitled and referred to as the "Openness Report"). See Appendix F. It is expected that issues regarding the appropriate level of blindness will continue to arise during the course of the Arizona OSS testing. Those issues will in the first instance be resolved, to the extent possible, through consensus of the TAG. To the extent consensus cannot be reached, the ACC, after consultation with the Third Party Test Administrator and Pseudo-CLEC, will determine the appropriate degree of blindness that should be maintained.

The ACC shall retain final authority, based upon its independent review of the data and evaluative reports, to determine for regulatory purposes, and in any subsequent adjudication in which the issue is relevant, whether U S WEST's OSS interfaces are in compliance with the specific standards outlined in Section 271 of the 1996 Act and the FCC's implementing rules and regulations.

2.2.1 Test Exception Process

The Test Exception Process is a formal process, which includes retesting when appropriate hereunder when an interface, system or process tested does not meet established criteria, standards or expectations, in order to resolve the test exception. The process includes the following steps:

- a. An interface, system, or process tested by the Pseudo-CLEC and/or the Test Administrator does not meet objective criteria, standards or expectations.
- b. The Test Administrator creates an Incident Work Order describing the issue(s) raised after certifying that the failing is factual.
- c. The Incident Work Order delivered to all TAG members for review in accordance with Appendix I of the 271 Test Standards Document.
- d. U S WEST prepares a written response to the Incident Work Order describing any intended fix(s).
- e. U S WEST advises the Test Administrator that the fix is complete and retesting can be undertaken using the Performance Acceptance Certificate Form as appropriate in accordance with Appendix I of the 271 Test Standards Document.
- f. The Test Administrator prepares the re-test, including, as needed, test scripts and cases for use by the Pseudo-CLEC.
- g. If the re-test results meet the criteria, standards, or expectations, then the process is considered complete and the Performance Acceptance Certificate Form is approved by the TAG in accordance with Appendix I of the 271 Test Standards Document.
- h. Interested parties file comments, if required, regarding the Exception and the resolution and re-testing steps. Retesting, if determined necessary by the TAG, is to determine if the fixes by U S WEST have resolved the problems causing the test case to fail. All criteria for the test must be passed at this point.
- i. If the applicable criteria have not been met, the process is repeated until the criteria are met, or U S WEST notifies the Test Administrator that no further work will be done to resolve the Exception.

2.2.2 Test Advisory Group

A Test Advisory Group (TAG), consisting of the ACC, its consultant, the Test Administrator, the Pseudo-CLEC, U S WEST and those CLECs and other participants who desire to participate has been established. Its purpose is to act as a communications mechanism to advise all parties of test results, exceptions, and corrective action and to provide CLEC feedback on the testing. Following receipt of responses to solicitations of interest in TAG participation, the ACC established the TAG and scheduled an organizational meeting. The ACC with input from the TAG, defined TAG operating procedures, including scope of involvement, how to place items on TAG meeting agendas, distribution of information, frequency of meetings and other matters.

The TAG will generally conduct bi-monthly discussions, in person or by teleconference. As critical events occur, discussions will be in person meetings. Minutes will be kept of all such meetings or teleconferences. The TAG will attempt to resolve issues by consensus, escalating those it is unable to resolve to the ACC Staff for decisions. Further types of resolutions may include the following:

- Any TAG participant can add items to the TAG agenda or introduce issues for discussion
- Any TAG participant may have discussions with the ACC Staff regarding TAG related issues. Minutes of any TAG participant's discussions of TAG related issues with the ACC Staff may be kept and may be made available to all TAG participants as determined appropriate by the ACC Staff.

2.2.3 Master Issues Log

The Third Party Test Administrator shall maintain a Master Issues Log of all OSS testing issues submitted or presented for resolution by any member or participant of the TAG. Each issue presented shall have its own unique identification code. The Master Issues Log will also indicate the matter or category (MTP, Measures, TAG etc.) to which the issue relates, any applicable Measurement ID code, the status of the issue, a description of the issue, the originator of the issue, the date the issue was opened, the due date for action, the action owner and the date the issue is closed. All issues will be resolved by consensus of the TAG. In the event consensus cannot be reached by TAG members, the Third Party Test Administrator will escalate the issue to the ACC.

2.2.4 Additional Tests

It is recognized that unplanned troubles and other events may occur during the test period, which will indicate the need for Test Scenarios not already included in the Master Test Plan. To accommodate this eventuality the following process steps will be followed:

- a. Any participant may initiate a request for a new Test Scenario during the test period.
- b. The initiator documents the request in a format to be provided by the Test Administrator, and submits it to the Test Administrator, with copies to all participants.
- c. The Test Administrator evaluates the request and recommends its inclusion or rejection to the TAG.
- d. The TAG attempts resolution by consensus.
- e. If resolved in this manner, the Test Administrator implements this resolution and notifies all participants.
- f. If not resolved, the TAG escalates the request to the ACC Staff for decision.
- g. The ACC Staff reaches a decision and notifies participants.
- h. New Scenarios introduced during the test period will be tested in a manner which will not extend the overall test timeline unless recommended by the TAG and approved by the ACC Staff.

2.2.5 Section 271 Web-site

A web-site will be established for the Arizona Section 271 test. The web-site shall be a repository for information related to the test and U S WEST's Section 271 application.

2.3 Document History

The Master Test Plan is a map for how the Arizona OSS tests will be conducted. The MTP lists Test Scenario level detail and other high level requirements describing how tests will be conducted in Arizona. The 271 Test Standards document developed by the Test Administrator provides detailed Test Cases within the Scenarios, Scripts and other exact specifications as to how the Arizona tests will be conducted.

Drafts of the MTP were circulated to interested parties and reviewed in workshops and TAG meetings hosted by the ACC. See Document Milestones,

page I. Before and at the workshop, the ACC solicited comments and suggestions from interested parties regarding changes to the overall testing strategy and the test plan. Changes were made through workshops and TAG Meetings.

3. Scope

3.1 System Architecture Overview

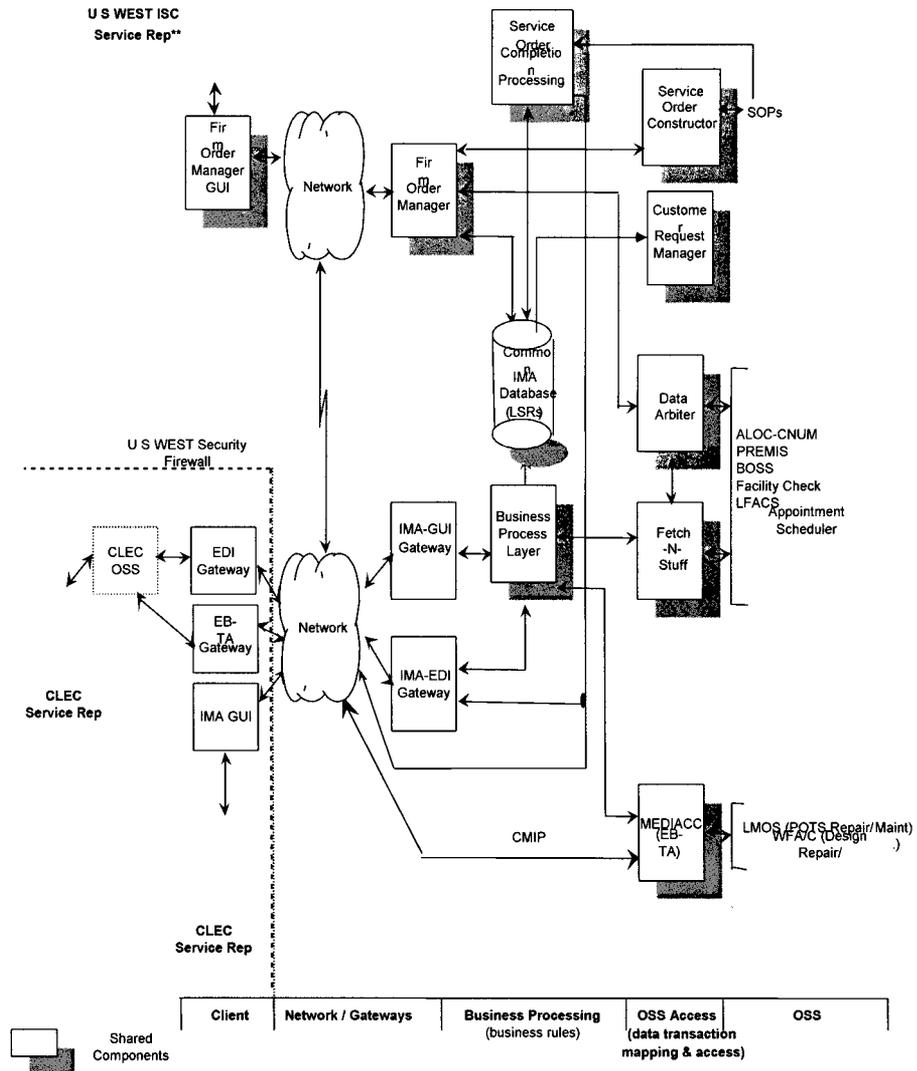
In order to provide a common understanding of the OSS to be included in the Arizona Third Party Test, brief descriptions and schematic diagrams are provided. These include: IMA and EDI architectures for preordering, ordering and provisioning, EB-TA and Interconnect Mediated Access Graphical User Interface (IMA-GUI) architecture for maintenance and repair, and CRIS and IABS architectures for billing. These will be augmented by more detailed OSS and other relevant system descriptions.

3.1.1 IMA, EDI, And EB-TA Mediated Access Architecture

For the IMA, EDI and EB-TA electronic interfaces, the diagram provided on Exhibit I depicts the mediated access architecture currently provided by U S WEST. As shown, the CLEC OSSs or workstations access the U S WEST gateways through the security firewall. They communicate with the USW human-to-computer interface and/or the computer-to-computer interfaces to transmit and receive information.

Exhibit I

Mediated Access Architecture



Pre-Ordering and Ordering

Once the transaction is received by the U S WEST gateway, a set of business rules is applied to determine how to process the request. To obtain information from U S WEST's OSS or pass information to them, the OSS Access Layer (Data Arbiter, Fetch and Stuff, and MEDIACC) communicates with the downstream OSSs to send or retrieve the data. Regardless of whether a transaction is received by the U S WEST gateway through the IMA GUI or EDI, it will be processed through the same set of business rules and travel through the same OSS Access Layer to reach the downstream OSSs. If the transaction is the submission of a Local Service Request (LSR), the LSR is placed in the Common IMA database regardless of whether the LSR is transmitted through the IMA or the EDI gateway. This database is updated with the status of the LSR as the Interconnect Service Center processes the LSR.

Maintenance and Repair

Likewise, if the transaction is a submission of a trouble report or any other trouble report request, the transaction is processed through MEDIACC and routed to the appropriate repair OSS.

3.1.2 Billing Architectures

CRIS Architecture

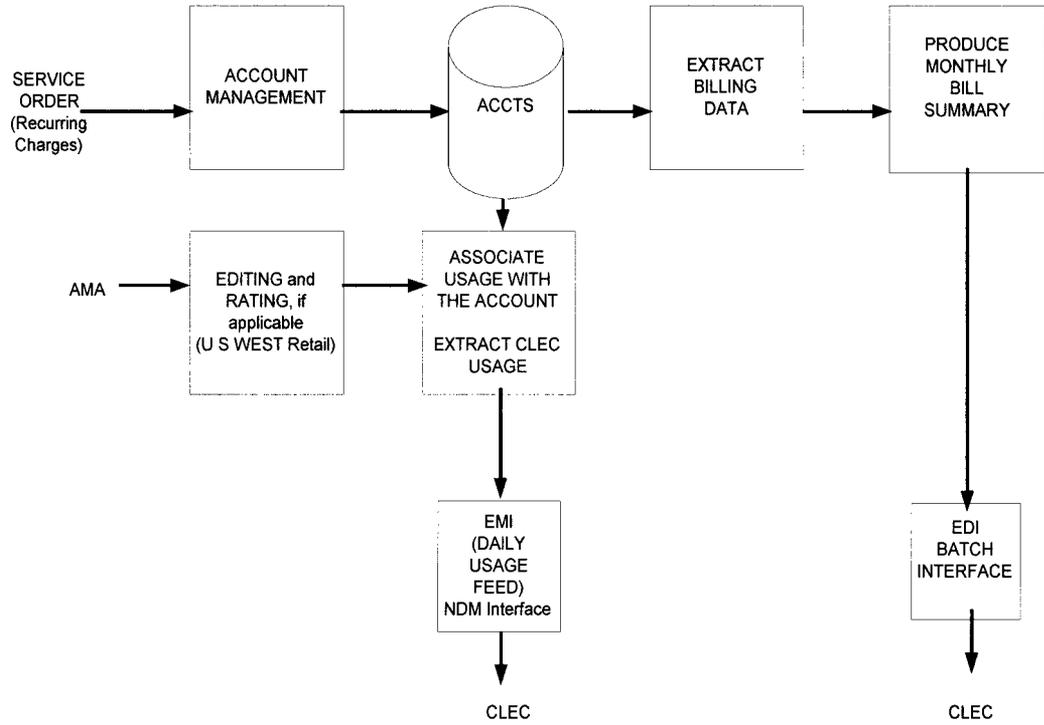
For the billing interfaces, the diagram provided on Exhibit II describes the components that produce usage and monthly bill information. When an end-user customer's account is resold to a CLEC, the resulting service order updates the account to reflect that change. As the end-user customer generates toll usage, it is sent from the AMA system into the CRIS billing system, where it is associated with the CLEC's account. The toll usage is then forwarded to the CLEC in a daily usage feed file. U S WEST produces a billing summary file with all recurring and non-recurring charges and sends it to the CLEC on a monthly basis.

In situations when U S WEST provides the terminating access point for the CLEC to a specific end-user, usage records are also generated by the AMA system and sent to the CRIS billing system. The CRIS system then associates the usage records with the CLEC's account. These usage records are sent to the CLEC via the same media choices that are available for the daily usage feed file (tape, NDM, FTP, Comet, Web access) and can then be used by the CLEC to bill interexchange carriers for terminating access.

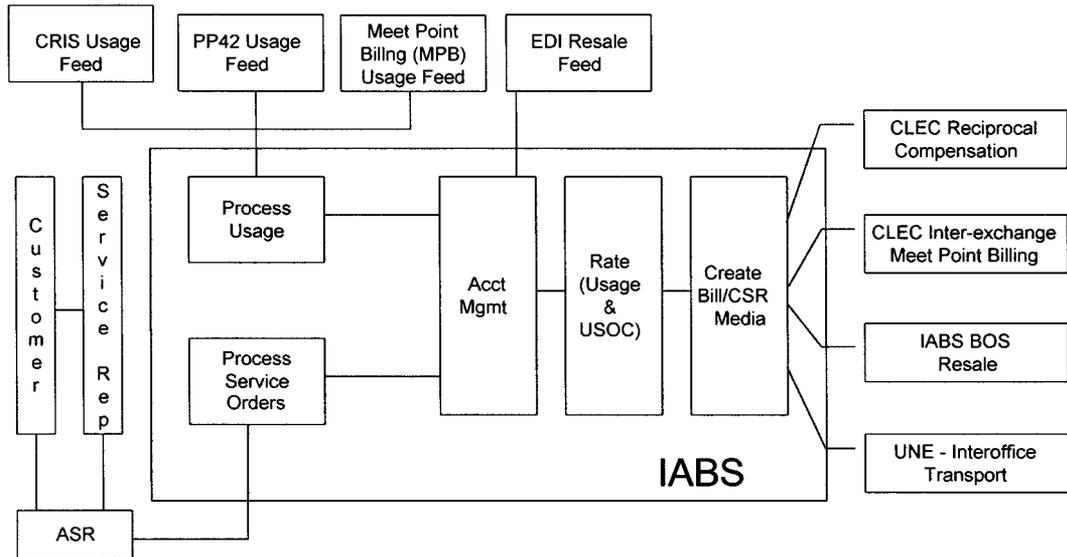
IABS Architecture

For the trunk-side unbundled network elements (UNEs) and interconnection services, the architectural diagram shown on Exhibit II is a high level description of IABS. There are three usage feeds to the usage-processing module. Another entry point is the Access Service Request (ASR) submitted by the customer service representative. These ASRs go to the service order-processing module. Both usage and service orders are sent to the account management module to associate the usage and service order detail to accounts.

Billing Architecture



IABS Billing Architecture



Additionally, the EDI resale file is fed to the account management module. After usage and service order details are associated to accounts, the accounts are rated, and bills and customer service records (CSRs) are produced. Outputs for reciprocal compensation, interexchange meet point billing, resale and UNEs are then provided to the CLECs.

3.2 Assumptions

The following assumptions have been used in documenting this ACC Master Test Plan:

- Any third party support contract costs will include hardware for the pseudo-CLEC needs of the test, processing of transactions, and cost of human resources.
- U S WEST will be responsible for the installation and cost of the necessary connectivity facilities (including T1s) up to the interconnection demarcation point with the Pseudo-CLEC.
- U S WEST will pay for the costs of the Test Administrator and the Pseudo-CLEC.
- A Pseudo-CLEC will be established, using EDI and IMA to submit pre-order transactions, LSRs and IMA trouble transactions for most tests. For those test scenarios where the Pseudo-CLEC interfaces can't provide the coverage required, voluntary CLEC coverage will be utilized to supplement the tests being performed by the Pseudo-CLEC. These scenarios will include EB-TA and EXACT (ASR) Scenarios or others where the Pseudo-CLEC interfaces to U S WEST OSS don't exist.
- The Capacity Test will be conducted using data generated via the Pseudo-CLEC, and possibly CLEC transaction simulators.
- All participants will ensure the testing does not disrupt existing customer services (e.g., 911 and other major services).
- The Capacity Test and the Functionality Test will be performed independent of each other.
- The required test volumes for Functionality, Retail Parity, and Capacity Tests will be determined and documented in the final version of the 271 Test Standards Document.
- Lines for Friendly accounts to be used for retail to CLEC conversion will be established prior to the start of the test and the initiation of transactions.

3.3 Overview of Test Types

The testing will include five types of Test Scenarios. Each of the five test types of Test Scenarios outlined below, and the following document sections (4 - 8) provide further detail for each Test Scenario type.

3.3.1 Functionality Test

The purpose of the Functionality Test is to determine the extent to which U S WEST's OSS provides operational functionality to CLECs. The test determines whether the OSS adequately performs the pre-ordering, ordering, provisioning, maintenance and repair, and billing functions using a set of predefined test scenarios. Testing will utilize U S WEST's production OSS and processes including manual operations.

The Functionality Test will focus on all OSS functions for resale, UNE-P, UNE-loop, UNE-loop with number portability, and number portability. Both business and residential orders will be tested, and the testing will encompass new, conversion 'as is', conversion 'as specified', partial migrations, change, disconnect, cancel, suspend, and restore activities. Test Cases developed for the Functionality Test will include end-to-end processing so that all functionality between pre-ordering and billing can be evaluated.

3.3.2 Retail Parity Evaluation

The Retail Parity Evaluation will compare the U S WEST ~~graphical-user interface~~ IMA GUI provided to CLECs for processing pre-order inquiries, LSRs and repair requests to the U S WEST internal retail ~~graphical-user interface~~ OSS utilized by U S WEST service order representatives. The Retail Parity Evaluation will compare the U S WEST EDI and EB – TA interfaces provided to CLECs for processing pre-order inquiries, LSRs, and repair requests to the U S WEST internal retail OSS interfaces utilized by U S WEST service order representatives. The evaluation of EDI and EB – TA will be limited to six test cases as determined by the TA. U S WEST will be given the opportunity to review these test cases and the evaluation covered thereby. Specifically, the purpose of this test is to determine whether a CLEC representative, using a U S WEST OSS interface, ~~and can~~ provide a level of service and experience in substantially the same time and manner as the level of service and experience that a U S WEST representative can provide using a U S WEST standard interface.

The Evaluation will analyze the Retail Parity Test Case data with the primary purpose to determine if the U S WEST OSS accessed by the CLECs collects and provides the required information in substantially the same time and manner as the information submitted and received

internally by U S WEST. The evaluation will also determine whether the information received by the CLEC Service Representative from the U S WEST OSS is comparable in quality and completeness to the information received internally by the U S WEST Service Representative. Additionally, the evaluation will determine if the data entry experience of a CLEC Service Order Entry Operator is comparable in quality and required level of effort to that experienced by the U S WEST Service Order Entry Operator. Specifically, the level of pre-order to order integration in the retail and resale interfaces will be compared.

An important element in determining whether the resale Service Representative's experience is in parity with the retail Service Representative's experience is the degree to which correctly entered CLEC LSRs flow through the U S WEST OSS infrastructure in comparison to correctly entered U S WEST Service Orders. Flow through as addressed in the Retail Parity Evaluation is flow through of the LSR such that the order is accepted and presented to the backend systems. Flow through in the context of these retail parity evaluations does not include testing of how well orders are provisioned or billed. Therefore, the Test Cases for retail parity will be cancelled before provisioning occurs.

Quantitative pre-order metrics such as TN, feature validation, address validation, PIC/LPIC, due date, and facility availability query times will be measured and reported for all pre-order Test Cases and for the pre-order portions of all order Test Cases (for the Retail Parity Test). These metrics will be collected as detailed Test Cases and Scripts are executed by U S WEST Service Representatives for retail and Pseudo-CLEC Service Representatives for resale.

3.3.3 Capacity Test

The Capacity Test will validate that U S WEST's OSS Systems and processes can handle loads equal to or greater than those projected by the various CLEC participants for estimated volumes projected one year from the date of the running of the Capacity Test. Additionally, Capacity Testing includes a review of procedures associated with computer system scalability and staff scalability, to determine, under stated assumptions, whether or not U S WEST appears capable of handling both projected and unexpected CLEC future demand. U S WEST's ability to handle unexpected CLEC future demand will be evaluated as part of these scalability evaluations. The Capacity Test differs from the Functionality Test, in that it is constructed of a repeatable, controlled, usually simulated test load, focused on volumes rather than on functionality. Consequently, a restricted subset of

functionality will be used as the input workload to drive the systems, and large volumes of pre-order and order transactions will be evaluated, based on forecasts one year from the running of the Capacity Tests.

3.3.4 Relationship Management Test

This test is a 'process test' to ensure that U S WEST's system and/or process change control methods are appropriately handled and effectively communicated to CLECs, based on the defined change control procedures. This test focuses on the procedures U S WEST uses to interact with CLECs.

To best demonstrate this ability, a new release of software may be introduced during the test period. During the new release, U S WEST's ability to successfully notify and support affected CLECs will be evaluated.

In addition, U S WEST's overall interaction with CLECs concerning OSS will be evaluated. This includes U S WEST's programs for providing systems information, system training, and system problem identification and resolution.

3.3.5 Performance Measurement Evaluation

The Performance Measurement Evaluation is an assessment of the performance measures processes established to evaluate U S WEST performance in providing service to the CLECs and to its retail customers.

The purpose of the Performance Measurement Evaluation is to verify that U S WEST is properly collecting and using data when computing the results of performance measures. The evaluation will consist of the following:

- Reviewing processes in place for collecting data
- Computing results of performance measures and evaluating performance measure data for the three most current consecutive months to determine if U S WEST is properly computing results
- Verifying Functionality and Capacity Test Performance Measurement

3.4 Product Types/Order Types

The testing will cover the various order types associated with the three modes of CLEC entry: resale, unbundled network elements, and number portability. Testing will include both residence and business orders and will encompass new, conversion "as is", conversion "as specified", partial migrations, change,

supplementals, disconnect, cancel, suspend, and restore order types, as relevant to the specific product scenario being tested.

U S WEST's OSS will generate acknowledgments (EDI 997), error rejections, Firm Order Confirmations (FOCs), Service Order Completions (SOCs) and jeopardy notifications to the CLECs, consistent with U S WEST's documented business rules and specifications.

Electronic gateways considered within the scope of this testing are IMA and EDI for pre-order and order, EB-TA and IMA for maintenance and repair and, EMI and EDI for billing. These electronic gateways are the means in which CLECs access U S WEST's OSS systems.

The following product types will be processed via the electronic gateways:

- Resale – At a high level, the Test Scenarios to be included in the resale test are as follows:
 - Retail to Resale Conversion – U S WEST customer converts to CLEC
 - Resale – New connect of a CLEC customer
 - Resale – Change features of an existing CLEC customer
 - Resale – Disconnect a CLEC customer
 - Suspend and Restore - CLEC initiates a request to suspend a customer's service and may later initiate a request to restore service.
- Unbundled Network Elements –At a high level, the Test Scenarios to be included in this test for UNE-P and UNE-L orders are:
 - Retail to UNE-P Conversion - U S WEST customer converts to CLEC
 - Retail to UNE-L - U S WEST customer converts to CLEC, where unbundled loop is leased from U S WEST by CLEC
 - Retail to UNE-L with Number Portability - U S WEST customer converts to CLEC, where unbundled loop with number portability is leased from U S WEST by CLEC
 - UNE-L New - End user establishes new service (i.e., UNE-L) with CLEC

- Retail to Local Number Portability - U S WEST customer converts to a CLEC keeping the same TN but using only CLEC facilities; the customer takes a U S WEST number when they move to a CLEC
- UNE-P Change - Request to change a feature
- UNE-P Disconnect – Service is disconnected from the end-user
- UNE-L Disconnect – Service is disconnected from the end-user
- UNE-P to UNE-L

The following sections will further detail how these order types and product types will be tested.

4. Functionality Test

4.1 Functionality Test Purpose

The purpose of the Functionality Test (FT) is to provide information that the ACC can use to assess the ability of U S WEST systems to provide the requisite functionality to CLECs. These functions include:

- Pre-ordering
- Ordering
- Provisioning
- Maintenance & Repair (M&R)
- Billing
- Special functions, such as 911 and DA

The first principal objective of the FT is to verify the ability of the Pseudo-CLEC to submit LSRs to the U S WEST OSS and have U S WEST successfully install the requested service or facilities in a timely fashion. This includes the ability to track the progress of the LSRs through those systems, install the service or facility and to observe final order completion, verify the establishment of billing records, and verify the accuracy of those records against known usage. In some cases, ASR test scenarios (entered into the U S WEST EXACT System) may need to be executed by volunteer CLECs. The integration quality of pre-order and order data will also be evaluated during the functionality tests. Additionally, comparisons of these functions in the retail and resale environments will be done as part of the Retail Parity Evaluation.

The second principal objective of the FT is to validate the ability of a CLEC participant to access M&R systems using EB-TA. Additionally, the Pseudo-CLEC will access M&R systems using the U S WEST IMA GUI. Relevant aspects of these accesses include the ability to:

- Determine whether these systems will generate a timely and correct trouble report.
- Determine whether U S WEST will notify the CLEC or the Pseudo-CLEC of successful restoration of service after the service fault was identified and corrected.
- Determine if a participant CLEC ~~or Pseudo-CLEC can initiate an~~ Mechanized Loop Test (MLT) test for a reported trouble ~~can initiate a~~ Mechanized Loop Test (MLT) for a reported trouble through EB - TA and determine if the Pseudo CLEC can initiate a Mechanized Loop Test (MLT) for a reported trouble through IMA.
- Scenarios verifying the MLT will be included in Test Cases for the Functionality Tests. The FT is also intended to address certain special subjects, including the 911/E911 and Directory Assistance databases.

4.2 Functionality Test Scope

The Functionality Test will include a defined number of inputs and a specific set of scenarios. Scenarios are specific types of orders and products to be included in the 271 tests. The definition of Scenarios is primarily the responsibility of the CLECs and U S WEST with final additions possibly suggested by the Test Administrator.

Test Cases are different order types or product instances within a Scenario. Additionally, Test Case definitions include information on the inputs, purpose, expected results, measures, and failure criteria for the Test Case. The development of Test Cases is the responsibility of the Test Administrator.

Test Scripts are detailed step by step instructions for each Test Case. The development of Test Scripts are the responsibility of the Test Administrator.

Iterations are additional instances of Test Scripts of a specific Test Case with minor data changes to increase the samples within a statistical cell to achieve the required sample size. The development of additional iterations to achieve a required sample size is the responsibility of the Test Administrator.

The Test Cases will include appropriate Test Case instances and iterations covering the order types and product types detailed in Section 3 and in Appendix A¹. The set of Scenarios will be enhanced with CLEC input through workshop and TAG participation.

¹ Appendix A is a detailed listing of the Test Scenarios for the Functionality Test and the Retail Parity Evaluation. Scenarios 1 to 126 are the Scenarios for the Functionality Test, and Scenarios 127 to 165 are the Scenarios for the Retail Parity Test. The chart lists each Scenario by order type, and it also includes columns indicating the details of the Scenario (e.g. the features involved, listing information), and

The Test Administrator will analyze these Scenarios, develop Test Cases, and determine the proper mix of orders and the number of iterations required for loading and for statistical validity.

These Test Cases will be submitted to U S WEST via prescribed electronic methods, as proposed below.

4.2.1 Pre-Order/Order/Provisioning Processes

Pre-ordering is the process that allows CLECs the ability to query U S WEST's databases to verify or obtain certain information necessary to issue a valid LSR. Ordering is the process that CLECs use to format and issue LSRs to U S WEST. Provisioning consists of the processes that U S WEST uses to install the service or facility ordered. The pre-order, order, and provisioning Functionality Test will involve the following interfaces:

EDI: Utilizing a Pseudo-CLEC to test the EDI preorder/order interface; and

IMA GUI: Using a combination of Pseudo-CLEC data and CLEC-supplied data for the IMA GUI pre-order/order test.

4.2.2 Maintenance and Repair Interfaces

Maintenance and Repair (M&R) is the function used by CLECs to report end user and network troubles to U S WEST, test the end user lines by MLT, sectionalize the trouble conditions, and check the status of the reported troubles. Any trouble, planned or unplanned that occurs during the test process will be considered part of the tests. The process to be utilized for the retests is defined in section 2.2.1.

The Maintenance and Repair Functionality Test will involve the following interfaces:

EB-TA: Collaboration with one or more CLECs to test the existing EB-TA interface for maintenance and repair test transactions.

IMA GUI: Using Pseudo-CLEC data for maintenance and repair test transactions.

4.2.3 Billing Interfaces

Billing is the ability of U S WEST to provide CLECs with accurate wholesale bills and usage data, as well as records, for the services, features, network elements (e.g., loop,) and features that were ordered

explanation of the directory listings for the Scenario, and an indication of whether or not a maintenance and repair test will be included in the Scenario.

and provisioned. The primary focus for testing the billing interfaces is to validate the timeliness, accuracy, and completeness of the U S WEST billing processes.

The Billing Functional Test will involve the following interfaces:

EMI: (Exchange Message Interface) – This is an ATIS standard format of messages used for the interchange of telecommunications message information among telephone companies. Telephone companies use EMI to charge billable, non-billable, sample, settlement, and study data.

EDI: (Electronic Data Interchange) –This standard allows for the transmission of billing data between trading partners. EDI software translates fixed field or “flat” files that are extracted from applications into a standard format and hands off the translated data to communications software for transmission.

4.3 Functionality Test Coverage and Scenarios

Functionality Test coverage has been established to ensure that the functionality being tested best reflects the current and anticipated business environment. The development of the Scenario coverage is designed to ensure that each Scenario provides value-added processing, and duplication of common processes is minimized. In order to gain a reliable statistical sample of processing measures, several iterations of similar tests may be necessary. The Test Administrator will analyze these ordering Scenarios to determine the proper mix of orders and the number of iterations required for loading and statistical validity.

The Functionality Test will include flow-through service orders and manual processes used to process orders. Flow-through orders are electronically received LSRs that have service orders accepted by the Service Order Processor without intervention.

Section 1 of Appendix A details the proposed Test Scenarios for the Functionality Test. These Scenarios will be used to create the detailed Test Cases and subsequent orders/LSR/ASR. At a high level, the Scenarios consist of pre-ordering, ordering, provisioning, and billing. A subset of the Scenarios will also include maintenance and repair activities. The following provides an overview of the test Scenarios based on the processes to be tested.

4.3.1 Pre-Ordering/Ordering

The pre-order process of the Functionality Test will include the following:

- Address Validation

- Customer Service Record (CSR) Inquiry
- Service and Feature Availability
- Telephone Number Reservation
- Due date assignment (includes order for which dispatch is or is not required)
- Facility Availability
- Loop Qualification
- Reject/failed inquiries

4.3.2 Ordering/Provisioning

Functionality included in the provisioning process of the Functionality Tests include the following:

- Receipt and Acknowledgement of LSRs
- Reject Processing
- Manual or Mechanized Service Order Creation
- Receipt of the FOC (Firm Order Confirmation)
- Service Order Status Query
- Processing through the SOPs (Service Order Processors)
- Completion of the LSRs (Installation of the ordered service or facility)
- Receipt of the notification for Service Order Completion (SOC)
- 911 and DA database updates

The Functionality Test will also cover the ability of the U S WEST OSS to receive the following order activities as *inbound* transactions:

- New Account Establishment
- Conversion (retail to resale or UNE-P)
Change
- Suspend/Restore
- Disconnect
- Supplemental Orders
- Cancellation Orders

The Functionality Test will test the ability of U S WEST's OSS to send the following *outbound* transactions:

- Order Rejection/Error Notification
- Order Acknowledgement
- Firm Order Confirmation
- Jeopardy Notice (or equivalent)
- Service Order Completion Report

- Update 911 and DA databases
- Loss notification

4.3.3 Back-End Processing

Back-end processing is the ability to establish services and features as requested in LSRs. The Back-End Functionality Test will test the ability of U S WEST's back-end systems to provide CLECs with the services and features being requested, and to update databases, including 911 and DA. The Service Order Completion notification to the CLEC indicates that provisioning is complete.

4.3.4 Billing

Billing is the ability for U S WEST to provide accurate, timely, and complete usage data and billing records to CLECs for the services, features, network items, and functions that were ordered and provisioned. In addition, verification of the documented charges must occur for recurring, non-recurring, usage-sensitive charges, and miscellaneous charges. The primary focus of the Billing Functionality Test is to validate the ability of the billing systems to receive the input in a timely manner and to process the bills accurately. Elements of this test include the following:

- Verify that what is ordered is what is billed
- Verify that the bills provide for accurate recurring, non-recurring, and usage-sensitive charges
- Verify that rates are applied correctly for each product, service, or element
- Verify that taxes and surcharges have been assessed correctly
- Verify that discounts and adjustments are performed correctly
- Verify that prorated amounts are charged accurately according to the disconnect date
- Verify that disconnects are processed and appear accurately on the bill
- Verify that daily usage files are updated accurately. Data contained in Daily Usage Feeds will be compared to call logs and Telco Bills.

If discrepancies are determined, they will be handled utilizing the Incident Work Order Process defined in Appendix I of the 271 Test Standards Document.

4.3.5 Maintenance and Repair

Maintenance and Repair (M&R) provides the ability for CLECs to report trouble to U S WEST and to check the status of trouble tickets. A select set of the Functionality Test Scenarios will contain planned M&R activities and will be developed considering the highest volume types of troubles. The focus of the Maintenance and Repair Functionality Test will be on the evaluation of the electronic trouble request submission (trouble report) process, status (trouble handling), and repair (closing of the ticket). Test Scenarios will include the following:

- No Dial Tone
- Static/Noise on the Line
- Cannot Call Out
- Cannot Be Called
- Cannot Call Long Distance
- Features Not Working

4.4 Functionality Test Volumes

The appropriate test volume will be set to ensure that all tests are conducted with enough data to allow statistical soundness when evaluating the processes and outputs. The number of accounts, transactions, and test iterations will be determined by the Test Administrator to ensure that the test volume is adequate.

4.5 Functionality Test Data

The input data LSRs and ASRs required for the Functionality Test are data originating from CLECs and the Pseudo-CLEC (resale, UNE-P, UDIT, and UNE-L test cases and retail to resale conversion test cases). The proposed method for establishing and processing these data is through the use of Friendly accounts, known henceforth as Friendlies, and test accounts. Enough accounts must be established to ensure statistical soundness.

Since a production environment approach is being used, the Friendlies accounts will reflect real customers and facilities, and will consist of U S WEST, CLEC, and ACC employees. A CLEC's own account may also be used.

The management of Friendlies is an important aspect of this test. An additional line(s) for the residential Friendlies will be provisioned to each of the homes to ensure that the existing service is not disrupted. Once the testing has been completed, these lines will be disconnected. The processes and associated high-level tasks required to manage the Friendlies are as follows:

- Determine number of Friendlies required based on total number of scenarios, conditions to be validated, and statistical validity
- Determine distribution and location of Friendlies

- Identify Friendlies and associated locations
- Map Friendlies/locations to test scenarios/call scenarios
- Provide for environmental needs for Friendlies (additional line installation)
- Determine the process for managing the Friendlies and notifying them of their testing responsibilities

4.6 Functionality Test Participants

A successful Functionality Test requires participation, commitment, and accountability from the following:

- **Pseudo-CLEC** – The third party retained to create and run the test transaction generator will act as a Pseudo-CLEC and have the same responsibilities as the CLECs below during the testing phases. The Pseudo-CLEC will be additionally responsible for customizing its transaction generation software to function with U S WEST's OSS before testing begins.
- **Test Administrator** – The role of the selected Test Administrator is to monitor/oversee the testing effort, act as test supervisor in the day-to-day operations of the project, track issues that arise during the test, determine Root-Cause Analyses of Issues with participating CLEC, Pseudo-CLEC and U S WEST input, analyze the outcome of the test effort, and provide a feedback report to the ACC. Specifically, the Test Administrator will be responsible for the generation of the actual test cases and the coordination of other parties involved in the testing.
- **Test Friendlies** – The Friendlies will be actual volunteers. They will receive packets of information detailing the types of transactions (calls) they will be required to originate, the dates required, and any documentation they are required to create to document their test calls.
- **U S WEST** - U S WEST will act in a supporting role as directed by the ACC and its DCI representatives. This role includes providing subject matter experts (SMEs) for consulting and support during test planning, preparation, execution, and analysis. U S WEST's systems, operations, and processes are the basis for the test.
- **CLECs** – CLECs selected by the ACC to participate in the testing effort will be required to provide input to test cases and Friendlies accounts based on the scenarios defined in Appendix B. Additionally, they will be responsible for conducting the tests and reporting the outputs based on the direction from the ACC and the Test Administrator.

A complete list of roles and responsibilities for the entire testing effort is detailed in Section 9.

4.7 Functionality Test Phases

The purpose of this section is to detail the types of activities required in each of the Functionality Test phases: Test Planning, Test Preparation, Test Execution, and Test Analysis and Reporting. These activities will be tracked in an overall project plan to be created and maintained by the Test Administrator.

4.7.1 Test Planning

This section details the activities, entrance criteria, and exit criteria necessary for the Functionality Test Planning Phase.

4.7.1.1 Test Planning Activities

- Baseline the ACC Master Test Plan and providing revisions as necessary
- Define scope and objectives
- Develop Test Milestones
- Define test management items (jeopardy management, issue management, etc.)
- Define test participants roles and responsibilities
- Define the Test Scenarios
- Establish the data approach
- Establish the appropriate testing volumes
- Determine the appropriate resources to support the test preparation and execution phases

4.7.1.2 Test Planning Entrance Criteria

The following are the entrance criteria to the Functional Planning Phase, as there must be a firm understanding of the technical basis and objectives of the test before the remaining planning can be completed.

- Identify test volumes, such as the exact number of Friendlies and test accounts and the total number of activities initiated by the Friendlies within the testing timeframe
- Identify test iterations to establish the appropriate number of tests and volumes to ensure statistical soundness
- Identify test execution interval (number of days) to cover multiple billing periods and other constraints such as installation intervals
- Identify test participants and the associated roles of each

- Manage test 'blindness'
- Identify the Friendlies mix and locations
- Define the overall testing environment
- The statistical methodology has been established

4.7.1.3 Test Planning Exit Criteria

The Test Planning Phase exit criteria consist of assurances that the work in subsequent phases is understood by all participants. Written planning outputs will be supplied to the Test Administrator and reviewed in planning sessions. The exit criteria consist of establishment of the following:

- Baselined test plan for each participant
- Test Milestones defined
- Defined schedule, including critical path items

4.7.2 Test Preparation

This section details the activities, entrance criteria, and exit criteria necessary for the Functionality Test Preparation Phase.

4.7.2.1 Test Preparation Phase Activities (by Test Administrator)

- Develop detailed test monitoring plans
- Develop detailed project plans
- Define OSS environment requirements
- Finalize the Test Scenarios and analyze the test coverage
- Identify and assigning the Friendlies
- Create the Friendlies test packages

4.7.2.2 Test Preparation Entrance Criteria

- All participant input to the test plans have been received and documented.
- All participant input to the test specifications have been acquired and documented.
- Determine available Friendlies

4.7.2.3 Test Preparation Exit Criteria

Activities in the test plans necessary for the start of test execution must be complete. This phase requires Test Script review by the Test Administrator.

4.7.3 Test Execution

This section details the activities, entrance criteria, and exit criteria necessary for the Functionality Test Execution Phase.

4.7.3.1 Test Execution Phase Activities

Test execution includes the following key activities:

CLEC participants, Pseudo-CLEC, and U S WEST

- Execute the Test Cases according to the individual test plans
- Document test results, issues, resolution, and status

Test Administrator

- Position staff at Pseudo-CLEC and CLEC facilities to observe the input and processing of transactions
- Conduct surveillance of Pseudo-CLEC interaction with U S WEST in the resolution of issues
- Review weekly status summaries on the current state of each test scenario
- Review data submitted by test participants
- Determine whether the Pseudo-CLEC defined timeline of LSR submission was followed
- Reports problems uncovered in the test, tracks problem resolutions and retests for resolution with the consensus of the TAG – per Section 2.2.1 “Test Exception Process”

4.7.3.2 Test Execution Entrance Criteria

- Baselined test plans for each participant
- Test Scripts for testing for each participant
- Friendlies preparation
- Operationally ready and available interfaces and systems required for the testing
- Executed system and access agreements, including assignment of required sign-on accounts and passwords
- Appropriate SME staff
- Sufficient establishment of the Arizona Performance Measures
- The Test Administrator has sufficiently completed its evaluation of the U S West processes for data collection and calculation of the Arizona Performance Measures

4.7.3.3 Test Execution Exit Criteria

A review session is required to complete this phase.

- All test specifications executed and classified as pass/fail according to the plan
- No outstanding major problems, as determined and concurred by the TA and the ACC
- 1 or 2 billing cycles verified, and a sufficient number of disconnects verified.
- If there appears to be a need for a 3rd billing cycle in some instances, the matter will be referred to and reviewed by the TAG.

4.7.4 Test Analysis and Reporting

This section details the activities, entrance criteria, and exit criteria necessary for the Functionality Test Analysis and Reporting Phase.

4.7.4.1 Test Analysis and Reporting Phase Activities (by Test Administrator)

- Examine the data submitted by the Pseudo-CLEC for accuracy and completeness
- Analyze the complete transactional processing for each order
- Track issues that arose during the test
- Perform Root-Cause Analyses of all Issues and follow the Test Exception process in section 2.2.1
- Recommend technical solutions to obstacles encountered during the test
- Prepare a report for the ACC

4.7.4.2 Test Analysis and Reporting Entrance Criteria

This phase requires all outcomes documented during the test execution phase.

4.7.4.3 Test Analysis and Reporting Exit Criteria

A review session is mandatory to complete this phase. Required documents at this review session are the participants' results, which will be combined into a single report document and presented to the ACC. The Test Administrator will also complete a report for the ACC to be submitted along with the participants' results.

4.8 Functionality Test Success Criteria

Measurable Standards (Benchmarks and Parity Measures) for Performance Measures listed in Appendix B, as modified with CLEC and U S WEST input during the Workshops, and as approved by the ACC, will serve as criteria for success of Functionality Testing.

The Functionality Test success criteria will indicate that all processing is stable (i.e., no major service interrupting or semi-major service impacting issues, and few minor problems). Test results can include a small number of U S WEST software and method problems. Based on the analysis of any such problem, the failure may be sufficiently serious to abort the test and restart once the failure has been fixed. If the scope of the failure is small and the problem is not serious, the test may continue, or U S WEST may opt to provide a fix. U S WEST must identify any failures that it discovers, along with a complete explanation, to the Test Administrator for distribution. The decision on whether or not to proceed with the test will be made by the Test Administrator with approval from the ACC.

4.9 Functionality Test Assumptions

- Wherever possible, activities and tests will be streamlined and conducted in parallel.
- CLECs will provide input to the test scenarios, test specifications and cases.
- Preparation of the environmental needs for Friendlies will not require significant infrastructure changes.
- The test participants can run their tests independently.
- Two bill cycles are planned, and a bill cycle is 30 days.

5. Retail Parity Evaluation

5.1 Retail Parity Evaluation Purpose

The Retail Parity Evaluation is a type of functionality test that evaluates whether a CLEC representative, using a U S WEST ~~intended~~ OSS interface, is able to provide a level of service and experience to customers in substantially the same time and manner as the level of service and experience that a U S WEST representative can provide using the equivalent internal U S WEST OSS interface. The primary goal of the Retail Parity Evaluation is to compare the CLEC's ability to process pre-order inquiries, LSRs and repair requests (utilizing the OSS Interfaces), to the U S WEST retail equivalent utilization of the systems. Specifically, the purpose of this test is to determine whether a CLEC representative, using a U S WEST OSS interface, can provide service in substantially the same time and manner as the service that a U S WEST representative provides.

5.2 Retail Parity Evaluation Scope

A specific set of Test Scenarios which have Retail comparisons are to be used for the Retail Parity Evaluation. These tests cover pre-ordering, ordering, and maintenance and repair Scenarios as defined in Section 3. In general, each CLEC Test Scenario has a corresponding U S WEST retail Scenario in order to conduct a comparison of functionality.

The Retail Parity Evaluation is both a quantitative and qualitative test. It is quantitative in that it evaluates, to the extent possible and appropriate, OSS response times on a comparative basis, recognizing a difference in processes. It is qualitative in that it compares the information that a U S WEST representative handling a customer can obtain compared to that which a CLEC representative can obtain, in terms of equivalency and accuracy. This includes not only standard pre-order and ordering functionality, but also other information needed to handle customers, such as: order status, escalations, and obtaining preferential or vanity numbers.

The focus of the Retail Parity Evaluation is on the experience which the customer has while on the line with a CLEC representative, in comparison to the experience of a customer while on the line with a U S WEST representative. Because of this, once the order has been submitted, it is only necessary to run the Retail Parity Evaluation through the ordering processes or through submission of a trouble report. Consequently, the Retail Parity Evaluation activities will be cancelled in the Service Order Processor (SOP).

The Retail Parity Evaluation will involve test comparisons between the IMA GUI and the retail systems utilized by U S WEST's Service Order Representatives.

5.3 Retail Parity Evaluation Coverage and Scenarios

Section 2 of Appendix A details the proposed Test Scenarios for the Retail Parity Evaluation. These Scenarios will be used to create the detailed Test Cases and subsequent orders/LSRs. At a high level, the Scenarios cover pre-ordering and ordering processing. The following provides a high-level overview of the Retail Parity Evaluation Scenarios:

- Resale New Connect compared to Retail New Connect
- Retail to Resale Conversion compared to Retail 'Win Back'
- Resale Change compared to Retail Change
- Resale Suspend and Restore compared to Retail Suspend and Restore
- Various Resale Maintenance and Repair Activities (Reporting, Start using, MLT) compared to the equivalent Retail Activities

5.4 Retail Parity Evaluation Volumes

The appropriate test volume will be established to ensure that the comparison process provides a reliable statistical sample of performance measurements when evaluating the processes and outputs. It is anticipated that the volume required for this effort will be a subset of the volumes required for the overall Functionality Test detailed in Section 4. However, the number of accounts, transactions, and test iterations must still be determined to ensure that the test volume is adequate. The Test Administrator will determine these volumes.

5.5 Retail Parity Evaluation Data

The goal of the Retail Parity Evaluation is to evaluate resale transactions against the equivalent retail transactions. Consequently, this effort should use test accounts, or Friendlies, where the basic account set-up and locations can be as similar as possible to provide the most accurate comparison. For example, to test that scheduling appointments for the dispatch of an installation technician occurs equally for retail and resale customers, it is most desirable to have these accounts serviced out of the same wire center, and as geographically close to one another as possible.

Data must originate from both resale CLECs and from U S WEST retail. Enough accounts must be established and tested to support the right sample amount to ensure statistical soundness. Like the Functionality Test, the Retail Parity Evaluation will be conducted in a production environment, and U S WEST active participants (e.g., customer service reps) will maintain the required level of 'blindness' by not knowing which accounts are in production as test accounts.

5.6 Retail Parity Evaluation Participants

The participants required for conducting a successful Retail Parity Evaluation are the same as those detailed in the Functionality Test, Section 4.6. U S WEST will have an additional role to execute test cases, since pre-order, order, and M&R activities must be established for retail customers.

5.7 Retail Parity Evaluation Phases

Although the phases and required activities for the Retail Parity Evaluation are similar to those defined in Section 4.7 for the Functionality Test, a number of other phases and activities are necessary.

5.7.1 Test Planning

This section details the activities, entrance criteria, and exit criteria necessary for the Retail Parity Test Planning Phase.

5.7.1.1 Test Planning Activities

- Define scope and objectives
- Define test management items (jeopardy management, issue management, etc.)
- Define test participants roles and responsibilities
- Define the Test Scenarios
- Develop the comparison approach for pre-order, order and maintenance scenarios
- Develop the Test Cases
- Develop the Test Scripts
- Establish the data approach
- Establish the appropriate testing volumes
- Determine the appropriate resources to support the test preparation and execution phases

5.7.1.2 Test Planning Entrance Criteria

- Identify test volumes, such as the exact number of Friendlies and test accounts and the total number of activities initiated by the Friendlies within the testing timeframe
- Identify test iterations to establish the appropriate number of tests and volumes to ensure statistical soundness
- Identify test execution interval (number of days) to cover multiple billing periods and other constraints such as installation intervals
- Identify test participants and the associated roles of each
- Identify the Friendlies mix and locations
- Define the overall testing environment
- The statistical methodology has been established

5.7.1.3 Test Planning Exit Criteria

- Baseline test plan for each participant
- Baseline Test Scripts are complete
- Test specifications from the Pseudo-CLEC participants
- Defined schedule, including critical path items

5.7.2 Test Preparation

This section documents the activities, entrance criteria, and exit criteria required for the Retail Parity Test Preparation Phase.

5.7.2.1 Test Preparation Phase Activities

- Develop detailed test monitoring plans
- Develop detailed project plans
- Define OSS environment requirements
- Finalize the Test Scenarios and analyze the test coverage
- Finalize the Test Scripts
- Establish segregated operating terminals at U S WEST
- Identify and assigning the Friendlies
- Create the Friendlies test packages

5.7.2.2 Test Preparation Entrance Criteria

- Test Standards written, reviewed and commented on by TAG
- Scope of the tests finalized and approved by the TAG
- Determine available Friendlies

5.7.2.3 Test Preparation Exit Criteria

- Test plan activities section complete
- Test Scripts reviewed by Test Administrator

5.7.3 Test Execution

This section documents the activities, entrance criteria, and exit criteria required for the Retail Parity Test Execution Phase.

5.7.3.1 Test Execution Activities

Pseudo-CLEC and U S WEST

- Execute the Test Cases according to the scripted Test Cases per the instructions of the monitoring Test Administrator representative.
- Document test results, issues, resolution, and status

Test Administrator

- Position staff at Pseudo-CLEC and U S WEST facilities to observe the input and processing of orders
- Closely guide the execution of the Retail Parity Evaluation Test Scripts in both the Pseudo-CLEC and U S WEST facilities carefully counting and measuring the planned data and documenting the results on the Test Scripts.

- Review recorded Report problems uncovered in the test, track problem resolutions and retests for resolution with the consensus of the TAG

5.7.3.2 Test Execution Entrance Criteria

- Baselined test plans for each participant
- Test Scripts for testing for each participant
- Friendlies preparation
- Operationally ready and available interfaces and systems required for the testing
- Executed system and access agreements, including assignment of required sign-on accounts and passwords
- Appropriate SME staff
- Sufficient establishment of the Arizona Performance Measures

5.7.3.3 Test Execution Exit Criteria

- All Test Scripts executed and classified as “pass” according to the plan
- No outstanding major problems, as determined and concurred by the third party and the ACC

5.8 Retail Parity Evaluation Success Criteria

This Test will depend on the following success criteria:

- What assurance does the Pseudo-CLEC Service Representative have that the order, with an eligible service type, will flow through once released versus the assurance the U S WEST Service Representative has?
- Is the time and effort to perform pre-order queries substantially the same for Pseudo-CLEC and U S WEST Service Representatives?
- Is the level of pre-order to order integration substantially the same for Pseudo-CLEC and U S WEST Service Representatives?
- Is the data on the screens presented to the Pseudo-CLEC Service Representative substantially the same ~~sufficiently equivalent to~~ as the data presented to the U S WEST Service Representative?

- For service to be installed in the same serving area, are substantially the same~~equal~~ facilities available for the U S WEST Service Representative and the Pseudo-CLEC Service Representative?
- Is the procedure used to reserve large blocks of TNs substantially the same~~equivalent~~ for both a Pseudo-CLEC Service Representative and a U S WEST Service Representative?
- For service to be installed in the same serving area, are reasonably similar due date intervals experienced by the U S WEST Service Representative and the Pseudo-CLEC Service Representative?
- Is ~~an equal~~ substantially the same opportunity provided to the Pseudo-CLEC Service Representative and the U S WEST Service Representative to expedite due dates?
- Is the procedure to obtain and/or reserve a “vanity” TN substantially the same~~equivalent~~ for both a Pseudo-CLEC Service Representative and a U S WEST Service Representative?
- Is the ability to make a change on a pending order substantially the same~~equal~~ for both a Pseudo-CLEC Service Representative and for a U S WEST Service Representative?
- Is ~~an equal~~ substantially the same ability provided to both the Pseudo-CLEC Service Representative and the U S WEST Service Representative to query status of a pending service order?
- For “working left-in” situations, does IMA provide the Pseudo-CLEC Service Representative ~~an equivalent~~ substantially the same amount of status information as is provided to the U S WEST Service Representative?
- Are the hours of system availability substantially the same~~the same~~ for Pseudo-CLEC Service Representatives and for U S WEST Service Representatives? The determination will factor in the purposes for which the interfaces are up and available within U S WEST.

5.9 Retail Parity Evaluation Assumptions

- The Retail Parity Evaluation will not require end-to-end processing to billing; orders generated for the Retail Parity Evaluation can be cancelled in the Service Order Processing (SOP) systems once the Test Case is complete.

- Time measurements will be established only for cases where accurate comparisons can be accomplished.
- The assumptions related to Friendlies in Section 4.8 for the Functionality Test apply to the Retail Parity Evaluation.

6. Capacity Test

6.1 Capacity Test Purpose

The Capacity Test will validate that U S WEST's OSS Systems and processes for pre-order and ordering transactions can predictably handle loads equal to or greater than those projected by the various CLEC participants for estimated volumes projected one year from the date of the running of the Capacity Test. While some limited aspects of U S WEST's provisioning processes will be evaluated, the test will pass no judgement on the capacity of U S WEST's provisioning processes. For the Capacity Test, it is assumed that U S WEST will provision CLEC service requests in parity with retail operations. The Capacity Test is different from the Functionality Test, since it is constructed of a repeatable, controlled, and usually simulated test load. Volumes for this testing effort will be established by the Test Administrator with U S WEST and CLEC input. The forecast information will be used to determine the appropriate number and mix of accounts, transactions, and test iterations. Issues addressed by the Capacity Test include:

- System capacity testing, i.e. testing using load generators to verify the capacity of designated U S WEST OSS
- System scalability, i.e. the ability of U S WEST systems to handle a growth rate that may be higher than anticipated
- Staff scalability, i.e. the ability of U S WEST personnel staffing processes to handle a growth rate that may be higher than anticipated

6.2 Capacity Test Scope

For the purposes of the Capacity Test, U S WEST's OSS interfaces will be tested, including both the EDI and the IMA GUI interfaces. The Test Administrator will, with CLEC and U S WEST input, determine the parameters involved in conducting the capacity tests of the U S WEST systems. A balance between simplicity of testing and statistical soundness of the analysis must be reached in determining the appropriate test conditions.

The Capacity Test will include tests for evaluating the capacity of U S WEST's pre-order, ordering, and provisioning OSS interfaces for resale, UNE-P, UNE-loop, UNE-loop with number portability, and number portability. Testing will

be performed with U S WEST's electronic gateways, including both IMA and EDI gateways.

For each of the tests and for each electronic gateway in the pre-order, order, and provisioning process, the Capacity Test will evaluate the following:

- Selected performance measures for which the appropriate capacity measure is established
- Standard computer metrics (such as processor utilization)
- OSS scalability, including procedures for capacity expansion and estimates of the largest volume that the OSS configuration accepts under normal conditions

During the Capacity Test, the scalability of each interface involved in the test must be evaluated. For each system in the test, U S WEST should demonstrate its approach to scalability to ensure that future volume growth can be properly planned for before existing resources are exhausted.

6.3 Capacity Test Coverage and Scenarios

Capacity Test coverage and associated Scenarios will include a representative mix of the pre-order queries and order transactions tested in the Functionality Test.

For the pre-ordering Capacity Test, the workload will consist of an equal number of the query types listed below:

- Address Validation
- Customer Service Record (CSR)
- Service and Feature Availability
- Appointment Scheduling Inquiry
- Facility Availability
- Telephone number inquiry

For the ordering Capacity Test, a representative mix of clean LSRs and LSRs with errors will be used. The test will validate the capacity of the systems to process typical commercial LSRs in a production environment, and not the functionality across extensive LSR types. Test conditions that provide for mechanized error and rejections will be included.

Special conditions, such as future dates on LSRs, may be placed on the test transactions so that production processing is not adversely affected. The special

conditions will also provide an alternative method for identifying test orders for data extraction and test clean-up activities.

Test Scenarios were further defined once the Test Administrator and the Pseudo-CLEC were selected.

6.4 Capacity Test Volumes

The Test Administrator will be responsible for determining the appropriate volumes for the Capacity Test, based on historical data and forecasts for one year beyond the start of the Capacity Tests, derived from input from U S WEST and CLECs. In addition, the specific hour-by-hour volume requirements will also be determined by the Test Administrator and communicated to the participating CLECs. The volume units for orders are LSRs, while the units for pre-orders are service queries. Factors utilized in test volume determination include:

- The number of CLEC pre-order queries for each LSR
- A loading factor for Arizona, considering that the systems are utilized for all U S WEST states, if necessary
- A loading factor to account for forecast error
- An estimate of hourly volumes and busy hour considerations

To attain a satisfactory volume of transactions, the test mix may contain replications of transactions. Replications are inputs which are essentially the same, but which contain different data so that they are unique for the purpose of the test.

6.5 Capacity Test Data

Each participating CLEC may and the Pseudo-CLEC will provide the input data for executing the Capacity Test. In other third party OSS testing, participating CLECs have used test simulators to effectively generate the required volumes of tests. As mentioned above, replication of transactions will most likely be required to attain a satisfactory volume of transactions.

The Capacity Test should be run with clean (error-free) LSRs to ensure that the focus is on transaction volumes and not functionality. However, a number of error LSRs (to be determined by the TAG with input from the Pseudo-CLEC) will be inserted as part of the test. The input 'seed' data will consist of data that has passed through the pre-order and order portions of the Functionality Test without error, and will then be 'replicated' as necessary by CLEC simulators and the Pseudo-CLEC to provide adequate volumes.

6.6 Capacity Test Participants

Although the Capacity Test participants are the same participants as outlined in Section 4.6 for the Functionality Test, the involvement of U S WEST in the Capacity Tests will be limited. The Capacity Test schedule of what tests are to be done on which days and times, and the frequency of those tests will not be known in advance by U S WEST. Therefore, scheduling activities and actual schedules for the execution of the Capacity Tests will be blind to U S WEST. The Pseudo-CLEC will play an important role in this test, because transaction generator software will be necessary for generating many replicated transactions to meet the volume requirements.

6.7 Capacity Test Phases

The purpose of this section is to detail the types of activities required in each of the Capacity Test phases: Test Planning, Test Preparation, Test Execution, and Test Analysis and Reporting. These activities will be tracked in an overall project plan to be created and maintained by the Test Administrator.

6.7.1 Test Planning

This section documents the activities, entrance criteria, and exit criteria required for the Capacity Test Planning Phase.

6.7.1.1 Test Planning Activities

- Define test participants roles and responsibilities including the Pseudo-CLEC
- Define the Test Scenarios
- Establish the appropriate testing volumes
- Determine the appropriate resources to support the test preparation and execution phases
- Define and validate the test plans: Test plans should include the test environment description, entrance and exit criteria, test execution schedule, and the approach for generating LSRs

6.7.1.2 Test Planning Entrance Criteria

The following are the entrance criteria to the Capacity Planning Phase. There must be a firm understanding of the technical basis and objectives of the test before the rest of the planning can be completed.

- Definition and appropriate adjustment of workload mix and volumes
- Determination of the systems involved in the test
- Determination of participants
- Finalization of success criteria
- Determination of the times of day for testing, including times of low system activity and normal business hours

6.7.1.3 Test Planning Exit Criteria

- Baselined test plan for each participant
- Test specifications for each participant
- Defined schedule, including critical path items

6.7.2 Test Preparation

This section documents the activities, entrance criteria, and exit criteria required for the Capacity Test Preparation Phase.

6.7.2.1 Test Preparation Activities

The Test Preparation Phase requires that the Test Administrator prepare Test Scripts outlining the input and the definition of expected observations for pre-ordering and ordering. Once the Scripts are written, the Test Administrator will review and approve the Scripts.

6.7.2.2 Test Preparation Entrance Criteria

- Valid and reviewed test plans for each participant
- A production test environment
- A scheduled date for the tests

6.7.2.3 Test Preparation Exit Criteria

This phase requires Test Scripts for pre-order and order activities validated by the Test Administrator. A review session is required.

6.7.3 Test Execution

This section documents the activities, entrance criteria, and exit criteria required for the Capacity Test Execution Phase.

6.7.3.1 Test Execution Activities

Pseudo-CLEC will do the following:

- Execute the Test Cases according to the test plans
- Capture and record all relevant data

U S WEST will provide the following:

- Performance Measurement calculations based on Capacity Test data

6.7.3.2 Test Execution Entrance Criteria

- Test Scripts for the pre-order tests
- Test Scripts for the order tests
- Mechanisms to verify test results and to maintain a permanent record
- Performance Measures process sufficiently evaluated by the Test Administrator

6.7.3.3 Test Execution Exit Criteria

A review session with all participants is required to complete this phase. The Execution Phase is complete when the Test Administrator concurs that the following conditions are met:

- All test specifications are executed and classified as Passed/Failed according to plan
- No outstanding major problems exist, by definition and concurrence of the Test Administrator and the ACC
- No unresolved escalated issues exist

6.7.4 Test Analysis and Reporting

This section details the activities, entrance criteria, and exit criteria required for the Capacity Test Analysis and Reporting Phase.

6.7.4.1 Test Analysis and Reporting Activities

- Analyze executed Test Cases and ensure that all Test Cases were executed and no major issues are outstanding
- Evaluate the system capacity versus forecasted load

- Evaluate whether the systems met the expectations of the Performance Measurement criteria
- Prepare a Report for the ACC

6.7.4.2 Test Analysis and Reporting Entrance Criteria

This phase requires the outcomes recorded in the Test Scripts (i.e., a successful execution).

6.7.4.3 Test Analysis and Reporting Exit Criteria

A review session is required to complete this phase. Completion of the Capacity Test will be documented in two reports to the ACC: one from the Pseudo-CLEC, and a second called the Test Administrator's Evaluation Report, which will include the validated analysis of the participants' reports.

6.8 Capacity Test Success Criteria

- The relevant performance measures standards met
- All tested U S WEST OSS handled the offered load
- The Capacity Test execution did not cause application or system failures
~~Non flow-through orders will not be processed~~

6.9 Capacity Test Assumptions

- Non flow-through orders will not be processed
- Pre-Ordering and Ordering Capacity Tests can be executed independent of each other
- The volume mix and arrival rate will be based on forecasted expectations for one year beyond the date of the test
- A subset of the Functionality Test orders will be used for the Capacity Test. The orders will be replicated to provide the required volume and mix. Purchase Order Number (PON), Telephone Number (TN), Appointment Date, Name, and Address fields will be 'parameterized' (i.e., the value of the parameter will change for an instance of the test) so as to achieve the volume needs of the test
- No new interconnect Service Center personnel will be added solely for the Capacity Test

6.10 Systems Scalability

U S WEST pre-order and order activities depend on the capabilities of certain computer systems. The Test Administrator will perform a system scalability

analysis to determine if U S WEST has adequate procedures for scaling their systems so that they will have adequate capacity to handle CLEC loads. The System Scalability Evaluation will include an examination of the OSS interfaces, systems that support the interfaces, and databases that are accessed in order to provide the necessary information for the OSS function.

Included in this review are the following:

- Evaluate the procedures for tracking OSS load and capacity
- Evaluate the procedures for forecasting future OSS load
- Evaluate the process for providing OSS computer growth

The System Scalability Test will also evaluate the backup, security, disaster recovery and procedures that guide the U S WEST staff in executing the OSS interface data security processes.

6.11 Staff Scalability

U S WEST pre-order and order activities also depend in many cases on manual processes to adequately meet their CLEC customer demand. The Test Administrator will perform a staff scalability analysis to determine if U S WEST has the ability to increase the number of personnel available to perform these manual functions. Included in this review are the following:

- Evaluate the procedural framework that U S WEST has in place to develop force models for its CLEC support centers
- Evaluate the volume contingency plans that U S WEST has in place to meet dramatic increases in CLEC order volume
- Evaluate the disaster recovery plans that U S WEST has in place to assure continued operations
- Evaluate the scalability of recruiting and training programs that U S WEST has in place to provide for the availability of staff with the necessary skills to adequately perform the manual support functions.

7. Relationship Management Evaluation

7.1 Relationship Management Purpose

The Relationship Management Evaluation is a “process test” to ensure that U S WEST’s CLEC Account Establishment/Maintenance, CLEC Account Management, CLEC Training, Interface Development, and Change

Management Processes are appropriately conducted and communicated to CLECs effectively, based on defined procedures and documentation in place at the time of the evaluation.

7.2 Relationship Management Evaluation Scope

The Relationship Management Evaluation will examine the processes associated with the business relationships between U S WEST and the CLEC community. Five business operations areas will be evaluated: CLEC Account Establishment, CLEC Account Management, EDI and IMA Interface Development, and U S WEST OSS Co-provider Industry Change Management Process (CICPM/CICMP).

CLEC Account Establishment

This evaluation will examine methods and procedures provided by U S WEST for establishing a new CLEC customer. The evaluation will focus on the available documentation accessible to a CLEC business, ~~and on consultative assistance that U S WEST provides to a CLEC, and on any additional documentation.~~ ~~in getting additional documentation.~~

CLEC Account Management

The CLEC Account Management evaluation will examine the methods, procedures and actions provided by U S WEST for managing their business relationship with the CLECs. The evaluation will examine Responses to Account inquiries, Help Desk Call Processing, Help Desk call closures, Help Desk Status Tracking, Problem Escalation, Forecasting, and Communications.

CLEC Training Evaluation

The scope of the CLEC Training Evaluation is to evaluate the availability of training schedules, the frequency of training on the various areas where training is offered, the detail of the training curriculum and the effectiveness of the training content.

Interface Development

This evaluation will examine the documentation, specification and consultative assistance provided by U S WEST to CLECs for use in building ~~an EDI~~ an EDI interface and an EB-TA interface or installing IMA. This test will also include an evaluation of the test environment U S WEST provides CLECs for pre-testing their EDI interfaces. Also, a billing interface will be established and tested.

U S WEST OSS Change Management Process Evaluation

The U S WEST OSS Change Management Process will be examined to ensure that U S WEST's systems and/or processes for change management are appropriately and effectively conducted and communicated to the CLEC's, based on the defined change management procedures. The Change Management (CM) Evaluation will evaluate U S WEST Methods and Procedures used to communicate with the CLECs in regard to U S WEST's OSS performance and system updates, and by which it processes changes. The result of this effort will be the evaluation of the CM process, validation that it works as stated, and a Change Management Report stating the findings.

This process evaluation validates that U S WEST properly communicates its change management methods and procedures for system performance and system updates to each of the CLECs. This is a cooperative process for the CLECs and U S WEST to identify, communicate, and track OSS interface new functionality, enhancements to existing functionality, and required code maintenance included in software releases.

This evaluation is essential to ensure that the CLECs are:

- a) Provided with notice of pending system changes,
- b) Provided with notice far enough in advance to be prepared when the enhancement is implemented
- c) Have a communication process between themselves and U S WEST for resolving problems that arise in relation to system upgrades.

7.2.1 CLEC Account Establishment Evaluation

The Test Administrator will validate the procedures, and monitor and evaluate U S WEST's execution of them. This evaluation will be used to ascertain the comprehensiveness of the published methods and procedures for establishing and maintaining a CLEC account. The methods and procedures will be evaluated on how appropriate the instructions are for completing necessary paperwork and what information is contained in the documentation.

The activities that will be performed in conducting the CLEC Account Establishment Evaluation are as follows:

- a) Gather U S WEST CLEC Account Establishment documentation
- b) Review and evaluate the account establishment and maintenance documentation provided by the Pseudo-CLEC
- c) Perform U S WEST, Pseudo-CLEC, and CLEC personnel interviews

- d) Document observations

Gather Documentation

The U S WEST CLEC Account Establishment documentation will be retrieved from the U S WEST web site or will otherwise be provided by U S WEST. The Test Administrator will gather the documentation through network access and through contacts with U S WEST.

Review and Evaluate Documentation

This review will evaluate the overall policies and practices for establishing and maintaining the account relationship. The Pseudo-CLEC will keep records of their account establishment experiences. The Test Administrator will review and evaluate that documentation and compare it to the documented U S WEST processes.

Performance Interviews

The Test Administrator will perform interviews with the Pseudo-CLEC, participating CLEC's and U S WEST personnel to document the experiences encountered when establishing a new CLEC account.

Document Observations

All observations will be documented and reported in the Relationship Management summary report

7.2.1.1 Entrance Criteria

- a) CLEC Account Establishment and Maintenance documentation is available
- b) Standard Interconnection Agreement Template
- c) Customer Questionnaire Template
- d) Access to U S WEST, Pseudo-CLEC, and CLEC personnel
- e) Pseudo-CLEC Interconnection Agreement
- f) Pseudo-CLEC Customer Questionnaire
- g) Evaluation Criteria and Checklist
- h) Interview Questionnaire

7.2.1.2 Exit Criteria

- a) Completed checklists and questionnaires
- b) Documentation on results of observations
- c) Summary report including an Inventory of Documentation

7.2.2 CLEC Account Management Evaluation

The CLEC Account Management test will evaluate the methods, procedures and actions provided by U S WEST for managing their business relationship with the CLECs. The evaluation will examine Responses to Account inquiries, Help Desk Call Processing, Help Desk call closures, Help Desk Status Tracking, Problem Escalation, Forecasting, and Communications.

The activities that will be performed in conducting the CLEC Account Management Evaluation are as follows:

- a) Gather U S WEST CLEC Help Desk, Forecasting, Communications, and other Account Management Process Documentation
- b) Review and evaluate the account documentation provided by U S WEST
- c) Perform U S WEST, Pseudo-CLEC, and CLEC personnel interviews
- d) Document observations

Gather Documentation

The U S WEST CLEC Help Desk, Forecasting, Communications, and other Account Management Process documentation will be retrieved from the U S WEST web site or will otherwise be provided by U S WEST. The Test Administrator will gather the documentation through network access and through contacts with U S WEST.

Review and Evaluate Documentation

This review will evaluate the U S WEST Processes and practices in managing the CLEC account relationship. The Test Administrator will review and evaluate the clarity and sufficiency of U S WEST's Process documentation. The ultimate evaluation will be based on many factors, one of which will be the documentation.

Perform Interviews

The Test Administrator will perform interviews with the Pseudo-CLEC, participating CLEC's and U S WEST personnel to document the experiences encountered in regards to Responses to Account inquiries, Help Desk Call Processing, Help Desk call closures, Help Desk Status Tracking, Problem Escalation, Forecasting, and Communications

Document Observations

All observations will be documented and reported in the Relationship Management summary report.

7.2.2.1 Entrance Criteria

- a) CLEC Help Desk, Forecasting, Communications, and other Account Management Process documentation is available
- b) Access to U S WEST, Pseudo-CLEC, and CLEC personnel
- c) Evaluation Criteria and Checklist
- d) Interview Questionnaire

7.2.2.2 Exit Criteria

- a) Completed checklists and questionnaires
- b) Documentation on results of observations
- c) Summary report including an Inventory of Documentation

7.2.3 CLEC Training Evaluation

This test will be used to determine the availability of training schedules to the CLECs, how often this information is made available and in what formats this information is offered. The frequency of training on different topics and the curriculum will also be evaluated. The documentation that is readily available to the CLECs will be used in this test.

The CLEC Training Evaluation will include the following activities:

- a) Gather U S WEST published training documentation
- b) Review and evaluate training documentation provided to the Pseudo-CLEC
- c) Document observations of training classes

Gather Documentation

The U S WEST training schedules and associated documentation will be retrieved from the U S WEST web site or otherwise be provided by U S WEST. The Test Administrator will perform the gathering of the documentation through network access and through contacts with U S WEST.

Review and Evaluate Documentation

The Pseudo-CLEC will keep records of its U S WEST training. The Test Administrator will review and evaluate that documentation and compare it to the U S WEST documentation.

Interviews will be conducted with the Pseudo-CLEC personnel to determine the comprehensiveness of the training they received.

Document Observations

All observations will be documented and reported in the Relationship Management summary report.

7.2.3.1 Entrance Criteria

- a) Training Schedules
- b) Published syllabuses and handbooks
- c) Evaluation Criteria and Checklist
- d) Interview Questionnaire
- e) Pseudo-CLEC documentation of training

7.2.3.2 Exit Criteria

- a) Completed checklists and questionnaires
- b) Documentation on results of evaluation of training information provided by U S WEST
- c) All findings and results will be documented in the Relationship Management Summary report

7.2.4 Interface Development Evaluation

The Interface Development Evaluation is an evaluation of the U S WEST Interface Development and Implementation Documentation for EDI and IMA GUI installation. The Test Administrator will perform this evaluation with involvement by U S WEST, the CLECs, and the Pseudo-CLEC.

The Interface Development Evaluation will involve the following activities:

- a) Gather documentation
- b) Review and evaluate documentation
- c) Monitor and evaluate U S WEST's processes and procedures supporting CLEC interface development (EDI, EB-TA, and Billing) and implementation (EDI and IMA) efforts
- d) Attend U S WEST/CLEC or U S WEST/Pseudo-CLEC interface technical meetings
- e) Document observations
- f) Determine whether U S WEST provides CLECs adequate access to testing facilities that enables CLECs to implement the EDI electronic interfaces

Gather Documentation

The U S WEST EDI Interface Process and EDI development related documentation will be retrieved from their web site or provided by U S WEST. Additionally, the IMA Implementation Process and associated implementation documentation will also be retrieved. The documentation necessary for development of the EB-TA and billing interfaces will also be obtained. The Test Administrator will perform the gathering of the documentation through network access and through contacts with U S WEST.

Review and Evaluate Documentation

The U S WEST Interface Development Process documentation will be reviewed and evaluated by the Pseudo-CLEC and Test Administrator. The observations of the Pseudo CLEC will be documented and will be included in the Relationship management summary report. The focus will be on the clarity, completeness and sufficiency of the information U S WEST makes available to CLECs for developing EDI-electronic interfaces and installing the IMA OSS interfaces.

Monitor and Evaluate U S WEST's Processes Supporting CLEC Interface Development

The monitoring process will be conducted at U S WEST facilities, CLEC facilities, and Pseudo-CLEC facilities. The Test Administrator will observe the processes for design and development, testing, and implementation of an EDI interface and the processes for ~~design, development testing and implementing~~ acquiring and implementing an IMA GUI Interface to the U S WEST OSS. The Test Administrator will observe the processes for design and development of the EB-TA and Billing interfaces. The Test Administrator will conduct interviews with U S WEST, the Pseudo-CLEC, and CLEC personnel. This will be a cooperative process to identify, discuss, and track OSS interface development and implementation activities in progress. The monitoring evaluation will attempt to answer the following questions:

- a) Are U S WEST processes, timing and communications governing the development of an EDI-electronic interfaces to U S WEST's OSS or implementing a U S WEST IMA GUI interface to the U S WEST OSS carried out in accordance

with the U S WEST processes and procedures published and available to the CLECs?

- b) Are the terms and definitions utilized in the EDI development and IMA GUI implementation documentation published and available to the CLECs?
- c) Can the CLECs and the Pseudo-CLEC obtain documentation relating to building an interface and/or configuring service to the U S WEST EDI, EB-TA, Billing, and IMA GUI interfaces? Is the documentation clear, accurate, and sufficient to build the interface?
- d) Are meetings to discuss interface development reasonably scheduled and attended by U S WEST subject matter experts?
- e) Does U S WEST provide CLECs with adequate access to testing facilities that enable CLECs to implement an electronic interface.

Attend EDI Interface Development Meetings

With U S WEST and CLEC or Pseudo-CLEC permission, the Test Administrator will attend EDI Interface Development meetings to gather information and evaluate U S WEST's relationship with the parties involved in the CLEC EDI Development process.

Document Observations

All observations will be documented and reported in the Relationship Management summary report.

7.2.4.1 Entrance Criteria

- a) U S WEST's documented Development processes and Technical Documentation for EDI electronic interface development and IMA Installation/Configuration
- b) Evaluation criteria and checklists
- c) Interview Questionnaire

7.2.4.2 Exit Criteria

- a) Completed checklists and questionnaires
- b) Documentation on results of evaluations and observations
- c) Summary report

7.2.5 Change Management Process Evaluation

The Change Management Process Evaluation is an evaluation by the Test Administrator with involvement by U S WEST, the CLECs, and the Pseudo-CLEC. The Methods and Procedures (M&P) established by U S WEST will be acquired. U S WEST will be monitored and evaluated on its adherence to its published M&P for change management. Following the collection of documentation, the Test Administrator will identify, discuss, and track available instances of specific OSS Interface new functionality, enhancements and maintenance.

The activities of this evaluation will include:

- a) Gather documentation
- b) Review and evaluate documentation
- c) Monitor and evaluate U S WEST's ability to execute change management methods and procedures for a significant software release
- d) Attend regularly scheduled change management meetings
- e) Document observations

Gather Documentation

The U S WEST Change Management Methods and Procedures (M&P) will be retrieved from their web site or provided by U S WEST. The Test Administrator will perform the gathering of the documentation through network access and through contacts with U S WEST.

Review and Evaluate Documentation

The U S WEST change management process documentation will be reviewed and evaluated by the Test Administrator. The observations by the Test Administrator will be documented and will be included in the summary report. The evaluation will attempt to answer questions relating to U S WEST's effectiveness in managing changes to their OSS systems supporting CLECs.

Monitor and Evaluate

The Test Administrator will monitor the execution of the Change Management procedures based upon the observation criteria. The purpose of this process is to ensure that U S WEST is adhering to the methods and procedures it has established. It is imperative that the CLECs be provided with advance notice to system changes and enhancements and a test environment to test system changes prior to

implementation. Without proper lead-time and a test environment the CLECs will not be prepared to meet the user requirements of the changes or enhancements.

The monitoring process will be conducted at U S WEST facilities, CLEC facilities, Pseudo-CLEC facilities and through the CICMP monthly meetings held by U S WEST. The Test Administrator will observe the process in action by U S WEST, will conduct interviews with U S WEST and CLEC personnel, and attend monthly U S WEST CICMP meetings. This will be a cooperative process to identify, discuss, and track OSS interface new functionality, enhancements to existing software, and required code maintenance. The monitoring evaluation will evaluate U S WEST's execution of their published Change Management Processes for OSS systems used by the CLECs and will include a review of U S WEST's ability to implement at least one significant software release.

Attend CICMP Meetings

The Test Administrator will attend monthly CICMP meetings to gather information and evaluate U S WEST's change management process.

7 2.5.1 Entrance Criteria

- a) U S WEST's documented change management procedures
- b) Evaluation criteria and checklists
- c) Interview Questionnaire

7.2.5.2 Exit Criteria

- a) Completed checklists and questionnaires
- b) Documentation on results of evaluations and observations
- c) Summary report

8. Performance Measurement Evaluation

8.1 Performance Measurement Evaluation Purpose

The Performance Measurement (PM) Evaluation is designed to provide the ACC with a statistically valid assessment of U S WEST's performance in providing service to the CLECs based on established performance measures. The Performance Measurements define those standards ~~set by the ACC that U S WEST must meet in order to comply with Section 271 of the Act~~ will be used to evaluate U S WEST's performance in the areas tested.

Performance Measures fall into three broad categories: parity, benchmark, and report only. Parity measures show that US WEST OSS systems allow parity access for competing CLECs. Benchmarks define a level of performance for service provided to a CLEC for which there is not an equivalent function within U S WEST. The report-only category is provided for those measures that the Commission or other regulatory body determined were of interest but were used for diagnostic purposes, often because they back-up other Performance Measures. The report only category also includes measures for which there is not yet sufficient information or the need to set a benchmark.

The evaluation of US WEST Performance Review falls into 4 components:

- PM Process Review
- Historical Evaluation
- Functionality Test Evaluation
- Capacity Test Evaluation

8.2 Performance Measurement Evaluation Scope

In its Statement of Generally Available Terms, U S WEST has committed to provide results of the performance measurements listed in Appendices B and C. The ACC, with CLEC and U S WEST input, established final Performance Measurement criteria (benchmarks) for U S WEST in the OSS workshops. Appendices B and C are summarized in the following paragraphs.

- Appendix B contains detailed descriptions of U S WEST's performance measurements. Each page lists: (1) the indicator number for the measurement, (2) the name of the measurement, (3) the purpose of the measurement, (4) a detailed description of the measurement, (4) the formula used to compute the result of the measurement, (5) relevant notes and explanations, and (6) the measurable standard for the measurement.
- Appendix C lists the performance measurements and indicates which will be included in the Functionality Test and in the Capacity Test. The Functionality Test is comprised of OSS functionality testing and end-to-end functionality testing. Only those measurements with a Yes indication will be considered during the Functionality and Capacity Tests. Those measurements will also be evaluated during the Performance Measurement Evaluation to verify that U S WEST is collecting adequate data and computing accurate results. Those measurements with No Yes indication, will only be included in the testing to the extent that they are evaluated during the Performance Measurement Evaluation to verify that U S WEST is collecting adequate data and computing accurate results.

8.3 Performance Measurement Evaluation Coverage and Scenarios

The Performance Measurement Evaluation will include both an evaluation of the processes and procedures U S WEST has in place for collecting data and computing the results of the performance measurements listed in Appendices B & C and an evaluation of the three most current consecutive months of data for those performance measurements. The following sections provide an overview of the Performance Measurement Evaluation:

8.3.1 Review of Data Collection Process

The Performance Measurement Evaluation will include an evaluation of the process and procedures in place to verify that data is being collected and used in a proper fashion when computing performance measures. This evaluation will include:

- Examination of documentation;
- Evaluation of U S WEST's data collection, analysis and reporting processes based on Performance Indicators Definition (in Appendix B).
- Interviews of U S WEST personnel; and
- Clarification discussions with CLEC representatives, where appropriate.

8.3.2 Historical Data Evaluation

The Performance Measurement Evaluation will include an examination of performance measurement data from a three-month period to determine if U S WEST is correctly computing the results. The purpose of the historical data evaluation is to determine the validity of U S WEST's performance measurement reporting through analysis of U S WEST's calculations using the input data employed by U S WEST, or to determine whether such data warrants different conclusions. This evaluation will include:

- Review of the calculation of performance measurements;
- Independent calculation of results, using data provided by U S WEST;
- Calculation of z-statistics for performance measurements; and
- Comparison to z-statistics computed by U S WEST.

- Determination of the extent that U S WEST's historical data are consistent with the Performance Indicators Definition (in Appendix B).

8.3.3 Functionality and Capacity Test Performance Measurements

The Performance Measurements listed in Appendix C will be evaluated for the Functionality Test and the Capacity Test. For each test, data will be collected for the performance measures with a yes entry in the applicable section of the table. The table identifies the performance measures for the Functionality Test as either OSS Performance or End-to-End. This distinction is meant to clarify the role of the performance measure during test evaluation.

8.4 History of Arizona 271 Performance Indicator Definition Documents

The following table provides a chronology of revisions to the Performance Indicator Definition (PID) documents. As shown, there were twelve versions issued between March, 1999 and March, 2000 as a result of numerous discussions with the parties.

Performance Indicator Definition (PID) Version	Date of PID	Comments
1. First PID used in AZ workshops	Mar 99	(As part of U S WEST's Arizona SGAT filing)
2. Second PID	24 Sep 99	(Used in 30 Sep – 1 Oct 99 Workshops)
3. Third PID	15 Oct 99	(Used in 21 Oct 99 workshop)
4. Version 3.1	01 Nov 99	(First AZ PID marked with version number on document)
5. Version 3.2	15 Nov 99	
6. Version 4.0	06 Dec 99	(First PID utilizing new format of standard boxes for each dimension defined)
7. Version 4.1	03 Jan 00	(With correction issued 04 Jan)
8. Version 4.2	12 Jan 00	
9. Version 4.3	24 Jan 00	
10. Version 4.4	01 Feb 00	
11. Version 4.5	18 Feb 00	
12. Version 4.6	20 Mar 00	

8.5 Performance Measurement Evaluation Test Plan

8.5.1 Review of Data Collection Process

U S WEST will provide an explanation and documentation of its performance measurement process and procedures. The Test Administrator will validate the process and procedures and monitor U S

WEST's ability to execute them. If appropriate, the Test Administrator will conduct interviews of U S WEST and/or CLEC personnel.

The Performance Measurement Process review conducted by the Test Administrator will answer the following questions:

- a) Are the U S WEST documented performance measure business rules, gathering methods and procedures sufficient to ensure that the data elements gathered are accurate and complete?
- b) Are any of the U S WEST data gathering or calculation processes manual? If so, are U S WEST manual data gathering and calculation processes sufficiently documented to ensure completeness, proper disaggregation, and accuracy?
- c) Does the U S WEST performance measures process documentation contain proper information mapping data elements needed to compute each performance measure to a specific U S WEST system?
- d) Are the U S WEST documented data gathering and exclusion business rules consistent with the PID?
- e) Are the U S WEST calculations performed as defined in the PID?
- f) Are U S WEST supervisory review processes adequately documented and practiced to ensure calculation compliance in place and adequate to ensure the continuing accuracy of calculations?
- g) Are documented U S WEST change control procedures in place to ensure that changes to data are tracked and available for review? Are these sufficient?
- h) Is the U S WEST Performance Measurement Report Version Control Process documented, sufficient and practiced?
- i) Are historical logs available for changes to reported performance measures?
- j) Do procedures for changing data include appropriate change/version control? Are these procedures documented and consistent with the PID?
- k) Are Performance Measurement Reports currently available on the U S WEST web-site? If no, does U S WEST have plans to post

Performance Measurements on their web-site? If so, are clearly written posting processes and change management processes documented and in practice?

8.5.2 Historical Data Evaluation

U S WEST will provide performance measurement raw data from a three consecutive month period. The Test Administrator will validate the process and procedures and monitor U S WEST's ability to execute them. If appropriate, the Test Administrator will conduct interviews of U S WEST and/or CLEC personnel.

8.5.3 Functionality Testing and Capacity Testing

During Functionality Testing and Capacity Testing, U S WEST will provide appropriate performance measure data and results. The Test Administrator will verify such data and incorporate the results into the Functionality Testing and Capacity Testing. The Test Administrator will acquire and/or develop data, calculate Functionality and Capacity test results, and validate results of U S WEST, Pseudo-CLEC and CLEC analyses

8.6 Performance Measurement Evaluation Entrance and Exit Criteria

The entrance criteria for this test include the U S WEST documented processes and procedures for the enumerated performance measurements listed in appendices B and C. Exit criteria will include a final report that performance measurement collection, analysis and reporting processes as reviewed by CGT are fully compliant with the performance measurements contained in the PID. Exiting this test will include a review session where all observed activities, data and results will be reviewed for validity. The actual exit criteria will be an outcome report generated by the Test Administrator detailing observations regarding U S WEST's performance measurements

8.7 Performance Measurement Evaluation Participants

The Performance Measurement Evaluation participants are the same participants as outlined in Section 4.6 for the Functionality Test with the exception that Friendlies will not be involved. The Test Administrator will play an important role in this test in that it will perform the evaluation of the performance measurement data and calculations provided by U S WEST.

8.8 Performance Measurement Evaluation Assumptions

- The performance measurements to be evaluated are those enumerated in Appendices B and C, as modified by the ACC.
- The Historical Data Evaluation will be based upon three months of data for each enumerated performance measurement.

9. Roles and Responsibilities

9.1 The ACC

The role of the Commission Staff is to:

- Oversee the development of the tests
- Oversee the test process
- Define the scope of the tests
- Provide approval of baseline documents, including the Master Test Plan
- Appoint the test supervisor to oversee day-to-day activities
- Review the Test Administrator Test report and Pseudo-CLEC report and provide comment
- Make decisions on issues for which there is not agreement among parties, including issues escalated to the ACC by the TAG
- Submit Reports and make a recommendation to the ACC.

9.2 DCI

The responsibilities of DCI will include:

- Act with/for the ACC to establish the draft and final Master Test Plan
- Provide ongoing counsel and technical support to the ACC throughout the testing process
- Maintain communications among all interested parties and manage the flow of information among parties as directed or approved by the Commission Staff

- Apprise the Third Party Test Administrator and the Commission Staff of its communications with all parties or TAG participants on a weekly basis and any conclusions reached
- Assist the ACC in overseeing the test process and in evaluating test results and recommendations

9.3 Test Administrator

As part of its role of oversight or audit, the Test Administrator will:

- Provide final input to the Master Test Plan, including development and validation of:
 - Functional Test coverage and Scenarios.
 - Parity Test coverage and Scenarios.
 - Capacity Test coverage and Scenarios.
 - Change Management methods and processes.
 - Scalability of U S WEST interfaces.
- Ensure that U S WEST is following established business rules, and accurately collecting data and computing performance measurement results.
- Monitor test sites and activities, the test planning schedule, test execution schedule, overall project schedule and baseline documents.
- Prepare test planning schedule, test execution schedule, and overall project schedule.
- Track testing action items.
- Assign accountabilities and track resolution of issues/problems identified.
- Collect test status from U S WEST, Pseudo-CLEC and participating CLECs and report status to the ACC.
- Provide day-to-day supervision of the test program, including supervision of Friendlies.
- Analyze test results.
- Submit a report of results and its evaluation to the ACC, explicitly describing results of each of the five tests (e.g. functionality, capacity,

etc.) and its evaluation for each, as well as overall results and overall evaluation.

- Provide technical advice to all test participants.
- With the TAG, ensure that testing is conducted in such a way as to achieve blindness to U S WEST.
- Maintain the level of openness in its contacts with U S WEST specified in Exhibit F and submit to the TAG and ACC on a bi-monthly basis a report of its incidental contacts with U S WEST.

9.4 Participating CLECs

Participating CLECs will have the following responsibilities:

- Provide input to the final Master Test Plan, through the TAG
- Provide input to the test specifications.
- Provide input to the test execution plans.
- Provide for test execution.
- Provide test support and SMEs as necessary to the Test Administrator.

9.5 Pseudo-CLEC

The Pseudo-CLEC will have the same responsibilities as the participating CLECs above, but will also have responsibility for the following:

- Build an application-to-application OSS interface necessary for the testing (based upon baseline documentation provided by U S WEST).
- Review and evaluate U S WEST documentation of EDI, IMA and EB-TA interfaces.
- Document the relative ease or complexity of creating the interface.
- Electronically submit pre-order inquiries, LSRs, associated trouble reports, and other transactions through U S WEST OSS interfaces.
- Receive various U S WEST confirmations, jeopardy notices, completion notices and responses back from querying the various OSS functions.

- Build the capability to deliver and receive a volume of transactions, including pre-order, LSRs, and trouble reports to allow for functionality and capacity testing of the U S WEST OSS systems, including manual processes when electronic processes fail, or as designed and specified in the Master Test Plan.
- Provide test results data to the Test Administrator for evaluation.
- The Pseudo-CLEC will not engage in any evaluation of test results.
- Maintain the level of openness in its contacts with U S WEST as set forth in Exhibit F and submit to the TAG and ACC on a bi-monthly basis a report of its incidental contacts with U S WEST.

9.6 U S WEST

U S WEST is a direct participant of the test with the following roles and responsibilities:

- Provide input to the final Master Test Plan.
- Provide the OSS environment to be used for the test.
- Provide subject matter expertise in a collaborative development effort with the Pseudo-CLEC, with the CLECs, with the Test Administrator and with the ACC.
- Provide technical specifications and resources to be used by the Pseudo-CLEC for establishment as a pseudo-CLEC and for customization of the transaction generation software.
- Provide personnel to input orders for cases specified in the Master Test Plan according to established methods and procedures on the retail side of the Retail Comparison Test.
- Provide support of the testing effort at the direction of the ACC. This support will include many organizations within U S WEST, and tasks such as the day-to-day management of the supporting team, root cause analysis, production data and systems SME support, etc.

9.7 TAG

The role of the TAG shall be as follows:

- Conduct bi-monthly, and event related conferences, either by in-person meetings or teleconferences to inform all participants of testing progress and current status.
- Periodically review test results and offer advice, observations and provide input to the test process.
- Facilitate CLEC participation in the test process.
- Participate in the Change Management process.
- Review instances of reported exceptions and other issues as they arise. Attempt to resolve by consensus.
- As necessary, escalate exceptions to the ACC for decisions on whether or not to retest.
- As necessary, escalate unresolved issues to the ACC for decisions.
- Accept participant input on any matters related to testing, direct it to the cognizant parties, and, as necessary, process as described in the preceding bullet-points.
- The TAG, through the Test Administrator, will monitor test plans to ensure, as much as practical, that the test process is blind to U S WEST.
- The TAG will adopt a Change Control Process that will be applied for the Master Test Plan including the Performance Indicator Definitions (PID) and the Test Standards

10. Proposed Schedule and Timeline

A summary of the key milestones and critical path items for the success of the project is provided in the following draft timeline. This timeline is meant to represent the high-level, major milestones associated with this test and will be further detailed during test planning and placed into an overall project plan. The project plan will be modified and maintained by the Test Administrator and ACC as the Master Test Plan is finalized, and used primarily as input to track the overall milestones. All test participants will have their own internal plans to map to the overall project plan.

Task	BASELINE DATE
Submit Draft Arizona OSS Test Plan to ACC for review	Completed
Draft OSS Test Plan Finalized by ACC	Completed
Draft Arizona OSS Test Plan Distributed to U S WEST and CLECs	Completed
Draft Arizona OSS Test Plan presented at 1 st Workshop	Completed
Request For Proposal Distributed to Vendors (includes draft Arizona OSS Test Plan)	Completed
Responses from Vendors Due to ACC	Completed
Vendor(s) Selected And Contract Signed	10/15/99
Pseudo CLEC Startup and TG Ramp-up Process	10/15/99-12/21/99
Pseudo CLEC Information Gathering & Training	12/21/99-1/26/00
Development of test transaction generator	TBD
Test Planning - Define Test Bed	TBD
Test Case Definition	TBD
Test Preparation - Test Bed Implementation	TBD
Test Account Mapping to Test Cases	TBD
Performance Measurement Process Evaluation	TBD
Performance Measurement Historical Data Evaluation	TBD
Test Standard Document Completion	TBD
Functionality Test Execution	TBD
Retail Comparison Test Execution	TBD
Capacity Test Execution	TBD
Test Analysis and Reporting	TBD

11. Conclusion and Summary

This OSS Test Plan defines the testing approach and strategy, as well as the entrance and exit criteria, to support each phase of testing. This document additionally defines the expectations of the test participants and provides for a collaborative approach toward OSS testing. The next required steps for defining the detailed test cases, data volume and mix, and resource requirements can begin based on the information contained in this document.

When successfully executed in a collaborative approach with the ACC, this OSS Test Plan will demonstrate U S WEST's operational readiness, performance, and capacity to provide access to pre-ordering, ordering, provisioning, repair and maintenance, and billing OSS functionality to CLECs in the state of Arizona.

APPENDIX A – TEST SCENARIOS

SECTION I: FUNCTIONALITY TEST																		
Scenario #	Order Type	Scenario	Res SL	Res ML	Bus SL	Bus ML	Hunting	EAS	No Features	Single Feature	Multiple Features	Directory Listings				Directory Listing Explanation	Maintenance Issue	
												Res SL	Res ML	Bus SL	Bus ML			Straight Line
Retail to UNE-P Conversion (residence)																		
1.	Retail to UNE-P	Convert 1 Res line, no features, straight line main listing	X						X				X				Main line listed – straight line main listing	No Dial tone
2.	Retail to UNE-P	Convert 1 Res line, no features, Non-pub listing	X						X				X				Main line non-pub	
3.	Retail to UNE-P	Convert 1 Res line, single feature, dual name listing	X							X				X			Main line listed – straight line main listing dual name	
4.	Retail to UNE-P	Convert 1 Res line, single feature, additional listing	X							X					X		Main line listed straight line main listing and additional listing	
5.	Retail to UNE-P	Convert 1 Res line, multiple features, non-listed	X								X					X	Main line – non-listed	
6.	Retail to UNE-P	Convert 1 Res line, multiple features, caption listing	X									X					Main line – listed with additional main line listing using caption indent	
7.	Retail to UNE-P	Convert 1 Res line, multiple features, straight line main listing and additional listing	X								X				X		Main line listed straight line main listing and additional listing	

SECTION 1: FUNCTIONALITY TEST

Scenario #	Order Type	Scenario	Directory Listings											Directory Listing Explanation	Maintenance Issue																			
			Res SL	Res ML	Bus SL	Bus ML	Hunting	EAS	No Features	Single Feature	Multiple Features	Straight Line	Non-Published			Dual Name	Additional Listing	Non-listed	Caption															
8.	Retail to UNE-P	Convert 2 Res lines, no features, non-pub listing	X								X					X						Main line non-pub for both lines												
9.	Retail to UNE-P	Convert 2 Res lines, no features, additional listing	X							X								X					Main line listed straight line main listing and additional listing for both lines											
10.	Retail to UNE-P	Convert 2 Res lines, single feature, non-listed	X							X											X			Main line non-listed for both lines										
11.	Retail to UNE-P	Convert 2 Res lines, single feature, caption listing	X							X														Main line caption indent for both lines										
12.	Retail to UNE-P	Convert 2 Res lines, multiple features, straight line main listing	X									X												Main line listed straight line main listing for both lines										
13.	Retail to UNE-P	Convert 2 Res lines, single feature, non-pub listing	X									X									X			Main line non-pub for both lines										
Retail to UNE-P Conversion (business)																																		
14.	Retail to UNE-P	Convert 1 Bus line, no features, straight line main listing									X														Main line listed - straight line main listing									
15.	Retail to UNE-P	Convert 1 Bus line, single feature, additional listing										X												X	Main line listed - straight line main listing and additional listing									
16.	Retail to UNE-P	Convert 1 Bus line, multiple features, caption listing																							Main line listed - caption									

SECTION 1: FUNCTIONALITY TEST

Scenario #	Order Type	Scenario	Directory Listings											Directory Listing Explanation	Maintenance Issue					
			Res SL	Res ML	Bus SL	Bus ML	Hunting	EAS	No Features	Single Feature	Multiple Features	Straight Line	Non-Published			Dual Name	Additional Listing	Non-listed	Caption	
17.	Retail to UNE-P	Convert 1 Bus line, multiple features, straight line main listing and additional listing			X						X				X				Main line listed – straight line main listing and additional listing	
18.	Retail to UNE-P	Convert 2 Bus lines, no features, additional listing				X			X							X			Main line listed – straight line main listing and additional listing for both listings	
19.	Retail to UNE-P	Convert 2 Bus lines, single feature, caption listing				X			X										Main line listed – caption listings for both lines	
20.	Retail to UNE-P	Convert 2 Bus lines, multiple features, straight line main listing				X					X								Main line listed – straight line main listing for both lines	
21.	Retail to UNE-P	Convert 2 Bus lines, multiple features, non-pub and non-listed				X					X								1 main line – non-listed and 1 main line – non-pub	
Resale to UNE-P Conversion (residence)																				
22.	Resale to UNE-P	Convert 1 Res line, no features, straight line main listing								X									Main line listed – straight line main listing	
23.	Resale to UNE-P	Convert 1 Res line, no features, Non-pub listing							X								X		Main line non-pub	
24.	Resale to UNE-P	Convert 1 Res line, single feature, dual name listing									X								Main line listed – straight line main listing dual name	

SECTION 1: FUNCTIONALITY TEST

Scenario #	Order Type	Scenario	Directory Listings										Directory Listing Explanation	Maintenance Issue											
			Res SL	Res ML	Bus SL	Bus ML	Hunting	EAS	No Features	Single Feature	Multiple Features	Straight Line			Non-Published	Dual Name	Additional Listing	Non-listed	Caption						
25.	Resale to UNE-P	Convert 1 Res line, single feature, additional listing	X								X											Main line listed – straight line main listing and additional listing			
26.	Resale to UNE-P	Convert 1 Res line, multiple features, non-listed	X									X											Main line – non-listed		
27.	Resale to UNE-P	Convert 1 Res line, multiple features, caption listing	X										X										Main line listed and additional main line listing – caption indent		
28.	Resale to UNE-P	Convert 1 Res line, multiple features, straight line main listing and additional listing	X											X										Main line listed – straight line main listing and additional listing	
29.	Resale to UNE-P	Convert 2 Res lines, no features, non-pub listing		X							X													Main line non-pub for both lines	
30.	Resale to UNE-P	Convert 2 Res lines, no features, additional listing		X							X													Main line listed – straight line main listing and additional listing for both lines	
31.	Resale to UNE-P	Convert 2 Res lines, single feature, non-listed		X								X												Main line non-listed for both lines	
32.	Resale to UNE-P	Convert 2 Res lines, single feature, caption listing		X																				Main line listed – caption for both lines	

SECTION 1: FUNCTIONALITY TEST

Scenario #	Order Type	Scenario	Directory Listings												Directory Listing Explanation	Maintenance Issue			
			Res SL	Res ML	Bus SL	Bus ML	Hunting	EAS	No Features	Single Feature	Multiple Features	Straight Line	Non-Published	Dual Name			Additional Listing	Non-listed	Caption
33.	Resale to UNE-P	Convert 2 Res lines, multiple features, straight line main listing	X								X	X						Main line listed – straight line main listing for both lines	
34.	Resale to UNE-P	Convert 2 Res lines, multiple feature, non-pub listing	X								X	X						Main line non-pub for both lines	Feature is not provisioned
Resale to UNE-P Conversion (business)																			
35.	Resale to UNE-P	Convert 1 Bus line, no features, straight line main listing		X							X							Main line listed – straight line main listing	
36.	Resale to UNE-P	Convert 1 Bus line, single feature, additional listing		X						X						X		Main line listed – straight line main listing and additional listing	
37.	Resale to UNE-P	Convert 1 Bus line, multiple features, caption listing		X							X							Main line listed – caption	
38.	Resale to UNE-P	Convert 1 Bus line, multiple features, straight line main listing and additional listing		X							X	X				X		Main line listed – straight line main listing and additional listing	
39.	Resale to UNE-P	Convert 2 Bus lines, no features, additional listing			X											X		Main line listed – straight line main listing and additional listing	
40.	Resale to UNE-P	Convert 2 Bus lines, single feature, caption listing			X					X								Main line listed – caption	Unable to accept Collect Calls

SECTION 1: FUNCTIONALITY TEST																		
Scenario #	Order Type	Scenario	Res SL	Res ML	Bus SL	Bus ML	Hunting	EAS	No Features	Single Feature	Multiple Features	Directory Listings					Maintenance Issue	
												Res SL	Res ML	Bus SL	Bus ML	Non-Published		Dual Name
41.	Resale to UNE-P	Convert 2 Bus lines, multiple features, straight line main listing				X					X							Main line listed – straight line main listing
42.	Resale to UNE-P	Convert 2 Bus lines with multiple features, non-pub and non-listed				X					X							1 main line listing – non-listed and 1 main line listing non-pub
42 a.	Resale to UNE-P	Convert to UNE-L			X													
42 b.	Resale to UNE-P	Convert to UNE-L	X															
Retail to Resale Conversion (residence)																		
43.	Retail to Resale	Convert 1 Res line, no features, straight line main listing	X						X									Main line listed – straight line main listing
44.	Retail to Resale	Convert 1 Res line, no features, Non-pub listing	X						X									Main line non-pub
45.	Retail to Resale	Convert 1 Res line, single feature, dual name listing	X							X								Main line listed – straight line main listing dual name
46.	Retail to Resale	Convert 1 Res line, single feature, additional listing	X							X								Main line listed – straight line main listing and additional listing
47.	Retail to Resale	Convert 1 Res line, multiple features, non-listed	X								X							Main line – non-listed
48.	Retail to Resale	Convert 1 Res line, multiple features, caption listing	X															Main line – caption listing

SECTION I: FUNCTIONALITY TEST																					
Scenario #	Order Type	Scenario	Res SL	Res ML	Bus SL	Bus ML	Hunting	EAS	No Features	Single Feature	Multiple Features	Directory Listings					Directory Listing Explanation	Maintenance Issue			
												Res SL	Res ML	Bus SL	Bus ML	Hunting			EAS	No Features	Single Feature
49.	Retail to Resale	Convert 1 Res line, multiple features, straight line main listing and additional listing	X								X				X					Main line listed – straight line main listing and additional listing	
50.	Retail to Resale	Convert 2 Res lines, no features, non-pub listing		X					X							X				Main line – non-pub	
51.	Retail to Resale	Convert 2 Res lines, no features, additional listing		X					X							X				Main line listed and additional listing for both lines	
52.	Retail to Resale	Convert 2 Res lines, single feature, non-listed		X						X							X			Main line non-listed for both lines	
53.	Retail to Resale	Convert 2 Res lines, single feature, caption listing		X						X										Main line listed – caption for both lines	
54.	Retail to Resale	Convert 2 Res lines, multiple features, straight line main listing		X							X									Main line listed – straight line main listing for both lines	
55.	Retail to Resale	Convert 2 Res lines, single feature, non-pub listing		X							X									Main line non-pub for both lines	
Retail to Resale Conversion (business)																					
56.	Retail to Resale	Convert 1 Bus line, no features, straight line main listing			X				X											Main line listed – straight line main listing	
57.	Retail to Resale	Convert 1 Bus lines, single feature, additional listing			X					X										Main line listed – straight line main listing and additional listing	Can't Call In

SECTION 1: FUNCTIONALITY TEST																			
Scenario #	Order Type	Scenario	Res SL	Res ML	Bus SL	Bus ML	Hunting	EAS	No Features	Single Feature	Multiple Features	Directory Listings					Directory Listing Explanation	Maintenance Issue	
												Res SL	Res ML	Bus SL	Bus ML	Hunting			EAS
Resale New (residence)																			
64.	Resale New	Install 1 Res line, no features, straight line main listing	X						X			X						Main line listed – straight line main listing	
65.	Resale New	Install 1 Res line, no features, non-pub listing	X						X						X			Main line non-pub listing	
66.	Resale New	Install 1 Res line, single feature, caption listing	X							X								Main line listed – caption	
67.	Resale New	Install 1 Res line, multiple features, dual name listing	X								X				X			Main line listed – straight line main listing dual name	
68.	Resale New	Install 1 Res line, multiple features, additional listing	X								X						X	Main line listed – straight line main listing and additional listing	
69.	Resale New	Install 1 Res line, multiple features, straight line main listing with additional listing	X								X						X	Main line listed – straight line main listing and additional listing	
70.	Resale New	Install 2 Res lines with no features, non-pub listing		X					X						X			Main line non-pub for both lines	
71.	Resale New	Install 2 Res lines with no features, additional listing		X					X								X	Main line listed – straight line main listing and additional listing	
72.	Resale New	Install 2 Res lines with single feature, non-listed		X						X								Main line non-listed for both lines	

SECTION 1: FUNCTIONALITY TEST

Scenario #	Order Type	Scenario	Directory Listings											Directory Listing Explanation	Maintenance Issue						
			Res SL	Res ML	Bus SL	Bus ML	Hunting	EAS	No Features	Single Features	Multiple Features	Straight Line	Non-Published			Dual Name	Additional Listing	Non-listed	Caption		
73.	Resale New	Install 2 Res lines with single feature, caption listing	X								X								Main line listed – caption for both lines and additional main line listing		
74.	Resale New	Install 2 Res lines with multiple features, straight line main listing	X									X							Main line listed – straight line main listing and additional main line listing for both lines		
75.	Resale New	Install 2 Res lines with multiple features, non-pub listing	X									X							Main lines non-pub for both lines	Inability to dial 555-1212	
Resale New (business)																					
76.	Resale New	Install 1 Bus line, no features, straight line main listing			X														Main line listed – straight line main listing		
77.	Resale New	Install 1 Bus line, single feature, additional listing			X												X		Main line listed – straight line main listing	Static/Noise on Line	
78.	Resale New	Install 1 Bus lines, multiple features, caption listing			X													X	Main line listed – caption		
79.	Resale New	Install 1 Bus line, multiple features, straight line main listing with additional listing			X													X	Main line listed – straight line main listing and additional listing		

SECTION 1: FUNCTIONALITY TEST

Scenario #	Order Type	Scenario	Directory Listings												Directory Listing Explanation	Maintenance Issue					
			Res SL	Res ML	Bus SL	Bus ML	Hunting	EAS	No Features	Single Feature	Multiple Features	Straight Line	Non-Published	Dual Name			Additional Listing	Non-listed	Caption		
91.	UNE Loop Full Migr+Add a new loop	Full migration of existing loops + add a new loop			X														Main Listing	Static , No dialtone	
92. Remove. IMA does not have the capability of testing a UNE-L.	UNE Loop Out Mve	Outside move of a single loop from address a to address b - Test with IMA.																			
93.	UNE Loop Out Mve	Outside move of a single loop from address a to address b			X														Change Main listing		
94.	UNE Loop Part Migr	Partial migration of multiple loops BTN staying with USWC				X													Add an indent to main caption		
95.	UNE Loop Part Migr	Partial migration of multiple loops BTN moving to CLEC				X													Establish main caption with indents		
96.	UNE Loop Supplement Type I (Cancel)																		Main listing		
UNE Loop w/NP Assumption: POTS Only																					
97.	UNE Loop w/NP Full Migr	Full migration of existing multiple loops with NP				X													Not Applicable		
98.	UNE Loop w/NP Full Migr	Full migration of existing multiple loops with NP+ Add a new loop				X													Not Applicable		
99.	UNE Loop w/NP Part Migr	Partial migration of existing loops with NP				X													Not Applicable	Can't receive calls-intra switch	

119.	Disc	Disconnect 1 Res line	X																Not Applicable
120.	Disc	Disconnect 2 Res line	X																Not Applicable
121.	Outside Move	Convert USWC Retail Residence single line to UNE-P with outside move from location A to location B, change DL address	X																Main line listed - straight line main listing
Miscellaneous UNE-P Business																			
122.	Disc	Disconnect 1 Bus line																	
123.	Disc	Disconnect 2 Bus line																	
124.	Outside Move	Outside move of Business UNE-P line from location A to location B																	Varies by Line
125.	Outside Move	Outside move of business multiple UNE-P line from location A to location B																	Varies by Line
126.	Outside Move	Convert USWC Retail Business multiple line to UNE-P with outside move from location A to location B, change DL address																	Main line listed - straight line main listing
Private Line																			
1-SF ²	New Connect	CLEC New Connect Private Line Order																	Cannot dial out
2-SF	Retail to Resale	Conversion of USW Private Line customer to CLEC Private Line customer; no changes to the account																	
3-SF	Retail to Resale	Conversion of USW Private Line customer to CLEC Private Line customer; customer also wishes to upgrade transmission speed																	

² SF= Special Service Functionality Test Scenarios

24-SF	Conversion	Convert Retail line to DSL	X																	
25-SF	Conversion	Convert Access interoffice trunk to UDIT	X																	
26-SF	New	Add UDIT trunk	X																	

SECTION 2: RETAIL PARITY TESTING³

Scenario #	Order Type	Scenario	Res SL	Res ML	Bus SL	Bus ML	Hunting	EAS	No Features	Single Feature	Multiple Features	Directory Listings				Directory Listing Explanation	Maintenance Issue			
												Straight Line	Non-Published	Dual Name	Additional Listing			Non-listed	Capton	
127.	Resale POTS New Connect	New connect for residential customer. Somewhat similar to scenario 64.	X						X			X								
128.	Retail POTS New Connect	New connect for residential customer	X						X			X								
129.	Resale POTS New Connect	New connect for small business customer. Somewhat similar to scenario 76.			X				X			X								
130.	Retail POTS New Connect	New connect for small business customer			X				X			X								

³ Details of tests to be determined through the workshop process.

SECTION 2: RETAIL PARITY TESTING³

Scenario #	Order Type	Scenario	Directory Listings												Directory Listing Explanation	Maintenance Issue										
			Res SL	Res ML	Bus SL	Bus ML	Hunting	EAS	No Features	Single Feature	Multiple Features	Straight Line	Non-Published	Dual Name			Additional Listing	Non-listed	Capton							
131.	Resale POTS Conversion as specified	Conversion as specified for residential customer. Somewhat similar to scenario 45.	X							X					X											
132.	Retail POTS Win Back with Feature Addition	Win back and feature addition for residential customer	X							X					X											
133.	Resale POTS Conversion as specified	Conversion as specified for small business customer. Somewhat similar to scenario 58.								X					X											
134.	Retail POTS Win Back with Feature Addition	Win back and feature addition for small business customer								X					X											
135.	Resale POTS Conversion as is	Conversion as is for residential customer. Somewhat similar to scenario 43.	X							X					X											
136.	Retail POTS Win Back	Win back for residential customer	X							X					X											
137.	Resale POTS Conversion as is	Conversion as is for small business customer. Somewhat similar to scenario 56.								X					X											
138.	Retail POTS Win Back	Win back for Small Business customer – no change to account								X					X											

SECTION 2: RETAIL PARITY TESTING³

Scenario #	Order Type	Scenario	Res SL	Res ML	Bus SL	Bus ML	Hunting	EAS	No Features	Single Feature	Multiple Features	Directory Listings						Directory Listing Explanation	Maintenance Issue
												Straight Line	Non-Published	Dual Name	Additional Listing	Non-listed	Caption		
158.	Resale Repair Ticket	Create Non-design repair ticket for a small business customer		X					X				X						
159.	Retail Repair Ticket	Create Non-design repair ticket for a small business customer			X				X				X						
160.	Resale Repair Status	Retrieve non-design repair status for a residential customer	X						X				X						
161.	Retail Repair Status	Retrieve non-design repair status for a residential customer	X						X				X						
162.	Resale Repair Status	Retrieve non-design repair status for a small business customer			X				X				X						
163.	Retail Repair Status	Retrieve non-design repair status for a small business customer			X				X				X						
164.	Resale MLT	Run MLT for a small business customer	X						X				X						
165.	Retail MLT	Run MLT for a small business customer	X						X				X						
166.	Resale MLT	Run MLT for Residence Customer	X																Not Applicable

SECTION 2: RETAIL PARITY TESTING³

Scenario #	Order Type	Scenario	Res SL	Res ML	Bus SL	Bus ML	Hunting	EAS	No Features	Single Feature	Multiple Features	Directory Listings					Directory Listing Explanation	Maintenance Issue
												Res SL	Res ML	Bus SL	Bus ML	Non-Published		
17-SP	Resale ISDN Conversion	ISDN change order for a resale customer	X															
18-SP	Retail ISDN Change	ISDN change order for a retail customer	X															
19-SP	Resale ISDN Disconnect	ISDN disconnect order for a resale customer	X															
20-SP	Retail ISDN Disconnect	ISDN disconnect order for a retail customer	X															
Centrex																		
21-SP	Resale Centrex New	New customer - resale Centrex customer.			X													
22-SP	Retail Centrex New	New customer - retail Centrex customer			X													
23-SP	Resale Centrex Conversion	Existing customer -convert a customer to centrex reseller			X													
24-SP	Retail Centrex Win Back	Existing customer - win back a resale customer to U S WEST			X													
25-SP	Resale Change	Existing customer - add a station line with a listing for the premise			X					X								
26-SP	Retail Change	Existing customer - add a station line with no listing to the premise			X													
27-SP	Resale Change (disconnect)	Existing customer - disconnect station line			X													

SECTION 2: RETAIL PARITY TESTING³

Scenario #	Order Type	Scenario	Res SL	Res ML	Bus SL	Bus ML	Hunting	EAS	No Features	Single Feature	Multiple Features	Straight Line	Directory Listings					Directory Listing Explanation	Maintenance Issue					
													Res SL	Res ML	Bus SL	Bus ML	Hunting			EAS	No Features	Single Feature	Multiple Features	Straight Line
37-SP	Resale Repair Ticket	Create Design repair ticket for a small business customer				X																		
38-SP	Retail Repair Ticket	Create Design repair ticket for a small business customer				X																		
39-SP	Resale Repair Ticket	Retrieve design repair status for a small business customer				X																		
40-SP	Retail Repair Ticket	Retrieve design repair status for a small business customer				X																		
ISDN																								
41-SP	Resale Repair Ticket	Create Design repair ticket for a customer		X																				
42-SP	Retail Repair Ticket	Create Design repair ticket for a customer		X																				
43-SP	Resale Repair Ticket	Retrieve design repair status for a customer		X																				
44-SP	Retail Repair Ticket	Retrieve design repair status for a customer		X																				
Centrex																								
45-SP	Resale Repair Ticket	Create Design repair ticket for a customer				X																		
46-SP	Retail Repair Ticket	Create Design repair ticket for a customer				X																		

SECTION 2: RETAIL PARITY TESTING³

Scenario #	Order Type	Scenario	Res SL	Res ML	Bus SL	Bus ML	Hunting	EAS	No Features	Single Features	Multiple Features	Directory Listings						Directory Listing Explanation	Maintenance Issue	
												Res SL	Res ML	Bus SL	Bus ML	Hunting	EAS			No Features
47-SP	Resale Repair Ticket	Retrieve design repair status for a customer				X														
48-SP	Retail Repair Ticket	Retrieve design repair status for a small business customer				X														
POTS PBX																				
49-SP	Resale Repair Ticket	Create Design repair ticket for a small business customer				X														
50-SP	Retail Repair Ticket	Create Design repair ticket for a small business customer				X														
51-SP	Resale Repair Ticket	Retrieve design repair status for a small business customer				X														
52-SP	Retail Repair Ticket	Retrieve design repair status for a small business customer				X														
ADSL Capable Unbundled Loop																				
53-SP	UNE Trouble Ticket	Create Design repair ticket for a small business customer				X														
54-SP	UNE Trouble Ticket	Retrieve design repair status for a small business customer				X														

APPENDIX B - U S WEST SERVICE PERFORMANCE INDICATORS

U S WEST

Service Performance Indicator Definitions (PID)

Arizona 271 Working PID Version 4.6

March 20, 2000

U S WEST'S SERVICE PERFORMANCE INDICATOR DEFINITIONS (PID)

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Introduction

U S WEST will report performance results for the service performance indicators defined herein. U S WEST will report separate performance results associated with the services it provides to Competitive Local Exchange Carriers (CLECs) in aggregate (except as noted herein), to CLECs individually and, as applicable, to U S WEST's retail customers in aggregate. Within these categories, performance results related to service provisioning and repair will be reported for the products listed in each definition. All reports provided hereunder will be subject to agreements of confidentiality and/or nondisclosure.

U S WEST's Service Performance Indicator Definitions

Table of Contents

ELECTRONIC GATEWAY AVAILABILITY 1

GA-1 – Gateway Availability – IMA-GUI1

GA-2 – Gateway Availability – IMA-EDI.....2

GA-3 – Gateway Availability – EB-TA3

GA-4 – System Availability – EXACT4

PRE-ORDER/ORDER 5

PO-1 – Pre-Order/Order Response Times5

PO-2 – Electronic Flow-through7

PO-3 – LSR Rejection Notice Interval8

PO-4 – LSRs Rejected.....9

PO-5 – Firm Order Confirmations (FOCs) On Time 10

PO-6 – Completion Notices Transmitted by noon the Next Business Day..... 13

PO-8 – Jeopardy Notice Interval..... 14

PO-9 – Timely Jeopardy Notices 15

ORDERING AND PROVISIONING 16

OP-2 – Calls Answered within Twenty Seconds – Interconnect Provisioning Center 16

OP-3 – Installation Commitments Met 17

OP-4 – Installation Interval 19

OP-5 – New Service Installations without Trouble Reports..... 21

OP-6 – Delayed Days 23

OP-7 – Coordinated “Hot Cut” Interval – Unbundled Loop 25

OP-8 – Number Portability Timeliness 26

OP-13 – Coordinated Cuts On Time – Unbundled Loop 27

MAINTENANCE AND REPAIR..... 29

MR-2 – Calls Answered within 20 Seconds – Interconnect Repair Center 29

MR-3 – Out of Service Cleared within 24 Hours..... 30

Table of Contents (continued)

MR-4 – All Troubles Cleared within 48 hours 32

MR-5 – All Troubles Cleared within 4 hours 34

MR-6 – Mean Time to Restore 36

MR-7 – Repair Repeat Report Rate..... 38

MR-8 – Trouble Rate..... 40

MR-9 – Repair Appointments Met 42

BILLING 43

BI-1 –Time to Provide Recorded Usage Records 43

BI-2 – Invoices Delivered within 10 Days 44

BI-3 – Billing Accuracy – Adjustments for Errors..... 45

BI-4 – Billing Completeness 46

DATABASE UPDATES..... 47

DB-1 – Time to Update Databases 47

DB-2 – Accurate Database Updates 48

DIRECTORY ASSISTANCE 49

DA-1 – Speed of Answer – Directory Assistance 49

DA-2 – Calls Answered within Ten Seconds – Directory Assistance 50

OPERATOR SERVICES 51

OS-1 – Speed of Answer – Operator Services..... 51

OS-2 – Calls Answered within Ten seconds – Operator Services 52

NETWORK PERFORMANCE 53

NI-1 – Trunk Blocking 53

NP-1 – NXX Code Activation 54

COLOCATION 55

CP-1 Installation Interval 55

CP-2 – Installation Commitments Met 56

CP-4 – Feasibility Study Commitments Met..... 57

Table of Contents (continued)

CP-6 – Quote Commitments Met 58

DEFINITION OF TERMS..... 59

GLOSSARY OF ACRONYMS..... 63

Electronic Gateway Availability

GA-1 – Gateway Availability – IMA-GUI⁶

Purpose: Evaluates the quality of CLEC access to the IMA electronic gateway and two associated systems, focusing on the extent they are actually available to CLECs.	
Description: GA-1A: Measures the availability of the IMA (Interconnect Mediated Access) interface, including the Firm Order Manager (FOM), and reports the percentage of scheduled up time the IMA interface is available for view and/or input. <ul style="list-style-type: none"> • For provisioning preorder transactions, the current “scheduled up time” hours are 6 a.m. to 8 p.m. MST, Monday through Sunday. • For repair transactions, the current scheduled up time hours are 2:15 a.m. to 11:15 p.m. MST, Monday through Friday; 2:15 a.m. to 10:00 p.m. MST on Saturday; and 7:00 a.m. to 11:15 p.m. MST on Sunday. GA-1B: Measures the availability of the “Fetch-N-Stuff” system, which facilitates access for the IMA-GUI interface and the IMA-EDI interface (see GA-2), and reports the percentage of scheduled time the Fetch-N-Stuff system is available. Scheduled times will be no less than the same hours as listed for IMA and EDI. GA-1C: Measures the availability of the Data Arbiter system, which facilitates access for the IMA-GUI interface and the IMA-EDI interface (see GA-2), and reports the percentage of scheduled time the Data Arbiter system is available. Scheduled times will be no less than the same hours as listed for IMA and EDI. <ul style="list-style-type: none"> • Scheduled down time is time identified and communicated that the interface is not available due to maintenance and/or upgrade work. • When figuring scheduled available time, the scheduled down time is subtracted from the committed available hours. 	
Reporting Period: One month	Unit of Measure: Percent
Reporting Comparisons: CLEC aggregate results	Disaggregation Reporting: Region-wide level. Results will be reported as follows: GA-1A IMA Graphical User Interface Gateway GA-1B "Fetch-N-Stuff" system GA-1C Data Arbiter system
Formula: [NUMBER OF HOURS AND MINUTES GATEWAY IS AVAILABLE TO COMPETING CARRIERS DURING REPORTING PERIOD / NUMBER OF HOURS AND MINUTES GATEWAY WAS SCHEDULED TO BE AVAILABLE DURING REPORTING PERIOD] X 100	
Exclusions: None	
Product Reporting: None	Standard: 99.25 percent
Availability: <ul style="list-style-type: none"> • Available 	Notes:

⁶ *Graphical User Interface*

GA-2 – Gateway Availability – IMA-EDI

Purpose: EVALUATES THE QUALITY OF CLEC ACCESS TO THE EDI ELECTRONIC GATEWAY, FOCUSING ON THE EXTENT THE GATEWAY IS ACTUALLY AVAILABLE TO CLECS.	
Description: Measures the availability of EDI (Electronic Data Interchange) interface and reports the percentage of scheduled up time the EDI Interface is available for view and/or input. All times during which the interface is scheduled to be operating during the reporting period are measured. <ul style="list-style-type: none"> • Scheduled up time hours are 6 a.m. to 8 p.m. MST Monday through Sunday. • Scheduled down time is time identified and communicated that the interface is not available due to maintenance and/or upgrade work. • When figuring scheduled available time, the scheduled down time is subtracted from the committed available hours. 	
Reporting Period: One month	Unit of Measure: Percent
Reporting Comparisons: CLEC aggregate results	Disaggregation Reporting: Region-wide level. (See GA-1 for reporting of “Fetch-n-Stuff” and Data Arbiter systems availability.)
Formula: $\left[\frac{\text{NUMBER OF HOURS AND MINUTES GATEWAY IS AVAILABLE TO COMPETING CARRIERS DURING REPORTING PERIOD}}{\text{NUMBER OF HOURS AND MINUTES GATEWAY WAS SCHEDULED TO BE AVAILABLE DURING REPORTING PERIOD}} \right] \times 100$	
Exclusions: None	
Product Reporting: None	Standard: 99.25 percent
Availability: Available	Notes:

GA-3 – Gateway Availability – EB-TA

Purpose: Evaluates the quality of CLEC access to the EB-TA interface, focusing on the extent the gateway is actually available to CLECs.	
Description: Measures the availability of EB-TA (Electronic Bonding – Trouble Administration) interface and reports the percentage of scheduled up time the EB-TA Interface is available. <ul style="list-style-type: none"> • The current scheduled up time hours are 24 hours a day, Monday through Friday; midnight to 11 pm MST on Saturday; 5 am to midnight MST on Sunday. • Scheduled down time is time identified and communicated that the interface is not available due to maintenance and/or upgrade work. 	
Reporting Period: One month	Unit of Measure: Percent
Reporting Comparisons: CLEC aggregate results	Disaggregation Reporting: Region-wide level.
Formula: [Number of Hours and Minutes Gateway is Available to Competing Carriers During Reporting Period / Number of Hours and Minutes Gateway Scheduled to be Available During Reporting Period] x 100	
Exclusions: None	
Product Reporting: None	Standard: 99.25 percent
Availability: Available	Notes:

GA-4 – System Availability – EXACT

Purpose: Evaluates the quality of CLEC access to the EXACT electronic access service request system, focusing on the extent the gateway is actually available to CLECs.	
Description: Measures the availability of EXACT system and reports the percentage of scheduled up time the EXACT system is available. <ul style="list-style-type: none"> • Scheduled up time hours are 6 a.m. to 7 p.m. MST, Monday through Friday; and 7 a.m. to 5 p.m. MST on Saturday. • Scheduled down time is time identified and communicated that the system is not available due to maintenance and/or upgrade work. 	
Reporting Period: One month	Unit of Measure: Percent
Reporting Comparisons: CLEC aggregate results	Disaggregation Reporting: Region-wide level.
Formula: [Number of Hours and Minutes EXACT is Available to Competing Carriers During Reporting Period / Number of Hours and Minutes EXACT was Scheduled to be Available During Reporting Period] x 100	
Exclusions: None	
Product Reporting: None	Standard: 99.25 percent
Availability: Available	Notes:

Pre-Order/Order

PO-1 – Pre-Order/Order Response Times

Purpose: Evaluates the timeliness of responses to specific preordering/ordering queries for CLEC and U S WEST retail representatives through the use of U S WEST's operational support systems. U S WEST's operational support systems (OSS) are accessed, in the case of CLECs, through the specified gateway interface.			
Description: Measures the time interval between query and response for specified pre-order/order transactions through the electronic interface. <ul style="list-style-type: none"> Measurements are made using a system that simulates the transactions of CLEC and U S WEST retail service representatives requesting pre-ordering/ordering information from the underlying existing OSS. These simulated transactions are made through the operational production interfaces and existing systems in a manner that reflects, in a statistically-valid manner, the transaction response times experienced by CLEC and U S WEST retail service representatives in the reporting period. The same type, number, and timing of simulated requests are made for transactions representing CLEC and U S WEST retail operations. The time interval between query and response consists of the period from the time the transaction request was "sent" to the time it is "received" via the gateway interface (CLEC transactions) or at the retail representative workstation (U S WEST retail). A query is an individual request for the specified type of information. 			
Reporting Period: One month		Unit of Measure: Seconds	
Reporting Comparisons: CLEC aggregate, U S WEST retail aggregate.	Disaggregation Reporting: Region-wide level. Results are reported as follows: PO-1A Pre-Order/Order Response Time for IMA (CLEC transactions) PO-1B Pre-Order/Order Response Time for EDI (CLEC transactions) PO-1C Pre-order/Order Response Time for U S WEST (Retail transactions) Results are reported separately for each of the following transaction types:* 1. Appointment Scheduling (Due Date Reservation, where appointment is required) 2. Service Availability Information 3. Facility Availability 4. Street Address Validation 5. Customer Service Records 6. Telephone Number 7. Loop Qualification For PO-1A (transactions via IMA) and PO-1C (retail transactions), response times for each of the above transactions will be reported in two parts: (a) time to access the request screen, and (b) time to receive the response for the specified transaction. * As additional transactions, currently done manually, are mechanized, they will be measured and added to or included in the above list of transactions, as applicable.		
Formula: $\Sigma [(Query Response Date \& Time) - (Query Submission Date \& Time)] / (Number of Queries Submitted in Reporting Period)$			
Exclusions: Rejected requests/ errors			
Product Reporting: None	Standard:	IMA	EDI
	1. <u>Appointment Scheduling</u>	<10 SECONDS <u>30 seconds**</u>	<10 seconds <u>30 seconds**</u>
	2. <u>Service Availability Information</u>	<25 seconds***	<25 seconds***
	3. <u>Facility Availability</u>	<10 seconds	<10 seconds
	4. <u>Street Address Validation</u>	<12.5 seconds*** <10 seconds	<12.5 seconds*** <10 seconds
	5. <u>Customer Service Records</u>	To be determined	To be determined
		Standard: To be	

PO-1 – Pre-Order/Order Response Times (continued)

	<p>6. <u>Telephone Number</u> 7. <u>Loop Qualification</u></p> <p>** USW Intends to reduce the Service Availability Benchmark to 25 seconds by 8/1/00</p> <p>*** Times reflect non-complex services, including residential, simple business, or POTS account. Does not include xDSL, account >25 lines.</p>	<p>determined</p>	
<p>Availability:</p> <ul style="list-style-type: none"> • Available: <ul style="list-style-type: none"> - PO-1A Pre-Order/Order Response Time for IMA, CLEC transactions: <ul style="list-style-type: none"> - 1-6 Available - PO-1B Pre-Order/Order Response Time for EDI, CLEC transactions 1-6 - PO-1C Pre-order/Order Response Time for U S WEST Retail transactions: <ul style="list-style-type: none"> - 1-6 • Under Development – Mar 00: <ul style="list-style-type: none"> - PO-1A Transaction 7 - PO-1B Transaction 7 - PO-1C Transactions 7 • Under Development – May 00 <ul style="list-style-type: none"> - PO-1A Transaction 7 Megabit as Retail <p>1.1.1.1.1.1.1.1 Comparable</p> <ul style="list-style-type: none"> - PO-1B Transaction 7 Megabit as Retail Comparable - PO-1C Transaction 7 Megabit as Retail Comparable 		<p>Notes:</p>	

PO-2 – Electronic Flow-through

<p>Purpose: Monitors the extent U S WEST's processing of CLEC Local Service Requests (LSRs) is completely electronic, focusing on the degree that electronically-transmitted LSRs flow directly to the service order processor without human intervention or without manual retyping..</p>	
<p>Description: PO-2A – Measures the percentage of all electronic LSRs that flow from the specified electronic gateway interface to the Service Order Processor (SOP) without any human intervention.</p> <ul style="list-style-type: none"> • Includes all LSRs that are submitted electronically through the specified interface during the reporting period, subject to exclusions specified below. <p>PO-2B – Measures the percentage of all flow-through-eligible LSRs that flow from the specified electronic gateway interface to the SOP without any human intervention.</p> <ul style="list-style-type: none"> • Includes all flow-through-eligible LSRs that are submitted electronically through the specified interface during the reporting period, subject to exclusions specified below. 	
<p>Reporting Period: One month</p>	<p>Unit of Measure: Percent</p>
<p>Reporting Comparisons: CLEC aggregate, individual CLEC and U S WEST Retail results</p>	<p>Disaggregation Reporting: Statewide level (per multi-state system serving the state). Results for PO-2A and PO-2B will be reported according to the gateway interface used to submit the LSR:</p> <ol style="list-style-type: none"> 1 LSRs received via IMA 2 LSRs received via EDI
<p>Formula: PO-2A = [(Number of Electronic LSRs that pass from the Gateway Interface to the SOP without human intervention) / (Total Number of Electronic LSRs pass through the Gateway Interface)] x 100 PO-2B = [(Number of flow-through-eligible Electronic LSRs that actually pass from the Gateway Interface to the SOP without human intervention) / (Number of flow-through-eligible Electronic LSRs received through the Gateway Interface)] x 100</p>	
<p>Exclusions: Rejected LSRs, non-electronic LSRs (e.g., via fax or courier).</p>	
<p>Product Reporting:</p> <ul style="list-style-type: none"> • Resale aggregate • Unbundled Loops aggregate 	<p>Standard: PO-2A: Resale: Diagnostic (Parity expectation) Unbundled Loops: Diagnostic (85 percent expectation) PO-2B: Diagnostic</p>
<p>Availability: Under Development:</p> <ul style="list-style-type: none"> • CLEC results – Apr 00 • • U S WEST Retail – May 00 	<p>Notes: (1) Eligible Flow-Through orders include: POTS Resale, Unbundled Loops, Local Number Portability and Unbundled Loops with Local Number Portability. (2) Supplements to LSR's do not flow through and are not included.</p>

PO-3 – LSR Rejection Notice Interval

Purpose: Monitors the timeliness with which U S WEST notifies CLECs that electronic LSRs were rejected.	
Description: Measures the interval (in business days) between the receipt of a Local Service Request (LSR) and the rejection of the LSR for standard categories of errors/reasons. <ul style="list-style-type: none"> • Includes all LSRs submitted through the specified interface that are rejected during the reporting period. • Standard reasons for rejections are: missing/incomplete/mismatching/unintelligible information, duplicate request or LSR/PON (purchase order number), no separate LSR for each account telephone number affected, no valid contract, no valid end user verification, account not working in U S WEST territory, service-affecting order pending, request is outside established parameters for service, and lack of CLEC response to U S WEST question for clarification about the LSR. • Included in the interval is time required for efforts by U S WEST to work with the CLEC to avoid the necessity of rejecting the LSR. • With hours:minutes reporting, hours counted are business hours, defined as time during normal business hours of the interconnection provisioning center. 	
Reporting Period: One month	Unit of Measure: Business Days
Reporting Comparisons: CLEC aggregate and individual CLEC results	Disaggregation Reporting: Statewide level (per multi-state system serving the state). Results for this indicator are reported according to the gateway interface used to submit the LSR: PO-3A LSRs received via IMA PO-3B LSRs received via EDI PO-3C LSRs received via facsimile
Formula: $\Sigma [(Date\ and\ time\ of\ Rejection\ Notice\ transmittal) - (Date\ and\ time\ of\ LSR\ receipt)] / (Total\ number\ of\ LSR\ Rejection\ Notifications)$	
Exclusions: None	
Product Reporting: Not applicable (reported by ordering interface).	Standard: <ul style="list-style-type: none"> • PO-3A and -3B: ≤ 4.5 business hours • PO-3C: ≤ 24 work week clock hours
Availability: <ul style="list-style-type: none"> • Available: <ul style="list-style-type: none"> – PO-3A – via IMA – Available • Under Development: <ul style="list-style-type: none"> – – PO-3B – via EDI – Apr 00 – PO-3C – via fax – Mar 00 	Notes:

PO-4 – LSRs Rejected

<p>Purpose: Monitors the extent LSRs are rejected as a percentage of all LSRs to provide information to help address potential issues that might be raised by the indicator of LSR rejection notice intervals.</p>	
<p>Description: Measures the percentage of LSRs rejected (returned to the CLEC) for standard categories of errors/reasons.</p> <ul style="list-style-type: none"> • Includes all LSRs that are submitted through the specified interface during the reporting period. • Standard reasons for rejections are: missing/incomplete/mismatching/unintelligible information; duplicate request or LSR/PON (purchase order number); no separate LSR for each account telephone number affected; no valid contract; no valid end user verification; account not working in U S WEST territory; service-affecting order pending; request is outside established parameters for service; and lack of CLEC response to U S WEST question for clarification about the LSR. 	
<p>Reporting Period: One month</p>	<p>Unit of Measure: Percent of LSRs</p>
<p>Reporting Comparisons: CLEC aggregate and individual CLEC results</p>	<p>Disaggregation Reporting: Statewide level. (per multi-state system serving the state). Results for this indicator are reported according to the gateway interface used to submit the LSR:</p> <p>PO-4A LSRs received via IMA PO-4B LSRs received via EDI PO-4C LSRs received via facsimile</p>
<p>Formula: $\left[\frac{\text{Total number of LSRs rejected}}{\text{Total number of LSRs received}} \right] \times 100$ </p>	
<p>Exclusions: None.</p>	
<p>Product Reporting: Not applicable (reported by ordering interface).</p>	<p>Standard: No benchmark – diagnostic</p>
<p>Availability:</p> <ul style="list-style-type: none"> • Available: <ul style="list-style-type: none"> – PO-4A – via IMA – Available • Under Development: <ul style="list-style-type: none"> – PO-4B – via EDI – Apr 00 – PO-4C – via fax – Apr 00 	<p>Notes:</p>

PO-5 – Firm Order Confirmations (FOCs) On Time

<p>Purpose: Monitors the timeliness with which U S WEST returns Firm Order Confirmations (FOCs) to CLECs in response to LSRs/ASRs received from CLECs, focusing on the degree to which FOCs are provided within specified intervals.</p>	
<p>Description: Measures the percentage of Firm Order Confirmations (FOCs) that are provided to CLECs within the intervals specified under “Standards” below for FOC notifications.</p> <ul style="list-style-type: none"> ● Includes all LSRs/ASRs that are submitted during the reporting period through the specified interface or in the specified manner (i.e., facsimile) that receive an FOC, subject to exclusions specified below. (Acknowledgments sent separately from an FOC (e.g., EDI 997 transactions) are not included.) ● The interval measured is the period between the application date and time, as defined herein, and U S WEST’s response with a FOC notification (notification date and time). ● “Fully electronic” LSRs are those that (1) are received via IMA or EDI, (2) involve no manual intervention, and (3) are provided mechanically to the CLEC. ● “Electronic/manual” LSRs are received electronically via IMA or EDI and involve manual processing. ● “Manual” LSRs are received manually (via facsimile) and processed manually. ● ASRs are measured only in business days. 	
<p>Reporting Period: One month</p>	<p>Unit of Measure: Percent</p>
<p>Reporting Comparisons: CLEC aggregate and individual CLEC results</p>	<p>Disaggregation Reporting: Statewide level (per multi-state system serving the state). Results for this indicator are reported as follows:</p> <ul style="list-style-type: none"> ● PO-5A: FOCs provided for <u>fully electronic</u> LSRs received via: <ul style="list-style-type: none"> – PO-5A-1 IMA – PO-5A-2 EDI ● PO-5B:*FOCs provided for <u>electronic/manual</u> LSRs received via: <ul style="list-style-type: none"> – PO-5B-1 IMA – PO-5B-2 EDI ● PO-5C:* FOCs provided for <u>manual</u> LSRs received via Facsimile. ● PO-5D: FOCs provided for ASRs requesting LIS Trunks. <p>* Each of the PO-5B and PO-5C measurements listed above will be further disaggregated as follows:</p> <ul style="list-style-type: none"> – (a) FOCs provided for Resale services – (b) FOCs provided for Unbundled Loops – (c) FOCs provided for LNP
<p>Formula: [Count of LSRs/ASRs for which the original FOC’s “(FOC Notification Date & Time) - (Application Date & Time)” is within the intervals specified for the service category involved] / (Total Number of original FOC Notifications transmitted for the service category in the reporting period).</p>	
<p>Exclusions: LSRs/ASRs involving individual case basis (ICB) handling based on quantities of lines, as specified in the “Standards” section below, or service/request types deemed to be projects.</p>	

PO-5 FOCs On Time (Continued)

<p>Product Reporting:</p> <ul style="list-style-type: none"> • For PO-5A: Mechanized FOC returns for: <ul style="list-style-type: none"> - Resale orders and - UNE orders. - LNP orders • For PO-5B and PO-5C: <ul style="list-style-type: none"> - (a) Resale services listed at right; - (b) Unbundled Loops (all types). • For PO-5D: LIS Trunks. 	Standards:	
	• For PO-5A (all):	95% within 20 minutes
	• For PO-5B (all) and PO-5C:	90% within standard FOC intervals (specified below)
	• For PO-5D (LIS Trunks):	85% within eight business days
	<u>Standard FOC Intervals for PO-5B and PO-5C</u>	
	Product Group	FOC Interval
	Resale	
	Residence and Business POTS	1-39 lines
	ISDN-Basic	1-10 lines
	Conversion As Is	
	Adding/Changing features	
	Add primary directory listing to established loop	
	Add call appearance	
	Centrex Non-Design	1-19 lines
	with no Common Block Configuration	
Centrex line feature changes/adds/removals		
LNP	1-24 lines	
Unbundled Loops (all types)	1-24 loops	
Unbundled Network Element-Platform (UNE-P)		
Conversions as-is (including UNE-P to UNE-P conversion and Resale to UNE-P conversion) 1-X lines (where "X" lines is the same number of lines applying to the FOC interval for the like retail service)		
Resale		
ISDN-Basic	1-10 line	
Conversion As Specified		
New Installs		
Address Changes		
Change to add Loop		
ISDN-PRI (Facility)	1-3	
Direct Inward Dialing (DID)	1-24 trunks	
PBX	1-24 trunks	
DS0 or Voice Grade Equivalent	1-24	
DS1 Facility	1-24	
DS3 Facility	1-3	
LNP	25-49 lines	

<p>Resale</p> <p>Centrex (including Centrex 21, Non-design, Centrex 21 Basic ISDN, Centrex-Plus, Centron, Centrex Primes) 1- 10 lines With Common Block Configuration required Centrex CMS services Tie lines NARs activity Subsequent to initial Common Block) Station lines Automatic Route Selection Uniform Call Distribution Additional numbers</p>	<p>Three Business Days</p>
<p>LIS Trunks; 1-240 trunk circuits</p>	<p>8 business days</p>
<p>Availability:</p> <ul style="list-style-type: none"> • Under Development: <ul style="list-style-type: none"> - PO-5A – Apr 00 - PO-5B – Apr 00 ^{1, 2, 3} - PO-5C – Apr 00 ^{2, 3} - PO-5D – Apr 00 - Unbundled Loops – Analog: changing application date to eliminate 3 pm cutoff – Apr 00 <p>¹ PO-5B-1 (IMA) and -5B-2 (EDI) will be reported combined until Aug 00</p> <p>² Inclusion of Centrex and ISDN results – Aug 00</p> <p>³ Inclusion of UNE-P results – Dec 00</p>	<p>Notes:</p> <ol style="list-style-type: none"> 1. LSRs with quantities above the highest number specified for each product type are considered ICB. 2. For FOCs requiring manual handling, processing hours include only the business hours of the interconnection service center.

PO-6 – Completion Notices Transmitted by noon the Next Business Day

Purpose: Reports the timeliness of completion notifications, focusing on the percentage of notifications transmitted to the CLEC by noon the next business day.	
Description: Measures the number of completion notifications transmitted by the next business day as a percentage of all order completion notifications in the reporting period: <ul style="list-style-type: none"> • All orders which were completed in the reporting period and are eligible to receive a completion notification. • Time is measured from the time service is available to the customer until the time the batch notification is complete. 	
Reporting Period: One month	Unit of Measure: Percent
Reporting Comparisons: CLEC aggregate and individual CLEC	Disaggregation Reporting: Statewide level.
Formula: $\left[\frac{\text{Total Number of Notifications Transmitted by noon the next business day}}{\text{Total Number of Orders Completed}} \right] \times 100$	
Explanation: The percentage is calculated by dividing the number of completion notifications transmitted to CLECs by the next business day by the total number of orders completed in the reporting period.	
Exclusions: None	
Product Reporting: Not applicable (reported for all completion notifications, except LIS trunk orders, statewide).	Standard: 95 percent
Availability: Available.	Notes:

PO-8 – Jeopardy Notice Interval

Purpose: Evaluates the timeliness of jeopardy notifications, focusing on how far in advance of original due dates jeopardy notifications are provided to CLECs (regardless of whether the due date was actually missed).	
Description: Measures the average time lapsed between the date the customer is first notified of an order jeopardy event and the original due date of the order. <ul style="list-style-type: none"> Includes all orders receiving jeopardy notifications in the reporting period. 	
Reporting Period: One month	Unit of Measure: Business days
Reporting Comparisons: CLEC aggregate, individual CLEC and U S WEST Retail results	Disaggregation Reporting: Statewide level. (This measure is reported by jeopardy notification process as used the categories shown under Product Reporting.)
Formula: $\frac{[\sum(\text{Date of the original due date of orders receiving jeopardy notification} - \text{Date of the first jeopardy notification})]}{\text{Total orders receiving jeopardy notification}}$	
Exclusions: Jeopardies done after the original due date is past.	
Product Reporting: <ul style="list-style-type: none"> A Non-Designed Services B Unbundled Loops and Number Portability C LIS Trunks 	Standard: <ul style="list-style-type: none"> A Parity with Retail POTS B Parity with Retail POTS C Parity with Feature Group D (FGD) services
Availability: <ul style="list-style-type: none"> Under Development <ul style="list-style-type: none"> Non-Designed Services – Mar 00 Unbundled Loops and Number Portability – Mar 00 LIS Trunks – Mar 00 	Notes:

PO-9 – Timely Jeopardy Notices

Purpose: When original due dates are missed, measures the extent to which U S WEST notifies customers in advance of jeopardized due dates.	
Description: Measures the percentage of late orders for which advance jeopardy notification is provided. <ul style="list-style-type: none"> • Includes all orders having missed original due date. 	
Reporting Period: One month	Unit of Measure: Percent
Reporting Comparisons: CLEC aggregate, individual CLEC and U S WEST Retail results	Disaggregation Reporting: Statewide level. (This measure is reported by jeopardy notification process as used for the categories shown under Product Reporting.)
Formula: (Total missed due date orders receiving jeopardy notification in advance of original due date) / (Total number of missed due date orders)	
Exclusions: <ul style="list-style-type: none"> • Orders missed for customer reasons. • Jeopardy notifications-after the original due date is past. 	
Product Reporting: <ul style="list-style-type: none"> A Non-Designed Services B Unbundled Loops and Number Portability C LIS Trunks (available) 	Standard: <ul style="list-style-type: none"> A Parity with Retail POTS B Parity with Retail POTS C Parity with Feature Group D (FGD) Services
Availability: <ul style="list-style-type: none"> • Under Development <ul style="list-style-type: none"> – Non-Designed Services – Mar 00 – Unbundled Loops and Number Portability – Mar 00 – LIS Trunks – Mar 00 	Notes:

Ordering and Provisioning

OP-2 – Calls Answered within Twenty Seconds – Interconnect Provisioning Center

Purpose: Evaluates the timeliness of CLEC access to U S WEST's interconnection provisioning center(s) and retail customer access to the Business Office, focusing on the extent calls are answered within 20 seconds	
Description: Measures the percentage of (Interconnection Provisioning Center or Retail Business Office) calls that are answered by an agent within 20 seconds of the first ring. <ul style="list-style-type: none"> • Includes all calls to the Interconnect Provisioning Center/Retail Business Office during the reporting period, subject to exclusions specified below. • Abandoned calls are counted as missed. • First ring is defined as when the customer's call is first placed in queue by the ACD (Automatic Call Distributor). • Answer is defined as when the call is first picked up by the U S WEST agent. 	
Reporting Period: One month	Unit of Measure: Percent
Reporting Comparisons: CLEC aggregate and U S WEST Retail results	Disaggregation Reporting: Region-wide level.
Formula: $[(\text{Total Calls Answered by Center within 20 seconds}) / (\text{Total Calls received by Center})] \times 100$	
Explanation: Percentage is derived from total number of calls answered within 20 seconds divided by total number of calls received.	
Exclusions: Time spent in the VRU Voice Response Unit is not counted.	
Product Reporting: Not applicable	Standard: Parity
Availability: Available	Notes:

OP-3 – Installation Commitments Met

<p>Purpose: Evaluates the extent to which U S WEST installs services for Customers by the scheduled due date.</p>	
<p>Description: Measures the percentage of orders for which the scheduled due date is met.</p> <ul style="list-style-type: none"> • All inward orders (Change, New, and Transfer order types) assigned a due date by U S WEST and completed/closed during the reporting period are measured, subject to exclusions specified below. These include orders with customer-requested due dates longer than the standard interval. • Completion date on or before original due date is counted as a met due date. 	
<p>Reporting Period: One month</p>	<p>Unit of Measure: Percent</p>
<p>Reporting Comparisons: CLEC aggregate, individual CLEC and U S WEST Retail results</p>	<p>Disaggregation Reporting: Statewide level.</p> <ul style="list-style-type: none"> • Results for non-designed services will be disaggregated and reported according to orders involving: <ul style="list-style-type: none"> OP-3A Dispatches within MSAs; OP-3B Dispatches outside MSAs; and OP-3C No dispatches. • Results for designed services, except analog unbundled loops, will be disaggregated according to installations: <ul style="list-style-type: none"> OP-3D In High Density areas; and OP-3E In Low Density areas. • Results for analog unbundled loops will be reported in aggregate (as “OP-3 Analog Loops aggregate”) to facilitate comparison with Residence and Business POTS, with dispatch, which will be reported both in aggregate (as “OP-3 Res & Bus POTS aggregate with dispatch”) and separately, as specified under OP-3A through –3C above.
<p>Formula: $\left[\frac{\text{Total Orders completed on Original Due Date}}{\text{Total Orders Completed}} \right] \times 100$ </p>	
<p>Explanation: The percent commitments met is obtained by dividing the total number of service orders completed on the original due date by the total number of service orders completed during the measurement period.</p>	
<p>Exclusions:</p> <ul style="list-style-type: none"> • Disconnect, From (another form of disconnect) and Record order types. • Due dates missed for standard categories of customer reasons. Standard categories of customer reasons are: previous service at the location did not have a disconnect order issued, no access to customer premises, or customer requested a later due date when the technician arrived to do the work. 	

OP – 3 Installation Commitments Met (continued)

Product Reporting:	Standards:
Non-designed Wholesale Services -	
• Resale – Non-designed	
Residential single line service	Parity with retail service
Business single line service	Parity with retail service
Centrex	Parity with retail service
Basic ISDN	Parity with retail service
ADSL (MegaBit)	Parity with retail service
• Unbundled Network Element – Platform (UNE-P) (non-designed only)	Parity with like non-designed retail service
Designed Wholesale Services -	
• Resale – Designed	
Primary ISDN	Parity with retail service
PBX Trunks	Parity with retail service
DID	Parity with retail service
DS0	Parity with retail service
DS1	Parity with retail service
DS3 and higher bit-rate services (aggregate)	Parity with retail service
• LIS Trunks	Parity with U S WEST Interoffice Trunks (separately reported)
• Unbundled Dedicated Interoffice Transport (UDIT)	Private Line:
UDIT – DS1 level	Parity with DS1 Private Line-
UDIT – Above DS1 level	Parity with Private Line- above DS1 level
• Unbundled Loops:	
Analog Loop	Parity with retail Res and Bus POTS with dispatch
Non-loaded Loop (2-wire)	Parity with retail ISDN BRI (designed)
Non-loaded Loop (4-wire)	Parity with retail DS1 (designed)
DS1-capable Loop	Parity with retail DS1 (designed)
ISDN-capable Loop	Parity with retail ISDN BRI (designed)
ADSL-qualified Loop	Parity with retail MegaBit (non-designed) with dispatch
Loop types of DS3 and higher bit-rates (aggregate)	Parity with retail DS3 and higher bit-rate services (aggregate)
• E911/911 Trunks	Parity with retail E911/911 Trunks (designed)
• Unbundled Network Element – Platform (UNE-P) (designed only)	Appropriate retail service
Availability: Available: -	Notes:

OP-4 – Installation Interval

<p>Purpose: Evaluates the timeliness of U S WEST's installation of services for customers, focusing on the average time to install service.</p>	
<p>Description: Measures the average interval (in business days) between the application date and the completion date for service orders accepted and implemented.</p> <ul style="list-style-type: none"> • All inward orders (Change, New, and Transfer order types) assigned a due date by U S WEST and completed/closed during the reporting period are measured, subject to exclusions specified below. • Intervals for each event measured are counted in whole days: the application date is day zero (0); the day following the application date is day one (1). 	
<p>Reporting Period: One month</p>	<p>Unit of Measure: Business Days</p>
<p>Reporting Comparisons: CLEC aggregate, individual CLEC and U S WEST Retail results</p>	<p>Disaggregation Reporting: Statewide level.</p> <ul style="list-style-type: none"> • Results for non-designed services will be disaggregated and reported according to orders involving: <ul style="list-style-type: none"> OP-4A Dispatches within MSAs; OP-4B Dispatches outside MSAs; and OP-4C No dispatches. • Results for designed services, except analog unbundled loops, will be disaggregated according to installations: <ul style="list-style-type: none"> OP-4D In High Density areas; and OP-4E In Low Density areas. • Results for analog unbundled loops will be reported in aggregate (as "OP-4 Analog Loops aggregate") to facilitate comparison with Residence and Business POTS, with dispatch, which will be reported both in aggregate (as "OP-4 Res & Bus POTS aggregate with dispatch") and separately, as specified under OP-4A through -4C above.
<p>Formula: $\Sigma[(\text{Order Completion Date}) - (\text{Order Application Date})] / \text{Total Number of Orders Completed}$ </p>	
<p>Explanation: The average installation interval is derived by dividing the sum of installation intervals for all orders (in business days) by total number of service orders completed in the reporting period.</p>	
<p>Exclusions:</p> <ul style="list-style-type: none"> • Orders with customer requested due dates greater than the current standard interval. (This exclusion does <u>not</u> apply to LIS trunks, for which orders for all requested intervals are included.) • Orders with intervals lengthened due to customer-caused delays. • Disconnect, From (another form of disconnect) and Record order types. 	

OP-4 – Installation Interval (continued)

Product Reporting:	Standards:
Non-designed Wholesale Services -	
<ul style="list-style-type: none"> Resale – Non-designed 	
Residential single line service	Parity with retail service
Business single line service	Parity with retail service
Centrex	Parity with retail service
Basic ISDN	Parity with retail service
ADSL (MegaBit)	Parity with retail service
<ul style="list-style-type: none"> Unbundled Network Element – Platform (UNE-P) (non-designed only) 	Parity with like non-designed retail service
Designed Wholesale Services -	
<ul style="list-style-type: none"> Resale – Designed 	
Primary ISDN	Parity with retail service
PBX Trunks	Parity with retail service
DID	Parity with retail service
DS0	Parity with retail service
DS1	Parity with retail service
DS3 and higher bit-rate services (aggregate)	Parity with retail service
<ul style="list-style-type: none"> LIS Trunks 	Diagnostic (Parity with U S WEST Interoffice Trunks (separately reported) is expected, subject to evaluation of the impact of customer-requested long intervals.)
<ul style="list-style-type: none"> Unbundled Dedicated Interoffice Transport (UDIT) 	Private Line:
UDIT – DS1 level	Parity with DS1 Private Line- Service
UDIT – Above DS1 level	Parity with Private Line- Services above DS1 level
<ul style="list-style-type: none"> Unbundled Loops: 	
Analog Loop	Parity with retail Res and Bus POTS with dispatch
Non-loaded Loop (2-wire)	Parity with retail ISDN BRI (designed)
Non-loaded Loop (4-wire)	Parity with retail DS1 (designed)
DS1-capable Loop	Parity with retail DS1 (designed)
ISDN-capable Loop	Parity with retail ISDN BRI (designed)
ADSL-qualified Loop	Parity with retail MegaBit (non-designed) with dispatch
Loop types of DS3 and higher bit-rates (aggregate)	Parity with retail DS3 and higher bit-rate services (aggregate)
<ul style="list-style-type: none"> E911/911 Trunks 	Parity with retail E911/911 Trunks (designed)
<ul style="list-style-type: none"> Unbundled Network Element – Platform (UNE-P) (designed only) 	Appropriate retail service
Availability: Available: Under Development: <ul style="list-style-type: none"> Unbundled Loops – Analog: change application date to eliminate 3 pm cutoff – Apr 00 	Notes:

OP-5 – New Service Installations without Trouble Reports

<p>Purpose: Evaluates accuracy of ordering and installation of services, focusing on the average monthly extent new order installations are free of trouble reports for thirty (30) calendar days following installation.</p>	
<p>Description: Measures the monthly average percentage of new installations that are free of trouble reports within 30 calendar days of initial installation.</p> <ul style="list-style-type: none"> • New installation orders used in calculating this performance indicator (appearing in the numerator and the denominator of the formula shown below) are all inward orders for the current and previous reporting periods (including change (C-type) orders for additional lines or features). • All trouble reports (for both out-of-service and service-affecting conditions) closed within the reporting period, which were received within thirty (30) days of the original installation of service, are measured (for use in the numerator of the formula shown below). 	
<p>Reporting Period: One month (for trouble reports); Average of prior and current reporting month (for new installation activity).</p>	<p>Unit of Measure: Percent of recently-completed orders</p>
<p>Reporting Comparisons: CLEC aggregate, individual CLEC and U S WEST Retail results</p>	<p>Disaggregation Reporting: Statewide level.</p> <ul style="list-style-type: none"> • Results for non-designed services will be disaggregated and reported according to orders involving: <ul style="list-style-type: none"> OP-5A Service installations dispatched within MSAs; OP-5B Service installations dispatched outside MSAs; and OP-5C Service installations non-dispatched. • Results for designed services, except analog unbundled loops, will be disaggregated according to orders involving: <ul style="list-style-type: none"> OP-5D Service installations in High Density areas; and OP-5E Service installations in Low Density areas. • Results for analog unbundled loops will be reported in aggregate (as “OP-5 Analog Loops aggregate”) to facilitate comparison with Residence and Business POTS, with dispatch, which will be reported both in aggregate (as “OP-5 Res & Bus POTS aggregate with dispatch”) and separately, as specified under OP-5A through -5C above.
<p>Formula: $\left[\frac{((\text{Number of New Installation Orders completed in the [prior + current months]}/2) - (\text{Total Number of New Installation-related Trouble Reports received within 30 Calendar Days of Order Completion}))}{(\text{Number of New Installation Orders completed in the [prior + current months]}/2)} \right] \times 100$ </p> <p>Explanation: This formula is the same as “1 – (New Installation Trouble Rate),” where the New Installation Trouble Rate is the percentage of all new installations experiencing trouble reports within 30 days after installation.</p>	
<p>Exclusions:</p> <ul style="list-style-type: none"> • Trouble reports found to be related to customer equipment, customer education (instruction on how to use product or service), and inside wire. • Subsequent trouble reports (i.e., redundant reports for the same trouble before it is closed). • Information tickets generated for internal U S WEST system/network monitoring purposes. • Reports of problems received on day of installation before provisioning order is closed as complete. 	

OP-5 – New Service Installations without Trouble Reports (Continued)

Product Reporting:	Standards:
Non-designed Wholesale Services -	
• Resale – Non-designed	
Residential single line service	Parity with retail service
Business single line service	Parity with retail service
Centrex	Parity with retail service
Basic ISDN	Parity with retail service
ADSL (MegaBit)	
• Unbundled Network Element – Platform (UNE-P) (non-designed only)	Parity with like non-designed retail service
Designed Wholesale Services -	
• Resale – Designed	
Primary ISDN	Parity with retail service
PBX Trunks	Parity with retail service
DID	Parity with retail service
DS0	Parity with retail service
DS1	Parity with retail service
DS3 and higher bit-rate services (aggregate)	Parity with retail service
• LIS Trunks	Parity with U S WEST Interoffice Trunks (separately reported)
• Unbundled Dedicated Interoffice Transport (UDIT)	Private Line:
UDIT – DS1 level	Parity with DS1 Private Line- Service
UDIT – Above DS1 level	Parity with Private Line- Services above DS1 level
• Unbundled Loops:	
Analog Loop	Parity with retail Res and Bus POTS with dispatch
Non-loaded Loop (2-wire)	Parity with retail ISDN BRI (designed)
Non-loaded Loop (4-wire)	Parity with retail DS1 (designed)
DS1-capable Loop	Parity with retail DS1 (designed)
ISDN-capable Loop	Parity with retail ISDN BRI (designed)
ADSL-qualified Loop	Parity with retail MegaBit (non-designed) with dispatch
Loop types of DS3 and higher bit-rates (aggregate)	Parity with retail DS3 and higher bit-rate services (aggregate)
• E911/911 Trunks	Parity with retail E911/911 Trunks (designed)
• Unbundled Network Element – Platform (UNE-P) (designed only)	Appropriate retail service
Availability: Available:	Notes:

OP-6 – Delayed Days

<p>Purpose: Evaluates the extent U S WEST is late in installing services for customers, focusing on the average number of days that late orders are completed beyond the committed due date.</p>	
<p>Description: OP-6A – Measures the average number of business days that service is delayed beyond the original due date provided to the customer for non-facility reasons attributed to U S WEST. All inward orders (Change, New, and Transfer order types) that are completed/closed during the reporting period, but later than the original due date assigned by U S WEST, are measured, subject to exclusions specified below. OP-6B – Measures the average number of business days that service is delayed beyond the original due date provided to the customer for facility reasons attributed to U S WEST. All inward orders (Change, New, and Transfer order types) that are completed/closed during the reporting period, but later than the original due date assigned by U S WEST due to facility reasons, are measured, subject to exclusions specified below.</p>	
<p>Reporting Period: One month</p>	
<p>Unit of Measure: Business Days</p>	
<p>Reporting Comparisons: CLEC aggregate, individual CLEC and U S WEST Retail results</p>	<p>Disaggregation Reporting: Statewide level.</p> <ul style="list-style-type: none"> • Results for non-designed services will be disaggregated and reported for OP-6A and OP-6B according to orders involving: <ol style="list-style-type: none"> 1 Dispatches within MSAs; 2 Dispatches outside MSAs; and 3 No dispatches. • Results for designed services, except analog unbundled loops, will be disaggregated for OP-6A and OP-6B according to installations: <ol style="list-style-type: none"> 4 In High Density areas; and 5 In Low Density areas. • Results for analog unbundled loops will be reported in aggregate (as “OP-6 Analog Loops aggregate”) to facilitate comparison with Residence and Business POTS, with dispatch, which will be reported both in aggregate (as “OP-6 Res & Bus POTS aggregate with dispatch”) and separately, as specified under OP-6A-1 through -3 above.
<p>Formula: OP-6A = $\frac{\sum[(\text{Actual Completion Date of late order for non-facility reasons}) - (\text{Original Due Date of late order})]}{(\text{Total Number of Late Orders for non-facility reasons})}$ OP-6B = $\frac{\sum[(\text{Actual Completion Date of late order for facility reasons}) - (\text{Original Due Date of late order})]}{(\text{Total Number of Late Orders for facility reasons})}$</p>	
<p>Exclusions: Orders delayed due to Customer reasons are excluded.</p>	

OP-6 – Delayed Days (continued)

Product Reporting:	Standards:
Non-designed Wholesale Services -	
• Resale – Non-designed	
Residential single line service	Parity with retail service
Business single line service	Parity with retail service
Centrex	Parity with retail service
Basic ISDN	Parity with retail service
ADSL (MegaBit)	Parity with retail service
• Unbundled Network Element – Platform (UNE-P) (non-designed only)	Parity with like non-designed retail service
Designed Wholesale Services -	
• Resale – Designed	
Primary ISDN	Parity with retail service
PBX Trunks	Parity with retail service
DID	Parity with retail service
DS0	Parity with retail service
DS1	Parity with retail service
DS3 and higher bit-rate services (aggregate)	Parity with retail service
• LIS Trunks	Parity with U S WEST Interoffice Trunks (separately reported)
• Unbundled Dedicated Interoffice Transport (UDIT)	Private Line
UDIT – DS1 level	Parity with DS1 Private Line- Service
UDIT – Above DS1 level	Parity with Private Line- Services above DS1 level
• Unbundled Loops:	
Analog Loop	Parity with retail Res and Bus POTS with dispatch
Non-loaded Loop (2-wire)	Parity with retail ISDN BRI (designed)
Non-loaded Loop (4-wire)	Parity with retail DS1 (designed)
DS1-capable Loop	Parity with retail DS1 (designed)
ISDN-capable Loop	Parity with retail ISDN BRI (designed)
ADSL-qualified Loop	Parity with retail MegaBit (non-designed), with dispatch
Loop types of DS3 and higher bit-rates (aggregate)	Parity with retail DS3 and higher bit-rate services (aggregate)
• E911/911 Trunks	Parity with retail E911/911 Trunks (designed)
• Unbundled Network Element – Platform (UNE-P) (designed only)	Appropriate retail service
Availability: Available: –	Notes:

OP-7 – Coordinated “Hot Cut” Interval – Unbundled Loop

Purpose: Evaluates the duration of completing coordinated “hot cuts” of unbundled loops, focusing on the time actually involved in disconnecting the loop from the U S WEST network and connecting/testing the loop.	
Description: Measures the average time to complete coordinated “hot cuts” for unbundled loops, based on intervals beginning with the “lift” time and ending with the completion time of U S WEST's applicable tests for the loop. <ul style="list-style-type: none"> • Includes all coordinated hot cuts of unbundled loops that are completed/closed during the reporting period, subject to exclusions specified below. • “Hot cut” refers to moving the service of existing customers from U S WEST's switch/frames to the CLEC's equipment, via unbundled loops, that will serve the customers. • "Lift" time is defined as when U S WEST disconnects the existing loop. • "Completion time" is defined as when U S WEST completes the applicable tests after connecting the loop to the CLEC. 	
Reporting Period: One month	Unit of Measure: Minutes and seconds
Reporting Comparisons: CLEC aggregate and individual CLEC results	Disaggregation Reporting: Statewide level.
Formula: $\frac{\sum[\text{Completion time} - \text{Lift time}]}{(\text{Total Number of unbundled loops with coordinated cutovers completed in the reporting period})}$	
Exclusions: Time intervals during the cutover process associated with CLEC-caused delays.	
Product Reporting: Coordinated Unbundled Loops – Reported separately for: <ul style="list-style-type: none"> • Analog Loops • All other Loop Types 	Standard: Diagnostic in light of OP-13 (Coordinated Cuts On Time)
Availability: Under Development – Mar 00	Notes:

OP-8 – Number Portability Timeliness

Purpose: Evaluates the timeliness of cutovers of local number portability (LNP).	
Description: <p>OP-8B – <u>Coordinated Local Number Portability (LNP) Timeliness (percent)</u>: Measures the percentage of coordinated LNP triggers set prior to the scheduled start time for the loop.</p> <ul style="list-style-type: none"> • All orders for LNP coordinated with unbundled loops that are completed/closed during the reporting period are measured, subject to exclusions specified below. • “Scheduled start time” is defined as the confirmed appointment time (as stated on the FOC), or a newly negotiated time. <p>OP-8C – <u>Non-Coordinated LNP Triggers Set on Time (percent)</u>: Measures the percentage of LNP triggers set prior to the Frame Due Time established by the CLEC when placing the order.</p> <ul style="list-style-type: none"> • All orders for LNP for which coordination was not requested are included. • For purposes of these measurements (OP-8B and -8C), “trigger” refers to the “10-digit unconditional trigger” or Line Side Attribute (LSA) that is set or translated by U S WEST. 	
Reporting Period: One month	Unit of Measure: Percent of triggers set on time
Reporting Comparisons: CLEC aggregate and individual CLEC results	Disaggregation Reporting: Statewide level.
Formula: OP-8B = [(Number of LNP triggers set before the loop “lay” time) / (Total Number of LNP activations coordinated with unbundled loops completed)] x 100 OP-8C = [(Number of LNP triggers set before the Frame Due Time) / (Total Number of LNP activation completed)] x 100	
Exclusions: CLEC-caused delays in trigger setting	
Product Reporting: None	Standard: To Be Determined <u>95%</u>
Availability: Under Development – Mar 00	Notes:

OP-13 – Coordinated Cuts On Time – Unbundled Loop

<p>Purpose: Evaluates the percentage of coordinated cuts of unbundled loops that are completed on time, focusing on cuts completed within one hour of the committed order due time and the percent that were started without CLEC approval.</p>																	
<p>Description:</p> <ul style="list-style-type: none"> • Includes all LSRs for coordinated cuts of unbundled loops that are completed/closed during the reporting period, subject to exclusions specified below. • OP-13A – Measures the percentage of LSRs (CLEC orders) for all coordinated cuts of unbundled loops that are started and completed on time. For coordinated loop cuts to be counted as “on time” in this measurement, the CLEC must agree to the start time, and U S WEST must (1) receive verbal CLEC approval before starting the cut, (2) complete the physical work and appropriate tests, (3) complete the U S WEST portion of any associated LNP orders and (4) call the CLEC with completion information, all within one hour of the committed order due time. • OP-13B – Measures the percentage of all LSRs for coordinated cuts of unbundled loops that are actually started without CLEC approval. • The “actual start” time is defined as the time U S WEST “lifts” the loop. • “Scheduled start time” is defined as the confirmed appointment time (as stated on the FOC), or a newly negotiated time. • The “committed order due time” is based on the number and type of loops involved in the cut and is calculated by adding the applicable time interval from the following list to the scheduled start time: <ul style="list-style-type: none"> – Analog unbundled loops: <table style="margin-left: 20px; border: none;"> <tr><td>1 to 16 lines:</td><td>1 Hour</td></tr> <tr><td>17 to 24 lines:</td><td>2 Hours</td></tr> <tr><td>25+ lines:</td><td>Project*</td></tr> </table> – All other unbundled loops: <table style="margin-left: 20px; border: none;"> <tr><td>1 to 5 lines:</td><td>1 Hour</td></tr> <tr><td>6 to 8 lines:</td><td>2 Hours</td></tr> <tr><td>9 to 11 lines:</td><td>3 Hours</td></tr> <tr><td>12 to 24 lines:</td><td>4 Hours</td></tr> <tr><td>25+ lines:</td><td>Project*</td></tr> </table> * For Projects, the committed order due times, scheduled due dates, and appointment times will be negotiated between CLEC and U S WEST. • “Actual end time” is defined as when U S WEST notifies the CLEC that the U S WEST physical work and the appropriate tests have been successfully accomplished, including the U S WEST portion of any coordinated LNP orders. 		1 to 16 lines:	1 Hour	17 to 24 lines:	2 Hours	25+ lines:	Project*	1 to 5 lines:	1 Hour	6 to 8 lines:	2 Hours	9 to 11 lines:	3 Hours	12 to 24 lines:	4 Hours	25+ lines:	Project*
1 to 16 lines:	1 Hour																
17 to 24 lines:	2 Hours																
25+ lines:	Project*																
1 to 5 lines:	1 Hour																
6 to 8 lines:	2 Hours																
9 to 11 lines:	3 Hours																
12 to 24 lines:	4 Hours																
25+ lines:	Project*																
Reporting Period: One month	Unit of Measure: Percent																
Reporting Comparisons: CLEC aggregate and individual CLEC results	<p>Disaggregation Reporting: Statewide level. Results for this measurement will be reported according to:</p> <ul style="list-style-type: none"> OP-13A Cuts Completed On Time OP-13B Cuts Started Without CLEC Approval 																

OP-13 – Coordinated Cuts On Time – Unbundled Loop (continued)

<p>Formula:</p> <ul style="list-style-type: none"> • OP-13A = (Count of LSRs for Coordinated Unbundled Loop cuts completed “On Time”) / (Total Number of LSRs for Coordinated Unbundled Loop Cuts completed in the reporting period) • OP-13B = (Count of LSRs for Coordinated Unbundled Loop cuts whose actual start time occurs without CLEC approval) / (Total Number of LSRs for Coordinated Unbundled Loop Cuts completed in the reporting period) 	
<p>Exclusions: Applicable to OP-13A:</p> <ul style="list-style-type: none"> • Time intervals during the cutover process associated with CLEC-caused delays: • CLEC not ready by 30 minutes after the Appointment Time. • Loop cuts that involve CLEC-requested non-standard methodologies, processes, or timelines. 	
<p>Product Reporting: Coordinated Unbundled Loops – Reported separately for:</p> <ul style="list-style-type: none"> • Analog Loops • All Other Loops 	<p>Standard: OP-13A: 90 Percent or more OP-13B: Diagnostic</p>
<p>Availability: Under Development – Mar 00</p>	<p>Notes:</p>

Maintenance and Repair

MR-2 – Calls Answered within 20 Seconds – Interconnect Repair Center

Purpose: Evaluates Customer access to U S WEST's Interconnection and/or Retail Repair Center(s), focusing on the number of calls answered within 20 seconds.	
Description: Measures the percentage of Interconnection and/or Retail Repair Center calls answered within 20 seconds of the first ring. <ul style="list-style-type: none"> • Includes all calls to the Interconnect Repair Center during the reporting period, subject to exclusions specified below. • First ring is defined as when the customer's call is first placed in queue by the ACD (Automatic Call Distributor). • Answer is defined as when the call is first picked up by the U S WEST agent. • An abandoned call is counted as not answered within 20 seconds. 	
Reporting Period: One month	Unit of Measure: Percent
Reporting Comparisons: CLEC aggregate and U S WEST Retail levels.	Disaggregation Reporting: Region-wide level.
Formula: $[(\text{Total Calls Answered by Center within 20 seconds}) / (\text{Total Calls received by Center})] \times 100$	
Explanation: Percentage is derived from total number of calls answered within 20 seconds divided by total number of calls received.	
Exclusions: Time spent in the VRU (Voice Response Unit) is not counted.	
Product Reporting: None	Standard: Parity
Availability: Available	Notes:

MR-3 – Out of Service Cleared within 24 Hours

<p>Purpose: Evaluates timeliness of repair for non-designed services and analog loops, focusing on cases where the out-of-service cases were closed within the standard estimate for non-designed services (i.e., 24 hours for out-of-service conditions).</p>	
<p>Description: Measures the percentage of trouble reports, involving non-designed services, that are cleared within 24 hours of receipt of trouble reports from CLECs or from retail customers.</p> <ul style="list-style-type: none"> • Includes all trouble reports, closed during the reporting period, which involve a non-designed service that is out-of-service (i.e., unable to place or receive calls), subject to exclusions specified below. • Time measured is from date and time of receipt to date and time trouble is indicated as cleared. 	
<p>Reporting Period: One month</p>	<p>Unit of Measure: Percent</p>
<p>Reporting Comparisons: CLEC aggregate, individual CLEC and U S WEST Retail results</p>	<p>Disaggregation Reporting: Statewide level.</p> <ul style="list-style-type: none"> • Results for listed products, except analog unbundled loops, will be disaggregated and reported according to trouble reports involving: MR-3A Dispatches within MSAs; MR-3B Dispatches outside MSAs; and MR-3C No dispatches. • Results for analog unbundled loops will be reported in aggregate (as “MR-3 Analog Loops aggregate”) to facilitate comparison with Residence and Business POTS, which will be reported both in aggregate (as “MR-3 Res & Bus POTS aggregate”) and separately, as specified under MR-3A through -3C above.
<p>Formula: (Number of Out of Service Trouble Reports Closed within 24 hours) / (Total Number of Out of Service Trouble Reports Received) x 100</p>	
<p>Explanation: Percentage is obtained by dividing the total number of OOS reports closed within 24 hours by the total number of OOS reports received during the measurement period.</p>	
<p>Exclusions:</p> <ul style="list-style-type: none"> • Trouble reports found to be related to customer equipment, customer education (instruction on how to use product or service) and inside wire. • Subsequent trouble reports (i.e., redundant reports for the same trouble before it is closed). • Information tickets generated for internal U S WEST system/network monitoring purposes. • Time delays due to "no access" are excluded from repair time. • Reports of problems received on day of installation before provisioning order is closed as complete. 	

MR-3 – Out of Service Cleared within 24 Hours (Continued)

Product Reporting:	Standards:
<ul style="list-style-type: none"> • Resale: 	
Residential single line service	Parity with retail service
Business single line service	Parity with retail service
Centrex	Parity with retail service
Basic ISDN	Parity with retail service
ADSL (MegaBit)	Parity with retail service
<ul style="list-style-type: none"> • Unbundled Loops: 	
Analog Loop	Parity with retail Res and Bus POTS
ADSL-qualified Loop	Parity with retail MegaBit (non-designed)
<ul style="list-style-type: none"> • Unbundled Network Element – Platform (UNE-P) (non-designed only) 	Appropriate non-designed retail service
Availability: Available: –	Notes: (PBX Trunks and DID, as designed services, moved to MR-5 product reporting list.)

MR-4 – All Troubles Cleared within 48 hours

Purpose: Evaluates timeliness of repair for non-designed services and analog loops, focusing on trouble cases of all types (both out of service and service affecting) and on the number of such cases closed within the standard estimate for non-designed services (i.e., 48 hours for service-affecting conditions).	
Description: Measures the percentage of trouble reports, involving non-designed services, that are cleared within 48 hours of receipt of trouble reports from CLECs or from retail customers. <ul style="list-style-type: none"> • Includes all trouble reports, closed during the reporting period, which involve a non-designed service, subject to exclusions specified below. • Time measured is from date and time of receipt to date and time trouble is indicated as cleared. 	
Reporting Period: One month	
Unit of Measure: Percent	
Reporting Comparisons: CLEC aggregate, individual CLEC and U S WEST Retail results	Disaggregation Reporting: Statewide level. <ul style="list-style-type: none"> • Results for listed products, except analog unbundled loops, will be disaggregated and reported according to trouble reports involving: MR-4A Dispatches within MSAs; MR-4B Dispatches outside MSAs; and MR-4C No dispatches. • Results for analog unbundled loops will be reported in aggregate (as “MR-4 Analog Loops aggregate”) to facilitate comparison with Residence and Business POTS, which will be reported both in aggregate (as “MR-4 Res & Bus POTS aggregate”) and separately, as specified under MR-4A through -4C above.
Formula: $\left[\frac{\text{Total Maintenance Reports Completed within 48 hours}}{\text{Total Maintenance Reports Closed}} \right] \times 100$	
Exclusions: <ul style="list-style-type: none"> • Trouble reports found to be related to customer equipment, customer education (instruction on how to use product or service), and inside wire. • Subsequent trouble reports (i.e., redundant reports for the same trouble before it is closed). • Information tickets generated for internal U S WEST system/network monitoring purposes. • Time delays due to "no access" are excluded from repair time. • Reports of problems received on day of installation before provisioning order is closed as complete. 	

MR-4 – All Troubles Cleared within 48 Hours (Continued)

Product Reporting:	Standards:
<ul style="list-style-type: none"> • Resale: 	
Residential single line service	Parity with retail service
Business single line service	Parity with retail service
Centrex	Parity with retail service
Basic ISDN	Parity with retail service
ADSL (MegaBit)	Parity with retail service
<ul style="list-style-type: none"> • Unbundled Loops: 	
Analog Loop	Parity with retail Res and Bus POTS
ADSL-qualified Loop	Parity with retail MegaBit (non-designed)
<ul style="list-style-type: none"> • Unbundled Network Element – Platform (UNE-P) (non-designed only) 	Parity with like non-designed retail service
Availability: Available: –	Notes: (PBX Trunks and DID, as designed services, moved to MR-5 product reporting list.)

MR-5 – All Troubles Cleared within 4 hours

Purpose: Evaluates timeliness of repair for designed services, focusing on all trouble cases of all types (including out of service and service affecting troubles) and on the number of such cases closed within the standard estimate for designed services (i.e., 4 hours).	
Description: Measures the percentage of trouble reports for designed services that are cleared within 4 hours of receipt of trouble reports from CLECs or from retail customers. <ul style="list-style-type: none"> • Includes all trouble reports, closed during the reporting period, which involve a designed service, subject to exclusions specified below. • Time measured is from date and time of receipt to date and time trouble is cleared. 	
Reporting Period: One month	Unit of Measure: Percent
Reporting Comparisons: CLEC aggregate, individual CLEC and U S WEST Retail results	Disaggregation Reporting: Statewide level. Results for listed products will be disaggregated according to trouble reports: MR-5A In High Density areas; and MR-5B In Low Density areas.
Formula: $\left[\frac{\text{Number of Trouble Reports Closed within 4 hours}}{\text{Total Trouble Reports Received}} \right] \times 100$	
Exclusions: <ul style="list-style-type: none"> • Trouble reports found to be related to customer equipment, customer education (instruction on how to use product or service), and inside wire. • Subsequent trouble reports (i.e., redundant reports for the same trouble before it is closed). • Information tickets generated for internal U S WEST system/network monitoring purposes. • Time delays due to "no access" are excluded from repair time. • Reports of problems received on day of installation before provisioning order is closed as complete. 	

MR-5 – All Troubles Cleared within 4 hours (continued)

Product Reporting:	Standards:
<ul style="list-style-type: none"> • Resale: 	
Primary ISDN	Parity with retail service
PBX Trunks	Parity with retail service
DID	Parity with retail service
DS0	Parity with retail service
DS1	Parity with retail service
DS3 and higher bit-rate services (aggregate)	Parity with retail service
<ul style="list-style-type: none"> • LIS Trunks 	Parity with U S WEST Interoffice Trunks (reported separately)
<ul style="list-style-type: none"> • Unbundled Dedicated Interoffice Transport (UDIT) 	Private Line:
UDIT – DS1 level	Parity with DS1 Private Line- Service
UDIT – Above DS1 level	Parity with Private Line- Services above DS1 level
<ul style="list-style-type: none"> • Unbundled Loops: 	
Non-loaded Loop (2-wire)	Parity with retail ISDN BRI (designed)
Non-loaded Loop (4-wire)	Parity with retail DS1 (designed)
DS1-capable Loop	Parity with retail DS1 (designed)
ISDN-capable Loop	Parity with retail ISDN BRI (designed)
ADSL-qualified Loop	Parity with retail MegaBit (non-designed)
Loop types of DS3 and higher bit-rates (aggregate)	Parity with retail DS3 and higher bit-rate services (aggregate)
<ul style="list-style-type: none"> • E911/911 Trunks 	Parity with retail E911/911 Trunks (designed)
<ul style="list-style-type: none"> • Unbundled Network Element – Platform (UNE-P) (designed only) 	Parity with like designed retail service
Availability: Available: –	Notes:

MR-6 – Mean Time to Restore

Purpose: Evaluates timeliness of repair, focusing how long it takes to restore services to proper operation.	
Description: Measures the time actually taken to resolve requests for repair. <ul style="list-style-type: none"> ● Includes all trouble reports closed during the reporting period, subject to exclusions specified below. ● Includes customer direct reports, customer-relayed reports, and test assist reports. 	
Reporting Period: One month	Unit of Measure: Hours and Minutes
Reporting Comparisons: CLEC aggregate, individual CLEC and U S WEST Retail results	Disaggregation Reporting: Statewide level. <ul style="list-style-type: none"> ● Results for non-designed services will be disaggregated and reported according to repairs involving: <ul style="list-style-type: none"> MR-6A Dispatches within MSAs; MR-6B Dispatches outside MSAs; and MR-6C No dispatches. ● Results for designed services, except analog unbundled loops, will be disaggregated according to repair reports involving services located: <ul style="list-style-type: none"> MR-6D In High Density areas; and MR-6E In Low Density areas. ● Results for analog unbundled loops will be reported in aggregate (as “MR-6 Analog Loops aggregate”) to facilitate comparison with Residence and Business POTS, which will be reported both in aggregate (as “MR-6 Res & Bus POTS aggregate”) and separately, as specified under MR-6A through -6C above.
Formula: $\Sigma[(\text{Date \& Time Repair Ticket Closed}) - (\text{Date \& Time of Repair Report})] / (\text{Total number of repair reports})$	
Exclusions: <ul style="list-style-type: none"> ● Trouble reports found to be related to customer equipment, customer education (instruction on how to use product or service), and inside wire. ● Subsequent trouble reports (i.e., redundant reports for the same trouble before it is closed). ● Information tickets generated for internal U S WEST system/network monitoring purposes. ● Time delays due to "no access" are excluded from repair time. ● Reports of problems received on day of installation before provisioning order is closed as complete. 	

MR-6 – Mean Time to Restore (Continued)

Product Reporting:	Standards:
<u>Non-designed Wholesale Services -</u>	
• Resale – Non-designed	
Residential single line service	Parity with retail service
Business single line service	Parity with retail service
Centrex	Parity with retail service
Basic ISDN	Parity with retail service
ADSL (MegaBit)	Parity with retail service
• Unbundled Network Element – Platform (UNE-P) (non-designed only)	Parity with like non-designed retail service
<u>Designed Wholesale Services -</u>	
• Resale – Designed	
Primary ISDN	Parity with retail service
PBX Trunks	Parity with retail service
DID	Parity with retail service
DS0	Parity with retail service
DS1	Parity with retail service
DS3 and higher bit-rate services (aggregate)	Parity with retail service
• LIS Trunks	Parity with U S WEST Interoffice Trunks (separately reported)
• Unbundled Dedicated Interoffice Transport (UDIT):	Private Line:
UDIT – DS1 level	Parity with DS1 Private Line- Service
UDIT – Above DS1 level	Parity with Private Line- Services above DS1 level
• Unbundled Loops:	
Analog Loop	Parity with retail Res and Bus POTS
Non-loaded Loop (2-wire)	Parity with retail ISDN BRI (designed)
Non-loaded Loop (4-wire)	Parity with retail DS1 (designed)
DS1-capable Loop	Parity with retail DS1 (designed)
ISDN-capable Loop	Parity with retail ISDN BRI (designed)
ADSL-qualified Loop	Parity with retail MegaBit (non-designed)
Loop types of DS3 and higher bit-rates (aggregate)	Parity with retail DS3 and higher bit-rate services (aggregate)
• E911/911 Trunks	Parity with retail E911/911 Trunks (designed)
• Unbundled Network Element – Platform (UNE-P) (designed only)	Appropriate retail service
Availability: Available:	
–	

MR-7 – Repair Repeat Report Rate

Purpose: Evaluates the accuracy of repair actions, focusing on the number of repeated trouble reports received for the same trouble within a specified period (30 calendar days).			
Description: Measures the percentage of repair reports that are repeated within 30 days. <ul style="list-style-type: none"> • Includes all trouble reports closed during the reporting period that are received within thirty (30) days of the previous trouble report for the same service (regardless of whether the report is about the same type of trouble for that service), subject to exclusions specified below. • Includes reports due to U S WEST network or system causes, customer-direct and customer-relayed reports. • The period measured is from date and time of last report completed to date and time of next report. 			
<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;">Reporting Period: One month</td> <td style="width: 50%; border: none;">Unit of Measure: Percent</td> </tr> </table>		Reporting Period: One month	Unit of Measure: Percent
Reporting Period: One month	Unit of Measure: Percent		
Reporting Comparisons: CLEC aggregate, individual CLEC and U S WEST Retail results	Disaggregation Reporting: Statewide level. <ul style="list-style-type: none"> • Results for non-designed services will be disaggregated and reported according to repeated repair reports involving: <ul style="list-style-type: none"> MR-7A Dispatches within MSAs; MR-7B Dispatches outside MSAs; and MR-7C No dispatches. • Results for designed services, except analog unbundled loops, will be disaggregated according to repeated repair reports: <ul style="list-style-type: none"> MR-7D In High Density areas; and MR-7E In Low Density areas. • Results for analog unbundled loops will be reported in aggregate (as “MR-7 Analog Loops aggregate”) to facilitate comparison with Residence and Business POTS, which will be reported both in aggregate (as “MR-7 Res & Bus POTS aggregate”) and separately, as specified under MR-7A through -7C above. 		
Formula: $\left(\frac{\text{Total repeated repair reports occurring within 30 calendar days of initial trouble report}}{\text{Total number of Trouble Reports in the reporting period}} \right) \times 100$			
Exclusions: <ul style="list-style-type: none"> • Trouble reports found to be related to customer equipment, customer education (instruction on how to use product or service), and inside wire. • Subsequent trouble reports (i.e., redundant reports for the same trouble before it is closed). • Information tickets generated for internal U S WEST system/network monitoring purposes. • Reports of problems received on day of installation before provisioning order is closed as complete. 			

MR-7 – Repair Repeat Report Rate (Continued)

Product Reporting:	Standards:
Non-designed Wholesale Services -	
• Resale – Non-designed	
Residential single line service	Parity with retail service
Business single line service	Parity with retail service
Centrex	Parity with retail service
Basic ISDN	Parity with retail service
ADSL (MegaBit)	Parity with retail service
• Unbundled Network Element – Platform (UNE-P) (non-designed only)	Parity with like non-designed retail service
Designed Wholesale Services -	
• Resale – Designed	
Primary ISDN	Parity with retail service
PBX Trunks	Parity with retail service
DID	Parity with retail service
DS0	Parity with retail service
DS1	Parity with retail service
DS3 and higher bit-rate services (aggregate)	Parity with retail service
• LIS Trunks	Parity with U S WEST Interoffice Trunks (reported separately)
• Unbundled Dedicated Interoffice Transport (UDIT)	Private Line:
UDIT – DS1 level	Parity with DS1 Private Line- Service
UDIT – Above DS1 level	Parity with Private Line- Services above DS1 level
• Unbundled Loops:	
Analog Loop	Parity with retail Res and Bus POTS
Non-loaded Loop (2-wire)	Parity with retail ISDN BRI (designed)
Non-loaded Loop (4-wire)	Parity with retail DS1 (designed)
DS1-capable Loop	Parity with retail DS1 (designed)
ISDN-capable Loop	Parity with retail ISDN BRI (designed)
ADSL-qualified Loop	Parity with retail MegaBit (non-designed)
Loop types of DS3 and higher bit-rates (aggregate)	Parity with retail DS3 and higher bit-rate services (aggregate)
• E911/911 Trunks	Parity with retail E911/911 Trunks (designed)
• Unbundled Network Element – Platform (UNE-P) (designed only)	Appropriate retail service
Availability: Available:	Notes:
-	

MR-8 – Trouble Rate

Purpose: Evaluates the overall rate of trouble reports as a percentage of the total installed base of the service or element.	
Description: Measures trouble reports by product and compares them to the number of lines in service. <ul style="list-style-type: none"> • Includes all trouble reports closed during the reporting period, subject to exclusions specified below. • Includes all applicable trouble reports, including those that are out of service and those that are only service-affecting. 	
Reporting Period: One month	Unit of Measure: Percent
Reporting Comparisons: CLEC aggregate, individual CLEC and U S WEST Retail results	Disaggregation Reporting: Statewide level.
Formula: $\left[\frac{\text{Total number of trouble reports involving the specified service grouping}}{\text{Total number of the specified services that are in service in the reporting period}} \right] \times 100$	
Exclusions: <ul style="list-style-type: none"> • Trouble reports found to be related to customer equipment, customer education (instruction on how to use product or service), and inside wire. • Subsequent trouble reports (i.e., redundant reports for the same trouble before it is closed). • Information tickets generated for internal U S WEST system/network monitoring purposes. • Reports of problems received on day of installation before provisioning order is closed as complete. 	

MR-8 – Trouble Rate (continued)

Product Reporting:	Standards:
<ul style="list-style-type: none"> • Resale: 	
Non-designed Wholesale Services -	
<ul style="list-style-type: none"> • <i>Resale – Non-designed</i> 	
Residential single line service	Parity with retail service
Business single line service	Parity with retail service
Centrex	Parity with retail service
Basic ISDN	Parity with retail service
ADSL (MegaBit)	Parity with MegaBit service
<ul style="list-style-type: none"> • Unbundled Network Element – Platform (UNE-P) (non-designed only) 	Parity with like non-designed retail service
Designed Wholesale Services -	
<ul style="list-style-type: none"> • <i>Resale – Designed</i> 	
Primary ISDN	Parity with retail service
PBX Trunks	Parity with retail service
DID	Parity with retail service
DS0	Parity with retail service
DS1	Parity with retail service
DS3 and higher bit-rate services (aggregate)	Parity with retail service
<ul style="list-style-type: none"> • LIS Trunks 	Parity with U S WEST Interoffice Trunks (reported separately)
<ul style="list-style-type: none"> • Unbundled Dedicated Interoffice Transport (UDIT) 	Private Line:
UDIT – DS1 level	Parity with DS1 Private Line- Service
UDIT – Above DS1 level	Parity with Private Line- Services above DS1 level
<ul style="list-style-type: none"> • Unbundled Loops: 	
Analog Loop	Parity with retail Res and Bus POTS
Non-loaded Loop (2-wire)	Parity with retail ISDN BRI (designed)
Non-loaded Loop (4-wire)	Parity with retail DS1 (designed)
DS1-capable Loop	Parity with retail DS1 (designed)
ISDN-capable Loop	Parity with retail ISDN BRI (designed)
ADSL-qualified Loop	Parity with retail MegaBit (non-designed)
Loop types of DS3 and higher bit-rates (aggregate)	Parity with retail DS3 and higher bit-rate services (aggregate)
<ul style="list-style-type: none"> • E911/911 Trunks 	Parity with retail E911/911 Trunks (designed)
<ul style="list-style-type: none"> • Unbundled Network Element – Platform (UNE-P) (designed only) 	Appropriate retail service
Availability: Available:	Notes:
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MR-9 – Repair Appointments Met

Purpose: Evaluates the extent to which U S WEST repairs services for Customers by the appointment date and time.	
Description: Measures the percentage of repair reports for which the appointment date and time is met. <ul style="list-style-type: none"> • Includes all trouble reports closed during the reporting period, subject to exclusions specified below. • Time measured is from date and time of receipt to date and time trouble is indicated as closed. 	
Reporting Period: One month	Unit of Measure: Percent
Reporting Comparisons: CLEC aggregate, individual CLEC and U S WEST Retail results	Disaggregation Reporting: Statewide level. Results for listed non-designed products will be disaggregated and reported according to orders involving: <ul style="list-style-type: none"> MR-9A Dispatches within MSAs; MR-9B Dispatches outside MSAs; and MR-9C No dispatches.
Formula: [(Total Maintenance Reports Closed by appointment date and time) / (Total Maintenance Reports Received)] x 100	
Exclusions: <ul style="list-style-type: none"> • Trouble reports found to be related to customer equipment, customer education (instruction on how to use product or service), and inside wire. • Subsequent trouble reports (i.e., redundant reports for the same trouble before the ticket is closed). • Information tickets generated for internal U S WEST system/network monitoring purposes. • Reports of problems received on day of installation before provisioning order is closed as complete. 	
Product Reporting: Resale: Residential single line service Business single line service Centrex (non-designed) PBX Trunks (non-designed) Basic ISDN Unbundled Elements – Platform (UNE-P) (non-designed)	Standard: Parity
Availability: Available	Notes:

Billing

BI-1 –Time to Provide Recorded Usage Records

Purpose: Evaluates the timeliness with which U S WEST provides recorded daily usage records to CLECs.	
Description: Measures the average time interval from date of recorded daily usage to date usage records are transmitted or made available to CLECs as applicable. BI-1A – Measures recorded daily usage for UNEs and Resale and includes industry standard electronically transmitted usage records for local measured usage, local message usage, toll usage, and local exchange service components priced on a per-use basis, subject to exclusions specified below. BI-1B – Measures the percent of recorded daily usage for Jointly provided switched access provided within four days. This includes usage created by the CLEC and USW or IXC providing access, usually via 2-way Feature Group X trunk groups for Feature Group A, Feature Group B, Feature Group D, Phone to Phone IP Telephony, 8XX access, and 900 access and their successors or similar Switched Access services.	
Reporting Period: One month	Unit of Measure: Business Days
Reporting Comparisons: CLEC aggregate, individual CLECs, and U S WEST Retail results	Disaggregation Reporting: State level.
Formula: BI-1A - $\sum(\text{Date Record Transmitted or made available} - \text{Date Usage Recorded}) / (\text{Total number of records})$ BI-1B - $[(\# \text{ of daily usage records for Jointly provided switched access sent within four days}) / (\text{Total daily usage records for Jointly provided switched access in the report period})] \times 100$	
Exclusions: Instances where the CLEC requests other than daily usage transmission or availability.	
Product Reporting: <ul style="list-style-type: none"> • UNEs and Resale • Jointly-provided Switched Access 	Standard: BI-1A - Parity with U S WEST retail. BI-1B - 95% within 5 business days
Availability: <ul style="list-style-type: none"> • Available: <ul style="list-style-type: none"> – BI-1A UNEs and Resale • Under Development: <ul style="list-style-type: none"> – <i>BI-1B Jointly-provided Switched Access – April 00</i> 	Notes: (In implementing agreement in final subcommittee meetings of the parties, this measurement reflects a split into an interval measurement, BI-1A, and a percentage measurement, BI-1B.)

BI-2 – Invoices Delivered within 10 Days

Purpose: Evaluates the timeliness with which U S WEST delivers industry standard electronically transmitted bills to CLECs, focusing on the percent delivered within ten calendar days.	
Description: Measures the percentage of invoices that are delivered within ten days, based on the number of days between the bill date and bill delivery. <ul style="list-style-type: none"> • Includes all industry standard electronically transmitted invoices for local exchange services and toll, subject to exclusions specified below. 	
Reporting Period: One month	Unit of Measure: Percent
Reporting Comparisons: CLEC aggregate, individual CLECs, and U S WEST Retail results	Disaggregation Reporting: State level
Formula: (Count of Invoices for which Bill Transmission Date - Bill Date is ten calendar days or less)/(Total Number of Invoices)	
Exclusions: Bills transmitted via paper, magnetic tape, CD-ROM, diskette.	
Product Reporting: <ul style="list-style-type: none"> • UNEs and Resale 	Standard: 99% within 10 calendar days
Availability: <ul style="list-style-type: none"> • UNEs and Resale – March 00 	Notes: Reciprocal Compensation MOUs will be added to Product Reporting if and when those bills are electronically transmitted.

BI-3 – Billing Accuracy – Adjustments for Errors

Purpose: Evaluates the accuracy with which U S WEST bills CLECs, focusing on the percentage of billed revenue adjusted due to errors.	
Description: Measures the billed revenue minus amounts adjusted off bills due to errors, as a percentage of total billed revenue. <ul style="list-style-type: none"> Both the billed revenue and amounts adjusted off bills due to error are calculated from bills rendered in the reporting period. 	
Reporting Period: One month	Unit of Measure: Percent
Reporting Comparisons: CLEC aggregate, individual CLECs, and U S WEST Retail results	Disaggregation Reporting: State level.
Formula: $\frac{\sum(\text{Revenue Billed without Error})}{(\text{Total Billed Revenue billed in Reporting Period})}$	
Exclusions: <ul style="list-style-type: none"> UNEs and Resale – None Reciprocal Compensation Minutes of Use – Billing adjustments as a result of CLEC-caused errors in return of minutes of use 	
Product Reporting: <ul style="list-style-type: none"> UNEs and Resale Reciprocal Compensation Minutes of Use (MOU) 	Standard: <ul style="list-style-type: none"> UNEs and Resale: Parity with U S WEST retail bills. Reciprocal Compensation (MOU) – 95%
Availability: <ul style="list-style-type: none"> Available Reciprocal Compensation (MOU): January 00 data Under Development UNEs and Resale: March 00 data	Notes:

BI-4 – Billing Completeness

<p>Purpose:</p> <ul style="list-style-type: none"> • UNES AND RESALE - EVALUATES THE COMPLETENESS WITH WHICH U S WEST REFLECTS NON-RECURRING AND RECURRING CHARGES ASSOCIATED WITH COMPLETED SERVICE ORDERS ON THE BILLS. • RECIPROCAL COMPENSATION MINUTES OF USE (MOU) - EVALUATES THE COMPLETENESS WITH WHICH U S WEST REFLECTS LOCAL MINUTES OF USE ASSOCIATED WITH CLEC LOCAL TRAFFIC OVER U S WEST'S NETWORK ON THE BILLS. 	
<p>Description:</p> <p>BI-4A - UNES AND RESALE - MEASURES THE PERCENTAGE OF NON-RECURRING AND RECURRING CHARGES ASSOCIATED WITH COMPLETED SERVICE ORDERS APPEAR ON THE CORRECT BILL.*</p> <p>BI-4B - RECIPROCAL COMPENSATION (MOU) - MEASURES THE PERCENTAGE OF LOCAL MINUTES OF USE APPEARING ON THE CORRECT (CURRENT) BILL.*</p> <p>* CORRECT BILL = NEXT AVAILABLE BILL.</p>	
<p>Reporting Period: One month</p>	<p>Unit of Measure: Percent</p>
<p>Reporting Comparisons: CLEC aggregate, individual CLECs, and U S WEST Retail results</p>	<p>Disaggregation Reporting: State level.</p>
<p>Formula:</p> <p>BI-4A - UNEs and Resale = $\sum(\text{Count of service orders with non-recurring charges billed on the correct bill} / \text{total count of service orders with non-recurring charges billed on the bill}) \times 100$</p> <p>BI-4B - Reciprocal Compensation MOU = $\sum(\text{Count of Local Minutes of Use billed on the correct* bill} / \text{total count of Local Minutes of Use collected during the month}) \times 100$</p>	
<p>Exclusions: None</p>	
<p>Product Reporting:</p> <ul style="list-style-type: none"> • UNEs and Resale • Reciprocal Compensation (MOU) 	<p>Standard:</p> <p>BI-4A - UNEs and Resale: Parity with U S WEST Retail bills.</p> <p>BI-4B - RECIPROCAL COMPENSATION (MOU): 95%</p>
<p>Availability:</p> <ul style="list-style-type: none"> • BI-4A - UNEs and Resale <ul style="list-style-type: none"> – CRIS DATA: MAR 00 – LABS DATA: MAR 00 • BI-4B - Reciprocal Compensation (MOU) – Jan 00 	<p>Notes:</p> <p>(In implementing agreement in final subcommittee meetings of the parties, this measurement reflects a split into measurements of percentage of charges (for UNEs and Resale), BI-4A; and percentage of minutes of use (for Reciprocal Compensation), BI-4B.)</p>

Database Updates

DB-1 – Time to Update Databases

Purpose: Evaluates the time required for updates to the databases of E911, LIDB, and Directory Listings.	
Description: Measures the average time required to update the databases of E911, LIDB, and Directory Listings. <ul style="list-style-type: none"> • Includes all database updates completed during the reporting period. 	
Reporting Period: One month	Unit of Measure: Hours and Minutes
Reporting Comparisons: Combined results for all updates	Disaggregation Reporting: Region-wide level (except E911, at state level).
Formula: $\frac{[(\text{Date and Time of database update for each database update in the reporting period}) - (\text{Date and Time of submissions of data for entry into the database for each database update in the reporting period}) / \text{Total database updates completed in the reporting period}]$	
Exclusions: None	
Product Reporting: <ul style="list-style-type: none"> • E911 • LIDB • Directory Listings 	Standard: Parity by design
Availability: Under Development – Apr 00	Notes: For Emergency Services, this measurement replaces the former ES-1 indicator, which measured percent of ALI database updates completed within 24 hours.

DB-2 – Accurate Database Updates

Purpose: Evaluates the accuracy of database updates completed without errors in the reporting period.	
Description: Measures the percentage of database updates completed without errors in the reporting period. <ul style="list-style-type: none"> • Includes all database updates completed during the reporting period. 	
Reporting Period: One month	Unit of Measure: Percent
Reporting Comparisons: Combined results for all updates	Disaggregation Reporting: Region-wide level. (except E911, at state level).
Formula: [Total database updates completed without errors in the reporting period / Total database updates completed in the reporting period] x 100	
Exclusions: None	
Product Reporting: <ul style="list-style-type: none"> • E911 • LIDB • Directory Listings 	Standard: Parity by design
Availability: Under Development – Apr 00	Notes:

Directory Assistance

DA-1 – Speed of Answer – Directory Assistance

Purpose: Evaluates timeliness of customer access to U S WEST's Directory Assistance operators, focusing on how long it takes for calls to be answered.	
Description: Measures the average time following first ring until a call is first picked up by the U S WEST agent/system to answer Directory Assistance calls. <ul style="list-style-type: none"> • Includes all calls to U S WEST directory assistance during the reporting period. • Because a system (electronic voice) prompts for city, state, and listing requested before the actual operator comes on the line, the call is counted as answered when the system (electronic voice) answers. 	
Reporting Period: One month	Unit of Measure: Seconds
Reporting Comparisons: Results for U S WEST and all CLECs are combined.	Disaggregation Reporting: Region-wide level.
Formula: $\Sigma[(\text{Date and Time of Call Answer}) - (\text{Date and Time of First Ring})] / (\text{Total Calls Answered by Center})$	
Explanation: Average speed of answer is obtained by dividing the sum of all answer times recorded (minutes/seconds) by the total number of calls answered at the center in a given month.	
Exclusions: None.	
Product Reporting: None	Standard: Parity by design
Availability: Available	Notes:

DA-2 – Calls Answered within Ten Seconds – Directory Assistance

Purpose: Evaluates timeliness of customer access to U S WEST's Directory Assistance Operators, focusing on the number of calls answered within 10 seconds.	
Description: Measures the percent of Directory Assistance calls that are answered within 10 seconds of the first ring by the (U S WEST) agent/system. <ul style="list-style-type: none"> • Includes all calls to U S WEST's directory assistance during the reporting period. • Calls are counted as answered when the system (electronic voice) answers (because a system (electronic) voice prompts for city, state, and listing requested before the actual operator responds). 	
Reporting Period: One month	Unit of Measure: Percent
Reporting Comparisons: Results for U S WEST and all CLECs are combined.	Disaggregation Reporting: Region-wide level.
Formula: $\left[\frac{\text{Total Calls Answered by Center within 10 seconds}}{\text{Total Calls Answered by Center}} \right] \times 100$	
Exclusions: None.	
Product Reporting: None	Standard: Parity by design
Availability: Available	Notes:

Operator Services

OS-1 – Speed of Answer – Operator Services

Purpose: Evaluates timeliness of customer access to U S WEST's operators, focusing on how long it takes for calls to be answered.	
Description: Measures the time following first ring until a call is answered by the U S WEST agent. <ul style="list-style-type: none"> Includes all calls to U S WEST's operator services during the reporting period, subject to exclusions specified below. 	
Reporting Period: One month	Unit of Measure: Seconds
Reporting Comparisons: U S WEST and all CLECs are aggregated in a single measure.	Disaggregation Reporting: Region-wide level.
Formula: $\frac{\Sigma[(\text{Date and Time of Call Answer}) - (\text{Date and Time of First Ring})]}{(\text{Total Calls Answered by Center})}$	
Exclusions: Abandoned Calls	
Product Reporting: None	Standard: Parity by design
Availability: Available	Notes:

OS-2 – Calls Answered within Ten seconds – Operator Services

Purpose: Evaluates timeliness of customer access to U S WEST's operators, focusing on the number of calls answered within 10 seconds.	
Description: Measures the percent of Operator Assisted calls answered by the U S WEST agent within ten seconds of the first ring. <ul style="list-style-type: none"> • Includes all calls to U S WEST's operator services during the reporting period, subject to exclusions specified below. 	
Reporting Period: One month	Unit of Measure: Percent
Reporting Comparisons: U S WEST and all CLECs are aggregated in a single measure.	Disaggregation Reporting: Region-wide level.
Formula: $\left[\frac{\text{TOTAL CALLS ANSWERED BY CENTER WITHIN 10 SECONDS}}{\text{TOTAL CALLS ANSWERED BY CENTER}} \right] \times 100$	
Exclusions: Abandoned Calls	
Product Reporting: None	Standard: Parity by design
Availability: Available	Notes:

Network Performance

NI-1 – Trunk Blocking

<p>Purpose: Evaluates factors affecting completion of calls from U S WEST end offices to CLEC end offices, compared with the completion of calls from U S WEST end offices to other U S WEST end offices, focusing on average busy-hour blocking percentages in interconnection or interoffice final trunks.</p>	
<p>Description: Measures the percentage of trunks blocking in interconnection and interoffice final trunks.</p> <ul style="list-style-type: none"> Includes blocking percentages on all direct final and alternate final interconnection and interoffice trunk groups that are in service during the reporting period, subject to exclusions specified below. 	
<p>Reporting Period: One month</p>	<p>Unit of Measure: Percent Blockage</p>
<p>Reporting Comparisons: U S WEST network results, CLEC aggregate and individual CLEC results.</p>	<p>Disaggregation Reporting: Statewide level. Reports the percentage of trunks blocking in interconnection final trunks, reported by:</p> <ul style="list-style-type: none"> NI-1A Interconnection (LIS) trunks to U S WEST tandem offices; NI-1B Interconnection (LIS) trunks to U S WEST end offices. <p>Reports the percentage of trunks blocking in local interoffice final trunks, reported by:</p> <ul style="list-style-type: none"> NI-1C Trunks connecting U S WEST end offices to U S WEST tandem offices; NI-1D Trunks connecting U S WEST end offices to other U S WEST end offices.
<p>Formula: $\frac{[\sum(\text{Blockage in Final Trunk Group of Specified Type})(\text{Number of Circuits in Trunk Group})]}{(\text{Total Number of Final Trunk Circuits in all Final Trunk Groups})}$ </p> <p><u>Explanation:</u> Actual average percentage of trunk blockage is calculated by dividing the equivalent average number of trunk circuits blocking by the total number of trunk circuits in final trunks of the type being measured.</p>	
<p>Exclusions:</p> <ul style="list-style-type: none"> Toll trunks, non-final trunks, and trunks that are not connected to the public switched network. One-way trunks originating at CLEC end offices. U S WEST official services trunks, local interoffice operator and directory assistance trunks, and local interoffice 911 E911 trunks are included. 	
<p>Product Reporting: None</p>	<p>Standard:</p> <ul style="list-style-type: none"> Where NI-1A ≤ 1%: 1 % Where NI-1A > 1%: Parity with NI-1C Where NI-1B ≤ 1%: 1 % Where NI-1B > 1%: Parity with NI-1D
<p>Availability: Available</p>	<p>Notes:</p>

NP-1 – NXX Code Activation

Purpose: Evaluates the timeliness of U S WEST's NXX code activation prior to the LERG effective date.	
Description: Measures the percentage of NXX codes scheduled to be activated that are actually loaded and tested prior to the LERG effective date in the reporting period. <ul style="list-style-type: none"> • The NXX code activation notice is provided by the LERG (Local Exchange Routing Guide) to U S WEST. • NXX code activation is defined as complete when all translations associated with the new NXX are complete by 11:59 p.m. of the day prior to the date identified in the LERG. • The timeliness process includes test calls to the activated NXX. Test calls require that CLEC test numbers be provided to U S WEST in a sufficient timeframe to accommodate the required test calls. 	
Reporting Period: One month	Unit of Measure: Percent
Reporting Comparisons: CLEC aggregate, individual CLEC and U S WEST Retail results.	Disaggregation Reporting: State level.
Formula: $\left[\frac{\text{(Number of NXX codes loaded and tested prior to the LERG effective date)}}{\text{(Number of NXX codes scheduled to be activated)}} \right] \times 100$	
Exclusions: <ul style="list-style-type: none"> • NXX codes with loading intervals shorter than industry standard (currently 45 calendar days). • NXX codes activated, but which can not be tested because CLEC didn't provide test number. • NXX codes activated but which can not be tested because the CLEC facilities have not been installed. (This occurs when a CLEC orders NXX code activation well in advance of routing facilities in order to reserve the NXX.) 	
Product Reporting: None	Standard: Parity
Availability: Under development – Feb 00	Notes:

Colocation

CP-1 – Installation Interval

Purpose: Evaluates the timeliness of U S WEST's installation of colocation arrangements for CLECs, focusing on the average time to complete such arrangements.	
Description: Measures the interval between the receipt of the down payment from the CLEC and the completion of the colocation installation, expressed in calendar days. <ul style="list-style-type: none"> Includes all colocations assigned a Ready For Service (RFS) date by U S WEST and completed during the reporting period, subject to exclusions specified below. 	
Reporting Period: One month	Unit of Measure: Calendar Days
Reporting Comparisons: CLEC aggregate and individual CLEC results	Disaggregation Reporting: Statewide level. Results for this indicator are disaggregated and reported as follows: A-1 Physical Colocations (including caged, cageless and shared) A-2 Augments to Physical Colocations. B-1 Virtual Colocations. B-2 Augments to Virtual Colocations.
Formula: $\Sigma[(\text{Colocation Completion Date}) - (\text{Colocation Down Payment Date})] / (\text{Total Number of Colocations Completed in Reporting Period})$	
Exclusions: <ul style="list-style-type: none"> CLEC orders involving requests for RFS dates different than the standard interval; RFS dates missed for CLEC-not-ready; RFS dates missed for CLEC equipment delays. 	
Product Reporting: <ul style="list-style-type: none"> Virtual Colocation Physical Colocation 	Standard: 90 calendar days
Availability: Available	Notes:

CP-2 – Installation Commitments Met

Purpose: Evaluates the extent U S WEST completes colocation arrangements for CLECs as scheduled or promised.	
Description: Measures the percentage of colocation orders for which the Ready For Service (RFS) date is met. <ul style="list-style-type: none"> • Includes all initial colocations assigned a RFS date by U S WEST and completed within the reporting period, including those with CLEC-requested RFS dates longer than the standard interval and those with extended RFS dates negotiated with the CLEC (including supplemented colocation orders that extend the RFS date). • Completion date matching or earlier than original RFS date is counted as a commitment met. 	
Reporting Period: One month	Unit of Measure: Percent
Reporting Comparisons: CLEC aggregate and individual CLEC results	Disaggregation Reporting: Statewide level. Results for this indicator are disaggregated and reported as follows: <ul style="list-style-type: none"> A-1. Physical Colocations (including caged, cageless and shared) A-2 Augments to Physical Colocations. B-1 Virtual Colocations. B-2 Augments to Virtual Colocations.
Formula: $\left[\frac{\text{Total Orders completed by Ready for Service Date}}{\text{Total Number of Orders completed}} \right] \times 100$	
Exclusions: <ul style="list-style-type: none"> • RFS dates missed for CLEC-not-ready; • RFS dates missed for CLEC equipment delays. 	
Product Reporting: <ul style="list-style-type: none"> • Virtual Colocation • Physical Colocation 	Standard: 90 percent or more
Availability: Available	Notes:

CP-4 – Feasibility Study Commitments Met

Purpose: Evaluates the degree that U S WEST met its stated commitment in the sub-process function of providing a colocation feasibility study to the CLEC.	
Description: Measures the percentage of colocation feasibility studies for installations that are completed within the allotted time frame for such studies. <ul style="list-style-type: none"> • Includes all feasibility studies associated with colocation arrangements completed in the reporting period. • For CLECs with interconnection agreements that identify a colocation feasibility study interval, and for individually negotiated intervals, the agreed-upon interval is the one measured. • For CLECs without interconnection agreements that identify a colocation feasibility study interval, the interval measured is 7 business days for virtual colocation and 10 business days for physical colocation. 	
Reporting Period: One month	Unit of Measure: Percent
Reporting Comparisons: CLEC aggregate and individual CLEC results	Disaggregation Reporting: Statewide level. Results for this indicator are disaggregated and reported as follows: A-1. Physical Colocations (including caged, cageless and shared) A-2. Augments to Physical Colocations. B-1. Virtual Colocations. B-2. Augments to Virtual Colocations.
Formula: $\left[\frac{\text{(Total Applicable Colocation Feasibility studies completed in agreed-upon timeframe)}}{\text{(Total applicable Colocation Feasibility studies completed)}} \right] \times 100$	
Exclusions: None	
Product Reporting: <ul style="list-style-type: none"> • Virtual Colocation • Physical Colocation 	Standard: 90 percent or more
Availability: Available	Notes:

CP-6 – Quote Commitments Met

Purpose: Evaluates the degree that U S WEST met its stated commitment in the sub-process function of providing a colocation quote to the CLEC.	
Description: Measures the percentage of Central Office colocation quotes that are completed within the allotted time frame. <ul style="list-style-type: none"> • Includes quotes associated with colocation arrangements that are completed in the reporting period. • For CLECs with interconnection agreements that identify a colocation quote interval, and for individually negotiated intervals, the agreed-upon interval is the one measured. • For CLECs without interconnection agreements that identify a colocation quote interval, the interval measured is 25 calendar days. 	
Reporting Period: One month	Unit of Measure: Percent
Reporting Comparisons: CLEC aggregate and individual CLEC results	Disaggregation Reporting: Statewide level. Results for this indicator are disaggregated and reported as follows: <ul style="list-style-type: none"> A-1 Physical Colocations (including caged, cageless and shared) A-2 Augments to Physical Colocations. B-1 Virtual Colocations. B-2 Augments to Virtual Colocations.
Formula: $\left[\frac{\text{Total Applicable Colocation Quotations completed in agreed-upon timeframe}}{\text{Total applicable Colocation Quotations completed}} \right] \times 100$	
Exclusions: None	
Product Reporting: <ul style="list-style-type: none"> • Virtual Colocation • Physical Colocation 	Standard: 90 percent or more
Availability: Available	Notes:

DEFINITION OF TERMS

Application Date (and Time) – The date (and time) on which U S WEST receives a complete and accurate local service request (LSR) or access service request (ASR, as follows:

- For LSRs and ASRs received after 3:00PM for Designed Services, Unbundled Loops (except analog loops), and Local Number Portability (except non-designed, flow-through LNP), the application date (and time) is the next business day.
- For POTS Resale (Residence and Business), Centrex Resale Non-Design services, analog Unbundled Loops, and non-designed, flow-through LNP, the application date is the same business day on which U S WEST receives a complete and accurate LSR.

Automatic Location Information (ALI) – The feature of E911 that displays at the Public Safety Answering Point (PSAP) the street address of the calling telephone number. This feature requires a data storage and retrieval system for translating telephone numbers to the associated address. ALI may include Emergency Service Number (ESN), street address, room or floor, and names of the enforcement, fire and medical agencies with jurisdictional responsibility for the address. The Management System (E911) database is used to update the Automatic E911 Location Information databases.

Bill Date – The date shown at the top of the bill, representing the date on which U S WEST begins to close the bill.

Blocking – condition on a telecommunications network where, due to a maintenance problem or an traffic volumes exceeding trunking capacity in a part of the network, some or all originating or terminating calls cannot reach their final destinations. Depending on the condition and the part of the network affected, the network may make subsequent attempts to complete the call or the call may be completely blocked. If the call is completely blocked, the calling party will have to re-initiate the call attempt.

Business Day – Workdays that U S WEST is normally open for business. Business Day = Monday through Friday, excluding weekends and U S WEST published Holidays including New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving and Christmas.

Code Activation (Opening) – Process by which new NPA/NXXs (area code/prefix) is defined, through software translations to network databases and switches, in telephone networks. Code activation (openings) allow for new groups of telephone numbers (usually in blocks of 10,000) to be made available for assignment to an ILEC's or CLEC's customers, and for calls to those numbers to be passed between carriers.

Common Channel Signaling System 7 (CCSS7) – A network architecture used to for the exchange of signaling information between telecommunications nodes and networks on an out-of-band basis. Information exchanged provides for call set-up and supports services and features such as CLASS and database query and response.

Common Transport – Trunk groups between tandem and end office switches that are shared by more than one carrier, often including the traffic of both the ILEC and several CLECs.

Completion – The time in the order process when the service has been provisioned and service is available.

Completion Notice – A notification the ILEC provides to the CLEC to inform the CLEC that the requested service order activity is complete.

Coordinated Customer Conversion Orders that have a due date negotiated between the ILEC, the CLEC, and the customer so that work activities can be performed on a coordinated basis under the direction of the receiving carrier.

Customer Requested Due Date – A specific due date requested by the customer which is either shorter or longer than the standard interval or the interval offered by the ILEC.

Customer Trouble Reports – A report that the carrier providing the underlying service opens when notified that a customer has a problem with their service. Once resolved, the disposition of the trouble is changed to closed.

Dedicated Transport – A network facility reserved to the exclusive use of a single customer, carrier or pair of carriers used to exchange switched or special, local exchange, or exchange access traffic.

Delayed Order – An order which has been completed after the scheduled due date and/or time.

Directory Assistance Database – A database that contains subscriber records used to provide live or automated operator-assisted directory assistance. Including 411, 555-1212, NPA-555-1212.

Directory Listings – Subscriber information used for DA and/or telephone directory publishing, including name and telephone number, and optionally, the customer's address.

DEFINITION OF TERMS (continued)

DS-0 – Digital Service Level 0. Service provided at a digital signal speed commonly at 64 kbps, but occasionally at 56 kbps.

DS-1 – Digital Service Level 1. Service provided at a digital signal speed of 1.544 Mbps.

DS-3 – Digital Service Level 3. Service provided at a digital signal speed of 44.736 Mbps.

Due Date – The date provided on the Firm Order Confirmation (FOC) the ILEC sends the CLEC identifying the planned completion date for the order.

End Office Switch – A switch from which an end users' exchange services are directly connected and offered.

Final Trunk Groups – interconnection and interoffice trunk groups that do not overflow traffic to other trunk groups when busy.

Firm Order Confirmation (FOC) – Notice the ILEC sends to the CLEC to notify the CLEC that it has received the CLECs service request, created a service order, and assigned it a due date.

Flow-Through – The term used to describe whether a LSR electronically is passed from the OSS interface system to the ILEC legacy system to automatically create a service order. LSRs that do not flow through require manual intervention for the service order to be created in the ILEC legacy system.

Installation – The activity performed to activate a service.

Installation Troubles – A trouble, which is identified after service order activity and installation, has completed on a customer's line. It is likely attributable to the service activity (within a defined time period).

Interconnection Trunks – A network facility that is used to interconnect two switches generally of different local exchange carriers

Interface Outage – A planned or unplanned failure resulting the unavailability or access degradation of a system.

Jeopardy – A condition experienced in the service provisioning process which results potentially in the inability of a carrier to meet the committed due date on a service order

Jeopardy Notice – The actual notice that the ILEC sends to the CLEC when a jeopardy has been identified.

Lack of Facilities – A shortage of cable facilities identified after a due date has been committed to a customer, including the CLEC. The facilities shortage may be identified during the inventory assignment process or during the service installation process, and typically triggers a jeopardy.

Local Exchange Routing Guide (LERG) – A Bellcore master file that is used by the telecom industry to identify NPA-NXX routing and homing information, as well as network element and equipment designations. The file also includes scheduled network changes associated with activity within the North American Numbering Plan (NANP).

Local Exchange Traffic – Traffic originated on the network of a LEC in a local calling area that terminates to another LEC in a local calling area.

Mechanized Bill – A bill that is delivered via electronic transmission.

NXX, NXX Code or Central Office Code – The three digit switch entity indicator that is defined by the "D", "E", and "F" digits of a 10-digit telephone number within the NANP. Each NXX Code contains 10,000 station numbers.

Permanent Number Portability (also known as – Long Term Number Portability) – A network technology which allows end user customers to retain their telephone number when moving their service between local service providers. This technology does not employ remote call forwarding, but actually allows the customer's telephone number to be moved and redefined in the network of the new service provider. The activity to move the telephone number is called "porting."

Plain Old Telephone Service (POTS) – Refers to basic 2-wire, non-complex analog residential and business services. Can include feature capabilities (e.g., CLASS features).

Projects – Service requests that exceed the line size and/or level of complexity which would allow for the use of standard ordering and provisioning processes. Generally, due dates for projects are negotiated, coordination of service installations/changes is required and automated provisioning may not be practical.

Query Types – Pre-ordering information that is available to a CLEC that is categorized according to standards issued by OBF, and the FCC, and/or the Arizona Commission.

DEFINITION OF TERMS (continued)

Ready For Service (RFS) – the status achieved in the installation of a colocation arrangement when all “operational” work has been completed. Operational work consists of the following:

- Cage enclosure complete;
- DC power is active (including fuses available, BDFB [Battery Distribution Fuse Board] in place, and cables between the Co-Provider and power terminated);
- Primary AC outlet in place;
- Required ties or equivalent exist (e.g., distribute jumper cables across cosmic frame); and
- Cable racking and circuit terminations are complete (e.g. fiber jumpers placed between the Outside Plant Fiber Distribution Panel and the Central Office Fiber Distribution Panel serving the Co-provider).
- Key turnover has been made available to CLEC.

Ready for Service Date (RFS date) – the due date assigned to a colocation order (typically determined by regulatory rulings, contract terms, or negotiations with CLEC) to indicate when colocation installation is scheduled to be ready for service, as defined above.

Reject – A status that can occur to a CLEC submitted local service request (LSR) when it does not meet certain criteria. There are two types of rejects: (1) syntax, which occur if required fields are not included in the LSR; and (2) content, which occur if invalid data is provided in a field. A rejected service request must be corrected and re-submitted before provisioning can begin.

Repeat Report – Any trouble report that is a second (or greater) report on the same telephone number/circuit ID and at the same premises address within 30 days. The original report can be any category, including excluded reports, and can carry any disposition code.

Service Group Type – The designation used to identify a category of similar services, .e.g., UNE loops

Service Order – The work order created and distributed in ILECs systems and to ILEC work groups in response to a complete, valid local service request.

Service Order Type – The designation used to identify the major types of provisioning activities associated with a local service request.

Local Service Request (LSR) – transaction sent from the CLEC to the ILEC to order services or to request a change(s) be made to existing services.

Standard Interval – The interval that the ILEC publishes as a guideline for establishing due dates for provisioning a service request. Typically, due dates will not be assigned with intervals shorter than the standard. These intervals are specified by service type and type of service modification requested. ILECs publish these standard intervals in documents used by their own service representatives as well as ordering instructions provided to CLECs in the U S WEST Standard Interval Guidelines.

Subsequent Reports – A trouble report that is taken in relation to a previously-reported trouble prior to the date and time the initial report has a status of “cleared.”

Tandem Switch – Switch used to connect and switch trunk circuits between and among Central Office switches.

Test Cases - different order types or product instances within a scenario. Test cases will include information on the inputs, purpose, expected results, measures, and failure criteria for the test case. The development of test cases is the responsibility of the Test Administrator.

Test Scenarios - A high level description of the pre-ordering, ordering, provisioning, and billing that testing will entail. These scenarios will be used to create the detailed test cases and subsequent orders/LSR/ASR

Test Scripts - detailed step by step instructions for each test case. The development of test scripts are the responsibility of the Test Administrator.

Time to Restore – The time interval from the receipt, by the ILEC, of a trouble report on a customer’s service to the time service is fully restored to the customer.

Unbundled Network Element – Platform (UNE-P) – Combinations of network elements, including both new and conversions. (Negotiations of a more precise definition of UNE-P are taking place, when the more precise definition is agreed to by all parties the MTP will be updated.)

Usage Data – Data generated in network nodes to identify switched call data on a detailed or summarized basis. Usage data is used to create customer invoices for the calls.

GLOSSARY OF ACRONYMS

ACRONYM	DESCRIPTION
ACD	Automatic Call Distributor
ADSL	Asymmetric Digital Subscriber Line
ALI	Automatic Line Information (for 911/E911 systems)
ASR	Service Request (processed via Exact system)
BRI	Basic Rate Interface (type of ISDN service)
CABS	Carrier Access Billing System
CKT	Circuit
CLEC	Competitive Local Exchange Carrier
CO	Central Office
CPE	Customer Premises Equipment
CRIS	Customer Record Information System
CSR	Customer Service Record
DA	Directory Assistance
dB	Decibel
DB	Database
DID	Direct Inward Dialing
DS0	Digital Service 0
DS1	Digital Service 1
DS3	Digital Service 3
E911 MS	E911 Management System
EAS	Extended Area Service
EB-TA	Electronic Bonding – Trouble Administration
EDI	Electronic Data Interchange
ES	Emergency Services (for 911/E911)
FOC	Firm Order Confirmation
GUI	Graphical User Interface
HDSL	High-bit-rate Digital Subscriber Line
HICAP	High Capacity Digital Service
IEC	Interexchange Carrier
ILEC	Incumbent Local Exchange Carrier
INP	Interim Number Portability
IOF	Interoffice Facilities (refers to U S WEST trunks)
ISDN	Integrated Services Digital Network
IMA	Interconnect Mediated Access
LATA	Local Access Transport Area
LERG	Local Exchange Routing Guide
LIDB	Line Identification Database
LIS	Local Interconnection Service Trunks
LNP	Long Term Number Portability
LSR	Local Service Request
N, T, C	Service Order Types - - N (new), T (to or transfer), C (change)
NANP	North American Numbering Plan
NDM	Network Data Mover
NPAC	Number Portability Administration Center
NXX	Telephone number prefix
OBF	Ordering and Billing Forum
OOS	Out of service (type of trouble condition)

ACRONYM	DESCRIPTION
OSS	Operations-al Support Systems
PBX	Private Branch Exchange
PON	Purchase Order Number
POTS	Plain Old Telephone Service
PRI	Primary Rate Interface (type of ISDN service)
RFS	Ready for Service (refers to colocation projects)
SOP	- Service Order Processor
SOT	Service Order Type
SS7	Signaling System 7
STP	Signaling Transfer Point
TN	Telephone Number
UDIT	Unbundled Dedicated Interoffice Transport
UNE	Unbundled Network Element
-VRU	- Voice Response Unit
xDSL	(x) Digital Subscriber Line. (The "x" prefix refers to DSL generically. An "x" replaced by an "A" refers to Asymmetric DSL, and by an "H" refers to High-bit-rate DSL.)

¹ *Graphical User Interface*

APPENDIX C – PERFORMANCE MEASURES

1. MEASURES USED IN FUNCTIONALITY AND CAPACITY TESTS

<u>Measure Number</u>	<u>Description</u>	<u>Functionality Test</u>		<u>Capacity Test</u>
		<u>OSS Only</u>	<u>End-to-End</u>	
PO-1	Pre-Order/Order Response Times	Yes	No	Yes
GA-1	Gateway Availability – Human-to-Computer Interface (percent)	Yes	No	No
GA-2	Gateway Availability – Computer-to-Computer Interface (percent)	Yes	No	No
PO-4	FOC Interval (average)	No	Yes	Yes
PO-6	Completion Notifications Transmitted within 24 hours (percent)	No	Yes	No
PO-7	Completion Notification Interval (average)	No	Yes	No
PO-2	LSR Rejection Notice Interval (average)	NO	YES	No
PO-3	LSRs Rejected (percent)	NO	YES	No
PO-1	Electronic Flow-through of LSRs to SOP (percent)	NO	YES	Yes
BI-1	Mean Time to Provide U S WEST-Recorded Usage Records (average)	NO	YES	No
BI-2	Mean Time to Deliver Invoices (average)	No	Yes	No
BI-3	Billing Accuracy – Adjustments for Errors	No	Yes	No
OP-1	Speed of Answer – Interconnect Provisioning Center (average)	No	Yes	No
MR-1	Speed of Answer – Interconnect Repair Center (average)	No	Yes	No
OP-3	Installation Commitments Met (percent)	No	Yes	No
OP-4	Installation Interval (average)	No	Yes	No
OP-1	CLEC- or CLEC's Customer-Caused Installation Misses (percent)	No	Yes	No
OP-6	Delayed Days (average)	No	Yes	No
OP-2	Delayed Orders Completed \geq 15 days past the commitment date (percent)	No	Yes	No
OP-3	Delayed Orders Completed \geq 90 days past the commitment date (percent)	No	Yes	No
OP-5	Installation Trouble Reports (percent)	No	Yes	No
MR-3	Out of Service Cleared within 24 hours – Non-Designed Repair Process (percent)	No	Yes	No
MR-4	All Troubles Cleared within 48 hours – Non-Designed Repair Process (percent)	No	Yes	No
MR-5	All Troubles Cleared within 4 hours – Designed Repair Process (percent)	No	Yes	No
MR-6	Mean Time to Restore (average)	No	Yes	No
MR-7	Repair Repeat Report Rate (percent)	No	Yes	No
MR-8	Trouble Rate (percent)	No	Yes	No

2. MEASURES NOT USED IN FUNCTIONALITY AND CAPACITY TESTS

Ordering and Provisioning

Measure Number	Description
OP-2	Calls Answered within Twenty Seconds – Interconnect Provisioning Center (percent)
OP-7A	Coordinated Cutover Interval – Unbundled Loop (without Number Portability) (average)
OP-7B	Coordinated Cutover Interval – Unbundled Loops (associated with LNP)
OP-8A	Coordinated Cutover Interval – Interim Number Portability (INP) (average)
OP-8B	Coordinated Local Number Portability (LNP) Timeliness (percent)
OP-9	Coordinated Cutover Combined Interval – Unbundled Loops coordinated with INP (average)

Maintenance & Repair

Measure Number	Description
MR-2	Calls Answered within 20 seconds – Interconnect Repair Center (percent)

Emergency Services

Measure Number	Description
ES-1	ALI Database Updates Completed within 24 hours (percent)
ES-2	911/E911 Emergency Services Trunk Installation Interval (average)

Directory Assistance

Measure Number	Description
DA-1	Speed of Answer – Directory Assistance (average)
DA-2	Calls Answered Within Ten Seconds – Directory Assistance (percent)

Operator Services

Measure Number	Description
OS-1	Speed of Answer – Operator Services (average)
OS-2	Calls Answered Within Ten Seconds – Operator Services (percent)

Network Performance – Network Interconnection

Measure Number	Description
NI-1	Trunk Blocking – Interconnection Trunks (percent)
NI-2	Trunk Blocking – Local Interoffice (“Common”) Trunks (percent)

Colocation Provisioning

Measure Number	Description
CP-1	Installation Commitments Met (percent)
CP-2	Installation Interval (average)

Pre-Order/Ordering

Measure Number	Description
PO-5	Pre-Order/Order Response Times for U S WEST Retail Transactions (average)

Maintenance & Repair

Measure Number	Description
MR-1	CLEC- or CLEC’s Customer-Caused Trouble Reports (percent)

Colocation Provisioning

Measure Number	Description
CP-1	CLEC Caused Colocation Misses (percent)
CP-2	Colocation Feasibility Study Interval (average)
CP-3	Colocation Feasibility Study Commitments Met (percent)
CP-4	Average Colocation Quote Interval (percent)

Network Performance

Measure Number	Description
NI-1	(indicator number reserved for future use)
NI-2	Local Interconnection Final Trunk Group Utilization (average)
NP-1	U S WEST Local Interoffice Trunks Provisioned by Scheduled Date (percent)
NP-2	U S WEST Local Interoffice Trunks Provisioning Interval (average)
NP-3	U S WEST Local Interoffice Trunks Provisioning Late Days (average)
NR-1	U S WEST Local Interoffice Trunks Mean Time to Restore (average)
NR-2	U S WEST Local Interoffice Trunks All Troubles Cleared within 4 hours (percent)
NR-3	U S WEST Local Interoffice Trunks Repeated Trouble Incidents within 30 days (percent)
NR-4	U S WEST Local Interoffice Trunks Trouble Rate (percent)

APPENDIX D - PERFORMANCE MEASUREMENTS AND BENCHMARKS*

**Appendix D has been incorporated into Appendix B.*

APPENDIX E – Glossary/Terminology

<u>ACRONYM/TERM</u>	<u>ACRONYM/TERM DESCRIPTION</u>
ACC	Arizona Corporate Commission
ATIS	American Telecommunications Industry Solution
CLEC	Competitive Local Exchange Carrier
CLLI	Common Language Location Identifier
Conversion As-Is	A type of resale order that requires no changes to the customer's account
Conversion As-Specified	A type of resale order that requires one or more changes to the customer's account
CSR	Customer Service Record
DCI	Doherty and Company, Inc.
DOJ	Department of justice
EB-TA	Electronic Bonding-Trouble Administration
EDI	Electronic Data Interchange
EMI	Exchange Message Interface
FCC	Federal Communications Commission
FOC	Firm Order Confirmation
GUI	Graphical User Interface
IMA	Interconnect Mediated Access
LMOS	Loop Maintenance Operation System
LNP	Long Term Number Portability (also referred to as Local Number Portability)
LSR	Local Service Request
MLT	Mechanized Loop Test
OSS	Operations Support Systems
Partial Migrations	A type of resale order that transfer only part of the customer's account to a CLEC
PIC	Primary Interexchange Carrier
PMO	Present Method of Operation
Preordering/Ordering, Provisioning, Maintenance and Repair and Billing	<p>FCC defined categories:</p> <p>Preordering/ordering = the exchange of information between LECs (local exchange carrier) about current or proposed customer products and services or unbundled network elements or some combination thereof</p> <p>Provisioning = the exchange of information between LECs where one executes a request for a set of products and services or unbundled network elements or combination thereof from the other with attendant acknowledgements and status reports</p> <p>Maintenance and repair = the exchange of information between LECs where one initiates a request for repair of existing products and services or unbundled network elements or combination thereof from the other with attendant acknowledgements and status reports</p> <p>Billing involves the provision of appropriate usage data by one LEC to another to facilitate customer billing with attendant acknowledgements and status reports</p>
Pseudo-CLEC	A simulator that acts like an actual CLEC
SOC	Service Order Completions
SOP	Service Order Processor

ACRONYM/TERM	ACRONYM/TERM DESCRIPTION
Suspend and Restore	Types of orders that "cuts off" dial-tone (suspend) and reestablishes dial-tone for a customer
Test Transaction Generator	Hardware and software that generates transactions for the test
UNE	Unbundled Network Element (UNEs are portions of an incumbent local exchange carrier's ubiquitous network)
UNE-P	<u>Unbundled Network Element-Combination-Platform Combinations of network elements, including both new and conversions. (Negotiations of a more precise definition of UNE-P are taking place, when the more precise definition is agreed to by all parties the MTP will be updated.)</u> (UNE-P is a conversion of the customer's service to the CLEC at the unbundled network element rate)
UNE-Loop (UNE-L)	Unbundled Network Element-Loop (otherwise known as unbundled loop) (UNE-Loop includes the facilities between the end-user customer's network interface device and the meet point between the incumbent local exchange carrier's facilities and those of the CLEC)

APPENDIX F

OPENNESS REPORT

JANUARY 25, 2000

I. Introduction

In a December 22, 1999 letter to the Arizona Corporation Commission (“Commission”) Staff⁷, AT&T Communications of the Mountain States, Inc. (“AT&T”), TCG Phoenix (“TCG”), MCI WorldCom, Inc., on behalf of its regulated subsidiaries (“MCI”), Sprint Communications Company, L.P. (“Sprint”) and Rhythms, Inc. (“Rhythms”)(collectively the “CLECs”) raised concerns regarding the openness of certain aspects of the Arizona Section 271 operational support systems (“OSS”) testing process. The concerns expressed fell into three broad categories: (1) the openness of the meetings between the Commission’s Third Party Test Administrator, Cap Gemini Telecommunications, Inc. (“CGT”) and U S WEST; (2) the openness of meetings and interactions between U S WEST and the Commission’s Third Party Test Transaction Generator, Hewlett-Packard Company, Inc. (“HP”); and (3) the process for conducting TAG meetings.

In response, on December 29, 1999, Commission Staff sent all parties a Notice of a workshop to be held on January 13, 2000 to discuss the issues raised. Parties were also given until January 10, 2000 to file written comments on AT&T’s December 22, 1999 letter. Parties were asked to address in their written comments the procedures used in other states and how the Commission could best utilize its web-site as a means to expeditiously disseminate 271 testing information to the parties. On January 10, 2000, the Commission received written comments from AT&T and TCG, MCI, and U S WEST. A workshop was held as planned on January 13, 2000, to more fully discuss the openness issues raised. Representatives from AT&T and TCG, MCI, Sprint, Rhythms and U S WEST attended the workshops. In addition, representatives from the Commission’s Third Party Test Administrator, CGT; Third Party Test Transaction Generator, HP; and OSS Consultant, Doherty and Company, Inc. (“DCI”) were present.

Through this report, the Commission Staff has attempted to address all of the CLECs’ concerns and several concerns raised by U S WEST at the January 13, 2000 workshop. As more fully discussed herein, Commission Staff adopts virtually all of the CLECs’ recommendations, which were in many instances supported by U S WEST. Staff has declined at this time to open meetings between CGT and the CLECs because of legitimate blindness concerns during this initial testing phase. However, the Commission Staff will make available to U S WEST redacted minutes of those meetings and as blindness becomes less of a concern, the Commission Staff will revisit this issue and eventually open these meetings as well.

The end result of the procedures implemented herein will be an open and rigorous OSS testing process which is certainly at least as open as many of the other

⁷ Letter from Richard S. Wolters, Senior Attorney-AT&T on behalf of the CLECs to Staff Counsel.

states examined. Together the procedures adopted will establish openness of communications as the rule, rather than the exception. Commission Staff agrees that openness to the extent established herein is vital to the credibility of the Arizona Section 271 OSS test.

II. Discussion

A. Meetings Involving CGT

1. Meetings Between CGT and U S WEST

To-date, meetings between CGT and U S WEST have been held with representatives from the Commission Staff and/or DCI present. In addition, minutes of those meetings were taken which were then provided to the Commission Staff for review. The Commission Staff agreed to excerpt any confidential portions and disseminate the redacted version to both the CLECs and U S WEST.

The CLECs state that such a process is not open enough. They state that the Commission Staff's solution to keep minutes for distribution provides limited visibility to a closed set of meetings. The better solution, according to the CLECs, is to change the nature of the meetings to be fundamentally open meetings. AT&T Letter at p. 2.

Without a more open process, the CLECs are concerned that many issues will be discussed, debated and possibly resolved in private, outside of the formal TAG process. AT&T Letter at p. 2. The CLECs state that if they or U S WEST have concerns or issues involving any part of the test, the appropriate venue to discuss those issues or concerns is not behind closed doors in a private session with CGT but in a TAG meeting. *Id.* at p. 2. The CLECs state that discussion behind closed doors only hurts the process. *Id.* at p. 2. Finally, the CLECs argue that there is no reason for meetings between CGT and U S WEST to be private meetings. AT&T January 10, 2000 Comments. They point out that blindness is not an issue with U S WEST; that it is U S WEST's systems that are being tested; and that blindness concerns arise only with the CLEC - CGT meetings since in those meetings issues are being discussed with the CLECs that if known to U S WEST could compromise the integrity of the test.

U S WEST supports the establishment of listen lines for all regularly scheduled conference calls between CGT and U S WEST. U S WEST Comments at p. 3.

The Commission Staff notes that open meetings between the Third-Party Test Administrator and the Bell Operating Company ("BOC") are consistent with the processes used in other states. In New York, the regularly scheduled meetings between KPMG and Bell Atlantic were open for the CLECs to listen. U S WEST Comments at p. 3; MCI Comments at p. 5. In addition, in Pennsylvania, calls between KPMG and

Bell Atlantic were conducted both as 2-way calls where CLECs could interact by asking questions of clarity and as calls where CLECs could listen in and then later comment in open session with KPMG and Commission Staff. MCI Comments at pp. 5-6. Florida and Texas also held their meetings involving KPMG and test participants in the open with meeting minutes distributed by e-mail. AT&T Comments at pp.3-4; MCI Comments at p. 7.

Most parties also agree that Executive Sessions could be used if the need for confidentiality arises. See AT&T Comments at p. 7.

Given the unanimous agreement of all parties on this issue, Commission Staff shall require that all regularly scheduled meetings or calls between CGT and U S WEST be henceforth open to the CLECs through the establishment of a listen line. In addition, minutes will continue to be taken of these meetings. This change in procedure shall begin immediately with a listen line established for the next regularly scheduled Weekly Schedule Report ("WSR") conference call between CGT and U S WEST. The Commission Staff will e-mail TAG members the date and time of the call and the listen line number for the call. In addition, on a going forward basis, the WSR conference call and any other conference calls or meetings scheduled between U S WEST and CGT shall be noticed and a listen line established for the CLECs. The CLECs shall also be allowed to submit comment on these calls to the CGT Project Manager and all TAG team members within two (2) days of each call.

The only contacts between CGT and U S WEST that shall not be subject to this openness requirement will be unscheduled, incidental contacts. However, in all such cases CGT shall advise Staff if possible of any such contacts before they occur and Commission Staff and/or its Consultant DCI shall participate in and CGT shall take minutes of such calls. The CLECs shall subsequently be apprised of all calls or contacts and the purpose of them at the next regularly scheduled TAG meeting. The CLECs shall also be apprised of any conclusions reached in those calls or contacts. The rule, however, will be one of openness and Staff expects such incidental contacts to be kept to an absolute minimum, with virtually all issues involving U S WEST discussed in either the regularly scheduled call with U S WEST, or the TAG as appropriate.⁸

Commission Staff affirmatively states that it wants to avoid the problems encountered in other jurisdictions including Texas, where MCI indicates Telcordia met with SWBT many times without the CLECs' knowledge or documentation. In addition, the Commission Staff wants to avoid problems also encountered in Texas where SWBT was called upon by the Third Party Test Administrator to provide information and technical assistance which the CLECs were unaware of; were not apprised of the information provided; and had no input relating to it. See MCI Comments at p. 9. The parties, however, must understand that some routine, incidental contacts are simply

⁸ For instance, MCI notes that in Pennsylvania, the PaPUC supported CLEC participation in calls addressing metrics, billing, use of GUI and defining some processes.

part of the testing process and it would not be feasible each time such a contact is made for Staff or any other party to be part of all such calls. However, in such cases, Staff believes CGT's reporting on such incidental contacts at each TAG meeting should suffice to ensure the degree of openness desired yet also ensure that test activities are not unnecessarily impeded.

Executive Sessions between CGT and U S WEST will be necessary to discuss such issues as the Company's assessment of competitive market transaction volumes regarding capacity tests and the programming and system design of U S WEST's performance measurements computer systems for data collection and processing. However, like the procedures used in Pennsylvania, the Commission Staff will attempt to manage the Executive Sessions between CGT and U S WEST that are necessary to protect U S WEST's confidential business matters. To the extent possible, all Executive Sessions shall be noticed with the topics to be addressed made available to the CLECs. The CLECs shall be kept generally informed of all topics discussed at all such Executive Sessions. Once again, the Commission Staff and/or its Consultant DCI shall take part in and CGT shall keep minutes of all such Sessions and to the extent they can without divulging proprietary data, report any conclusions of those Sessions at the next regularly scheduled TAG meeting.

Staff believes that implementing the openness procedures outlined above should continue to make what Staff believes has been a very open test from the start even more open and rigorous. Staff does not believe that the test has been compromised in any fashion up to this time since the test is still in its initial phases, the MTP has not yet been finalized and Staff and/or its Consultant, DCI, have been present on all calls between CGT and U S WEST to-date. Minutes have been taken of many of these calls, and these minutes will be made available, in redacted form, to all parties, as requested by MCI at the January 13, 2000 workshop.

2. Meetings Between CGT and the CLECs

All parties are not in agreement that meetings between CGT and the CLECs should be open. See, MCI January 10, 2000 Comments. While AT&T supports openness to some extent, it also states that "as the process is meant to be blind only to U S WEST, having CGT-CLEC meetings remain in their present form does not do anything to undercut the process." AT&T December 22, 1999 Letter to Staff Counsel at p. 3. U S WEST, on the other hand, states that all meetings between CGT and the CLECs should be open to U S WEST through a listen line. U S WEST Comments at p. 3. U S WEST states that if there is a need to discuss items beyond the hearing of one or more parties, the remaining parties can go into Executive Session at the end of the call. Id. at p. 3.

It is not apparent from the comments filed, that such meetings were open to the BOC in other states. Indeed, in some instances, particularly in the early testing stages

as here, it appears that the meetings were closed. AT&T notes that in New York and Pennsylvania, there was provision made for meetings between CLECs and KPMG that excluded the Bell Atlantic company representatives. AT&T Comments at p. 8. AT&T states that the Staffs believed it appropriate that CLECs not be impeded from fully discussing concerns with test and live transaction processing and that KPMG would benefit from direct interaction with CLECS. The meetings were held weekly for New York testing, with one meeting per month held in person. AT&T Comments at p. 8. Meeting minutes were distributed to all interested parties, except Bell Atlantic. Id. at p. 9. AT&T also states that the need to maintain blindness to U S WEST throughout the process is critical to the credibility of the test. If U S WEST were able to recognize OSS transactions that emanate from the test as distinguished from live transactions from CLECs in production environments, U S WEST would be positioned to discriminately provide preferential processing of the test transactions.

Further, AT&T points out that testing in Texas, New York and Pennsylvania brought to light the need to establish blindness principles that hid information from the incumbent LEC that could have created the opportunity for preferential treatment of test orders. AT&T Comments at p. 10. Examples cited by AT&T included loop hot cuts in New York which AT&T states were coordinated between KPMG and participating CLECs so that observations could be made of Bell Atlantic's provisioning of the cut-over process without prior notice to Bell Atlantic. Id. The test results noted by KPMG were provided to the New York Commission Staff for review and verified against the experiences of other CLECs. Id.

The blindness concern extends to CLEC meetings in that CLECs must interact with CGT on matters involving coordination of CLEC facilities that are used in the course of the test, scheduling of personnel, test transaction generation and volume increases. AT&T Comments at pp. 9-10. Other reasons for closed meetings between CGT and the CLECs include the need to maintain blindness of test activities to U S WEST. In addition, many of the closed sessions between CGT and the CLECs will involve discussions concerning CLEC forecast information, CLEC resources to perform certain parts of the test, and other issues where matters that affect blindness will be discussed. See AT&T December 22, 1999 letter to Staff Counsel at p. 2.

Given all of the concerns relating to blindness at this stage of the testing process, Commission Staff believes the disadvantages of open CLEC - CGT meetings at this time far outweigh any advantages presented to Commission Staff. The same need for openness is not present in the case of the CGT-CLEC meetings as it is with the CGT - U S WEST meetings. Indeed, the need for closed CGT - CLEC meetings to ensure blindness is of paramount importance at this early stage of the testing process. Commission Staff will manage these meetings to ensure that any issues which arise, or conclusions reached, that do not require blindness will be brought back to the TAG for an open discussion with U S WEST present. In addition, Commission Staff will ask CGT to take minutes of these meetings, which Staff will make available to U S WEST, in redacted format to ensure blindness. As blindness becomes less of a concern,

Commission Staff will revisit this issue and will eventually open the meetings to U S WEST through the establishment of a listen line.

Finally, with regard to scheduled meetings or calls between CGT and the Pseudo-CLEC, Commission Staff has requested that minutes be kept of all such interactions. Commission Staff will distribute the minutes of such meetings, with any confidential portions redacted, to the CLECs for informational purposes. For obvious blindness reasons, the Commission Staff cannot include U S WEST in the distribution of those minutes at this time. However, Staff expects that the bulk of these contacts will occur during the testing process itself. During the testing process itself, incidents or exceptions that arise will be documented on the Master Issues Log and provided to U S WEST and all other parties.

B. Meetings Between HP and U S WEST

At the outset, Commission Staff notes that there is apparently a great deal of confusion and misunderstanding surrounding the rules of operation the Commission Staff has asked HP to follow. See AT&T December 22, 1999 Letter to Staff Counsel at p. 3. Commission Staff will attempt to address those concerns herein, but will first address the issue of whether meetings between HP and U S WEST should be open, and if so, to what extent.

The CLECs state that one of their primary concerns is that the interactions between U S WEST and HP will occur totally outside of their view. AT&T December 22, 1999 Letter to Staff Counsel at p. 3. They go on to state that it was their understanding that at the December 13 TAG meeting the Commission Staff attempted to mitigate the CLECs' concerns about HP's selection as the pseudo-CLEC by assuring the CLECs that U S WEST's interactions with HP would be open. *Id.* at p. 3. The CLECs give two primary reasons why the interactions between U S WEST and HP should be made public. First, an open process permits CLECs to evaluate whether the treatment and assistance that U S WEST provides HP as a pseudo-CLEC is superior to the treatment and assistance that U S WEST has provided to CLECs in general. *Id.* at p. 4. Otherwise, HP will have no reference point regarding the treatment and assistance that U S WEST typically provides to the CLECs. *Id.* The second reason is that U S WEST may offer HP a "better mouse trap", in which case that offer should be made public and available to the CLECs as well. *Id.*

U S WEST responds that this issue presents a conflict between blindness and openness but that if it is the consensus opinion of the CLECs, U S WEST will support the decision to have the process open rather than blind. U S WEST Comments at p. 4. U S WEST further states that having the process open rather than blind is probably the most practical solution. *Id.* at p. 4.

The procedures used in other states support openness of contacts between HP and U S WEST. The CLECs note that in New York, all meetings between HP and Bell Atlantic were publicly noticed, a conference bridge was established for the meetings, and CLECs could listen in to the discussions. Meeting minutes were kept and were posted on a public Internet web page, and all documents exchanged between HP and Bell Atlantic were also posted on a public Internet web page. AT&T December 22, 1999 Letter to Staff Counsel at p. 4. AT&T also notes that all materials provided to HP by Bell Atlantic in regard to the HP role were identified and documented on the New York Commission's web site with links to Bell Atlantic's site that held the technical documents. *Id.* at p. 7. The CLECs endorse the New York process for purposes of the Arizona OSS test. *Id.* at p. 4.

Once again, given the consensus of all parties for openness of HP - U S WEST contacts, Commission Staff will require that henceforth all calls and meetings between HP and U S WEST be open to the CLECs through the establishment of a listen line, with the exception of incidental contacts.⁹ This will extend to contacts involving both HP and U S WEST's account representative as well as any contacts relating to the establishment of HP's EDI interface. This process shall begin immediately. Executive Sessions may be utilized when the information exchanged is interface specific, i.e., IP addresses for ftp locations, passwords, SecurID modules, etc. However, the CLECs will be apprised of the topics of discussion at any closed sessions either through notice or at the next regularly scheduled TAG meeting.

Commission Staff believes that implementation of these procedures at this time will preserve the integrity of the Arizona test. Indeed, the Arizona test is still in its early stages. In New York, the listen line was first established for HP's initial contact with Bell Atlantic's account representative. While an account representative was recently assigned to HP in Arizona, Commission Staff has asked HP to delay contacting the U S WEST representative until openness procedures could be established and put into place. As in New York, HP's first contact with the U S WEST account representative will be the "watershed" event at which time a listen line will become the rule of practice rather than the exception to that rule. Notice will be given of the date and time of this call to all parties, via e-mail. On subsequent notices, the Staff and its consultants will attempt to provide notice both through e-mail and on the Commission's web-site. Staff and its consultants will not always be able to give the amount of notice desirable in all cases, and expects parties to be flexible in this regard.

The other issues of concern raised involved HP's obligation to keep minutes of its meetings with U S WEST and to make publicly available any documents or information exchanged between HP and U S WEST. AT&T Letter at p. 3. The

⁹ *The Commission's consultant has raised several administrative and legal issues regarding this procedure. The Commission intends to address these issues with the TAG members this week. Parties should realize that to address some of these concerns, implementation of this process may result in blindness giving way to openness to some degree.*

Commission Staff wants to set the record straight in this regard that HP has been documenting all of its contacts with U S WEST, keeping Staff apprised of all such contacts on a continuing basis, taking minutes of those meetings and HP intends to make available to the CLECs any documents or information exchanged between it and the Company, as was the process in other states. Moreover, HP shall continue to take these steps in the future. In addition, HP shall be required to report at each TAG meeting any incidental contacts made and the subject of those contacts.

C. TAG MEETINGS

The third and final issue raised by the CLECs involved the processes used to conduct the current TAG meetings which the CLECs state are too restrictive, too short in duration and do not occur frequently enough. AT&T December 22, 1999 Letter to Staff Counsel, at p. 5. The CLECs go on to state that while nobody likes to have more meetings and longer meetings, in order to do justice to the evaluation of U S WEST's OSS and mitigate any delays to the overall testing schedule, as a rule, there should be two face-to-face TAG meetings every other week each lasting for at least two full days. *Id.* at p. 6. Further, the CLECs take issue with limiting input to one core representative per party and with forbidding the participation of outside persons via a conference bridge. *Id.* at p. 6. The CLECs state that for some issues, it may make sense for the parties to have subject matter experts other than core TAG members participating. They go on to state that the parties should be able to have subject matter experts participate in TAG meetings via conference call. *Id.* at p. 6.

U S WEST concurs that the restrictions placed on current TAG meetings need to be relaxed. U S WEST Comments at p. 5. U S WEST proposes that: 1) the rule that only the designated representative of a company can speak be eased and that for each issue a company should be allowed to designate a spokesperson, 2) discussion should not be cut off until all parties have had an opportunity to provide any and all input, 3) the meetings should be open to all interested parties, and 4) documents should be distributed to all persons attending TAG meetings, not just to one designated representative per company. *Id.* All in all, U S WEST suggests that the rules governing the TAG process be eased. *Id.* at p. 6.

Once again, given the unanimous opinion of all parties that the rules governing current TAG meetings be eased, Commission Staff and its consultants will make every attempt to accommodate the parties' desires in this regard. Henceforth, there will be two regularly scheduled, face-to-face TAG meetings per month. Topics for discussion at the next TAG meeting will be discussed and TAG participants can decide at that time how long they believe the next meeting should last. CGT has never strictly enforced the designated TAG spokesman rule and has generally allowed input from anyone in attendance. This will continue so that input can be freely offered by those present at the TAG meetings. CGT will only enforce a designated spokesman rule if the process

is abused. Parties will also be allowed to have subject matter experts participate in the future by conference bridge.

An issue was also raised by AT&T regarding the distribution of meeting minutes to core TAG members only. AT&T suggested that such limited distribution of meeting minutes presented problems when the core TAG members were on vacation or sick since they are responsible for disseminating the information to other participants within their respective organizations. To address this concern, CGT will begin e-mailing minutes and meeting notices to not only the designated core TAG member, but to the designated alternate as well.

Finally, absent more compelling reasons, the Commission Staff cannot agree to open the TAG process up to any interested persons, even though they are not parties to the Arizona proceeding.¹⁰ Given that confidential information for Sedona project participants only is routinely distributed at TAG meetings, it would be difficult to ensure confidentiality if non-parties were present. However, Staff will allow persons other than parties to this proceeding to participate with the Commission Staff Project Manager's authorization.¹¹ But until the Commission Staff is offered a more compelling reason for completely opening these proceedings, and a workable solution to the dilemma regarding the distribution of confidential information is found, Commission Staff cannot agree to unrestricted, open TAG meetings. Reasonable restrictions on attendance by non-parties are necessary to preserve the integrity of the test.

D. Use of the Commission's Web-Site As a Repository Of Information on U S WEST's Section 271 Compliance

Commission Staff also requested parties to comment on how the Commission could best utilize its web-site for information dissemination to the parties and interested persons. Virtually all commenters favored the use by the Commission of its web-site to disseminate information to the parties in this case. Commission Staff agrees and will henceforth use its web-site as a repository for information relating to U S WEST Section 271 compliance, including OSS testing. Staff will examine the web-sites of the other state commissions to assist it in determining what information to make available. Such information is likely to include, inter alia, meeting notices and minutes, issues logs, technical documentation, operating procedures and interface documentation pertaining to U S WEST's systems. The Commission Staff is also considering the use of a privacy code where blindness or confidentiality concerns are present. The

¹⁰ The TAG meetings are, of course, open to all parties of U S WEST's Section 271 proceeding, and all of these parties may also freely participate in any meetings.

¹¹ For example, the Commission Staff has given authorization to the Colorado Commission, other ROC state commissions, and the Department of Justice to freely attend any meetings held. The Commission Staff will have to, in such instances, institute a process for dealing with confidential information.

Commission Staff will discuss information availability and web-site use at an upcoming TAG meeting.

III. Other Issues

Several other issues were raised by U S WEST at the January 13, 2000 workshop to which the Commission Staff would like to take this opportunity to respond. First, U S WEST has expressed several times recently that it does not believe that it is receiving the information it needs concerning the testing process to ensure that the test is being conducted properly. It is true that the Commission Staff and its consultants, in an effort to preserve blindness and ensure test integrity, have withheld information regarding certain testing activities and the project schedule from U S WEST. Because one of our primary objectives, however, is also to ensure that this test is conducted properly, Commission Staff will allow U S WEST an opportunity to present information from other states relating to the type and amount of information disseminated to the BOC as part of the OSS testing process. U S WEST may also present reasons which would support its receipt of other information not routinely made available in other states for Staff's and its consultant's review and consideration.

So that this matter can be resolved expeditiously, U S WEST will have until Tuesday, February 1, 2000 to file comments with the Commission relating to this issue. All other parties may file reply comments on or before Friday, February 4, 2000. The Commission will consider the information presented and will to the extent possible allow U S WEST access to information to the same degree as that provided to the BOC in other states as part of the testing process, and to other information if the Company has made a persuasive showing to Staff that it should be entitled to the information. Additionally, the Company, like the CLECs, may also include comment on the topics typically included in any Executive Sessions in other states.

U S WEST also raised concerns regarding the process for escalating issues to the Commission Staff for resolution. The Commission Staff agrees with U S WEST that the Commission Staff and its Consultants, DCI, have an obligation to resolve such issues in an expeditious manner. It is the intent of the Commission Staff to do so. Accordingly, to address U S WEST's concerns in this regard, the Commission Staff has requested that a formal escalation process be put in place immediately between CGT, the Staff and its Consultants, DCI.

U S WEST and the CLECs also expressed concern that HP's issues were not included in the Master Issues Log. To the extent they are not now included, HP's issues will be included in the Master Issues Log in the future.

Finally, as a further assurance to the parties and its consultants, the Commission Staff will itself become much more proactive in the future to anticipate issues, resolve concerns expeditiously and to move the process along.

IV. Conclusion

Commission Staff commends AT&T and the other CLECs for having brought their concerns forward in an open and timely fashion. Commission Staff also commends the CLECs for the spirit of cooperation they have shown and for their significant efforts to make Arizona's test as open and rigorous as possible. Staff does not believe, that in bringing their concerns forward, the CLECs were in anyway trying to delay the process. To the contrary, had they not brought their concerns forward, the parties' continued confidence in the Arizona testing process may have been diminished and the test may not have been as rigorous as the testing done in other states to-date which all parties, including U S WEST, want to ensure. We also commend U S WEST for agreeing to openness as the general rule, rather than the exception, in its contacts with CGT and HP. This also evidences a desire on the part of U S WEST to make this an open and rigorous process. Overall, Staff is very encouraged by the cooperation shown by all parties to-date and by the tremendous progress that has been made.

While the procedures implemented herein will not be easy and will oftentimes result in a more difficult and lengthy process overall, Commission Staff strongly believes that they are necessary to preserve the integrity of the Arizona OSS test and to assure the continued confidence of the parties in our testing process. The Commission Staff will have to revisit some of these issues, as well as others, along the way to ensure that the appropriate balance of fairness and openness is achieved. Additionally, to the extent the test is not progressing as Commission Staff believes appropriate, adjustments will have to be made. Commission Staff recognizes that this is an evolving process, which will need constant attention, oversight and adjustment. The Commission Staff and its consultants are fully committed to devoting whatever time and effort it takes to make this a successful testing endeavor from everyone's perspective. Overall, the Commission Staff and its consultants believe the procedures described herein appropriately balance the interests of all parties and will be of benefit to not only the CLECs, but to the Applicant U S WEST, once the results of the Arizona OSS test are submitted to the DOJ and FCC. However, to the extent any party is not satisfied with the Staff's resolution of these issues, they may bring their concerns back to the Staff, or to the Hearing Division, which concerns will be resolved in a timely manner.

APPENDIX G – PERFORMANCE MEASUREMENT AUDIT

APRIL 7, 2000

APPENDIX G – PERFORMANCE MEASUREMENT AUDIT

This Appendix provides a description of the process to be followed in the Performance Measurement Evaluation segment of the Arizona Test of U S WEST's OSS. It will be conducted as a Program Audit as defined by the United States Comptroller General in the document *Government Auditing Standards* issued by the General Accounting Office.

INTRODUCTION

During the development of the Arizona 271 OSS Master Test Plan and the evaluation of Performance Measurements proposed by U S WEST, one or another CLEC has recommended that an "audit" of performance measurements be conducted. The definition provided for the desired audit stated that it should be a "full scale audit" performed before data can be used to ascertain U S WEST's 271 readiness. CLECs also stated that an audit must be conducted to ensure that U S WEST has adequately implemented the agreed-to measures and has proper controls around the collection, production, and storage of the data. In addition, the underlying systems must be audited to ensure that the OSS activity being reported is properly reflected in the data that is extracted from the system.

In the recent audit of Pacific Bell's Performance measurements, CLECs were informed that PricewaterhouseCoopers conducted numerous interviews and meetings with the Pacific Bell personnel who worked on the performance measurements, and reviewed all relevant procedures as well as evaluated systems used in the reporting process, including source data systems. On February 4, 2000 Cap Gemini was requested by a CLEC to take these types of (audit) processes into account and recommended that these activities be added to the project timeline.

Lacking a specific definition of what type of audit MCIW is looking for, and in an effort to describe the performance measurement process and data verification which it intended to conduct, Cap Gemini described its activities as a "review". This was intended to distinguish the examination of these data and processes from the requirements of a financial audit, which would be inappropriate in this instance.

ANALYSIS OF THE ISSUE

On behalf of the ACC and Cap Gemini, DCI has conducted an analysis of alternative means for addressing the issue of assuring all parties that performance measurements utilized in the Arizona OSS 271 test, and the related data accumulation, processing, calculating and reporting systems and procedures are accurately and correctly defined and truly implemented.

As an initial step in this analysis, DCI compared the proposed Regional Oversight Committee (ROC) Performance Measurement Audit (PMA) Tasks to the ACC Performance Measurement Review Tasks. These comparisons are provided on Attachments A and B to this memorandum.

Attachment A lists ROC PMA Tasks in the left hand column. This list includes Tasks a) through j) which are included in the ROC Test Requirements Document (TRF). It also includes three Tasks, k) through m) which MCIW has proposed, but which are not yet included in the TRF. ACC Performance Measurement Review (PMR) Tasks are listed in the right hand column. Both lists of Tasks are provided in the sequence in which they are listed in the ROC TRD and in the ACC Master Test Plan (MTP).

Attachment B correlates ACC PMA Tasks to those of the ROC. ROC PMA Tasks are listed and described in the left hand column. ACC Tasks which address each ROC Task are listed and discussed in the right hand column. As shown on Attachment B, DCI believes that every ROC PMA Task is addressed in the ACC Performance Measurement Review, although some ACC Tasks should be made more explicit in order to clarify this.

Following its comparative analysis of ROC PMA Tasks and ACC PMR tasks, DCI sought definitions of audits and reviews from authoritative sources, including the American Institute of Certified Public Accountants (AICPA) and the General Accounting Office (GAO). It found that AICPA standards were incorporated in those of the GAO.

Thus, a principal reference utilized in DCI's analysis is a document entitled: *Government Auditing Standards of the United States General Accounting Office (GAO)*, issued by the Comptroller General of the United States. The AICPA has issued standards that are applicable to and generally accepted for audits conducted to express opinions on the fairness with which an organization's financial statements present financial positions, results of operations and cash flows or changes in financial position. To the best of DCI's knowledge, based on inquiries of accounting firms, the AICPA has issued no standards for audits other than financial audits.

The Comptroller General of the United States has defined standards for financial audits, which as stated above, include those of the AICPA. The GAO has also provided definitions and standards for Performance Audits, which include Economy and Efficiency Audits and Program Audits.

- Economy and Efficiency Audits include determining (1) whether the entity is acquiring, protecting and using its resources (such as personnel, property and space) economically and efficiently, (2) the causes of inefficiencies or uneconomical practices and (3) whether the entity has complied with laws and regulations concerning matters of economy and efficiency. As with financial audits, economy and efficiency audits as a category are not applicable to the assessment of performance measurements against which U S WEST is being evaluated.
- Program audits include determining (1) the extent to which the desired results or benefits established by the legislature or other authorizing body are being achieved, (2) the effectiveness of organizations, programs, activities, or functions and (3) whether the entity has complied with laws and regulations applicable to the program. The review which Cap Gemini has proposed in the Master Test Plan for the OSS 271 test falls under the definition of Program Audit within the broader group of Performance Audits. Program audits, which may apply to services, activities and functions as well as programs, may include, for example:
 - Assess whether the objectives of proposed new or ongoing program are proper, suitable or relevant.
 - Determine the extent to which a program achieves the desired level of program results.
 - Assess the effectiveness of the program and or of individual program components.
 - Identify factors inhibiting satisfactory performance.
 - Determine whether management has considered alternatives for carrying out the program that might yield desired results more effectively or at a lower cost.
 - Determine whether the program compliments, duplicates, overlaps or conflicts with other related programs.
 - Identify ways of making programs work better.
 - Assess compliance with laws and regulations applicable to the program.
 - Assess the adequacy of management systems for measuring and reporting effectiveness.

FINDINGS

DCI finds that the generally broad terminology used by MCIW, DCI and Cap Gemini has complicated this issue. Cap Gemini has from the beginning, intended to conduct a review, examination and evaluation of performance measurements against which U S WEST will be evaluated in the Arizona OSS 271 test. It has also planned a comprehensive review of the processes, procedures, systems, data collection practices, calculation methodologies and other relevant activities, to at least a level which will satisfy FCC and DOJ requirements. In fact, it has been intended from the beginning that this review will exceed FCC, DOJ, ACC and the participating parties expectations.

This Performance Measurement Review, as conceived by DCI in the original Master Test Plan (Version 1.0), will meet, or exceed all requirements defined in the GAO publication Government Auditing Standards. The term Review was used by DCI synonymously with the concept of a Performance or Program Audit. This unfortunate usage derived from DCI's experience with government sponsored Management and/or Operations Audits which frequently have been termed by the issuing agency as Management and/or Operations Reviews.

DCI RECOMMENDATION

Given this interchangeability of terms, and the basic intent of the Master Test Plan, DCI recommends that the ACC adopt the GAO definition of Program Audit, and conduct the Performance Measurement Review in accordance with the GAO Government Auditing Standards, retitling it a Performance Measurement Program Audit. This should resolve the terminology debate and still leaves Cap Gemini with the latitude to conduct the Review/Audit in a manner which meets the Government Auditing Standards, but with the flexibility to define tasks and individual work steps appropriate to the subject at hand.

This flexibility is necessary in order for Cap Gemini to achieve "a sufficient understanding of the internal control structure in order to plan the audit and to determine the nature, timing and extent of tests to be performed as described in both the AICPA and GAO auditing standards." Nowhere in the AICPA standards or in the GAO standards are the number of tests, data points, or other quantitative factors defined. Rather they are left to the individual Audit Review program, and are to be based on basic tests of sufficiency, relevance, materiality and/or significance, and audit risk. The elements are to be determined in the preparation of the audit plan. For example, the degree of testing needed to determine data reliability generally increases to the extent that the general or application controls are determined to be unreliable or have not been reviewed prior to the audit.

GAO GOVERNMENT AUDITING STANDARDS

As stated in Chapter 1 Article 15, the term Audit in the GAO publication *Government Auditing Standards* includes both financial and performance audits. Chapter 3 provides General Standards for all types of audits. Chapters 6 and 7 address Performance Audit Standards, including both Economy and Efficiency, and Program Audits.

General Standards

There are 48 general standards, arrayed in four basic categories as follows:

1. The staff assigned to conduct the audit should collectively possess adequate proficiency for the tasks required.

2. In all matters related to the audit work, the audit organization and the individual auditors, whether government or public, should be free from personal and external impairments to independence, should be organizationally independent, and should maintain an independent attitude and appearance.
3. Due professional care should be used in conducting the audit and in preparing related reports.
4. Audit organizations conducting government audits should have an appropriate internal quality control system in place and participate in an external quality control review program.

Performance Audit Standards

There are 73 field work standards for Performance Audits and 73 Reporting Standards. Performance Audit Standards which are important to the ACC include those which address:

- Capability and experience of audit staff in the methodology to be applied and in the subject matter being audited.
- Adequacy of the audit plan and schedule.
- Development/acquisition of sufficient, competent and relevant evidence to afford a reasonable basis for the auditors judgments and conclusions.
- Reliability of evidence from computer based systems and adequacy of the systems.
- Adequacy of internal controls.

Effect on Budget and Schedule

Since DCI originally conceived of the Performance Measurement Review, as described in MTP Version 1.0, as a Program Audit, there should be no significant change in schedule or budget as a result of implementing the Recommendation of this report. However, as in any study of this kind, the actual amount of work to be done and the time required to do it, will be determined in the first task, development of a Work Plan.

In this case, one external factor will affect the quantity and duration of the work. Several of the Performance Measurements and the systems for collecting, analyzing and reporting relevant data have only been recently developed. These data are not all currently available, and will become available over the next three months, thus affecting the schedule for data collection and analysis. DCI's recommendation is offered on the basis of its experience and certification relative to audits sponsored by Public Utility Commissions throughout the United States. DCI has conducted numerous Commission sponsored Management and Operations (Performance Program) Audits of telecommunications, electric and gas utilities. DCI has been certified to be in compliance with government auditing standards. Thus, we know how to plan, conduct and report on these studies, and will provide advice and counsel to Cap Gemini as it proceeds.

PAD

COMPARISON OF PERFORMANCE MEASUREMENT AUDIT/REVIEW TASKS

ROC PERFORMANCE MEASUREMENT AUDIT TASKS

- a) Prepare the audit plan considering a phased approach if feasible
- b) Provide the audit schedule for all performance measures for use by the Test Administrator in the planning and scheduling of the related OSS tests requiring performance measures
- c) Conduct an end-to-end process analysis of U S WEST's performance measures process
- d) Conduct parity by process design for required measures (DB, DA, OS see PID)
- e) Audit performance data collection for completeness, timeliness and accuracy
- f) Audit performance measures calculation

ACC PERFORMANCE MEASUREMENT REVIEW TASKS

- a) Are the U S WEST documented performance measure business rules, gathering methods and procedures sufficient to ensure that the data elements gathered are accurate and complete
- b) Are any of the U S WEST data gathering or calculation processes manual? If so, are U S WEST manual data gathering and calculation processes sufficiently documented to ensure completeness, proper desegregation, and accuracy?
- c) Does the U S WEST performance measures process documentation contain proper information mapping data elements needed to compute each performance measure to a specific U S WEST system?
- d) Are the U S WEST documented data gathering and exclusion business rules consistent with the PID?
- e) Are the U S WEST calculations performed as defined in the PID?
- f) Are U S WEST supervisory review processes adequately documented and practiced to ensure calculation compliance is in place and adequately documented and practiced to ensure calculation compliance is in place and adequate to ensure the continuing accuracy of calculations?

ROC PERFORMANCE MEASUREMENT AUDIT TASKS

- g) Identify exceptions and recommendations
- h) Define a monitoring plan
- i) Provide weekly reports to the ROC Project Manager and the IA on the progress of the audit, rate of completion and any conclusive findings on material deficiencies
- j) Prepare and deliver a final audit report

MCIW PROPOSED TASKS¹²

- k) Verify system requirement documentation to ensure consistency between system coding and system requirements
- l) Verify data retention and the existence of proper security around reporting and archiving the data
- m) Re-certify any fixes U S West makes as a result of the audit findings

ACC PERFORMANCE MEASUREMENT REVIEW TASKS

- g) Are documented U S WEST change control procedures in place to ensure that changes to data are tracked and available for review? Are these sufficient?
- h) Is the U S WEST Performance Measurement Report Version Control Process documented, sufficient and practiced?
- i) Are historical logs available for changes to reported performance measures?
- j) Do procedures for changing data include appropriate change/version control? Are these procedures documented and consistent with the PID?
- k) Are Performance Measurement Reports currently available on the U S WEST website? If no, does U S WEST have plans to post Performance Measurements on their website? If so, are clearly written posting processes and change management processes documented and in practice?

¹² Note: Tasks k, l and m are additions to ROC Tasks a through j proposed by MCIW, and have not been reviewed by the ROC. . Also, ROC Tasks a through j have not yet been approved by that body.

<u>ROC TASKS</u>	<u>DCI COMMENTS</u>
<u>ROC Tasks a & b</u>	
Tasks a and b call for the preparation of an audit plan and schedule, and the provision of these to the Test Administrator.	The ACC believes these Tasks to be self-evident as integral parts of the process. However to be completely explicit the ACC will add a Task. Prepare a project plan and schedule.
<u>ROC TASK c</u>	
Task c calls for an end to end process analysis of U S WTS's performance measures process	This broadly defined Task is described in detail in ACC Tasks a, b, c, f, g, h and j
<u>ROC TASK d</u>	
Task d calls for conduct of a parity by process design for required measures, and references the PID	This Task relates only to (911) Data Base, Directory Assistance, and Operator Services. It is covered in ACC Tasks d and e, but should be made explicit.
<u>ROC TASK e</u>	
Task e calls for an assessment of data collection completeness, timeliness and accuracy	ACC Tasks a through e address completeness and accuracy. ACC needs to add timeliness to one or more of these Tasks. DCI suggests adding this to Tasks a and b
<u>ROC TASK f</u>	
Task f calls for a review of performance measures calculations	ACC Tasks b, e, and f address calculation accuracy. Task b addresses manual calculation processes. ACC should add a statement regarding electronic calculation processes.
<u>ROC TASK g</u>	
This Task requests the review to identify exceptions and recommendations	This Task, like ROC Tasks a and b, is implicit in each of ACC Tasks a through k. If necessary to be explicit, ACC can add this Task
<u>ROC TASK h</u>	
Define a monitoring Plan	ACC Tasks g, h, i and j address tracking of performance measurement data required for the review. ACC considers establishment of an on-going monitoring plan necessary, but beyond the scope of the performance measurement review. It could be added, but will be included in ACC's penalty discussion
<u>ROC TASKS</u>	<u>DCI COMMENTS</u>
<u>ROC TASK i</u>	
Provide Weekly Reports	See DCI comments regarding ROC Tasks a, b, and g
<u>ROC TASK j</u>	

<p><u>Prepare and deliver final report</u></p>	<p>See DCI comment for Task i</p>
<p>MCIW TASKS</p>	<p>DCI COMMENTS</p>
<p>MCIW TASK k</p>	
<p><u>Verify system requirement documentation to ensure system coding consistency</u></p>	<p>DCI interprets this to mean: <u>Ensure that coding matches/supports system specifications. If this is correct, it would be covered in one or more of the following ACC Tasks: a, c, d, and f.</u></p>
<p>MCIW TASK l</p>	
<p><u>Verify data retention security</u></p>	<p><u>ACC Tasks g, h, i and j address data retention issues. ACC should add security.</u></p>
<p>MCIW TASK m</p>	
<p><u>Recertify fixes U.S. WLSI makes</u></p>	<p><u>This is an integral part of a military style test which Cap Gemini will conduct and need not be called out here.</u></p>