

CERTIFICATE OF SERVICE

I hereby certify that the original and 10 copies of AT&T and TCG Phoenix' Comments Regarding TSD Version 2.3, Docket No. T-00000A-97-0238, were sent via overnight delivery this 10th day of April, 2000, to:

Arizona Corporation Commission
Docket Control – Utilities Division
1200 West Washington Street
Phoenix, AZ 85007

and that a copy of the foregoing was sent via overnight delivery this 10th day of April, 2000 to the following:

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Rhonda Munietta

1 OVERVIEW

1.1 Introduction

U S WEST Communications has filed notice with the Arizona Corporation Commission (ACC) of its intent to apply to the Federal Communications Commission (FCC) for approval to offer long-distance telecommunication services to its Arizona customers pursuant to the requirements of Section 271 of the Telecommunications Act of 1996 (The Act). The Act ~~prescribes~~stipulates the terms and conditions under which a Bell Operating Company (BOC) ~~an Incumbent Local Exchange Carrier (ILEC)~~, in the state of Arizona ~~it is U S WEST~~, [In Arizona, ILECs other than U S WEST are already free to offer in-region long distance service to its customers. It is more precise to refer to a Bell Operating Company rather than an ILEC] may offer such services within the boundaries of its home region. In Arizona, the BOC is U S WEST. The Federal Communications Commission has rendered its interpretation of the language of Section 271 through its various orders and rules, which ~~constituting~~ constitute the legal and practical standards which U S WEST must attain in order to be granted relief. One of the provisions of Section 271 requires that ~~specific~~ U S WEST provide non-discriminatory access to its Operations Support Systems (OSS) related to local service operations, must be sufficiently open to Competitive Local Exchange Carriers (CLEC) such that parity of service and a meaningful opportunity to compete will exist. This OSS is defined to include systems for pre-ordering, ordering, provisioning, maintenance, repair and billing. Full-scale testing of the capacities, operational characteristics, and functional capabilities of such systems has been established as the method by which they are benchmarked for 271 compliance.

~~The ACC, as the front line arbiter of on whom the FCC is required by law to consult to verify U S WEST's 271 compliance for the state of Arizona, has required U S WEST to submit its relevant systems to testing. The purpose of the testing is to determine the degree to which these systems adhere to the requirements of The the Act, the FCC orders and rules such that the ACC may make a recommendation to the FCC.~~

The ACC has contracted Cap Gemini Telecommunications (CGT) to function in the capacity of Test Administrator (TA) in the evaluation of U S WEST's Operations Support Systems (OSS) [The acronym "OSS" has already been identified in the document.] as required by the ACC, the FCC, and pursuant to the specifications of The Act. [The last half of the previous sentence tends to confuse the entire sentence without making any significant point. For the sake of clarity, AT&T recommends that the last half of the sentence is deleted.] Hewlett-Packard (HP) has been contracted to assume the roles of Pseudo-CLEC and Test Transaction Generator. Both companies will prepare test reports for presentation to the ACC following the tests, the HP test report is to will be included in the CGT document test report as an attachment. Doherty Company Incorporated (DCI), initially responsible for authoring the Master Test Plan (MTP) and performance measurements, now serves as Advisor to the ACC.

There are three major documents for the State of Arizona 271 compliance project: The Master Test Plan (MTP), which explains the generalized approach of five categories of tests and evaluations for 271 compliance (Functionality Test, Retail Parity Evaluation, Capacity Test, Performance Measurement Evaluation and Relationship Management Evaluation), the Test Standards Document (TSD), which describes “how” the 271 OSS tests and evaluations will be executed, and the Final Report, which documents the testing and evaluation of each of the five functional categories.

The Test Standards Document describes the testing details in the following eight sections. A brief description of each section follows:

- Section 1: Overview
- Section 2: End-User Friendlies
- Section 3: Functionality Test
- Section 4: Retail Parity Evaluation
- Section 5: Capacity Test
- Section 6: Relationship Management Evaluation
- Section 7: Performance Measurement Evaluation
- Section 8: Collocation and Interconnection

End-User Friendlies (Section 2) defines the term “Friendlies” and details their roles and responsibilities in the generation of usage and billing data, as well as verification of the U S WEST provisioning, maintenance and repair, and service ordering functions. A sample Letter of Authorization is included in this section along with a sample of the Friendlies Information Packet that will be distributed to each volunteer.

Functionality Test (Section 3) is designed to emulate the current CLEC activity profile and will be performed in the U S WEST production environment. The ordering process will include the transmission of Local Service Requests (LSRs) from the Pseudo-CLEC to U S WEST. In addition, Access Service Requests (ASR) and scripted tests from CLEC sites will be submitted using volunteer CLEC order entry personnel to be observed by the TA. Maintenance and repair transactions will be created by the Pseudo-CLEC and sent to U S WEST using the IMA-GUI interface. Additionally, maintenance and repair transactions will be created and sent to U S WEST using MCIWorldcom’s existing Electronic Bonding Trouble Administration (EB-TA) interface.

Capacity Test (Section 4) is designed to simulate a repeatable, controlled workload. The workload will simulate forecasted CLEC activity at a point one year from the start of the capacity test. The workload will include both normal and stress volumes. The total workload presented to U S WEST’s OSS during the execution phases of the test will include test transactions from the Pseudo-CLEC, as well as the normal production activities by of the CLECs, and U S West.

Retail Parity Evaluation (Section 5) will compare the experience of the U S WEST Service Order Representative with that of the Pseudo-CLEC’s Service Order

Representative. In this evaluation, a series of carefully scripted and controlled test cases will be run in both the U S WEST and Pseudo-CLEC environments. The comparison will include both qualitative and quantitative evaluations.

Performance Measurement Evaluation (Section 67) will assess the processes in place at U S WEST for collecting and computing the Performance Measures outlined in the Service Performance Indicator Definitions (PID). The assessment will include a review of the processes for wholesale and retail services. Additionally, the TA will collect and compute the Performance Indicators using three consecutive months of historical data.

Relationship Management Evaluation (Section 76) will include assessments of process documentation, adherence to processes, and the management of business relationships involving U S WEST and the CLECs in a competitive market. The Relationship Management Evaluation will review the following processes:

- U S WEST CLEC account initiation process
- Account Management process
- Co-provider Industrial Change Management Process (CICMP)
- Interface development processes
- U S WEST's CLEC Training

Collocation and Interconnection (Section 8) will assess the interaction between U S WEST and its CLEC wholesale customers. It will focus on qualitative evaluations obtained from interviews with participating CLECs and U S WEST. The measures demonstrating fulfillment performance will be evaluated based on historical data collected.

According to the ~~TSD~~MTP (Should this be the MTP?), the five tests/evaluations will proceed in three phases: Planning and Preparation, Execution, and Reporting. Each phase, is further broken down into three parts: Entrance criteria, Activities, and Exit Criteria.

Testing will include on-site monitoring of U S WEST Service Centers, Maintenance and Repair (M&R) processing, and a Scalability Analysis. Additionally, evaluation of the quality of U S WEST training, reference material, support from U S WEST account management team and other U S WEST resources will be documented.

There are several acceptance checkpoints involved in this test including daily reports, regularly scheduled meetings with the Test Advisory Group (TAG), formal meetings with the ACC, and formal milestone checkpoints. After testing has been completed, the TA will assure that the test environment has been cleaned up and returned to its pre-test condition.

1.2 Test Approach [This section is intended to be an overview description of the approach to the entire test, yet it only describes the approach to Functionality Testing. The other tests, Capacity, Retail Parity, etc., should be summarized and presented here.]

The TA's approach to all test-related activities, including the establishment of the working environment, shall be designed and carried out by fostering a high level of cooperative collaboration between all test participants. The participants include the ACC, the Pseudo-CLEC, the TAG, specific CLECs, U S WEST, and DCI.

The Work Breakdown Structures (WBS) from all test participants have been integrated and incorporated into a Master Project Control Schedule that is managed by the TA Project Manager. Detailed activity plans and schedules are monitored to measure milestone achievement and percent completion of each task. The Schedule Performance Index (SPI) gives a weighted value of the Budgeted Cost of Work Performed (BCWP) against the Budgeted Cost of Work Scheduled (BCWS). Measuring each task using SPI, the TA can determine whether the Project is ahead of schedule, behind schedule, or running on time. This calculation is performed weekly using a Weekly Status Report (WSR) tool and reported to the TAG.

The TA's approach is in accordance with the MTP in terms of simulating the CLEC environment and using the strategy provided to implement the functionality, retail parity, and capacity testing of U S WEST's OSS environment. The TA's plan includes specific entrance and exit criteria for each phase of the testing. Roles and responsibilities for each team member are identified and assigned. Work is scheduled, monitored and progress tracked to accurately reflect completion of tasks and attainment of project milestones.

1.3 Development of Test Scenarios, Test Cases and Test Scripts

The Test Scenarios found in the MTP, defined classes of tests to be conducted, were used to develop a list of specific Tests Cases in order to determine 271 compliance. From this list of Test Cases, detailed Test Scripts, step by step test execution instructions, were written. Test Scripts were written only for the Functionality Test, the Capacity Test and the Retail Parity Evaluation. The Performance Measurement Evaluation and Relationship Management Evaluation do not utilize Test Scenarios, Test Cases or Test Scripts as part of their evaluations.

For the Retail Parity Evaluation, the Test Scripts are used in carefully controlling the pace and quality of the tests and are built to a greater level of specificity than those for either the Functionality Test or Capacity Test.

The Functionality Test will include the development of Test Cases that will address pre-ordering, ordering, provisioning, maintenance & repair, and billing. The Functionality Test Cases will be applied to services including:

- Resale
- UNE-P

- UNE-loop
- Designed Services
- xDSL
- UNE-loop with number portability
- Number portability

Functionality Test Case Order types will include:

- New installation
- Conversion "as is"
- Conversion "as specified"
- Partial migration
- Change
- Disconnect
- Cancellation
- Outside move[the meaning of this Order Type is unclear]
- Suspend
- Restore
- 911/DA database updates as required
- Supplements

See Appendix E for examples of the Test Scripts. (There should be some reference to where the complete list of Test Scripts will be maintained. There should also be reference to the complete set of test scripts being available to all parties after the conclusion of the testing.

Functionality Testing will include the following:

- a) A prescribed mix representing the products as required in the MTP
- b) A mix of flow through and non-flow through transactions
- c) Submission of LSRs and ASRs through all valid avenues of transmission as specified in the MTP
- d) Establishment of end-user accounts to support usage testing
- e) Processing multiple orders against a single account (e.g., new order, supplemental order, change order, disconnect order)
- f) Maintenance and Repair requests against both U S WEST and specific CLEC accounts

To facilitate tracking and analysis of the test results, test cases for both Functionality and Retail Parity Evaluation will have unique tracking numbers which will identify the type of product being tested and the iteration number. These tracking numbers are for internal use and will only be populated in the Friendlies Entry Form and test scripts. The Pseudo-

CLEC will assign a unique PON (Purchase Order Number) to each LSR generated during the course of testing.

Based on recommendations from the Statistical Team (see APPENDIX K), there will be several iterations of each test case depending upon the statistical sampling requirements of each functionality test scenario. The data in the Functionality and Retail Parity Evaluation Test Cases will be used to create test scripts. See Appendix E for sample test scripts.

For the Functionality Tests, test scripts will be delivered to the Pseudo-CLEC in lieu of receipt of customer calls. Pseudo-CLEC personnel will enter the data from the test scripts into the U S WEST OSS to generate the LSR[please insert: "Pre-order transaction, and Trouble transaction"]. Pseudo-CLEC entered transactions will be entered into the U S WEST systems via a combination of Interconnect Mediated Access – Graphical User Interface (IMA-GUI) (U S WEST terminology is that its IMA interface includes both the GUI interface and the EDI interface. It would be more precise to refer throughout the document to the IMA-GUI when referring to the GUI interface instead of IMA.) and Electronic Data Interchange (EDI) interfaces and other electronic interfaces. The IMA interface will be connected to U S WEST by both dial-up and directly connected leased lines. The EDI interface will be connected to U S WEST via T1. CLEC entered ASR transactions will be entered by CLECs using their EXACT interface to U S WEST. If the pre-order, LSR/ASR-, or repair transaction is rejected, the rejection will be compared to the anticipated results for that test case to determine if further action is necessary, as some test cases are designed to reject.

1.4 Test Script Delivery and Processing

For the Functionality Tests, the TA will generate Test Scripts (Appendix E). The TA will deliver the Test Scripts to the Pseudo-CLEC,; During the execution of the test scripts, TA whose representatives will be present at the Pseudo-CLEC site for monitoring purposes. The Test Scripts will consist of the prescribed mix of pre-order queries and orders to be processed for the current day's tests. Repair transactions will be similarly scripted.

The Pseudo-CLEC, or CLEC (in the case of ASR), will collect order status for daily reporting to the TA. The Pseudo-CLEC, or TA Observer (for ASR), will manually or mechanically date and time stamp all the relevant data for each pre-order, ordering, provisioning, and M&R transaction from the time the test script is submitted to the OSS to the point of LSR/ASR completion or cancellation. The information collected will include the following as applicable:

- a) Date/time stamp for each transaction
- b) EDI acknowledgements[997 transactions]
- c) Error rejections
- d) Resubmission of an order
- e) Firm Order Confirmation (FOC)

- f) Provisioning Transactions (i.e. telephone calls involving coordinated hot cuts and broadcast messages sent to the number portability database)
- ~~f)g)~~ Service Order Completion (SOC)
- ~~g)h)~~ Manual jeopardy notifications
- ~~h)i)~~ Billing records

The Pseudo-CLEC and CLEC running the ASR tests will provide processing [it is unclear what is meant by “processing data”] data to the TA. The TA will use the information received from the Pseudo-CLEC and CLECs in its evaluation of test results.

For the Retail Parity Evaluation, the TA will generate detailed Test Scripts and will closely control and monitor the execution of each script by the Service Order Representatives of both U S WEST and the Pseudo-CLEC. To ensure that test integrity is not compromised within the U S WEST Service Order Center, the TA will request that the U S WEST portion of the test be conducted in a room that is segregated from the other work in progress.

2 END-USER/FRIENDLIES

2.1 Introduction

End Users ("Friendlies") are individuals within the operating area Arizona for which the 271 tests are test is being conducted who volunteer their services to aid in the verification of U S WEST provisioning and repair operations and the generation of real-world usage and billing data. The Pseudo-CLEC will be responsible for the execution of these test activities through the Friendlies. ~~Both U S WEST and the Pseudo-CLEC will execute retail parity tests via Friendlies~~ Friendlies will be used for the Functionality and Retail Parity tests. EB-TA T and ASR Test Cases involving Friendlies will be executed by a CLEC with an EB-TA interface to U S WEST. ASR test cases will be executed via EXACT.

Friendlies will be recruited and managed by the TA. The recruitment of Friendlies will be carried out in a manner approved by the ACC. Solicitations typically target TA employees, state government employees, CLEC employees, and/or U S WEST employees as approved by the ACC.

U S WEST COMMENT 3/6/00: ...second paragraph refers to the ACC's approval of the solicitation of Friendlies. This reference seems inconsistent with the procedure that has been followed to date. U S WEST requests clarification regarding the ACC's role in approving the solicitation of Friendlies.

CGT RESPONSE 3/15/00: CGT provided the ACC and DCI different alternatives for recruiting Friendlies. The ACC and DCI chose to only recruit Friendlies from TAG Member organizations

2.2 Scope

The TA End-User Team will ensure Friendlies effect controlled usage which will generate billing data from multiple test sites by executing a set of precisely contrived test cases. The TA will track usage, billing, and M&R data resulting from these test activities.

2.3 Approach

The Friendlies' test activities will focus on Resale, UNE-P, UNE-Loop, UNE-Loop with number portability, and number portability. The Friendlies' activities will cause the controlled generation of usage records that will in turn generate billing data. The values of these records are to be tracked and validated by the TA End-User Team in a manner

consistent with the specified test procedures. The Pseudo-CLEC will be responsible for securing all Friendlies-related test data and ~~make~~making it available to the TA.

2.4 Entrance Criteria~~This section does not contain entrance criteria, and no other section describes the entrance criteria for the End User/Friendlies.~~

A portion of the Friendlies will be assigned to participate in the testing of Resale, UNE-P, UNE-Loop, UNE-Loop with number portability, and number portability. Depending on the tests being performed, additional telephone lines may be installed at selected Friendlies test sites.

The TA End-User Team will identify Friendly volunteers that are served by a central office housing CLEC collocation facilities. These Friendlies will be utilized for UNE-L type test scenarios. The remainder of Friendlies will qualify as candidates for executing test cases other than UNE-L type test scenarios. The following process sequence will be applied to the assignments:

AT&T COMMENT 3/3/00: Modify first sentence to "housing CLEC collocation facilities"

CGT RESPONSE 3/15/00: Done.

1. The end user team will identify selected central offices containing the collocation demarcs offered by the participating CLECs.
2. The TA will identify the NPA-NXXs associated with those central office locations.
3. Friendly volunteers will be selected through the association of their main directory number to the central office collocation prior to the assignment of the remaining test cases.

AT&T COMMENT 3/3/00: What is a customer service request? This is the first reference to it. Should this be the Customer Service Record? This is confusing with customer service record. In reference to last sentence - ABSOLUTELY NOT!!!!!!! In fact, friendly customers with loops served by pair gain equipment should be intentionally included in the UNE-L functionality test.

CGT RESPONSE 3/16/00: Done.

4. Once the Friendlies have been established, their location will be mapped to test cases.

In some cases, Friendlies' secondary lines may be used for unbundled loop, number portability and Retail to Wholesale parity tests. CLEC collocation cages at specific U S

WEST locations will be identified and provisioned for use in the UNE-Loop, UNE-Loop with number portability, and number portability testing.

Before testing may begin, Friendlies must be ready to execute predefined telephone calling/usage cases from the test locations. The purpose of Friendlies test cases is to:

- a) Report on service order successes and failures.
- b) Generate usage for billing evaluation.
- c) Provide actual service installation time
- d) Demonstrate the provision of repair services by U S WEST.

The TA, together with the TAG, will define the quantity of Friendlies required for testing.

Friendlies will include a mix of business and residential locations. Sufficient Friendlies accounts will be identified to support the testing load. Friendlies will receive information detailing the types of calls they will be required to originate, the dates required, and any documentation required during the testing. This information will be compiled in the Test Call Instructions (Figure 2.4-1) and the Call Detail Logs (Figure 2.4-2) provided to each Friendly. Please see next page for a sample of the Test Call Instructions and the Call Detail Log.

Figure 2.4-1: Example of Test Call Instructions

Test Call Instructions

As a volunteer, please follow the instructions outlined below and complete the attached Call Detail Log to record these test calls. Return the Call Detail Log in the Return Postage Paid Envelope within 24 hours of completing these test calls.

Please perform these calls on the date indicated on the attached Call Detail Log.

If you have any problems or questions with these instructions, please contact Jason Saults at 1-800-227-4230 x3789 or Andrew Bennett at 1-800-227-4230 x2721 for clarification.

TEST CALL 1: Verify 900 blocking
 Dial 1-900-XXX-XXXX from the test line
 Verify you hear the recorded blocking message such as: "At the customer's request you cannot dial that number from this line". Hang up and circle YES below. [Where is the YES to circle?]
 The call will be a failure if the caller is connected to the 900 number. Hang up and circle NO below. [Where is the NO to circle?]

TEST CALL 2: Verify ability to dial 800 numbers.
 Dial 1-800-227-4230 from the test line to connect to the Cap Gemini voice messaging system.
 When you hear, "Thank you for calling Cap Gemini America" the test call is deemed successful, hang up and record in the Call Detail Log. If you do not hear "Thank you for calling Cap Gemini America", hang up and note the call was not successful in the comments section of the Call Detail Log.

TEST CALL 3: Verify Directory Assistance availability.
 Dial 1411 from the test line.
 Ask for the telephone number for the Local US Post Office telephone number in your city.
 Verify that the Directory Assistance Operator was able to give the number; record the number given on the Call Detail Log. If the call was not successful, please note this in the comments section of the Call Detail Log.

TEST CALL 4: Verify Long Distance Carrier
 Dial 00 (zero, zero) from the test line.
 Verify you are connected to a Long Distance operator.
 Ask the operator: "What Long Distance company am I connected to?" Hang up and record the carrier in the comment section of the Call Detail Log. Also note on the Call Detail Log comments section if you are not connected to a Long Distance operator or if you are not assigned to a Long Distance company.

TEST CALL 5: Long Distance Call Completion
 Dial 972-XXX-XXXX and listen to the message. Hang up and record the call duration on the Call Detail Log. If call was not successful, please note that in the comments section of the Call Detail Log.

TEST CALL 6: Local Call Completion
 Dial XXX-XXX-XXXX and listen to the message. Hang up and record the call in the Call Detail Log. If call was not successful, please note that in the comments section of the Call Detail Log.

TEST CALL 7: In-State Interlata Long Distance Call Completion
 Dial XXX-XXX-XXXX and listen to the message. Hang up and record the call duration on the Call Detail Log. If call was not successful, please note that in the comments section of the Call Detail Log.

TEST CALL 8: In-State Intralata Long Distance Call Completion
 Dial XXX-XXX-XXXX and listen to the message. Hang up and record the call duration on the Call Detail Log. If call was not successful, please note that in the comments section of the Call Detail Log.

Please feel free to add any additional comments:

Thank You for your participation in this effort!

Figure 2.4-2: Example of Call Detail Log

CALL DETAIL LOG					
NAME: _____			DATE: _____		
ADDRESS: _____					
TEST LINE TELEPHONE NUMBER: ____ (____) _____					
Test Number	Test Call Description	Date	Start Time of Call	End Time of Call	Comments
1	900/976 Blocking				
2	800 Number Dialing Capability				
3	Directory Assistance				
4	Long Distance Carrier Verification				Long Distance Carrier: _____
5	Long Distance Call Completion				
6	Local Call Completion				
7	In-State InterLATA Long Distance Call Comp.				
8	In-State IntraLATA Long Distance Call Comp.				

I certify the information completed above to be true and accurate. I further certify that I made the phone calls at the start and end times shown above.

 Signature _____ Date

(Please return this Call Detail Log to Cap Gemini in the postage-paid return envelope provided within 24 hours of completion of test calls)

TA End-User Test Team Activities

2.4.1 IDENTIFYING FRIENDLIES

The TA End-User Team will recruit Friendlies for the required number of Friendly Test Cases to participate in the Functionality Test and the Retail Parity Evaluation of U S WEST CLEC services. Friendlies will be comprised of volunteers providing with physical locations where test lines will be installed and/or where existing secondary lines will be converted. The ACC may choose to provide potential Friendlies from the state's employee resource bases. Once sufficient volunteers have been identified, the TA will compile a list of potential Friendlies from each TAG member, and determine which candidates will participate. The TA will ensure that a proper mix of Friendlies is obtained from each organization.

Potential Friendlies must have existing local service in the state of Arizona. The TA will determine which potential Friendlies from TAG member organizations will be candidates for conversions or new installations. If a Friendlies candidate has more than one line, one or more of those lines may be converted to the Pseudo-CLEC. In most cases, the secondary line will be the one converted. Potential Friendlies with only one line may be candidates for the installation of a new secondary line.

The TA End-User Team will gather the following information from potential Friendlies:

- a) Name
- b) Address (Street/City/Zip)
- c) Residence or Business line
- d) Number of active lines currently installed at the address
- e) Daytime & Evening Contact Telephone Numbers
- f) Preferred Primary Inter-LATA (Local Access Transport Area) & Intra-LATA Primary Inter-exchange Carriers (PIC)
- g) Record any Friendlies request for a non-published Directory Assistance listing on the test line to be installed or converted.

After obtaining the proper information from the potential Friendlies, the TA End-User Team will send Letters of Authorization (LOA) (Figure 2.5.1-1) for the potential Friendlies to sign and return. The signed LOAs will enable the TA to act as an agent to set up the Friendlies' lines for testing. Upon receipt of the signed LOA the TA will determine if the potential Friendly will be selected to participate, based on facilities

availability. The TA will forward copies of the signed LOAs to the Pseudo-CLEC.
(Please see next page for a sample LOA.)

Selected Friendlies will be provided information packets defining their responsibilities.

The Friendlies' responsibilities will include:

- a) Performing 10 to 15 test calls on the test line at specific times over a 2 to 3 month period (these test calls are separate from normal calling)
- b) Recording the details of the test calls in a Call Detail Log (Figure 2.4-2)
- c) Returning Call Detail Logs to the TA in Return Postage Paid envelope(s) within 24 hours of test completion.

Figure 2.5.1-1: Example of the LOA

Letter of Authorization	
Customer Billing Name:	_____
Customer Billing Telephone Number:	_____
Preferred Directory Listing (circle one):	Published Non-Published other: _____
Secondary Line Telephone Number (if applicable):	_____
Customer Street Address:	_____
City, State, Zip Code:	_____
Individual authorized to act for customer:	_____
Employer	_____
<p>By signing below, I am authorizing Cap Gemini America, Inc. ("CGA") to order US WEST or another phone company to install or convert up to two secondary telephone lines onto my premises for up to nine months, but in any event concluding no later than December 2000, and I further acknowledge and agree to be bound by, and to comply with, the terms and conditions specified below. All installation, conversion, disconnection or removal (if applicable) and usage billing related to ARIZONA CORPORATION COMMISSION (ACC) usage and functionality testing for said lines will be charged to CGA.</p> <p>I understand and acknowledge that the test lines installed and/or converted will be secondary lines that may not be available for use at all times. I agree to hold CGA and all other parties involved in the usage and functionality testing harmless from any damage or injury related to the installation, removal or non-availability of the lines related to the ACC usage testing. I acknowledge and agree that CGA may disconnect or remove such lines or convert such lines back to their original state at any time without notice.</p> <p>The newly installed lines are to support the testing effort. I understand I will be responsible for conducting the testing on the test line(s).</p> <p>I understand the activities surrounding the installation and usage testing is private and confidential and I agree not to disclose any information surrounding the installation, usage or testing to anyone other than CGA.</p> <p>I understand and agree that any usage other than ACC testing usage will be considered unrelated to testing and will be billed to me personally and that I will be responsible for, and will timely pay, for such usage.</p> <p>I understand and agree that I will be responsible for performing a limited number of test calls on this test line (10 to 15 test calls a month) to generate call activity on the test line and I will record the execution results of those test calls on the Call Detail Logs provided to me prior to testing. I understand CGA will provide the specific test calls to be completed on the test line.</p> <p>I understand I will be provided Call Detail Logs to report on test call execution and I will be responsible for completing the Call Detail Logs on the specified date and returning the Call Detail Logs to CGA in the postage paid envelope I will receive prior to testing.</p>	

Figure 2.5.1-1: Example of the LOA continued

I acknowledge and agree that by allowing for the installation or conversion of the secondary test line or lines and by performing the test calls and recording the results in the Call Detail Logs and returning such logs to CGA and all other matters related thereto, I will not be considered an employee of CGA and that I will not be entitled to any salary or benefits accorded to CGA employees. The sole consideration for the installation or conversion of the secondary line or lines, the making and the recording of the test calls in the Call Detail Logs, returning such logs and all matters related thereto or hereto shall be \$1.00.

By signing below, I certify I have read, understand and agree with and to all of the provisions and terms and conditions in this Letter of Authorization. I further certify that I am at least 18 years of age and I am authorized to allow telephone installations for service and conversions of existing lines specified by me to the address listed above.

Please sign and return this Letter of Authorization by *(2 weeks from distribution date)*. If there are any questions, call one of the numbers below.

Signed _____ Date _____

Thank you for opening your facility and/or home in order to assist the ACC Sedona Project End User Test Team in fulfilling our testing requirements.

Return Signed LOA to: Cap Gemini Telecommunications **Or FAX to: 972/235-4300**
 Attn: SEDONA TEAM
 801 E. Campbell Road
 Suite 475
 Richardson, TX 75081

<u>ACC Sedona Project End User Test Team:</u> Jason Stults – End User Team Lead 800-227-4230 ext. 3789 <u>jstults@usa.capgemini.com</u>	<u>ACC Sedona Project End User Team:</u> Andrew Bennett – End User Team 800-227-4230 ext. 2721 <u>abennett@usa.capgemini.com</u>
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U S WEST COMMENT 3/6/00: The Letter of Authorization ...still does not contain any reference to listings on the Friendlies' accounts. U S WEST requests that the LOA be revised to include information advising the Friendlies of the potential impacts relating to listings and to include any possible consequences from listings in the potential damage or injury for which the Friendlies agree to hold the test participants harmless

*CGT RESPONSE 3/15/00: See replacement LOA above.******

2.4.2 INITIAL INSTALLATION AT FRIENDLIES LOCATIONS

The TA End-User Team will provide U S WEST with information needed to provision new test lines at selected Friendlies locations. The TA End-User Team will provide U S WEST with a list of Friendlies requiring installation of test lines. The guidelines for U S WEST to follow for installing test lines will be:

- a) POTS line with local calling capability only

- b) Bypass Credit Check
- c) New Line (not secondary to customers existing Primary line)
- d) No LPIC or PIC
- e) Block 900/976
- f) Block International Calls
- g) Block Terminating Collect Billing in LIDB
- h) Block Terminating Third Party Billing in LIDB
- i) Block Originating Directory Assistance
- j) Standard DA listing
- k) All Flat-Rate service
- l) No Features
- m) Do not install in any Foreign Exchanges [the TA screening of friendlies should avoid this]
- n) U S WEST to identify installs that are NON-MSA
- o) Billing information

U S WEST will contact Friendlies to coordinate the install process. U S WEST representatives will follow the script in Figure 2.5.1.1-1 when coordinating the install with the Friendlies (at no time making any reference to 271 compliance testing). Once U S WEST and the Friendlies have determined an install date, U S WEST will provide the customer service record ("CSR") to the TA End-User Team who will enter the date into the Friendlies Tracking Database. If any conditions arise that jeopardize the installation effort, U S WEST will inform the CGT-TA End-User Team of these conditions via Email to the Email address identified in section 6 [there is no section 6 in the Figure] of Figure 2.5.1.1-1. If the Friendlies have any questions throughout the installation process, U S WEST representatives will be instructed to refer the Friendlies to the TA End-User Team contact names in Figure 2.5.1.1-1. The TA End-User Team will follow up with the Friendlies to ensure the test lines are active after the install date has passed.

Figure 2.5.1.1-1 Script for U S WEST new installs

Process for U S WEST to Install Friendlies Test Lines
<p>Receive Friendlies New Install list from CGT. Verify customer information in U S WEST databases. Prepare to set up the new test lines with the following guidelines:</p> <ul style="list-style-type: none"> POTS line with local calling capability only Bypass Credit Check New Line (not secondary to customers existing Primary line) No LPIC or PIC Block 900/976 Block International Calls Block Terminating Collect Billing in LIDB Block Terminating Third Party Billing in LIDB Block Originating Directory Assistance Standard DA listing All Flat-Rate service No Features Do not install in any Foreign Exchanges U S WEST to identify installs that are NON-MSA Use Billing Name: Kimberly S. Wright Use Billing Address: 4747 E. Elliot Rd., #29-1142, Phoenix, AZ 85044 <p>Contact customer using the following verbiage to coordinate the Friendlies test line installation:</p> <p>=====</p> <p>This is _____ with U S WEST; Cap Gemini Telecommunications has provided me your contact information because you recently volunteered to assist in the testing of competition for local telephone service in Arizona. I am contacting you to set up a time to install a test line at your residence.</p> <p>The First available date and time we have to install the test line is: _____</p> <p>If you are unavailable at this date and time, which date/time do you prefer: _____</p> <p>Okay, we will be there on _____, between the hours of _____ to set up the test line.</p> <p>Cap Gemini Telecommunications representatives will be providing you further information on testing requirements. Thanks for volunteering to help with this very important effort in the state of Arizona.</p> <p>If you have any questions or concerns regarding this test line please contact Jason Stults at 1-800-227-4230 x3789 or Andrew Bennett at 1-800-227-4230 x2721.</p> <p><i>Notes to U S WEST representative:</i> <i>If the volunteer has any questions, inform the volunteer to contact CGT at the above numbers</i> <i>U S WEST representatives can only discuss the install dates with the volunteer.</i> <i>The volunteers can not add any additional features to these lines during the testing effort.</i></p> <p>=====</p> <p>Upon completion of the request to install the new test line, a copy of the customer service record needs to be printed and forwarded to CGT to confirm the installation of the test line.</p> <p>Any condition that may cause a jeopardy to the installation must be forwarded to CGT when the jeopardy condition is detected, by contacting CGT via Email at jstults@usa.capgemini.com and/or abennett@usa.capgemini.com with the Subject: "Friendlies Jeopardy Condition".</p>

2.4.3 MANAGING FRIENDLIES

Friendlies will be managed remotely via telephone and will be provided with information packets containing detailed instructions including:

- a) The Test Call Instructions (Figure 2.4-1) and Call Detail Logs (Figure 2.4-2) for each scenario assigned
- b) Return Postage Paid envelopes to return Call Detail Logs, and
- c) An outline of responsibilities throughout the testing period.

Each Call Detail Log will have assigned to it a specific date when testing is to be conducted. The TA End-User Team will follow up with each Friendly at predetermined times to ensure understanding and the ability to perform the responsibilities. Each Friendly will be responsible for making test calls on the ~~designate~~ designated line, recording the details on a Call Detail Log (Figure 2.4-2), and returning that log to the TA in the pre-addressed postage paid envelope included in the information packet.

2.4.3.1 CREATION OF VOICEMAIL BOXES FOR TEST CALLS

The TA End-User Team will manage the creation of voice mailboxes to be used for Friendly test calls. Instructions for making the test calls to these voice mailboxes will be provided to each Friendly via the test-call instructions in Figure 2.4-1. The TA End-User Team will setup the out-of-state Long Distance Voicemail Box in the 972 or 214 area code (Dallas, TX) for Friendlies Long Distance test calls (Test Call Number 5). The TA End-User Team will work with U S WEST to setup voicemail boxes in Arizona for additional Friendlies test calls.

The TA End-User Team will create a greeting on each of these voice mailboxes stating "Thank you for your participation in this testing effort for the State of Arizona, your time is greatly appreciated. Please record that you have successfully completed this call in the appropriate section of your Call Detail Log. It is not necessary to leave a message on this number. Thank you and have a good day!"

2.4.4 DEVELOPING FRIENDLIES TEST CASES

The TA will determine the proper combination of test scenarios for Friendlies and determine which Friendlies will be assigned to specific scenarios based on facilities availability. Test cases will be developed from the scenarios outlined in Attachment A of the MTP. A selection of Friendlies will be matched to test scenarios for DSL or ISDN testing based on their locations and facilities available to accommodate these tests. Certain Friendlies may have more than one testing scenario (e.g., first scenario may be to install a new line, then issue a request to make a change on the line).

2.4.4.1 FRIENDLIES TEST SCENARIO ASSIGNMENT GUIDELINES

In order to properly match Friendlies with the correct test scenarios the TA End-User Team will utilize the following guidelines to match Friendlies to specific test scenarios:

Retail to UNE-P Conversion test scenario assignment:

- Friendlies must have existing local Service in Arizona

Resale to UNE-P Conversion test scenario assignment:

- Friendlies must have existing local Service in Arizona

Retail to Resale Conversion test scenario assignment:

- Friendlies must have existing local Service in Arizona

UNE-P to UNE-L Conversion test scenario assignment:

- Friendlies must have existing UNE-P service in Arizona – or this will require a line conversion to UNE-P to start the test sequence
- Collocation facilities available at Friendlies location

AT&T COMMENT 3/3/00: Add UNE-P to UNE-L Conversion.

CGT RESPONSE 3/15/00: Done.

Resale New test scenario assignment:

- Friendlies Residence/Business location in Arizona

UNE Loop New Connect test scenario assignment:

- ~~Friendlies must have existing local Service in Arizona~~
- Collocation facilities available at Friendlies location

Retail to UNE Loop w/ Number Portability test scenario assignment:

- Friendlies must have existing local Service in Arizona
- Collocation facilities available at Friendlies location

Change UNE-P test scenario assignment:

- Friendlies must have existing local Service in Arizona
- Line has been converted to Pseudo-CLEC

Miscellaneous UNE-P test scenario assignment:

- Friendlies must have existing local Service in Arizona
- Line has been converted to Pseudo-CLEC

2.4.5 DETERMINING QUANTITY

The TA Statistics Team will identify the total number of Friendlies required to perform all test iterations, and provide this information to the TA End-User Team.

2.4.6 DETERMINING DISTRIBUTION

The TA End-User Team will determine which Friendlies are candidates for new installations and/or secondary line conversions, and ensure enough new lines are installed for a statistically sound valid test.

2.4.7 TRACKING

The physical location of each Friendly will be documented and stored in the TA project database. The TA End-User Team will be responsible for ensuring all location information is correct and updated in a timely matter. See Figure 2.5.6-1 below for an example of the Friendlies information entry screen.

Figure 2.5.6-1: Example of Friendlies Entry Form

The screenshot shows a Microsoft Access window titled "Microsoft Access - [Contacts]". The main form is titled "Friendly Information" and contains the following fields and controls:

- TrackingNo:** A text box at the top right.
- ContactID:** A text box.
- Company Name:** A text box.
- Home Phone:** A text box.
- First Name:** A text box.
- Last Name:** A text box.
- Work Phone:** A text box.
- Email Name:** A text box.
- Address:** A text box.
- Work Extension:** A text box.
- City:** A text box.
- State:** A text box.
- Postal:** A text box.
- LocalCarrie:** A text box.
- LPIC:** A text box.
- PIC:** A text box.
- Line Type:** A dropdown menu with options: Residence (selected), Business, Other.
- Active Lines:** A group box containing radio buttons for One, Two, Three, Four, and More than Four.
- Buttons:** Save Record, Refresh, Open Usage, Add Record, Close Form, Find Record, Open Feature.
- Notes:** A large text area for notes.
- DueDateTracking Table:** A table with columns: ContactID, InitialContact, LOASent, LOAReceived, Install/Conv.Date, InfoPack.Sent, CDL1Return.Date, CDL1Received, CDL2Return.Date, CC. The first row shows values: 0, [blank], [blank], [blank], [blank], [blank], [blank], [blank], [blank], [blank].
- Status Bar:** Record: 113 of 113.

2.4.8 MANAGING INSTALLATIONS

The TA End-User Team will identify the Friendly locations where new test lines will be physically installed. The new line installations, including inside wiring, will be set-up through U S WEST, or an outside installation vendor. After the installation of new test lines, the TA End-User Team will verify with the Friendly that the line has been successfully installed (i.e., there is dial tone), features are functional, and the line is ready. If the TA End-User Team cannot verify the success of a new installation, the TA End-User Team will coordinate Maintenance and Repair directly with U S WEST until the Friendly is fully operational.

U S WEST will be responsible for any installation costs, monthly service fees, and usage charges associated with the testing effort on the installed or converted test lines. Friendlies will be responsible for paying all toll charges unrelated to testing.

2.4.8.1 UNPLANNED TROUBLE

Friendlies will be provided an 800 number to contact the Pseudo-CLEC for any maintenance and repair issues not related to an M&R scenario. The Pseudo-CLEC will be responsible for providing the 800 number to include in the Friendlies information packets. The Pseudo-CLEC will be responsible for reporting and resolving maintenance and repair issues, following normal CLEC trouble reporting procedures. Friendlies information packets will contain an unplanned trouble log for the Friendly to fill out and detail any unplanned troubles reported to the Pseudo-CLEC.

2.4.9 MAPPING FRIENDLIES TO TEST CASES

The TA End-User Team will ensure appropriate scenarios are assigned to Friendlies in accordance with the MTP. When the features and test scripts are matched to specific friendlies, the data will be available from the TA.

2.4.10 FRIENDLIES INFORMATION PACKETS

An Information Packet will be sent to the Friendlies via US mail. The TA End-User Team will verify that the Information Packet is received, answer any questions, and ensure awareness of the responsibilities. Information Packets will contain: detailed instructions on the scenarios for the Friendlies to perform (Figure 2.4-1); Call Detail Logs (Figure 2.4-2) with scheduled test call dates to record test calls; and postage paid return envelopes to send the Call Detail Log to the TA. Information packets may contain more than one Call Detail Log and more than one Return Envelope if the Friendlies are testing more than one scenario.

2.4.10.1 THIS SECTION SHOULD NOT BE A SUB-POINT OF THE FRIENDLY INFORMATION PACKETS -- VALIDATION OF 900/976 BLOCKING

All Call Detail Logs will include the testing of 900/976 blocking on the test lines. 900/976 Block is a feature that CLECs routinely have blocked on all lines unless the CLEC customer specifically requests 900/976 blocking be removed. Therefore, in order to make the testing valid, most orders entered for the Friendlies' lines will include the 900/976 blocking features. In a few cases the 900/976 blocking feature will not be activated in order to validate that Friendlies are capable of completing 900/976 calls.

2.4.10.2 THIS SECTION SHOULD NOT BE A SUB-POINT OF THE FRIENDLY INFORMATION PACKETS -- LIDB BLOCKING OR ACCEPTANCE OF COLLECT AND THIRD-PARTY BILLING

The TA End-User Team will verify LIDB blocking or acceptance of collect and third-party billing to the Friendlies' test lines during the provisioning of all test lines. Collect and third-party billing will be set up to be either blocked or accepted ~~in~~ by the U S WEST LIDB. The TA End-User Team will verify blocking or acceptance of collect or third-party billing calls terminating at selected Friendlies test lines through test calls. The TA End-User Team will record the results of the test calls in the TA database.

2.4.11 CREATION OF THE DATABASE

The TA End-User Team will work with the TA Project Database Development Team to ensure the portion of the TA project database created to manage the Friendlies contains the necessary tables and reports. The TA End-User Team will enter Friendlies information into the TA project database through the "Friendlies Entry Form" (Figure 2.5.6-1) and Call Detail Log information (Figure 2.4-1) through the "Call Detail Log Entry Form" (Figure 2.5.11-1). The data will assist the TA End-User Team in managing the tracking reports and statistics on Friendlies testing.

*Figure 2.5.11-1: Example of Friendlies Call Detail Log Entry Form**

*Note all entry fields are not displayed on this screen copy, the user will use the right scroll bar to display and enter the additional data (Test Calls 7 & 8)

The screenshot shows a Microsoft Access window titled 'Microsoft Access - [CallDetail]'. The main window is 'Call Detail Log Entry Form'. At the top, there are input fields for 'First Name', 'Last Name', 'Address', and 'Test Line'. Below this, there are several rows of test call categories, each with a 'Start Time' and 'End Time' field, and a 'Test' section with 'Successful' and 'Unsuccessful' radio buttons. The categories listed are:

- 900/976 Blocking
- 800 Number Dialing Capability
- Directory Assistance
- Long Distance Carrier Verification
- Long Distance Call Completion
- Local Call Completion

Each category has a 'Comment' text area below it. At the bottom of the form, there is a status bar showing 'Record: 11 of 11' and 'Form View'.

2.4.12 COLLECTING CALL DETAIL LOGS

Within 24 hours of completion of testing, Friendlies will be responsible for mailing the completed Call Detail Logs to the TA End-User Team using the postage paid return envelopes included in the Information Packets. The TA End-User Team will enter the data into the TA project database through the Call Detail Log Entry Form (Figure 2.5.11-1). Compiling the completed data in the TA-project database will allow the TA to analyze the results of all Friendlies testing.

2.4.13 MANAGING TEST CASE EXECUTION

Once the TA End-User Team has verified that the Friendlies have newly installed lines and ported lines in working condition (i.e., dial tone) the TA End-User Team will contact each Friendly two days prior to initiating call testing to ensure the following:

- a) Friendly volunteer is ready and able to test
- b) Friendly volunteer is aware of all testing responsibilities
- c) Friendly volunteer has all material that was sent in the information packets
- d) Friendly volunteer understands to return the completed Call Detail Logs (Figure 2.4-2) within 24 hours of testing completion in the postage-paid return envelopes included in the Information Packet provided prior to testing

2.4.14 CREATION OF REPORTS

The TA End-User Team will manage the creation of reports in the TA project database to ensure all data is entered into the proper categories. [This sentence is very unclear.] The reports will document statistical results of all End-User testing.

2.4.15 RESTORATION OF SERVICE

All testing at Friendlies' locations will be complete at the conclusion of the appropriate specific U S WEST bill cycle for those end users. including up to two bill cycles will be utilized in the test.

The TA, Pseudo-CLEC, and U S WEST will work collaboratively to ensure that all new installs are permanently disconnected and all conversions are converted back to pre-test line conditions. A Customer Service Record (CSR) of the Friendlies' existing line services will be captured-secured by the Pseudo-CLEC before testing begins. For Friendlies converting from U S WEST local service, the Pseudo-CLEC will pull the CSR of each U S WEST Friendly customer to obtain the detail of the existing features on the line to be converted to the Pseudo-CLEC. The Pseudo-CLEC will provide this information to the TA.

When the testing has concluded, the TA will provide the original CSRs to U S WEST. U S WEST will convert the lines back to the original pre-test state.

2.5 Risks

A number of risks are present-surroundingsurround Friendlies solicitation and activities. In order for the 271 test effort to be successful, these risks must be mitigated. Otherwise, schedule delays, inaccurately reported test results, or other problems could occur.

To ensure that the testing effort is not affected by risks, the TA End-User Team will spend considerable time both before and during tests mitigating the risks contained in the table that follows.

Risk	Impact if Risk is not Mitigated	Mitigation Approach
Insufficient Friendlies before start of tests	Delay to tests either starting or completion	Establish at least three groups to whom solicitations will be sent one at a time. Monitor the call rate of volunteers following the solicitation and solicit subsequent groups once the volunteer rate per day goes below 10% of the peak rate.
Friendlies does not properly execute the test	Failure of the test case	<p>Telephone walkthrough with each Friendlies at least one week before the Friendlies test is to be executed stepping through his or her work items prior to the start of test</p> <p>On the call two days before the test is to occur, ask the Friendlies for feedback as to how he or she interprets the step by step process for his or her tests as outlined in the Friendlies Test Packet. Repeat instructions if required.</p> <p>If problems are anticipated regarding the Friendlies being able to perform the test after the walk-through two days before the test, send a copy of the test packet to the alternate (from among the additional Friendlies), call and walk the existing friendly through the test, and if necessary, reschedule and rerun the</p>

Risk	Impact if Risk is not Mitigated	Mitigation Approach
		test using the alternate Friendlies.
Friendlies does not mail forms within 24 hours of performing the test	Delay to test data update and reporting. Daily reports may be effected	TA will call Friendlies day of test to remind of 24 hour requirement. Ask Friendlies to call TA when results have been mailed. If no call within 24 hours of the test, contact the Friendlies.
Friendlies test–results are not received within 96 hours of the test.	Delay to test data update and reporting. Daily reports may be effected.	Contact friendly and request they re-mail
Friendlies do not participate as promised	Delays to the testing	Call each Friendlies 2 days prior to the scheduled start of each test to verify that they will participate as promised Call Friendlies the day of the Test to verify test was run. Prepare Friendlies Mailers for additional Friendlies for each test type
Friendlies confusion during interval between volunteering and receipt of the LOA signature packet	Frustration of Friendlies might result in losing a volunteer. This may subsequently result in a schedule delay.	LOA Signature Packets will be sent to the Friendlies within 2 business days of the Friendlies volunteering.
Friendlies confusion during interval between signature of LOA and receipt of Friendlies Test Packet (describing tests the Friendlies will run and how)	Frustration of Friendlies might result in losing a volunteer. This may subsequently result in a schedule delay.	Bi-Weekly communications with all Friendlies in this category to let them know current status of their Friendlies Test Packet
Friendlies confusion during interval between receipt of Friendlies Test Packet and test dates.	Frustration of Friendlies might result in losing a volunteer. This may subsequently result in a schedule delay.	Bi-Weekly communication with the Friendlies letting them know any status we can provide at the time.
Friendlies confusion because their test will not occur on the date identified.	Frustration of Friendlies might result in losing a volunteer. This may	Communication of latest schedule with the Friendlies 2 days before

Risk	Impact if Risk is not Mitigated	Mitigation Approach
	subsequently result in a schedule delay.	and on the day the test is to be run.
Alternate Friendlies confusion because they haven't heard from the TA since they signed the LOA	Frustration of Alternate Friendlies might result in losing a volunteer. This may subsequently result in a schedule delay.	Determine which tests the Alternate will be assigned if required Communicate Alternate Process Document the potential tests and communicate with the alternate identifying the list of tests the alternate might be asked to perform. Communicate with all alternate Friendlies on a biweekly basis before and during the tests, letting them know their current status.

2.6 Exit Criteria

1. Friendlies testing complete
2. Original CSRs for converted lines are available
3. New installs disconnected
4. U S WEST / CLEC has successfully convert ~~converted~~ customers back to pre-test state
5. Test Results entered in TA project database
6. TA End-User Team Friendlies Reports from the TA project database are included in the final report.

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3 FUNCTIONALITY TEST

3.1 Scope

The Functionality Test is designed to provide information that the ACC can use to assess the ability of U S WEST's OSSs and processes to provide operational functionality to CLECs. The Functionality Test will be performed during the normal U S WEST IMA, EDI, EXACT and EB-TA operational times available to Arizona CLECs and will include the following U S WEST processes:

- a) Pre-order
- b) Order/Provisioning
- c) Maintenance and Repair (M&R)
- d) Billing
- e) Special services for resale customers such as 911, Operator Assistance (OA) and Directory Assistance (DA).

From TAG Review 3/7-8/00, MTP DRAFT 3.2 3/8/00 section 4.1:

MCIW COMMENT 2/29/00: MCIW recommends that all functionality tests be performed during "normal business hours".

CGT RESPONSE 3/5/00: Text added above

U S WEST COMMENT 2/4/00: Populating 911 databases may apply only to friendlies not test accounts. Further discussion about populating 911 databases with test account data is needed

CGT RESPONSE 3/15/00: Tests to verify 911 activities will be performed using both friendlies and test accounts. All database transactions will be captured for analysis for both account types, with the sole difference being that update failures for test accounts will be permitted to fall out without requiring corrective action, whereas similar failures for friendly accounts will be corrected.

The Functionality Test will determine if the OSS adequately performs the above functions for a set of predefined test scripts developed from scenarios. The Functionality Test will also verify and validate the following:

- a) Verify the ability of the CLEC participants or the Pseudo-CLEC to perform the necessary pre-order activities, to submit LSRs and ASRs through U S WEST's OSS which must successfully provision and install the requested service or facilities in an accurate and timely fashion. This includes the ability to track the progress of the LSRs and ASRs through these systems, install the service or facility, observe final order completion, verify the establishment of billing records, and verify the accuracy of call records against documented test calls.
- b) Validate the ability of a CLEC participant to access Maintenance and Repair (M&R) systems using EB-TA. Additionally, the Pseudo-CLEC will access M&R systems using the U S WEST IMA. Relevant aspects of this access include the ability to:
 1. Determine whether these systems will generate a timely and accurate trouble report
 2. 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
 3. Access U S WEST M&R OSS to obtain status
 4. Determine if a participating CLEC or the Pseudo-CLEC can obtain a Mechanized Loop Test (MLT) for a reported trouble
 5. Determine if the MLT results provide the Pseudo-CLEC the proper information to open a trouble ticket
 6. Retrieve a customer's trouble history, as applicable
- c) Validate U S WEST database updates of certain special services, including the 911/E911, OA and DA databases for resale customers.

From TAG Review 3/7-8/00, MTP DRAFT 3.2 3/8/00 section 4.1:

U S WEST COMMENT 2/4/00: This is true for EB-TA, but the Pseudo-CLEC needs to be included for IMA. See Section 4.2.2

CGT RESPONSE 2/19/00: CHANGES MADE.

MCIW COMMENT 2/29/00: The "Mechanized Loop Test" (MLT) must be verified. For example, did the MLT results provide the CLEC the proper information to open a trouble ticket?

CGT RESPONSE 3/5/00: Changes were made in the paragraph above.

Testing will be performed with U S WEST's production OSS and processes using a variety of Friendly and test accounts. The Functionality Test will focus on Resale, UNE-P, Designed Services, xDSL, UNE-Loop with Number Portability (LNP), and Number Portability (NP). Some tests will be done in a manner such that a statistically significant quantity of test scripts will be tested. For other test scripts, a few will be tested to

determine if U S WEST has the capability to perform the required function. The tests involve the collection of data in a controlled manner pursuant to specified test procedures, using specified input data. Both business and residential orders will be tested, and the testing will encompass new installation, conversion 'as is', conversion 'as specified', partial migrations, change, disconnect, cancel, suspend, and restore activities. The integration of pre-order data supplied by US WEST and the order data required by US WEST will be tested. Test scripts developed for the Functionality Test will include end-to-end processing so that all functionality from pre-order through billing can be evaluated. (Why wasn't the urban and rural order reference added?)

AT&T COMMENT 2/18/00: Add "Some tests will be done in a manner such that a statistically significant quantity of test scripts will be tested. For other test scripts, a few will be tested to determine if U S WEST has the capability to perform the required function" and "Orders will be placed in both urban and rural areas" verbiage.

CGT RESPONSE 3/14/00: Done.

MCIW COMMENT 3/3/00:emphasizes the need to test OSS end-to-end, and a thorough test of pre-order, order, including integration of pre-order and order, provisioning, maintenance and repair, and billing. The FCC's orders have required proof of access to these functions, all of which are imperative for full scale commercial operation by competitors.

MCIW ADDITIONAL COMMENT 3/3/00: foresees functionality test would include access to product and service offerings for both simple and complex orders and promotions, performance of the provisioning and order status reports, editing capabilities and the integration of ordering systems with other systems

CGT RESPONSE 3/15/00: Additional scenarios have been added to Appendix A of the MTP. All other issues are done, see above. If additional scenarios are needed, a request must be submitted to update the test scenarios identified for testing Pre-Order/Order/Provisioning Processes

From TAG Review 3/7-8/00, MTP DRAFT 3.2 3/8/00 section 4.2.1:

MCIW COMMENT 2/4/00: MCIW recommends the title of this sub-section be changed from "interfaces" to "processes" per the definitions of pre-order/order and provisioning.

CGT RESPONSE 2/19/00: DONE

The definition of Pre-order, Order, and Provisioning processes are as follows:

Pre-order is the process by which CLECs query U S WEST databases to verify or obtain the information necessary to prepare and issue a valid LSR or ASR and to retrieve information about the resources of U S WEST.

Order is the process that CLECs use to format and issue LSRs or ASRs to U S WEST.

Provisioning consists of the processes that U S WEST uses to install the service or facility ordered, or otherwise implement the CLEC order.

From TAG Review 3/7-8/00, MTP DRAFT 3.2 3/8/00 section 4.2.1:

AT&T COMMENT 2/29/00: AT&T suggests that the definitions be modified to include a definition of ordering.

CGT RESPONSE 3/2/00: Changes were made and the definition of provisioning was shortened.

The Pre-order, Order, and Provisioning Functionality Test will involve the following interfaces:

- a) EDI (The Pseudo-CLEC will develop an EDI interface to U S WEST's EDI interface)
- b) IMA (The Pseudo-CLEC will use U S WEST supplied IMA)
- c) EXACT (The TA will observe test case orders being placed by a CLEC using their EXACT interface.)

AT&T COMMENT 2/18/00: Add "EXACT (The TA will observe test orders being placed at a CLEC that uses the EXACT interface)" verbiage.

CGT RESPONSE 3/14/00: Done

3.2 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.

From TAG Review 3/7-8/00, MTP DRAFT 3.2 3/8/00 section 4.2.2:

AT&T COMMENT 2/29/00: AT&T suggests that the definition be modified.

CGT RESPONSE 3/2/00: Definition modified per AT&T suggestion.

MCIW COMMENT 2/29/00: Any recognized "unplanned troubles" that occur during the testing phase must automatically become part of the testing/evaluation process and are not required to follow the rules of section 2.2.3 "Additional Tests".

CGT COMMENT 3/5/00: Text above was changed to cover this.

The M&R Functionality Test will involve the following interfaces:

- a) Electronic Bonding-Trouble Administration (EB-TA) (Collaboration with MCIW to test the existing EB-TA interface)
- b) IMA (The Pseudo-CLEC will use U S WEST supplied IMA)

3.3 Billing Interfaces

The billing process is the means by which U S WEST provides CLECs with wholesale bills, usage data and records for the services, features, network elements (e.g., loop) and features that were ordered 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.

From TAG Review 3/7-8/00, MTP DRAFT 3.2 3/8/00 section 4.2.3:

AT&T COMMENT 2/29/00: AT&T suggests that the definition be modified.

CGT RESPONSE 3/2/00: CGT modified the definition as we felt appropriate.

The Billing Functionality Test will involve the following interfaces:

- a) Exchange Message Interface (EMI)
- b) Electronic Data Interchange (EDI)

3.4 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, the statisticians will analyze the order scenarios to determine the proper mix of product type/orders and the number of iterations

required for statistical validity. The TA will work with the TAG to determine and finalize the transaction mixes to be utilized for the Functionality Test.

MCIW COMMENT 3/3/00: MCIW believes it is the responsibility of the Test Administrator, with input from experienced CLEC's, to develop detailed test scenarios, including specific order and customer information. Enabling USW to assist in the design of test scenarios hampers the intent of an independent/third party test.

MCIW ADDITIONAL COMMENT 3/3/00: MCIW encourages the Test Administrator to evoke input from experienced CLEC's in order to develop the types of orders that are likely in a competitive local environment.

CGT RESPONSE 3/14/00: Agree. CLEC's provided input to the specific orders included in Attachment A of the MTP and test scripts produced from those scenarios. This is further defined in the next section in item "a". U S WEST has not been involved in the specifics of actual order information.

The Functionality Test will include ~~flow-through~~ flow-through service orders and manual processes used to process orders. ~~Flow-through~~ Flow-through orders are electronically received LSRs which have service orders accepted by the Service Order Processor (SOP) without any human intervention.

From TAG Review 3/7-8/00, MTP DRAFT 3.2 3/8/00 section 4.3:

MCIW COMMENT 2/4/00: Section 4.3 - Functionality [sic] Test Coverage and Scenarios - 2nd paragraph, MCIW requests that partial flow-through service orders be defined.

CGT COMMENT 2/19/00: WITH THE U S WEST REQUESTED CHANGE, THE DEFINITION OF PARTIAL FLOW-THROUGH SERVICE ORDERS SHOULD BE CLEAR. NO FURTHER CHANGE REQUIRED.

MCIW FURTHER COMMENT 2/29/00: The U S WEST requested change only refers to "Complete flow-through orders". MCIW requests that partial flow-through service order be defined.

CGT FURTHER COMMENT 3/5/00: DONE

AT&T COMMENTS 2/29/00: AT&T is concerned about the scenario mix for flow-through vs partial flow-through. AT&T believes that the introductory paragraphs of this section tend to ignore the fact that Functionality Test includes pre-ordering, ordering, provisioning, repair and maintenance and billing. There are scenarios that deal with ordering via LSRs and ordering via ASRs and the fact that the Test Administrator must include all OSS functions and the two separate ordering avenues must be explicit. In addition, the definition of flow-through that is offered in this section is inconsistent with the usage of the definition in the Performance Measurements. "...electronically-

transmitted LSRs flow directly to the service order processor without human intervention or without manual retyping." [PID PO-2 Electronic Flow-through] AT&T further recommends that "partial flow-through" be defined sufficiently or removed as an element of the Functionality Test.

CGT COMMENT 3/5/00: the mix is a Test Administrator responsibility. The fact that the Functionality Test includes pre-ordering, ordering, provisioning, repair and maintenance and billing are sufficiently expressed in other sections. A definition of partial flow-through has been provided (see the parenthetical). Subsequently, partial flow-through references were removed.

3.5 Test Schedule

The TA will create a test schedule of the daily volume of orders to be issued by the Pseudo-CLEC (Appendix H). This schedule will identify the media to be used, summarized to depict weekly and total volumes. The schedule is for TA planning purposes and will be shared with all parties except U S WEST, as U S WEST's access to the schedule would provide a forewarning of the tests. U S WEST will have access to the test schedule following completion of the tests.

3.6 Functionality Test Participants

A successful Functionality Test requires participation, commitment, and accountability from CLECs, Pseudo-CLEC, TA, Friendlies, and U S WEST. The roles and responsibilities of these groups are as follows:

- a) ~~The CLEC volunteers who~~ CLECs that participate in the testing effort will be required to provide input to test scripts based on pre-defined scenario based test scripts. Additionally, they will be responsible for conducting ~~the certain~~ tests to be monitored by the TA.
- b) The Pseudo-CLEC will have the same roles and responsibilities as ~~the an~~ operating CLECs CLEC, with the additional responsibility of customizing its transaction generator software to function with U S WEST's OSS before testing begins.
- c) The TA will monitor the testing effort and act as test supervisor in the day-to-day operations of the project. In addition, the TA will track issues that arise during the test, perform root-cause analysis of those issues with input from the test participants, analyze the outcome of the test effort, produce test scripts and provide a feedback report to the ACC. The Test Administrator will be responsible for the generation of the Functionality Test Scripts, the coordination of other parties involved in the testing, and a final report.

- d) The 'Friendly' volunteers will receive information packets detailing the types of transactions (calls) they will be required to originate, the dates required, and any reports they are required to complete to document their test calls.
- e) U S WEST will act in a supporting role as directed by the ACC or its advising representatives. This role includes providing Subject Matter Experts (SMEs) for consulting and support during test planning, preparation, execution, and analysis and for establishing the Friendlies accounts. U S WEST's systems, operations, and processes are the basis for the test.

From TAG Review 3/7-8/00, MTP DRAFT 3.2 3/8/00 section 4.6:

AT&T COMMENT 2/29/00: AT&T suggests this role description be modified. U S WEST will act in a supporting role providing subject matter experts (SME) for consulting and support during test planning, preparation, execution, and analysis. Its systems, operations, and processes are the basis for the test.

CGT RESPONSE 3/5/00: The first two sentences are fine as they were originally written. CGT added the third sentence.

U S WEST COMMENT 2/4/00: The CLECs will be required to provide input to the test scripts that the Test Administrator will generate. Suggest changing the word "establish" to "provide input to". Also, the CLECs will not establish the Friendlies accounts.

CGT RESPONSE 2/19/00: DONE

3.7 Functionality Test

The Functionality Test will involve the testing of pre-order and order functions in addition to the provisioning, maintenance and repair and billing functions. The specifications are defined in the following sections.

~~3.1.13.7.1~~ 3.7.1 PRE-ORDER

3.7.1.1 SCOPE

The pre-order process allows the Pseudo-CLEC to retrieve customer service information and information about U S WEST resources in order to issue a valid LSR for the customer's service request. The pre-order evaluation will consist of testing the functionality of U S WEST's IMA and EDI systems while the Pseudo-CLEC performs system queries to obtain valid customer information. Testing will assess the ability of

these systems, as they are used, to gather and use information for the various types of business and residential test script orders.

The focus of the pre-order aspect of the Functionality Test will be on the retrieval and evaluation of the:

- a) ~~CSR query that allows the CLEC to view a customer's current service records as billed by U S WEST. (It's unclear how the billing reference has anything to do with viewing a CSR.)~~
- b) Address Verification query that allows the CLEC to verify service address information, as registered in U S WEST's service areas.
- c) Reserve Telephone Number(s) function that allows the CLEC a 30-minute window, during a given query, to reserve one or more telephone numbers at a verified address ~~for POTS orders only. (Is the POTS only limitation true? Can numbers for ISDN, POTS for PBX or Centrex be reserved through this function?)~~ U S WEST's random telephone numbers are reserved for 24 hours and if not used on an LSR within that 24 hour period, the telephone number (TN) will automatically be returned to the TN pool. Special TNs, vanity TNs and requests for large numbers of TNs must be requested manually through the U S WEST number assignment bureau.
- d) Product and Feature Availability query that allows the CLEC to retrieve a list of services and features available on U S WEST's serving switch by the verified service address and as allowed by the CLEC's interconnection contract.
- e) Due Date Availability/Scheduling function that allows the CLEC to view available dates and appointment times for dispatch of field technicians. The CLEC is allowed a 30 minute window, during a given query, to reserve the desired due date which must be submitted via LSR within 24 hours.
- f) Facility Availability query that allows the CLEC to view whether dispatch is required for connection of new lines.
- g) ~~Available PIC & LPIC query that returns to the CLEC a list of long distance carriers that provide long distance service to the service address. (This is included in the service and feature availability query.)~~
- h) Rejects/Failed Inquiries will test the appropriateness and timeliness of reject messages as well as a successful connection to the pre-order system.
- i) Loop Qualifications query will provide loop makeup information and specific characteristics of the loop.

j) The last two sentences of the last MCIW comment on this section including editing capabilities and system integration capabilities (2/29/00) have not been acted upon in this version 2.3 of the TSD.

AT&T COMMENT 2/18/00: Delete "determine if the service address meets the requirements for DSL service, as specified by CLEC, including" and add provide loop makeup information and" to Loop Measurements.

CGT RESPONSE 3/14/00: Done

MCIW COMMENT 3/3/00: MCIW would include the testing of functions such as address validation, CSR availability, USOC availability, numbering resource availability, due date interval and availability, feature availability, editing capabilities, systems integration capabilities, telephone number verification, current PIC status verification, and facilities availability.

MCIW ADDITIONAL COMMENT 3/3/00: MCIW recognizes the rapidly developing market for broadband and data services, and thus USW's support for all types of xDSL is vital to the future of competition and should be tested as fully as possible. In particular, access to accurate loop qualification information and USW's bandwidth management information would require testing, along with any other xDSL specific systems

CGT RESPONSE 3/14/00: Done.

From TAG Review 3/7-8/00, MTP DRAFT 3.2 3/8/00 section 4.3.1:

*MCIW COMMENT 2/4/00: MCIW recommends the inclusion of "loop qualification" and "reject/failed inquiries" in the pre-ordering/ordering functionalities. Section 4.3.1 - Pre-Ordering/Ordering - MCIW requests that the following pre-order processes be included in the functionality test: Service Order Status, Directory Listing, Installation status. **(Service order status, directory listing and installation status appear to be BANY capabilities that are not offered by U S WEST.)***

CGT RESPONSE 2/19/00: DONE

MCIW FURTHER COMMENT 2/29/00: MCIW does not see the reflected change.

CGT FURTHER RESPONSE 3/5/00: we added the last three bullets. It's complete now.

MCIW FURTHER COMMENT 2/29/00: MCIW does not see where "reject/failed inquiries" has been added. Dean Buhler of U S WEST and the CLECs have reached agreement that although the reject/failed inquiries will not be reported on a performance measurement during the test, results for them will be captured and reported separate from the PO-1 measure, and subsequently evaluated. After the test, a decision will be made as to whether they should be reported on the measure. In addition, MCIW notes

that there are several agreements like this where although results will not be reported on the measures, they will be captured and evaluated as part of the test. MCIW would like to see a list of these included in the next MTP version to ensure CGT has included them all, and during which part of the test they will be captured.

CGT FURTHER RESPONSE 3/5/00: "reject/failed inquiries" has been added.

3.1.1.23.7.1.2 APPROACH

During test generation, the TA will monitor the overall performance of U S WEST's pre-order systems through passive-observation of the members of the Pseudo-CLEC team. The Pseudo-CLEC will perform pre-order queries defined for each test script, and capture the results in the Pseudo-CLEC database. The updates to the Pseudo-CLEC database will be accessible to the TA on an as-needed basis. The TA will analyze these data and issue daily reports on test status.

(The highlighted language looks like generic functionality test language that is better placed in a generic section on Functionality Test administration rather than in a specific pre-order section.) Following root cause analysis on each failed test script, the TA will log the cause for the failure on the daily log. The TA will either reissue the test (with instructions as to the cause of the failure) or, in the case where a failure requiring U S WEST's attention is found, will prepare an Incident Work Order. The Incident Work Order will be handled in accordance with the Testing Incident Process in Appendix I.

The TA daily report will be updated at the end of each workday. It will include information from the Daily Log (Appendix D) regarding observations made during that day. The Daily Log will consist of the following fields:

- a) TA Tracking Number
- b) Purchase Order Number (PON)
- c) Process Area (Functionality)
- d) Process Sub-Area (e.g., UNE-P Residence)
- e) Transaction Media
- f) Date Submitted
- g) Date Completed
- h) Pending Status— this is misplaced. This section deals with Pre-order functionality.

- i) FOC Received Date – this is misplaced. This section deals with Pre-order functionality.
- j) SOC Received Date – this is misplaced. This section deals with Pre-order functionality.
- k) Expectations Met/Missed
- l) Comments
- m) Query Rejection or Response Date and Time

The daily pre-order responsibilities of the TA consist of:

- a) Delivering the test scripts to the Pseudo-CLEC
- b) Monitoring and evaluating performance of the IMA and EDI systems
- c) Collecting test script data from the Pseudo-CLEC for each test script executed
- d) Providing test script results for input into the daily tracking report

3.7.1.3 TRACKING

Test scripts will be created by the TA, based on the test scenarios found in Appendix A of the MTP and subsequently TA developed Test Cases. See Appendix E for an excerpt of the Test Scripts. Each Test Case will be assigned a unique tracking number and include the data necessary to create a test script for execution by the Pseudo-CLEC. The tracking number will be used by the Pseudo-CLEC to report order status to the TA, and to track the progress of test scripts throughout the test period.

MCIW COMMENT 3/3/00: MCIW foresees the P-CLEC would develop, submit, and track the Local Service Requests (LSRs) based on USW provided documentation.

CGT RESPONSE 3/14/00: The Pseudo CLEC will submit the LSRs, however, CGT will be responsible for tracking the order through completion or cancellation.

Note: The Tracking Number is not the same as the Purchase Order Number (PON). The PON is generated by the Pseudo-CLEC and is a randomly generated number to further ensure blindness.

The format of the tracking number is as follows:

Scenario Abbreviation				Test Scenario Number			Test Case Instance		
A	A	A	A	N	N	N	n	n	n

Example : LPWP127002
 Product: Loop with Port
 Test Scenario: 127
 Instance: 002

The abbreviations for the scenarios are:

Abbreviation	Scenario
LPWP	Loop with Port
BASL	Basic Loop
XDSL	xDSL-capable Loop
DSIL	DSI Loop
LNPL	LNP with Loop
LNPO	LNP Only
SDIR	Stand-alone Directory Listings
SUPP	Supplemental
USGE	Usage
MNTR	Maintenance and Repair
RESL	Resale
RETL	Retail

The sent and received times will be tracked by the Pseudo-CLEC for each of the functions performed for both mechanized and manual (faxed) LSRs. (It's unclear what sending either mechanized or faxed LSR's have to do with the pre-order test.) This includes the date/time stamp affixed to EDI transactions (i.e., 850, 855, 997) as they arrive at the US WEST firewall. The times will be recorded in the Pseudo-CLEC database and on the "Test Script". Reference Appendix B for an example of the test scripts. Input and response messages for each of the test scripts processed will be captured manually or electronically. These will be available to the on-site TA member during the process. The Pseudo-CLEC will provide the TA with the data.

3.1.1.43.7.1.4 ENTRANCE CRITERIA

Prior to commencement of pre-order testing, the following items will be provided by the TA and the Subject Matter Experts. Additionally, the following information, and testing location must be confirmed.

a) TA:

1. Develop test scripts based on data from the test scenarios in the MTP
2. Create a spreadsheet to document details associated with each test script and expected results

3. Develop test script forms and provide data requirements using information from completed test script spreadsheets
4. Collect names and addresses of Friendlies from the End-User Team.
5. Populate Test Scripts with Friendly name, addresses and other pertinent information about products, features and listings used to generate the test scripts assigned to specific test scripts
6. Receive the number of iterations for each Test Scenario from the Statistical Team
7. Receive the volume of test scripts to be executed each day from the Statistical Team
8. Update Test Scripts with execution dates
9. Provide test scripts to the Pseudo-CLEC

AT&T COMMENT 2/18/00: Requested removal of activities in the header to eliminate confusion associated with next section. Also, request a change of tense, however, future tense is correct as these tasks are in progress.

CGT RESPONSE 3/14/00: Done or correct as stated.

b) Resources/Subject Matter Experts (SME):

1. U S WEST Core Testing Team is available for internal system queries
2. Names of the point of contacts and order entry personnel at the Pseudo-CLEC Site
3. Name of the point of contact and support personnel at the participating CLEC locations
4. Access to U S WEST's service ordering reference manuals
5. Performance measures have been implemented
6. Daily Logs to document observations

c) Information:

1. Pseudo-CLEC has received "Readiness Certification" from U S WEST [The term "**Readiness Certification**" is not explained in this section of the TSD, nor in Section 6, Relationship Management. It is not clear what this "**Readiness Certification**" means or involves.]
2. Daily Schedule for all tasks to be performed on a given date
3. Validation that the Pseudo-CLEC is able to collect data. This will be accomplished using transactions performed during the "Readiness Certification" process. During this process, the Pseudo-CLEC will verify that the TA is able to access the Pseudo-CLEC database to extract the elements required for analysis.
4. Test data elements available in the databases
5. The Performance Measurement Evaluation process has been successfully passed for all relevant Performance Measures. The TA will organize

Functionality Testing into a number of test phases by mapping Test Cases/Scripts to Performance Measures that have successfully passed the process audit. **[When will the TAG be able to see a design for the mapping process?]** Testing can then begin for Test Cases/Scripts that map only to Performance Measures that have passed the required audits.

6. Test quantities have been identified by the Statistical Team

AT&T COMMENT 2/18/00: This looks more like entrance criteria.

CGT RESPONSE 3/14/00: This is part of the Entrance Criteria section. Done.

- d) Locations: Pseudo-CLEC test site[this is not an entrance criteria]

3.7.1.5 PRE-ORDER ACTIVITIES

The TA will use the test scenarios from the MTP to develop test cases, which will then be used to create test scripts. The test scripts will be delivered to the Pseudo-CLEC in lieu of incoming telephone calls from end-user customers. The Pseudo-CLEC will perform the pre-order queries to gather the data necessary to prepare the LSRs. Subsequently, as part of the order process, the Pseudo-CLEC will enter the data in the IMA or EDI application.

AT&T COMMENT 2/18/00: Capitalization of test scripts inconsistent. Eliminate space between T and A.

CGT RESPONSE 3/14/00: Changed case to make all entries consistent and deleted space between TA.

Upon commencement of testing, pre-order activities will include:

- a) Retrieve test scripts scheduled for execution each day and enter on the daily tracking log
- b) Deliver the test scripts as specified in the test schedule for that day's testing to the Pseudo-CLEC.
- c) Monitor a sampling of Pre-order activities (e.g., address validation, CSR query, etc.) and document observations (e.g., effectiveness of training, etc.)
- d) Monitor and evaluate overall performance of the IMA/EDI systems
- e) Collect completed test scripts from the Pseudo-CLEC and enter the results on the daily tracking log

- f) Verify the expected results against actual results to ensure the objectives are attained
- g) Validate the accuracy of the data input by the Pseudo-CLEC, when actual results are different from expected results, and determine if a re-test is required
- h) Download data for each day's executed test scripts from the Pseudo-CLEC
- i) Update the test information database and store the results for future evaluation
- j) Prepare the Pre-Order portion of the daily test report

AT&T COMMENT 2/18/00: Item c) how is that going to determine the effectiveness of training?

CGT RESPONSE 3/14/00: Observe if the Pseudo CLEC personnel are able to enter data in proper fields and in correct format to eliminate system edits following their IMA training.

3.1.1.63.7.1.6 EXIT CRITERIA

The exit criteria for pre-order testing will consist of successful system responses to queries and retrieval of customer service information. This will include validation that:

- a) Pre-order data entry corresponds to test script data
- b) Pre-order responses match the expected results defined for each test script
- c) Interface and System errors have been identified and testing incidents have been handled in accordance with the Testing Incidents Process (Appendix I)
- d) All Test Scripts have been completed
- e) All Daily Logs have been completed
- f) All performance benchmarks and parity requirements have been achieved in accordance with the Functionality Test Evaluation section of this document

3.7.2 ORDER/PROVISIONING

3.7.2.1 SCOPE

The Functionality Test for Order and Provisioning involves the transmission of LSRs from the Pseudo-CLEC via IMA and EDI, including processing by U S WEST, the generation of responses back to the Pseudo-CLEC, and provisioning of the service by U S WEST for some LSRs.

AT&T COMMENT 2/18/00: Eliminate extra space between including and processing.

CGT RESPONSE 3/14/00: Done

ASRs from a volunteer CLEC will be transmitted using EXACT. U S WEST will process the request and generate responses back to the volunteer CLEC, however, ASRs will be cancelled prior to being provisioned.

The scope of the Functionality Test encompasses the following:

- a) Ensuring fulfillment of the requirements as prescribed in the MTP— it is more appropriate to state these requirements in summary form than to merely refer to the MTP
- b) Testing of U S WEST's interfaces and order entry systems to validate that they provide the ability to receive LSRs via EDI, IMA and ASRs via EXACT, as ~~described in the Pre-order section of this document,~~ and via FAX as prescribed in the MTP for those types of service for which FAX is the only means of LSR submission
- c) The transmission of multiple order types by the Pseudo-CLEC to U S WEST, including new installation, conversion as specified, conversion as is, changes, outside moves, suspends, restores, disconnects, cancellation orders and 911/DA database updates as required
- d) The transmission by U S WEST to the Pseudo-CLEC of Acknowledgements, Rejects, Jeopardy Notifications, Firm Order Confirmations (FOC), Service Order Status queries and Service Order Completion (SOC) status
- e) For orders involving coordination with U S WEST, that U S WEST contacted the Pseudo-CLEC at the appropriate times and provided the appropriate information. (Coordinated hot cut orders will require transactions and interactions apart from the transactions listed in "d" above. U S WEST's ability to perform these coordinated provisioning activities should also be evaluated.)
- e)f) Validation that each request has been provisioned as specified in the order

~~f)g)~~ The processing of ~~flow-through~~ flow-through and non-flow-through flow-through LSRs/ASRs (i.e., those accepted by the SOP and those needing human intervention in order to be created)

~~g)h)~~ Daily reporting of test status to include: [this listing does not indicate what the “categories” are so it is unclear what “by category” means in items 1, 2 and 3.]

1. Number of tests run to date by category
2. Tests passed to date by category
3. Tests failed to date by category
4. Incidents recorded to date
5. Testing incident repairs received to date (via Performance Acceptance Certificates from U S WEST) [is the term “repairs” intended to represent corrections that U S WEST has introduced to its systems/operations? If so, these should be called corrections rather than repairs.]
6. Re-tests performed on Performance Acceptance Certificates to date
7. Passed re-tests, and failed re-tests (orders still in progress will not be included on the report, but will be tracked)

From TAG Review 3/7-8/00, MTP DRAFT 3.2 3/8/00 section 4.3.2:

MCIW COMMENT 2/4/00: Section 4.3.2 - Provisioning - Clarifying question regarding the reference to a FOC meaning Firm Order Commitment. MCIW believes this should be Firm Order Confirmation.

CGT RESPONSE 2/19/00: DONE

U S WEST COMMENT 2/4/00: Populating 911 databases may apply only to friendlies not test accounts. Further discussion about populating 911 databases with test account data is needed

CGT ADDITIONAL RESPONSE 3/15/00: Tests to verify 911 activities will be performed using both friendlies and test accounts. ALL database transactions will be captured for analysis for both account types, with the sole difference being that update failures for test accounts will be permitted to fall out without requiring corrective action, whereas similar failures for friendly accounts will be corrected.

3.1.1.23.7.2.2 APPROACH

The TA approach is to satisfy the functionality requirements prescribed in the MTP, and will involve monitoring the test execution and recording the results in the TA Project database. The Pseudo-CLEC will provide access to the Daily Log and data files (i.e., LSRs, ACKs, ASRs, FOCs, SOC, and Rejects) to the TA.

3.1.1.33.7.2.3 ENTRANCE CRITERIA

Prior to commencing the order functionality test, the following criteria must be met:

- a) All ordering Performance Measurements have been tested and successfully passed by the Performance Measurements Auditor.
- a)b) Receive the number of iterations for each Test Scenario from the Statistical Team
- b)c) All pre-order entrance criteria have been met
- e)d) Sufficient Pseudo-CLEC and U S WEST resources available to process the test scripts as scheduled based on statistical volume projections
- d)e) "Friendlies" agree to remain available during the duration of the test period [this seems to be more of an assumption than an entry criterion]
- e)f) Collocation assignments have been established at the CLEC demarcation points in U S WEST and end offices
- f)g) Adequate procedures for monitoring Pseudo-CLEC activities have been established
- g)h) Test Scripts have been completed and are ready to be delivered to the Pseudo-CLEC by the TA

3.7.2.4 ACTIVITIES[- THIS SECTION NEEDS TO BE REVISED TO PROVIDE MONITORING, TRACKING, AND VALIDATION ACTIVITIES FOR ASRS. IT NOW DEALS ONLY WITH LSRs.]

Monitoring

During the execution of the test scripts, the TA will have team members on-site at the Pseudo-CLEC Order Entry Desk location. The team will observe and document order entry methods, training effectiveness, and interactions between the Pseudo-CLEC and U S WEST.

If the LSR is rejected, the Pseudo-CLEC personnel will compare what was on the test script to what was entered. If the reject was due to a mistype, the Pseudo-CLEC will re-enter the test script. If the data was correctly entered, the test script will be forwarded to the TA for further investigation. The TA will assist in resolving issues (between the Pseudo-CLEC and U S WEST) or preparing Incident Work Orders in accordance with Appendix I when appropriate.

Tracking

Each Test Script will be monitored by use of a tracking number assigned by the TA during the Pre-Order phase. The Tracking Number will be used by the Pseudo-CLEC to report order status back to the TA. The TA will use the Tracking Number to monitor the progress of each test script throughout its lifecycle. The Pseudo-CLEC will provide the TA access to the data file containing LSR, ACK (EDI), FOC, Reject and SOC information on a daily basis. The TA will retain the data and provide statistics on the timeliness of U S WEST order processing. [Are the statistics that are being retained similar to those needed to create the Performance Measurements? Will these statistics allow for independent calculation of Performance Measurements for the test orders?]Daily Test Status Reports will be prepared from this information and will be transmitted to the ACC, and subsequently to the Test Advisory Group (TAG) at the ACC's discretion.

Friendly Service Validation

Each Friendly will confirm whether their respective service requests were provisioned in an accurate and timely fashion and without any outages. For orders that have been supplemented, the Friendly will verify that service was not installed early or that their service was not disrupted on the original due date. (For supplemental orders, it is necessary for the friendly to report back on the experience on both the original and supplemented due dates.) See the End-User /Friendlies Section, Managing Service Installation, for a description of the tasks involved in validating Friendly installations.

Resetting test accounts may be required (It would be helpful to define or explain the concept of "resetting test accounts" here as well as in the below reference to Appendix K. It's not clear what is meant by the term "resetting".) to minimize the amount of friendlies and pseudo accounts required to complete the functionality test. Situations may occur [these "situations" should be described] based on failure rates or increased number of iterations required for a given test criteria. U S WEST will be responsible to create or reset the accounts and the TACGT will be responsible for providing the information. The number of reset requests and the critical schedule benchmarks will determine the response time to complete the tasks.

The reset process will involve the TA completing a form (See Appendix ~~K~~F) and emailing it to U S WEST. A telephone call will also be made to alert US WEST that the request was submitted. On the form, a priority due date will be entered. [there is no provision for this entry on the form]U S WEST will perform the requested transaction and return the form to the TACGT when complete. Any jeopardy conditions effecting affecting the completion of the test schedule will be escalated to the TAG utilizing the Master Issues Log (MIL) located-described in APPENDIX J.Appendix J.

Pseudo Service Validation

The TA will access U S WEST's switch and compare feature/functionality (via IMA) and compare the switch data to the LSR to validate the accuracy of provisioning. (Doe U S WEST have this capability? If so, how and is this step included in the functionality test cases?)

3.4.1.53.7.2.5 EXIT CRITERIA

Prior to exiting the order functionality test, the following criteria must be met:

- a) The Pseudo-CLEC has successfully executed all test scripts
- b) The Pseudo-CLEC has provided the required data for each test script to the TA
- c) Statistics were collected that reflect U S WEST's timeliness in processing of order orders and the generation of Acknowledgments, Rejects, FOCs, and SOCs for Pseudo-CLEC LSRs and other provisioning transactions. FOC and SOC timeliness for ASRs will also be represented in the collected statistics.
- d) Statistics were collected that reflect the accuracy of U S WEST's provisioning of requested services
- e) The TA validated that the orders were provisioned as specified
- f) The TA evaluated the results and concluded that all tests are complete
- g) All requirements designated by the MTP were achieved and there are no additional outstanding requirements
- h) The TA has supplied to U S WEST a list of all test accounts that have active test circuits connected to enable U S WEST to purge its order, provisioning, and billing systems of these test accounts as specified on the exit checklist
- i) All outstanding incidents were closed in accordance with the Testing Incidents Process (Appendix I)
- j) All performance benchmarks and parity requirements have been achieved in accordance with the Functionality Test Evaluation section of this document (Section 7.3.4)

The summarized results of observations and findings collected [during the Monitoring and Auditing phase, this "Phase" is not described anywhere in the TSD, what does it mean?] will be published in accordance with the reporting guidelines approved by the ACC.

3.1.33.7.3 TROUBLE/MAINTENANCE AND REPAIR

3.7.3.1 SCOPE

The Trouble/Maintenance and Repair Evaluation will focus on a list of basic trouble conditions, both physical and feature-related, that regularly effect customers of both the CLEC and U S WEST. Maintenance and repair testing will be coordinated through the EB-TA interface (MCIW) and the IMA interface. Maintenance and repair requests will be created to evaluate the effectiveness of U S WEST's reporting systems and responsiveness to trouble calls.

The primary focus of the testing will be on U S WEST's:

- a) Electronic process of testing lines for possible trouble
- b) Response to requested updates on the status of pending trouble reports– the TSD does not provide specifications for the frequency of the status checks – how periodic will they be?
- c) Proper disposition of the reported trouble through the system in which the report was generated, including a verification of the disposition code and the cause code
- e)d) Proper notification to the Pseudo-CLEC when trouble is cleared

The Trouble/Maintenance and Repair evaluation will simulate normal CLEC M&R activity when a service affecting and non-service affecting situation occurs. The testing will use lines established in previous test scripts.

3.1.1.23.7.3.2 APPROACH

To test the effectiveness of U S WEST's trouble reporting systems, the TA will create test scripts to simulate a customer calling the local provider to report a trouble condition. These test scripts are in the form of a "Trouble Report Information Form" (Appendix G.) [Appendix G does not contain any such Form.] During the tests but, prior to reports of line trouble, the TA will call the U S WEST Core Testing Team and request configuration changes to specified test and friendly accounts to induce actual trouble conditions. Only switch related trouble setup would require U S WEST assistance; Friendlies or TA members will induce all other line conditions. These trouble conditions will be induced "on the fly" during tests as opposed to being induced before testing begins. The trouble report test scripts, containing a description of the trouble condition, will be delivered by the TA to either the EB-TA CLEC (MCIW) Repair Center or the

Pseudo-CLEC after the trouble condition has been initiated. Members of the TA will remain on-site during this phase of the testing.

The evaluation of U S WEST's system will focus on system performance, generation of trouble reports, system responses, and ticket closure.

Examples of planned troubles that will require coordination with U S WEST include:

- a) No dial tone
- b) Features not working
- c) Features not provisioned
- d) Cannot accept collect calls
- e) Static/noise on line
- f) Cannot call 411
- g) Cannot call out
- h) Cannot call 555-1212
- i) Cannot call long distance
- j) Cannot receive calls
- k) Cannot call 800-555-1212
- l) Reports of trouble condition on or prior to the due date of a service request
- m) Trouble conditions involving a service request, but reported after the due date
- n) Troubles associated with seven digit verses ten-digit dialing capabilities. These will include calls to and from Friendly lines using both dialing protocols to determine if the screening in the local switches is correct.

3.7.3.3 ENTRANCE CRITERIA

The Trouble/Maintenance and Repair Functionality test entrance criteria are:

- a) Test cases using the data from the Test Scenarios in the MTP are developed

- b) A spreadsheet documenting the details associated with each test script and the anticipated results has been created
- c) Information ~~stipulating~~ directing the number of test cases and iterations for each test case has been received from the Statistical Team
- d) The test script spreadsheet has been populated with end-user names, addresses, and trouble condition needed to generate the Trouble Report Information Form assigned to the specific test script
- e) A test schedule has been developed based on volume information provided by the Statistical Team
- f) The test script spreadsheet has been updated with execution dates assigned to each test script
- g) Test accounts successfully provisioned and activated
- h) Coordination between the TA, U S WEST, and the EB-TA CLEC (MCIW) for the use of EB-TA to submit mechanized trouble reports on selected accounts.
- i) Modifications have been made by U S WEST to allow the Pseudo-CLEC trouble reports to pass through MCIW's EB-TA gateway
- j) Daily Log Forms to record observations are produced
- k) All performance benchmarks and parity requirements have been achieved in accordance with the Functionality Test Evaluation section of this document (Section 7.3.4)~~Performance Measurement process evaluations have been successfully passed~~

3.7.3.4 TRACKING

The TA will report troubles to the Pseudo-CLEC using the Trouble Report test script (Appendix G). The following information is required to track the status of troubles:

- a) Tracking number
- b) Issue Date and Time
- c) Media Type
- d) TN Reporting Trouble
- e) Customer Name

- f) Service Address
- g) Contact Name
- h) Ticket Number
- i) Can Be Reached Number
- j) Trouble Condition
- k) Setup Action
- l) Commitment Date and Time
- m) Status Report, including Date and Time
- n) Date and Time Trouble Report Closed
- o) Disposition and Cause Codes

A copy of the completed Trouble Report test script will be given to the on-site TA member for analysis and archival when the trouble report is closed.

3.1.1.53.7.3.5 ACTIVITIES

When testing begins, the M&R Team will:

- a) Retrieve test scripts scheduled for execution each day from the TA Project database
- b) Deliver Trouble Report Information Forms [this Form is not provided in the TSD. Need to understand what its use and what it contains.] as specified in the test schedule for that day's testing to either MCIW (EB-TA) or the Pseudo-CLEC (IMA). Batches of test scripts will be delivered periodically during the day.
- c) Monitor trouble verification procedures and documenting observations
- d) Monitor and evaluate the overall performance of the EB-TA and IMA systems (e.g., system response to query)
- e) Request and document periodic status of trouble report via EB-TA or IMA until trouble report is closed— how often will status checks be done?

- f) Collect test scripts from MCIW and test results from Pseudo-CLEC after execution.
- g) Verify the expected results indicated on the test script against actual results to ensure the objectives were attained
- h) Validate the accuracy of data input by the EB-TA CLEC (MCIW) or Pseudo-CLEC (IMA) when unexpected results are received, and re-issue tests cases when necessary
- i) Download data for each day's executed test scripts from the Pseudo-CLEC database to the TA

3.7.3.6 EXIT CRITERIA

The Pseudo-CLEC and MCIW will have been able to perform the following functions:

- a) Create trouble tickets via the IMA- or via EB-TA
- b) Request an MLT
- c) Request and review trouble ticket status via the IMA or EB-TA and document status/results on Daily Log
- d) Provide pre-authorization for Maintenance of Service Charges (What does this mean? Is this supposing maintenance service charges? There may be a clearer way of stating the intent of this bullet.)
- e) Receive/Request trouble ticket closure notification, including the disposition and cause code
- f) Receive emergency notification for network events (e.g., switch failures)
- g) Execute and pass all Trouble/Maintenance test scripts
- h) Successfully retrieve customer trouble histories
- i) Achieve performance benchmarks and parity requirements in accordance with the Functionality portion of the plan

Additionally, all Incident Work Orders must have been properly addressed and successfully re-tested with passing results in accordance with the Testing Incidents Process (Appendix I).

~~3.1.1.73.7.3.7~~ DEPENDENCIES— THESE SEEM TO BE ENTRY CRITERIA. NOT OTHER SECTION OF THE FUNCTIONALITY TEST DESCRIBES “DEPENDENCIES” WHY HERE?

The Trouble/Maintenance and Repair functionality test is dependent on:

- a) Orders being successfully entered during the Pre-Order/Order Phase
- b) Coordination between the TA, U S WEST and MCIW
- c) Trouble conditions appropriately simulated and induced
- d) The availability of U S WEST OSS

3.7.3.8 DELIVERABLES

Trouble/Maintenance and Repair deliverables are:

- a) Project Daily Log consisting of all monitoring activities
- b) Completed Daily Log Form
- c) Daily Test Reports

3.8 Billing

3.8.1 SCOPE

The Billing evaluation will determine whether U S WEST is providing the CLECs with accurate and timely wholesale bills and usage data, including records for services, features, network elements and functions that are ordered and provisioned.

~~3.1.23.8.2~~ APPROACH

The Pseudo-CLEC will be assigned at least one monthly bill cycle by U S WEST for recording billing records and daily usage files. U S WEST will provide the bills to the Pseudo-CLEC in two formats, electronic and paper. The electronic bills will be available for the TA Billing Team to access within 24 hours of receipt by the Pseudo-CLEC; the paper bills will be forwarded to the TA within 72 hours of receipt by the Pseudo-CLEC. The bills will be analyzed to verify that they are correct and accurate. U S WEST will make the usage files available to the Pseudo-CLEC on a daily basis and the TA will have access to these files. The information contained on these daily usage files will be used to

verify that the usage records and monthly charges for End-Users, along with any applicable fees and surcharges, are correct and accurate.

3.1.33.8.3 ENTRANCE CRITERIA

In order to perform ~~bill validation~~ the Billing Functionality Test, the TA Billing Team requires:

- a) The Pseudo-CLEC must complete U S WEST's customer questionnaire
- b) Receipt of paper copies of the CLEC bills
- c) Receipt of electronic copy of the Customer Records Information System (CRIS) bill file in EDI format (to be translated by the Pseudo-CLEC)
- d) Daily usage records sent in electronic format
- e) Uniform Service Order Code (USOC) rate tables provided by U S WEST
- f) The Performance measurement evaluation has been passed.
- g) Receipt of confirmation that Performance Measurement evaluation has been passed [is this a formalization of step f), immediately preceding?]
- h) Validation of how Pre-subscribed Inter-exchange Carrier Charge (PICC) fees are calculated and applied, along with the exact charge associated with each type of fee
- i) A complete list of all applicable billing business rules, including billing increments, minimum and rounding.

Dependencies for this effort include:-- these seem to be further entry criteria

- a) Bills received in a timely manner
- b) Access to the electronic bill file from the Pseudo-CLEC
- c) Access to the electronic daily usage data from the Pseudo-CLEC
- d) File transfer connectivity is established between U S WEST and Pseudo-CLEC
- e) Receipt of necessary business rules and applicable charges from U S WEST to the TA

3.8.4 ACTIVITIES

The ~~Pseudo-CLEC TA~~ will work with U S WEST to determine the bills that will be generated and the monthly bill cycles assigned. U S WEST will provide the Pseudo-CLEC with paper and electronic copies of all bills. In addition, U S WEST will provide the Pseudo-CLEC with the daily usage files. The TA Billing Team will have access to the electronic billing data and will receive paper bills from the Pseudo-CLEC.

The TA Billing Team will review the daily usage files to verify the data sent by U S WEST during ~~a reporting period~~ the test are included in the files. The TA will be collecting the results of the test scripts which will provide feedback on what was sent and what was processed by U S WEST. The test script information and the daily usage files will be compared and analyzed to determine if the records are correct. Any discrepancies will be researched and handled as necessary. Errors in billing will be identified and documented by the TA Billing Team and given to the Pseudo-CLEC to be handled through U S WEST's billing inquiry process. [what records are maintained and in what format? Is there a difference between discrepancies and errors in the records that are to be maintained?]

When the bills are received, the validation process will be performed by comparing the bills to the daily usage records (that were validated per the paragraph above). This will verify whether the daily usage file records are correctly rated, taxes are correct, services are included and the bill reflects all the appropriate information. The charges will be validated against the Pseudo-CLEC or participating CLECs' USOC rates as provided in their interconnection agreements. Time and it is unclear what "time" means usage from the daily usage file will be calculated to verify the bill reflects the correct charges. Discounts will be validated against the appropriate tables provided by U S WEST or by the rates/discounts identified in the Pseudo-CLEC interconnection agreement. Comparing charges against the validated charge list provided by U S WEST will verify any fees and surcharges. Any discrepancies will be researched and handled as necessary. Errors in billing will be identified and documented by the TA Billing Team and given to the Pseudo-CLEC to be handled through the U S WEST billing inquiry process. These inquiries will be monitored and the results documented as part of the evaluations. [see earlier question about documentation of discrepancies and errors.]

The primary focus of bill evaluation will be the assessment of the ability of U S WEST's billing systems to process bills in an accurate and timely manner. The following elements will be included in the validation of the bills as noted above:

- a) Order Validation: Verify that only ordered services are billed. The TA will verify that changes to orders and features are reflected correctly on the appropriate bill. Comparing service order information to the billing information shall be the method by which validation of charges will be conducted. The TA Billing Team will also be receiving end-user bills for U S WEST test accounts.

- b) Charges: Verify bills provide accurate recurring, non-recurring and usage-sensitive charges. The TA will determine whether:
1. correct monthly recurring charges appear on each month's bill,
 2. non-recurring charges appear correctly on the appropriate bill
 3. usage-sensitive charges appear on the appropriate bill and are correct.
- Pseudo-CLEC ~~interconnection~~-rates, based on the type of products and/or service that is ordered, will be used to validate these charges.
- c) Usage Rates: Verify that rates are applied correctly for each product, service or element. The team will determine whether the rates charged on each bill correspond to the rates in the Pseudo-CLEC interconnection agreement.
- d) Taxes and Surcharges: Verify that taxes and surcharges have been assessed correctly. The team will determine whether the appropriate taxes are assessed on each bill, and that all surcharges are correct and included on the bills. If the Pseudo-CLEC elects tax exempt status, the TA Billing Team will verify that there are no taxes charged where applicable. Any back-office surcharges or fees will also be assessed for accuracy.
- e) Discounts: Verify that discounts and adjustments are applied correctly. The team will determine whether adjustments to bills carrying corrections of errors from a previous month have been correctly made, and whether discounts contracted between U S WEST and the Pseudo-CLEC have been applied to the bill accurately. The adjusted amounts will also be verified against the Billing Performance Measurement regarding accuracy of carrier bills.
- f) Prorated Bills: Verify that prorated amounts are charged accurately in terms of the installation or disconnect date and in accord with the billing business rules provided by U S WEST. The TA will verify whether prorated amounts are properly applied to the bill.
- g) Service Disconnects: Verify that disconnects are processed and appear accurately on the bill. The TA will determine whether a disconnect on a new account that has been created in the same bill cycle is charged correctly. ~~They~~ It will further determine whether the account does not appear on the second bill cycle, and that disconnects for accounts created in a previous bill cycle are reflected on the correct bill and that the charges are correct. For those end-user accounts that are migrated ~~for~~ from U S WEST to the Pseudo-CLEC, the TA Billing Team will also verify whether the end-users receive a "final bill" from U S WEST and whether the end-user is ~~not multiply~~ billed for the same services by the Pseudo-CLEC and U S WEST.

- h) Support of CLEC to IXC Billing: Testing will be done to evaluate U S WEST's production of usage records to the Pseudo-CLEC for calls terminating to end-users served by other CLEC's on an unbundled basis.
- i) Friendlies from U S WEST to CLEC: The test will include verification that the friendly customer migrating from U S WEST to the CLEC receive an accurate and final bill from U S WEST and the friendly customers are not double-billed after they leave U S WEST.

3.8.5 EXIT CRITERIA– there is no reason that the exit criteria not be presented in list form as is done in all other sections of the Functionality Test

The Billing evaluation will include the capture and documentation of billing information provided on the wholesale bills to the Pseudo-CLEC.

~~[This is not an exit criterion]~~Inputs to this evaluation consist of the paper and electronic copies of the monthly bills for a two-month time period and the electronic copies of the daily usage file on a weekly basis. These are Pseudo-CLEC inputs to the TA Billing Team. The TA Billing Team will document and analyze the information provided by the Pseudo-CLEC and /or CLEC's billing data.

The results of the bill validation will be included in the final report to the ACC. Any ~~discrepancies~~ discrepancy will be raised as an issue and logged in the TA Master Issues Log (see Appendix J for the Master Issues Log Process). Issues deemed by the TAG to require

~~U S WEST repairs~~ system corrections will be ~~escalated to Incidents~~. Findings or escalations ~~requiring attention by U S WEST~~ will be documented on Incident Work Orders and processed in accordance with the Testing Incidents Process (Appendix I). All critical issues and incidents must be resolved prior to completion of the Billing Test phase.

4 RETAIL PARITY EVALUATION

4.1 Scope

The Retail Parity Evaluation is a type of functionality test. It is structured to evaluate the mechanized service request capability available to a CLEC representative using a U S WEST intended OSS interface and that available to a U S WEST representative using the equivalent internal U S WEST OSS interface when performing similar activity.

Specifically, the Retail Parity Evaluation compares 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. The purpose of this test is to determine whether a CLEC representative using a U S WEST OSS external interface, can perform these processes in a manner reasonably equivalent to that of a U S WEST representative using the U S WEST OSS internal interface.

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. In general, each CLEC test scenario has a corresponding U S WEST retail scenario in order to conduct a comparison of functionality. Test comparisons will be between the IMA GUI, EDI and EB-TA interfaces and the retail systems utilized by U S WEST's Service Order Representatives.

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 and the number of steps required to complete various transactions, while recognizing a difference in processes. It is qualitative in that it compares the information that a U S WEST representative handling a service request 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 service requests, such as: order status, escalations, and obtaining preferential or vanity numbers. 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).

U S WEST COMMENT 3/6/00: In Section 4 of the Retail Parity Evaluation, the second paragraph relates to flow through of LSRs and ASRs. Flow through has no relevance to a resale CLEC Service Representative's customer experience because it is transparent to the Service Representative. In addition, ASRs are not included in the Retail Parity Test. Therefore, this entire paragraph is not appropriately included in the Retail Parity Test and should be deleted.

CGT RESPONSE 3/9/00: CGT has rewritten the Retail Parity Evaluation scope section to more closely reflect MTP DRAFT 3.2 verbiage. Neither "ASR" nor "flow through" are any longer in the section.

From TAG Review 3/7-8/00, MTP DRAFT 3.2 3/8/00 section 3.3.2, first through third paragraphs:

MCIW COMMENT 2/4/00: MCIW would like more details on what this aspect of the test involves and how it fits into the scope of the overall test. In addition, MCIW would like more clarification on what is meant by the words "reasonably equivalent". SEE TEST STANDARDS DOCUMENT

CGT COMMENT 2/19/00: Details for how the test will be conducted can be found in the 271 Test Standards Document. That document is a specification for how the tests will be conducted. The MTP is more general. NO CHANGES MADE

MCIW FURTHER COMMENT 2/29/00: Per CGT's statement, "The Master Test Plan is a map for how the Arizona Tests will be conducted", therefore, to comment that "the MTP is more general" doesn't make sense. Also, as stated above, an updated copy of the TSD was not attached. Until such time as a review of an updated copy of the TSD is received, MCIW reserves further comment on this issue.

CGT FURTHER RESPONSE 3/5/00: CGT has added a significant amount of detail to the MTP by bringing text into the MTP from the TSD version 2.2. Please review this detail in section 5.8 of this MTP. We would welcome an opportunity to discuss this further if you want further clarifications after reviewing section 5.8.

AT&T COMMENT 2/29/00: AT&T suggests that the description be rephrased to be consistent with the Executive Overview.

CGT RESPONSE 3/2/00: The description was rephrased to be consistent with the Executive Overview.

AT&T COMMENT 2/29/00: AT&T agrees with MCIW that more detail needs to be provided.

CGT RESPONSE 3/2/00: CGT added 3 additional paragraphs of detailed excerpts from the TSD.

CGT RESPONSE 3/9/00: CGT updated TSD sections above to conform to MTP DRAFT 3.2 3/8/00 section 3.3.2, first through third paragraphs.

From TAG Review 3/7-8/00, MTP DRAFT 3.2 3/8/00 section 5.1:

AT&T COMMENT 2/29/00: AT&T suggests the description of the purpose be changed to conform to the suggested changes described in the comments on Section 3.3.2 "Retail Parity Evaluation"

CGT RESPONSE 3/5/00: Added two sentences to the end of the paragraph.

CGT RESPONSE 3/9/00: CGT updated TSD sections above to conform to MTP DRAFT 3.2 3/8/00 section 3.3.2, first through third paragraphs.

The controlled set of test cases (for pre-ordering, ordering and maintenance & repair) on which qualitative and quantitative measures will be collected will be taken from the 90+ test scenarios identified in Appendix A of the MTP. The test cases in Appendix E of this document provide insight as to the purpose, inputs, outputs, and evaluation criteria for each test comprising the retail parity evaluation.

The evaluation will include both qualitative and quantitative test measures. Qualitative test measures will be used where an exact means of comparison is not possible. Quantitative test measures is where "apples to apples" comparisons of physically measurable timeframes or other elements is possible.

Quantitative pre-order metrics such as TN request and reservation, feature and ~~PIC/LPIC~~ service availability verification information, address validation, 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 test cases and scripts are executed by U S WEST Service Representatives for retail and by Pseudo-CLEC Service Representatives for resale. Results will be recorded on the Retail Parity Test Script Forms (See Appendix C).

AT&T COMMENT 3/3/00: Add "request and reservation" to first sentence above.

CGT RESPONSE 3/14/00: Done, see above.

The Key quantitative and qualitative Questions to be answered by the Retail Parity Evaluation will include:

1. 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
2. Is the time and effort to perform pre-order queries reasonably equivalent for Pseudo-CLEC and U S WEST Service Representatives
3. Is the level of pre-order to order integration reasonably equivalent for Pseudo-CLEC and U S WEST Service Representatives

4. Is the data on the screens presented to the Pseudo-CLEC Service Representative sufficiently equivalent to the data presented to the U S WEST Service Representative
5. For service to be installed in the same serving area, are equal facilities available for the U S WEST Service Representative and the Pseudo-CLEC Service Representative
6. Is the procedure used to reserve large blocks of TNs equivalent for both a Pseudo-CLEC Service Representative and a U S WEST Service Representative
7. 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
8. Is an equal opportunity provided to the Pseudo-CLEC Service Representative and the U S WEST Service Representative to expedite due dates
9. Is an equal opportunity provided to the Pseudo-CLEC Service Representative and the U S WEST Service Representative to request extended due dates (due dates longer than thirty days into the future)
- ~~9.~~10. Is the procedure to obtain and/or reserve a "vanity" TN equivalent for both a Pseudo-CLEC Service Representative and a U S WEST Service Representative
- ~~10.~~11. Is the ability to make a change on a pending order reasonably equivalent for both a Pseudo-CLEC Service Representative and for a U S WEST Service Representative

AT&T COMMENT 3/3/00: Modify original item 11 verbiage to add "when the a [sic] dispatch has been scheduled as part of the order" and add question marks as punctuation for all listed items.

CGT RESPONSE 3/14/00: TAG discussion held 3/9/00 has modified original item 11 verbiage significantly and proposed modification no longer appears appropriate - no change. Technical writing style/punctuation standards indicate no sentence punctuation for numbered/bulleted lists - no change.

AT&T does not recall the discussion that deemed the proposed addition of the dispatch language no longer appropriate for new item 10. AT&T believes that addition continues to be appropriate. AT&T requests that this issue be revisited during the next appropriate TAG meeting.

- ~~11.~~12. Is a reasonably equivalent ability provided to both the Pseudo-CLEC Service Representative and the U S WEST Service Representative to query status of a pending service order

- ~~12.13.~~ For "working left-in" situations, does IMA/EDI provide the Pseudo-CLEC Service Representative an equivalent amount of status information as is provided to the U S WEST Service Representative

AT&T COMMENT 3/3/00: Add "EDI" to original item 13 verbiage.

CGT RESPONSE 3/14/00: Done.

- ~~13.14.~~ Are the hours of system availability reasonably equivalent for Pseudo-CLEC Service Representatives and for U S WEST Service Representatives (this determination will factor-in the purposes for which the interface remains available within U S WEST if not similarly available to CLECs)

- ~~14.15.~~ Are the edit and error checking capabilities available to CLECs using the IMA and EDI interfaces to create orders reasonably equivalent to the capabilities of a U S WEST customer service representative using the retail interfaces

The old number 14 which stated, "Is notification equal to both Pseudo-CLEC Service Representatives and U S WEST Service Representatives of planned and unplanned system downtime" has been deleted from the latest version. AT&T requests that this bullet be put back in the TSD. System downtime will most certainly affect a CLEC's interaction and experiences with its customers. The relative processes that are used by U S WEST to notify CLEC and retail customer service centers should be examined during the test.

AT&T COMMENT 3/3/00: Add new item "Are the edit and error checking capabilities available to CLECs using the IMA and EDI interfaces to create orders equivalent to the capabilities of a U S WEST customer service representative using the retail interfaces?"

CGT RESPONSE 3/14/00: New item 14 added.

U S WEST COMMENT 3/6/00: In the list of Retail Parity Evaluation questions 1/4 , many of the items include terms such as "equal" and "the same" as the standard for the evaluation. These terms imply that strict equality is required. U S WEST objects to the use of these terms because the appropriate standard is whether U S WEST provides access to CLECs in substantially the same time and manner as it provides to itself.

CGT RESPONSE 3/9/00: CGT replaced terms "equal" and the "same" with "in substantially the same time and manner" or equivalent verbiage as appropriate to the text of the questions.

U S WEST COMMENT 3/6/00: Several of the questions 1/4 do not relate to the Retail Parity Evaluation and should be deleted. For example, item 1 states: "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 [sic]" As noted above, flow through has no relevance to customer experience because it is transparent to the CLEC Service Representative. In addition, items 10, 11, and 15 (relating to hot cut commitments, day of installation changes to pending orders, and software development), have no impact on the Service Representative's experience and should be deleted. Similarly, items 14 and 16 (relating to system downtime notification and system availability) do not impact the CLEC's experience with its customer. These items are too far removed from the Retail Parity Evaluation and should be deleted. These items are further discussed on pp. 52-53. To maintain consistency, items 10, 11, and 14-16 should be deleted from pp. 52-53 for the same reasons.

CGT RESPONSE 3/9/00: The term "flow through" is used in the context of "successfully processes through OSS without the need for manual assistance", which would be "transparent" to the CLEC Service Representative only when true. Items in list updated in accordance with agreement reached at TAG Review 3/7-8/00 of MTP DRAFT 3.2 3/8/00 section 5.8.

From TAG Review 3/7-8/00, MTP DRAFT 3.2 3/8/00 section 5.8:

MCIW COMMENT 2/4/00: The statement that, "Do the OSS respond within substantially the same time frames" implies that this will be measured at parity, but MCIW believes that due to concerns about the use of EnView type process, it is still an open issue whether a parity comparison can be performed.

CGT RESPONSE 2/19/00: HOW THIS IS ACCOMPLISHED IS PART OF THE TEST STANDARDS DOCUMENT AND DOESN'T NEED TO BE DETAILED HERE. NO CHANGE MADE.

MCIW FURTHER COMMENT 2/29/00: MCIW is concerned with whether or not an EnView type process can be used for this part of the test, as well as for the maintenance transaction portion. U S WEST has been asked to provide details on how this process will work. As well, U S WEST has agreed that it bears the burden should the test commence using an EnView type process and problems develop. MCIW suggests that this be documented in the MTP and TSD. Also, MCIW was referred to the TSD for details. As stated above, an updated copy of the TSD was not attached. Until such time as a review of an updated copy of the TSD is received, MCIW reserves further comment on this issue.

CGT FURTHER RESPONSE 3/5/00: We have included the bullets above detailing the questions we will answer with the Retail Parity Evaluation. Additional details as to how these tests will be conducted are included in the updated TSD and the sample test cases distributed with the updated TSD. We would welcome the opportunity to discuss the test further after you have time to review this information.

U S WEST COMMENT 2/4/00: The fact that different accounts, tested at different times, needs to be taken in to consideration when evaluating the quality and completeness of the information.

AT&T COMMENT 2/29/00: AT&T is concerned about this U S WEST comment. AT&T disagrees and suggests that these concepts be corrected to more accurately reflect the content of these sections.

CGT RESPONSE 2/19/00: Covered in the Test Standards Document

CGT FURTHER COMMENT 3/5/00: Tests at different times will not appreciably effect the results of the Retail Parity Evaluation as designed. Accounts can be the same in both environments.

AT&T COMMENT 2/29/00: In this section, AT&T suggests that it is also inappropriate to contend that the same success criteria in the Retail Parity Evaluation are to be applied as will those of the Functionality Test. AT&T suggests that these concepts be corrected to more accurately reflect the content of these sections.

CGT RESPONSE 3/5/00: CGT Agrees. See new bullets above.

MCIW COMMENT 2/29/00: Functional testing of integrated pre-order and order must be added to the test. That is, the information obtained from the pre-order system is automatically populated, with no additional manipulation, onto the LSR in near real time. FCC orders have required proof of access to this functionality, which is imperative for full-scale commercial operation by competing local service providers.

CGT RESPONSE 3/5/00: Bullet 2 above addresses this. Substantial detail for how this evaluation will be accomplished is included in the test cases for the retail parity evaluation.

MCIW COMMENT 2/29/00: A parity test should be performed to distinguish the length of time it takes a CLEC to process an electronic trouble ticket vs the length of time it takes U S WEST. That would be the length of time it takes the order downloads to process to U S WEST back end systems.

CGT RESPONSE 3/5/00: CGT needs some time to evaluate how we might, if possible, perform and measure results for this type of test in such a fashion to ensure validity. This can be handled using a New Scenario Request Form. No need for a change here.

CGT RESPONSE 3/9/00: CGT updated TSD "Key quantitative and qualitative Questions" above, and matching descriptions in section 4.2 below, to conform to MTP DRAFT 3.2 3/8/00 section 5.8 bullets.

4.2 Approach

The Retail Parity Evaluation will include

1. Flow through analysis

This analysis will evaluate whether orders entered with flow through eligible service types, and validated using the U S WEST internal GUI interfaces are at parity with orders entered and validated using the Pseudo-CLEC IMA GUI. The flow through parity testing will attempt to answer the following questions:

- a) When specific field requirements are not met, is equivalent notification received using U S WEST's internal interfaces and using Pseudo-CLEC IMA
- b) Are more rejects experienced by the Pseudo-CLEC Service Representative using the IMA than are experienced by the U S WEST Service Representative using the U S WEST internal interfaces once the correct data is on the order

AT&T COMMENT 3/3/00: Replace "internal GUI" with "internal interfaces" in above items.

CGT RESPONSE 3/14/00: Done.

The number of order rejects experienced when correct data was issued will be counted for both resale and retail test cases run as part of the Retail Parity Tests. Test results will be reported as a percentage of the total accurate orders in both the U S WEST retail and the Pseudo-CLEC resale test environments.

U S WEST COMMENT 3/6/00: In Section 1/4 titled "Flow through analysis." As stated above, flow through is transparent to the CLEC Service Representative and has no relevance to customer experience. This paragraph should be deleted.

CGT RESPONSE 3/9/00: As stated above, the term "flow through" is used in the context of "successfully processes through OSS without the need for manual assistance", which would be "transparent" to the CLEC Service Representative only when true. No change made but CGT welcomes recommendations for clarifying verbiage.

MCIW COMMENT 3/3/00: MCIW firmly encourages a rigorous evaluation of USW's ability to process a high percentage (at least 90%) of orders electronically (end-to-end). The flow through test would consist of a variety of order scenarios that assess whether certain order types flow through successfully without manual intervention.

CGT RESPONSE 3/14/00: "Flow through" evaluation remains a component of Retail Parity testing, as detailed throughout this section. Retail Parity Evaluation, however, is intended to only measure comparative "flow through" in a "variety of order scenarios" rather than measuring against any pre-established percentage.

2. Time and effort to perform pre-order queries

The time and effort required to enter resale orders versus the time and effort required to enter retail orders will be measured and reported as follows:

- a) The number of fields required to generate appropriate pre-order query transactions will be recorded and compared for the resale and retail test cases
- b) The number of steps required for each portion of the data gathering will be counted, recorded and compared for pre-order transactions on both the retail and resale test cases
- c) Timeliness of response will be gathered and compared for each pre-order query on both the resale and retail test cases
- d) The amount and type of information returned for all pre-order transactions will be gathered and compared between resale and retail
- e) The quality of data returned on all pre-order transactions will be compared between resale and retail
- f) Measurement variance will be used to trigger issue or Incident Work Order development.

AT&T COMMENT 3/3/00: This needs more explanation (in reference to last sentence of paragraph describing Incident Work Order procedure).

CGT RESPONSE 3/14/00: Incident Work Order Procedure detail has been consolidated and expanded in new section 4.4.3.

3. Analysis of pre-order and order integration

Comparison measures for the pre-order and order integration experienced by the Pseudo-CLEC Service Representative versus the U S WEST Service Representative will be accomplished as follows:

- a) The number of auto populated or selectable fields (previously auto-populated from a query) will be counted for each retail parity test order and compared between resale and retail. Fields required for U S WEST retail customer credit information will not be counted. Count variance will be a trigger for issue or Incident Work Order development.

AT&T COMMENT 3/3/00: This needs more explanation (in reference to last sentence of paragraph describing Incident Work Order procedure).

CGT RESPONSE 3/14/00: Incident Work Order Procedure detail has been consolidated and expanded in new section 4.4.3.

- b) The number of steps from start of order to order release will be counted for each retail parity test order and compared between resale and retail. Fields required for U S WEST retail customer credit information will not be counted. Count variance in number of steps will be a trigger for issue or Incident Work Order development.

AT&T COMMENT 3/3/00: This needs more explanation (in reference to last sentence of paragraph describing Incident Work Order procedure).

CGT RESPONSE 3/14/00: Incident Work Order Procedure detail has been consolidated and expanded in new section 4.4.3.

- c) The number of fields populated to complete an order will be counted for each retail parity test order and compared between resale and retail. Fields required for U S WEST retail customer credit information will not be counted. Variances will be a trigger for issue or Incident Work Order development.

AT&T COMMENT 3/3/00: This needs more explanation (in reference to last sentence of paragraph describing Incident Work Order procedure).

CGT RESPONSE 3/14/00: Incident Work Order Procedure detail has been consolidated and expanded in new section 4.4.3.

U S WEST COMMENT 3/6/00: U S WEST objects to the general approach for the Retail Parity Evaluation because it does not result in a meaningful analysis. For example, paragraph 1/4 entitled "Analysis of pre-order and order integration," describes an approach to evaluating pre-order and order integration by counting the numbers of automatically populated fields and subtracting points where differences greater than 25% are found. U S WEST objects to this proposal because it is the kind of information, rather than the number of automatically populated fields, that is meaningful and relevant to the Retail Parity Evaluation. U S WEST understands that there is no easily quantifiable way to capture the CLEC's customer experience. Rather than force a quantifiable analysis by arbitrarily counting fields and assigning random thresholds, U S WEST believes the approach 1/4 throughout Section 1/4 should be deleted and replaced with an alternative approach. U S WEST believes the appropriate approach is to evaluate objective factors, such as response times and whether the same data is returned in response to retail and resale inquiries, and document those differences that negatively impact the customer experience.

CGT RESPONSE 3/9/00: CGT submits that the proposed comparative quantitative approach to evaluate the level of relative parity between the U S WEST and CLEC Service Representative experience when interacting with OSS is neither arbitrary nor random. On the contrary, CGT proposes that all fields and steps required to perform specific transactions be counted and compared as a factor that can contribute to the amount of effort required by a Service representative in successfully processing a service request. CGT admits that the proposed 25% threshold cannot be substantiated via statistical or other methodology, although 25% variance appears to be a reasonable, not overly restrictive, measure by which "parity" may be judged. Timeliness and Data Quality evaluations documented throughout this section of the TSD conform to U S WEST's suggested "appropriate approach" measures. CGT requests ACC Staff input to aid in determining acceptable variance thresholds for defining "parity".

AT&T agrees with CGT's general approach to evaluating the relative integration of pre-ordering and ordering interfaces for both CLECs and U S WEST. However, AT&T believes the 25% threshold needs further discussion at the next appropriate TAG meeting.

CGT ADDITIONAL RESPONSE 3/16/00: Reference to specific measurement percentages has been removed throughout this section.

AT&T COMMENT 3/3/00: Add "Fields required for U S WEST retail customer credit information will not be counted" to each of the above items.

CGT RESPONSE 3/14/00: Done.

4. Quality of data on screen

The quality of data on the screens returned will be compared when using the U S WEST interfaces versus the Pseudo-CLEC IMA and the results evaluated in answering the following questions:

- a) Is the system error message sufficient to know what needs to be corrected
- b) Is the reject data returned sufficient to know what needs to be corrected
- c) Is equivalent information returned when a query is made
- d) When a query is made and requested information is not available does the alternate response point to a resolution (i.e., multiple address matches, supplemental match, facilities currently exist, new facilities are required, etc.)

U S WEST COMMENT 3/6/00: Paragraph states: "Questions we will attempt to answer include but are not limited to: . . ." This qualified language is not appropriately included in a final test document. U S WEST requests that the language be deleted and, to the extent the questions are not yet fully documented, that they be documented in the TSD.

CGT RESPONSE 3/9/00: Agreed, CGT updated sentence as shown above.

AT&T COMMENT 3/3/00: Replace "internal GUI" with "internal interfaces", rewrite "Questions" statement and add question marks to as punctuation for all listed items.

CGT RESPONSE 3/14/00: "Interfaces" has replaced "GUI", but other proposed changes are no longer applicable after sentence rewrite as a result of 3/9/00 TAG discussion. Technical writing style/punctuation standards indicate no sentence punctuation for numbered/bulleted lists - no change.

AT&T COMMENT 3/3/00: Add "Is equivalent information returned?" to item c).

CGT RESPONSE 3/14/00: All of item c) rewritten to incorporate proposed wording without duplication.

5. Facility availability

A comparison will be made of available facilities offered for each retail parity test order installed in the same serving area, between resale and retail. The number of "delayed (held) service orders" within a given serving area will be counted for both retail and resale. Variance will be a trigger for issue or Incident Work Order development.

AT&T COMMENT 3/3/00: This needs more explanation (in reference to last sentence of paragraph describing Incident Work Order procedure).

CGT RESPONSE 3/14/00: Incident Work Order Procedure detail has been consolidated and expanded in new section 4.4.3.

6. Large blocks of TNs

The ability to request a large block of TNs, in the same serving area, will be compared between a U S WEST Service Representative and a Pseudo-CLEC Service Representative. The number of steps required, the amount of information required and returned, and the timeliness of response will be counted. Variance will be a trigger for issue or Incident Work Order development.

AT&T COMMENT 3/3/00: This needs more explanation (in reference to last sentence of paragraph describing Incident Work Order procedure).

CGT RESPONSE 3/14/00: Incident Work Order Procedure detail has been consolidated and expanded in new section 4.4.3.

7. Due date availability

A comparison of due dates offered and U S WEST due date commitments will be evaluated for each retail parity test order and compared between resale and retail. Variations in offered due dates or returned U S WEST committed due dates interval for similar orders (location, service type, etc.) will be a trigger for issue or Incident Work Order development.

Rather than an examination of just due dates offered, an additional relevant comparison would be the U S WEST commitment date. The commitment date would be obtained in the case of CLEC orders from the FOC. In the case of retail orders it would be obtained from the customer service representative. A CLEC could perform the appropriate pre-order transactions and determine that no dispatch is required. In that situation, U S WEST practice is that the standard interval should be offered as the due date. However, it is only when the FOC is received that the CLEC knows for sure when the actual committed to due date will be.

Conversely, a CLEC representative could be led to believe from U S WEST pre-order information that no facilities are available and the CLEC is unable to offer any due date. The same customer could then call U S WEST and be given a committed due date and told that facilities are available. To adequately examine the due date availability issue, both offered and committed due dates needs to be examined.

AT&T COMMENT 3/3/00: This needs more explanation (in reference to last sentence of paragraph describing Incident Work Order procedure).

CGT RESPONSE 3/14/00: Incident Work Order Procedure detail has been consolidated and expanded in new section 4.4.3.

8. Expedited due dates

The ability to expedite a due date, in the same serving area, will be compared between a U S WEST Service Representative and a Pseudo-CLEC Service Representative. Variance will be a trigger for issue or Incident Work Order development.

AT&T COMMENT 3/3/00: This needs more explanation (in reference to last sentence of paragraph describing Incident Work Order procedure).

CGT RESPONSE 3/14/00: Incident Work Order Procedure detail has been consolidated and expanded in new section 4.4.3.

AT&T COMMENT 3/3/00: Modify "Expedite" to "Expedited" in title.

CGT RESPONSE 3/14/00: Done.

9. Vanity TNs

The ability to request a "vanity" TN, in the same serving area, will be compared between a U S WEST Service Representative and a Pseudo-CLEC Service Representative. The number of steps required, the amount of information required and the timeliness of response will be counted. Variance will be a trigger for issue or Incident Work Order development.

AT&T COMMENT 3/3/00: This needs more explanation (in reference to last sentence of paragraph describing Incident Work Order procedure).

CGT RESPONSE 3/14/00: Incident Work Order Procedure detail has been consolidated and expanded in new section 4.4.3.

10. Changes to a pending due date

The ability to revise a pending service order will be compared between a U S WEST Service Representative and a Pseudo-CLEC Service Representative. The number of steps required, the amount of information required and the timeliness of response will be counted. Variance will be a trigger for issue or Incident Work Order development.

AT&T does not recall the discussion that deemed the proposed addition of the dispatch language no longer appropriate. AT&T believes that addition continues to be appropriate. AT&T requests that this issue be revisited during the next appropriate TAG meeting.

AT&T COMMENT 3/3/00: This needs more explanation (in reference to last sentence of paragraph describing Incident Work Order procedure).

CGT RESPONSE 3/14/00: Incident Work Order Procedure detail has been consolidated and expanded in new section 4.4.3.

AT&T COMMENT 3/3/00: Add "when the a dispatch has been scheduled as part of the order" [sic] to first sentence.

CGT RESPONSE 3/14/00: 3/9/00 TAG discussion resolved to change intent of item so as to avoid possible erroneous dispatch. Due date change will now be tested in advance of dispatch scheduling which invalidates the proposed change.

11. Status on the day service is to be installed

The ability to request status on a pending service order on the day it is scheduled to be installed will be compared between a U S WEST Service Representative and a Pseudo-CLEC Service Representative. The number of steps required, the amount of information required and the timeliness of

response will be counted. Measured variance will be a trigger for issue or Incident Work Order development.

AT&T COMMENT 3/3/00: This needs more explanation (in reference to last sentence of paragraph describing Incident Work Order procedure).

CGT RESPONSE 3/14/00: Incident Work Order Procedure detail has been consolidated and expanded in new section 4.4.3.

12. Working left in test cases

The amount and type of information returned when a new connect order is entered, where working service exists, will be compared between resale and retail. The TA will note and compare U S WEST electronic access to information that identifies or aids in resolving a working left in situation and equivalent data available to the Pseudo-CLEC through IMA. Variance will be a trigger for issue or Incident Work Order development.

U S WEST COMMENT 3/6/00: Paragraph ¼ regarding "Working left in test cases," states "The minimum expectation is that any pending disconnect order activity is returned with address query and that equal due date interval procedures are established for both resale and retail." U S WEST objects to the inappropriate inclusion of this arbitrary new requirement in the TSD and requests that it be deleted.

CGT RESPONSE 3/9/00: Agreed, CGT updated sentence as shown above.

AT&T COMMENT 3/3/00: Modify paragraph text starting with second sentence to read "The TA will note the point and time at which both the U S WEST and CLEC customer service representatives are able to identify that there is a working left in situation with a new connect order. The TA will also note where U S WEST customer service representatives have electronic access to information that can be used to resolve the working left in situation that may not be available electronically to the Pseudo-CLEC. The minimum expectation is that any pending disconnect order activity is returned with address query or facility check"

CTG RESPONSE 3/14/00: CGT would argue that the comparable overall quantity and quality of available data concerning a working left in situation is a more appropriate measurement than attempting to specify "point and time" of identification, as suggested. The latter may well result in measuring operator experience rather than interface/OSS parity. Partial change made above.

13. Systems availability at all levels

The hours of availability of each front end and back end system to both U S WEST and the CLECs will be evaluated. Any system not shut down during

times not offered for service to the CLECs or for normal after hours maintenance will be evaluated to identify the purposes for which the interface remains available within U S WEST if not similarly available to CLECs. U S WEST system shutdown processes will be reviewed to ensure that systems aren't available for internal use during intervals that CLECs do not have access.

4.3 Entrance Criteria

The following must be complete prior to initiating the Retail Parity Evaluation:

- a) Pseudo-CLEC received Readiness Certification from U S WEST
- b) U S WEST and Pseudo-CLEC interfaces and systems (i.e. EDI and IMA) are operational and stable
- c) The TA has been granted access to the appropriate U S WEST site(s) to conduct the on-site testing and monitoring. This includes the creation of security badges and access to private monitoring facilities and equipment
- d) The TA has been granted access to the appropriate Pseudo-CLEC site(s) to conduct the on-site testing and monitoring. This includes the creation of security badges to secure locations and access to private monitoring facilities and equipment whenever available.

AT&T COMMENT 3/3/00: What does this "creation of security badges" mean? Is this just access to the building? We may not have "private monitoring facilities and equipment" available.

CGT RESPONSE 3/14/00: Changes made above to clarify.

- e) The names of the points of contact and order entry personnel at U S WEST and the Pseudo-CLEC Site(s) have been provided to the TA
- f) A Daily Test Order Monitoring Schedule has been created by the TA
- g) TA members responsible for on-site monitoring have been provided with on-site telephone access for use in- communication with other TA members

AT&T COMMENT 3/3/00: Who provides these "cellular telephones and/or pagers"?

CGT RESPONSE 3/14/00: Verbiage replaced as shown above.

- h) Retail Parity Test Scripts have been created by the TA

- i) Validation that the Pseudo-CLEC is able to collect test script data
- j) Validation that the TA can access test script data collected by Pseudo-CLEC
- k) ~~A clear understanding of a~~ All Test case expected results ~~is~~ are clearly understood by all parties
- l) Valid account data has been received from U S WEST
- m) Test data elements have been populated in the databases

CGT comment 3/24/00: The Performance Measurement process evaluation entrance criteria was removed for the Retail Parity process evaluations since Performance Measures are not part of the Retail Parity Evaluation.

- n) Number of test iterations have been identified
- o) Test cases and incidences that will be used to perform the evaluations are completed and available

4.4 Activities

4.4.1 PRE-ORDER/ORDER TEST CASES

The TA will monitor service order processing at U S WEST and at the Pseudo-CLEC. The TA will observe U S WEST and Pseudo-CLEC Service Representatives to record what functions they perform. The TA member monitoring at the specified site will have a Retail Parity Test Script Form to record the appropriate data for the order being observed.

AT&T COMMENT 3/3/00: Should this also include monitoring at the CLEC? At one time, TA personnel were to spend one to two weeks at a CLEC location. Is this still the plan?

CGT RESPONSE 3/14/00: No direct CLEC observations are currently planned for the TA during Retail Parity Evaluation test cases. A TA presence at MCIW during EB-TA transaction will be required during Functionality testing which will serve dual purpose for coordinating the Retail Parity EDI/EB-TA Data Quality Parity testing only (see new section 4.4.2 below).

Information gathered during the test case observations will include:

a) New Orders:

- 1) Address Validation (query response times, quality of information provided, and number of steps required to complete the query will be observed, documented and compared for the U S WEST GUI-retail interfaces [U S WEST does not consider its retail customer service interfaces to be graphical user interfaces.] versus the IMA GUI utilized by the Pseudo-CLEC)
- 2) TN Selection (query response times, quality of information provided, and number of steps required to complete the query will be observed, documented and compared U S WEST GUI-interfaces versus IMA GUI utilized by the Pseudo-CLEC)
- 3) Service and Feature Availability Selection Query (query response times, quality of information provided, and number of steps required to complete the query will be observed, documented and compared U S WEST GUI retail interfaces versus IMA GUI utilized by the Pseudo-CLEC)
- 4) PIC/LPIC Selection [PIC and LPIC selection information are part of the Service and Feature Availability Query. While AT&T agrees that PIC and LPIC query information should be examined, it should be done as part of the service and feature availability examination or specifically noted in this item as a subset of the service and feature availability query.] (query response times, quality of information provided, and number of steps required to complete the query will be observed, documented and compared U S WEST GUI-retail interfaces versus IMA GUI utilized by the Pseudo-CLEC)
- 5) Due Date Interval Appointment Scheduling (query response times, quality of information provided, and number of steps required to complete the query will be observed, documented and compared U S WEST GUI-retail interfaces versus IMA GUI utilized by the Pseudo-CLEC) [As previously discussed, AT&T believes that due dates offered and committed to should be examined for CLEC and U S WEST retail orders. However, when only the electronic screens are to be examined the only due date pre-order function that can be examined is the appointment scheduling transaction.]
- 6) Facility Availability (query response times, quality of information provided, and number of steps required to complete the query will be observed, documented and compared for the U S WEST GUI-retail interface versus the IMA GUI utilized by the Pseudo-CLEC. Facilities Availability will also be analyzed as to whether facilities within a common end user area were reported as equally available to the U S WEST Service Representative versus the Pseudo-CLEC Service Representative).
- 7) Order Entry (the quality of information available to the Service Representative from the order entry GUI-interfaces will be compared

between the GUI interface used by U S WEST and the IMA-GUI used by the Pseudo-CLEC)

AT&T COMMENT 3/3/00: Add "Loop Qualification Information" as an item to be tested and analyzed.

CGT RESPONSE 3/14/99: Loop Qualification activity is appropriate for unbundled loop elements, not for a retail-resale comparison where services, rather than individual network components are being processed. No Change.

AT&T agreed to eliminating the examination of UNE transactions from the retail parity test with the understanding that in terms of the pre-order transactions, that there was no UNE transaction that would not be also performed for resale orders. The agreement was not that UNE transactions should be explicitly excluded, it was that everything that needed to be learned for UNE transactions could be learned through resale transactions. Thus, there was no need to perform a retail parity examination for UNE transactions.

CGT has identified the exception to that understanding. Loop qualification information is not a transaction that will be done for resale orders. However, it will be done for retail orders. AT&T believes that an examination of the loop qualification information available to U S WEST should be compared to the loop qualification information available to CLECs. The salient point is the comparison of transactions. The selection of resale transactions was the vehicle that permitted the comparison to be made. If the resale vehicle does not permit a relevant and appropriate comparison of loop qualification information to be made, the answer is to try a different means, not to forget about loop qualification information. AT&T strongly urges that loop qualification information be included to the list of pre-order transactions to be examined and compared.

b) Change Orders:

- 1) CSR Validation (query response times, quality of information provided, and number of steps required to complete the query will be observed, documented and compared U S WEST GUI-retail interface versus IMA GUI utilized by the Pseudo-CLEC)

AT&T COMMENT 3/3/00: Address validation should also be done for change orders. A change order with an incorrect address will be rejected.

CGT RESPONSE 3/14/00: CSR Validation includes review of existing service at an existing address. Any requested change to the service must match the current service address (assumedly validated in a previous new connect process) as shown on the CSR. In-error CSR addresses, and the process by which they are identified and corrected is not an identified evaluation point for comparison in the Retail Parity Evaluation testing. No Change.

- 2) Service and Feature Availability (query response times, quality of information provided, and number of steps required to complete the query will be observed, documented and compared U S WEST GUI-retail interface versus IMA GUI utilized by the Pseudo-CLEC)
- 3) PIC/LPIC Availability (query response times, quality of information provided, and number of steps required to complete the query will be observed, documented and compared U S WEST GUI-retail interface versus IMA GUI utilized by the Pseudo-CLEC) [PIC and LPIC selection information are part of the Service and Feature Availability Query. While AT&T agrees that PIC and LPIC query information should be examined, it should be done as part of the service and feature availability examination or specifically noted in this item as a subset of the service and feature availability query.]
- 4) Due Date Interval Appointment Scheduling (query response times, quality of information provided, and number of steps required to complete the query will be observed, documented and compared U S WEST GUI-retail interface versus IMA GUI utilized by the Pseudo-CLEC) [As previously discussed, AT&T believes that due dates offered and committed to should be examined for CLEC and U S WEST retail orders. However, when only the electronic screens are to be examined the only due date pre-order function that can be examined is the appointment scheduling transaction.]
- 5) Facility Availability (query response times, quality of information provided, and number of steps required to complete the query will be observed, documented and compared U S WEST GUI-retail interface versus IMA GUI utilized by the Pseudo-CLEC)

MCIW COMMENT 3/3/00: MCIW would include the testing of functions such as address validation, CSR availability, USOC availability, numbering resource availability, due date interval and availability, feature availability, editing capabilities, systems integration capabilities telephone number verification, current PIC status verification, and facilities availability.

CGT RESPONSE 3/14/00: CGT agrees. Functions are covered within the above detailed Retail Parity Evaluation, including "editing".

c) Suspend/Restore

- 1) CSR Validation (query response times, quality of information provided, and number of steps required to complete the query will be observed, documented and compared U S WEST GUI-retail interfaces versus IMA GUI utilized by the Pseudo-CLEC)

AT&T COMMENT 3/3/00: Address Validation - If an order is sent with an incorrect address, the order will be rejected.

CGT RESPONSE 3/14/00: CSR Validation includes review of existing service at an existing address. Any requested suspend/restore of a service must match the current service address (assumedly validated in a previous new connect process) as shown on the CSR. In-error CSR addresses, and the process by which they are identified and corrected is not an identified evaluation point for comparison in the Retail Parity Evaluation testing. No Change.

d) Conversion/Win back

- 1) CSR Validation (query response times, quality of information provided, and number of steps required to complete the query will be observed, documented and compared U S WEST ~~GUI~~retail interface versus IMA GUI utilized by the Pseudo-CLEC)

AT&T COMMENT 3/3/00: Address Validation should be done for conversion orders. If the order is sent with an incorrect address, the order will be rejected.

CGT RESPONSE 3/14/00: CSR Validation includes review of existing service at an existing address. Any requested conversion/win back of a service must match the current service address (assumedly validated in a previous new connect process) as shown on the CSR. In-error CSR addresses, and the process by which they are identified and corrected is not an identified evaluation point for comparison in the Retail Parity Evaluation testing. No Change.

- 2) Service and Feature Availability (query response times, quality of information provided, and number of steps required to complete the query will be observed, documented and compared U S WEST ~~GUI~~retail interface versus IMA GUI utilized by the Pseudo-CLEC)
- 3) Due Date Interval Appointment Scheduling (query response times, quality of information provided, and number of steps required to complete the query will be observed, documented and compared U S WEST GUI versus IMA GUI utilized by the Pseudo-CLEC) [As previously discussed, AT&T believes that due dates offered and committed to should be examined for CLEC and U S WEST retail orders. However, when only the electronic screens are to be examined the only due date pre-order function that can be examined is the appointment scheduling transaction.]
- 4) Facility Availability (query response times, quality of information provided, and number of steps required to complete the query will be observed, documented and compared U S WEST ~~GUI~~retail interface versus IMA GUI utilized by the Pseudo-CLEC)

AT&T COMMENT 3/3/00: Add "Loop Qualification Information" as an item to be tested and analyzed.

CGT RESPONSE 3/14/99: Loop Qualification activity is appropriate for unbundled loop elements, not for a retail-resale comparison where services, rather than individual network components are being processed. No Change.

AT&T agreed to eliminating the examination of UNE transactions from the retail parity test with the understanding that in terms of the pre-order transactions, that there was no UNE transaction that would not be also performed for resale orders. The agreement was not that UNE transactions should be explicitly excluded, it was that everything that needed to be learned for UNE transactions could be learned through resale transactions. Thus, there was no need to perform a retail parity examination for UNE transactions.

CGT has identified the exception to that understanding. Loop qualification information is not a transaction that will be done for resale orders. However, it will be done for retail orders. AT&T believes that an examination of the loop qualification information available to U S WEST should be compared to the loop qualification information available to CLECs. The salient point is the comparison of transactions. The selection of resale transactions was the vehicle that permitted the comparison to be made. If the resale vehicle does not permit a relevant and appropriate comparison of loop qualification information to be made, the answer is to try a different means, not to forget about loop qualification information. AT&T strongly urges that loop qualification information be included to the list of pre-order transactions to be examined and compared.

e) Trouble Reporting

AT&T COMMENT 3/3/00: Add "during day of installation and after the installation date" to descriptive header of this section.

CGT RESPONSE 3/14/00: Retail Parity Evaluation testing does not encompass the provisioning of services necessary to meet the above request. Whereas Functionality testing will perform some of what is implied by the above comment, a new Retail Parity scenario specifically addressing comparative evaluation of provisioned services would be required to accept this change. No Change.

- 1) CSR Validation (query response times, quality of information provided, and number of steps required to complete the query will be observed, documented and compared U S WEST GUI-retail interface versus IMA GUI utilized by the Pseudo-CLEC)
- 2) Trouble Reported (The data required to generate a trouble ticket will be entered into the IMA System. Response times, quality of information provided and the number of steps required will be observed, documented and compared U S WEST GUI-retail interface versus IMA GUI utilized by the Pseudo-CLEC).
- 3) Closed Trouble Tickets (The TA observation team will gather and compare closed trouble tickets on both the U S WEST retail interface and the Pseudo-CLEC interface. Accuracy, quality and completeness of

- information and resolution response will be compared for the two interfaces.)
- 4) Trouble Report Status (The ability to request and receive periodic status reports on pending trouble tickets will be compared between U S WEST and the Pseudo-CLEC.)
 - 5) Expected Resolution Date (Expected Resolution Dates on pending trouble tickets will be compared between U S WEST and the Pseudo-CLEC.)
 - 6) Mechanized Loop Test (MLT) (query response times, quality of information provided, and number of steps required to complete the query will be observed, documented and compared U S WEST GUI versus IMA GUI utilized by the Pseudo-CLEC).

AT&T COMMENT 3/3/00: Add "Retrieve Customer Trouble History" as additional item to be evaluated.

CGT RESPONSE 3/14/00: Retail Parity Evaluation testing does not encompass the provisioning of services necessary to meet the above request. Whereas Functionality testing will perform some of what is implied by the above comment, a new Retail Parity scenario specifically addressing comparative evaluation of provisioned services would be required to accept this change. No Change.

The review of a customer trouble history is a routine part of trouble isolation, identification and resolution repair processes. Request and receipt of customer trouble history should be an activity in several of the M&R test cases. Comparing the customer trouble history of a single customer obtained from the IMA-GUI and the U S WEST retail interfaces does not require the provisioning of services. This can and should be a simple matter of pulling a friendly customer's trouble history from the IMA-GUI and the U S WEST retail interfaces and comparing the experience and results.

AT&T again recommends that customer trouble history be included as part of the retail parity evaluation. The comparison can easily be made without the provisioning of services or the addition of new Retail Parity Scenarios.

4.1.24.4.2 EDI/EB-TA DATA QUALITY

The TA will monitor select time-coordinated EDI (Pseudo-CLEC) and EB-TA (CLEC) transactions performed during Functionality Testing and observe equivalent transactions performed by U S WEST Service Representatives using U S WEST OSS. Observations will be used to compare data quality returned via electronic interface versus that available directly from the OSS. The extent of examined OSS data will be limited to the specific data requested in the interface transaction in aid of "apples to apples" comparison. Measure or information equivalence variance will be a trigger for issue or Incident Work Order development.

4.1.34.4.3 INCIDENT WORK ORDER PROCEDURE

Each Retail Parity test case, such as a New Connect, has from two (2) to six (6) distinct steps that will be performed, such as Address Validation, Facility Availability and Due Date Availability. Each step, in turn, has five (5) or six (6) comparative measurement points covering quantity, quality and timeliness measures designed to identify percent variance between U S WEST internal OSS and CLEC interface capability.

Retail Parity Evaluation testing will utilize these measurement points in a three-dimensional issue/incident reporting methodology rather than a hard pass/fail test case threshold. Each reporting dimension will measure variance between a CLEC Service Representative activity and an equivalent U S WEST Service Representative activity. The first reporting dimension will measure variance at the test case step level (i.e. Address Validation for a New Connect). The second reporting dimension will measure statistical variance in the timeliness measure of similar test case steps (i.e. Due Date Availability for a Change Order). The third dimension will apply "pattern recognition" methodology across all similar test case steps (e.g., across all TN Query steps, etc.) to identify repeated variance patterns.

Minor measurement variance will produce an issue to be logged and tracked via the TA Master Issues Log (see below), while major variance conditions will result in creation of an Incident Work Order.

During the Retail Parity Evaluation, the TA may discover items for which answers or further information may need to be provided. These items will be tracked as issues. Issues will be logged in the TA Master Issues Log (see Appendix J for the Master Issues Log Process). Issues deemed by the Test Advisory Group (TAG) to require U S WEST repairs or other corrective actions will be escalated to Incidents. Findings or escalations requiring attention by U S WEST will be documented on Incident Work Orders and processed in accordance with the Testing Incidents Process (Appendix I). All critical issues and incidents must be resolved prior to completion of the Retail Parity Evaluation.

AT&T COMMENT 3/3/00: Add "or other corrective actions" to third sentence above.

CGT RESPONSE 3/14/00: Done.Exit Criteria

The Retail Parity Evaluation will be considered complete once:

- a) All completed Retail Parity Test Scripts have been processed, collected and retained by the TA
- b) The collected data has been analyzed by the TA
- c) The findings from the TA's analysis have been documented in the Retail Parity Evaluation Report

- d) Interface and System errors which have been identified have been resolved via the Master Issues Log Process (Appendix J) and/or the Test Incidents Process (Appendix I)
- e) All expected results have been achieved

AT&T COMMENT 3/3/00: Add "All expected results have been achieved" as new list item.

CGT RESPONSE 3/14/00: Done.

5 CAPACITY TEST / SCALABILITY EVALUATION

MCIW COMMENT 3/3/00: MCIW believes the volume stress test need be appropriate to the market and is required to test over multiple days. Stress testing should occur at commercial volumes, as determined by the expected future demand in a competitive local market in which multiple CLECs are operating at full production. The days of stress testing should not be known to USW

CGT RESPONSE 3/22/00: CGT agrees

5.1 Introduction

The Capacity Test will validate that U S WEST's OSS and processes can handle loads equal to or greater than those projected by the various CLEC participants for estimated Pre-order and Order volumes projected one year from the date of the running of the Capacity Test (2Q 2001 at the established performance measures levels). The test is currently scheduled to be performed in 2Q 2000.

The test will be performed in two phases. Phase 1 is designed to test the U S WEST systems with the expected 2Q 2001 volumes. Phase 2 is designed to stress the U S WEST systems with a load greater than Phase 1 load.

-Phase 1 will test the expected busy day load for 2Q 2001. The transactions will be input at the same proportionate rate as the current transactions are input. That is if 10% of the current daily load is input from 10AM – 11AM, then 10% of the test load will be input in the same timeframe. This test may be run over a period of several days to validate results. CGT needs to explain the purpose for running the test over several days. If the reason to run the test for more than a single day is to normalize the results over several days, AT&T would object. If the several day occurrence of the test is for some other reason, CGT should explain that reason and modify the TSD to account for that other(s) reasons.

Once the TA is satisfied with Phase 1 [The statement of the TA being satisfied with Phase I is too ambiguous – CGT should not be allowed to make the determination of satisfaction without establishing the criteria in advance. If the criteria cannot be laid out, in advance by CGT, the decision on moving to Phase 2 must become a TAG decision.] Phase 2 will commence. Phase 2 will be run for a period of four hours and is designed to stress the U S WEST systems.

The Phase 1 and 2 tests are to demonstrate the effects of transaction loads on the associated pre-ordering and ordering performance measurements. The TA will capture the relevant data regarding the processing of the Capacity Test transactions in order to determine the performance measurement results that would be experienced under the Phase 1 and 2 transaction loads.

Additionally, the capacity test will include 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.

AT&T COMMENT 3/3/00: Change (4Q 2000 to 4Q 2001)

CGT RESPONSE 3/21/00: Capacity Subcommittee agreed that volumes would reflect forecast for one year from Capacity Test (2Q 2001)

The System Capacity Test will be modeled to reflect volumes needed to adequately test the U S WEST systems that support the Arizona CLEC community. To perform the test, those systems, ~~which that~~ support all fourteen states in the U S WEST region; will be tested with the projected fourteen state volumes. Those systems, ~~which that~~ support the Central region; will be tested with seven state volumes, and those systems, which only support Arizona; will be tested with Arizona volumes.

The System Capacity Test will focus on the systems and interfaces in U S WEST's processing flow up to and including processing into U S WEST's service order system. (The service order processor is necessary to provide FOCs.) U S WEST ~~shared~~ systems beyond the service order system will not be included in the System Capacity Test.

AT&T COMMENT 3/3/00: Insert "and including" to first sentence of above paragraph. Add the parenthetical sentence ". (The service order processor is necessary to provide FOCs.)"

CGT RESPONSE 3/21/00: Done.

Areas addressed by the Capacity Test / Scalability Evaluations are:

- a) System capacity testing: testing using load generators to verify the ability of U S WEST's OSS to perform under a defined workload at established performance levels
- b) System scalability: the theoretical ability of U S WEST's systems to handle a growth rate higher than anticipated
- c) Staff scalability: the theoretical ability of the U S WEST personnel staffing processes to handle a growth rate that may be higher than anticipated

5.2 System Capacity Testing

5.2.1 SCOPE

The scope of the System Capacity Test is to evaluate whether the relevant U S WEST systems have sufficient capacity to handle the defined workload volumes required to support CLEC pre-order and order activities at the currently defined performance levels. The defined workload volumes will be determined by a review of historical data and forecasts to reflect typical operations for one year into the future (2Q 2001). The Pseudo-CLEC will generate ~~large~~ necessary quantities of simulated activity for processing via U S WEST's IMA and EDI gateways.

AT&T COMMENT 3/3/00: Change (4Q 2000 to 4Q 2001) and add "and will be determined by the TAG"

CGT RESPONSE 3/21/00: Capacity Subcommittee agreed that volumes would reflect forecast for one year from Capacity Test (2Q 2001)

Since the intent of the System Capacity Test is to validate the performance capacity of the systems, only Service Order Constructor [this introduces a term "Service Order Constructor "that is not elsewhere explained] eligible LSRs, including errors and rejections that can be handled in a mechanized environment, will be used.

The System Capacity Test will be run in U S WEST's live production environment. The capacity tests for orders will go through the ordering process ~~up~~ until the issuance of a FOC. U S WEST's Maintenance & Repair, Electronic Bonding Interface (EBI), billing and usage, and CRIS systems are out of scope for the purposes of this test, ~~and will not be included.~~

Following receipt of FOCs for all orders on the test, cancellation orders will be submitted. This cleanup effort will be done during non-business hours and will not be tracked for the System Capacity Test. As an additional safeguard against provisioning occurring, an extended due date of Friday, 12/29/2000 will be used. [U S WEST has stated that it may not be possible place due dates on CLEC orders longer than thirty days into the future. This safeguard may have to be revisited.]

The Pseudo-CLEC will collect and store information related to the System Capacity Test in a data repository. Additionally, U S WEST will provide the TA with performance measurement data for the System Capacity Test. The TA will use the Pseudo-CLEC repository and the U S WEST performance measurement data to evaluate the success level of the System Capacity Test.

5.1.25.2.2 APPROACH

The following sections define the test requirements and detail the overall process for conducting, administering and managing the System Capacity Test as required by the MTP. The test requirements and specification plan for the test will be reviewed with the CLECs, the Pseudo-CLEC, and U S WEST prior to conducting the System Capacity Test. To accommodate fairness and blindness of the test, U S WEST and the CLECs will not know in advance the actual dates the System Capacity Test will be performed.

5.1.1+5.2.2.1 Pre-Ordering

The pre-order process of the Capacity Test will include the same activity list as the Functionality Test [this is unclear? The "same activity list" is not defined in the Functionality Test.]. The Test Generator will provide pre-ordering volume sufficient to cover the planned test workload at an hourly rate over periods expressed in hours. The total number of queries required for the pre-order tests will be, ????? of which ????? % (?????) will be entered though the IMA interface and ????? % (?????) will be entered through the EDI interface. The mix of pre-order queries was will be established on the basis of ratios of pre-order to order transactions that will be used in the ordering capacity test from a base of ????? LSRs, which will be used to test U S WEST's order system. The processing of these queries will follow the same hourly volume patterns as specified for the order tests as defined in section? ????. This mix will be selected from the activity list [is this the activity list that is thought to be in the pre-ordering Functionality Test? If so, it is not the same.] shown below:

- a) CSR
- b) Address verification/dispatch
- c) Request for telephone number (TN)
- d) TN cancellation
- e) Feature and Service availability
- f) Due Date assignment [Appointment Scheduling]
- g) Facility availability
- h) PIC /LPIC [This is part of service availability]
- i) Intentionally rejected/failed queries [This is not a pre-order inquiry type. A mix of intentionally rejected or failed queries should be included in the other pre-order transactions]
- j) Loop qualification Information

5.2.2.2 Ordering

For the purpose of this test, the following will apply:

- a) The test will consist primarily of clean Service Order Constructor eligible [this terminology is unclear and unexplained] LSRs, however, mechanized error rejects, which do not involve manual processes, will also be included to test the systems' ability to process rejects within the volume defined and according to the performance measurements
- b) Non-flow-through order types will not be included
- c) Provisioning will not be included
- d) The hourly volumes will be based on the historical patterns U S WEST currently supports in its production environment, augmented by the volumes projected by the CLECs for operations in 2Q01.
- e) The Pseudo-CLEC will generate the order volume, mix, and arrival rates defined by the TA

U S WEST COMMENTS 3/6/00: The TSD, p. 58, states: "The intent of the System Capacity Test is to validate the capacity of the systems, not the resources to perform the work as a result of manual activity." Thus, the System Capacity Test is not intended to test manual processes. Nonetheless, the TSD contains several references in the System Capacity Test sections that appear to include manual processes. Subpart (b), p. 62, under the heading "Order Monitoring," states: "While the test will consist primarily of clean Service Order Constructor eligible LSRs, mechanized error rejects will also be included to test the systems' ability to process rejects within the volume defined." U S WEST requests that the quoted statement be clarified because it raises two concerns. First, U S WEST requests clarification that U S WEST personnel will not be expected to resolve errors as part of this test. Second, "reject" refers to an LSD that is sent back and will receive manual handling. U S WEST requests clarification that this test will not include rejection of LSRs because manual handling is not part of this test.

CGT RESPONSE 3/22/00: CGT Agrees. Done.

5.2.2.3 Test Volume Phase 1

Since the System Capacity Test will be executed in a production environment, production orders will be processed during the test. System Capacity Test orders will be submitted in addition to the production orders to achieve the intended forecast volume. The quantity of required System Capacity Test orders will be derived by tabulating the CLEC and U S WEST volumes and then subtracting the current volumes from the forecast volumes. The percent of orders submitted via IMA and those submitted via EDI will also be derived from the current and forecast volumes. [this section fails to address the test volumes of pre-order transactions]

To determine the System Capacity Test volumes, the following steps will be done:

- a) The type of orders that will be used in the System Capacity Test will be finalized. Since the System Capacity Test is limited to Service Order Constructor eligible [this is an unexplained term] LSRs, non-flow through order types will be excluded. The test cases are limited to the pre-order and order processes. UNE-P, UNE-Loop, UNE-Loop with LNP, and Resale (**need to know in advance any conditions that would disqualify these types of services from flow-through capable.**) are the order types that currently will be used.

AT&T COMMENT 3/3/00: Add The parenthetical phrase “(need to know in advance any conditions that would disqualify these types of services from flow-through capable.)”

CGT RESPONSE 3/21/00: Done

- b) For each order type, as applicable, the percent of new, change, and conversion requests currently being processed will be determined. This will be done by analyzing the historical production data that U S WEST has provided to the TA.
- c) Through analysis of the current production data and forecasts for 2Q ~~2000~~ 2001 projected CLEC volumes, the Capacity Test subcommittee will derive the quantity of each of the order types to be included in the System Capacity Test. The volumes for non-flow through orders will be added to ~~follow~~flow-through [If the reference was not intended to be “flow-through”, then the term “follow-through” needs to be identified.] orders. The participating CLECs will validate these estimates. By summing these quantities, the test baseline volume will be identified.

AT&T COMMENT 3/3/00:RE: 1st sentence above (Does this mean the flow-through orders?)

CGT COMMENT: 3/21/00 At the time this was written, the answer was yes. Only flow-through orders were to be tested. The volume for non flow-through orders was to be added to the follow-through. This clarification has been added.

One of the issues in the Capacity subcommittee is whether the test should include non flow-through orders. When this issue is closed, appropriate changes will be made.

AT&T COMMENT 3/3/00 RE: last sentence above (Of flow-through orders?)

CGT RESPONSE 3/21/00: Yes. See response to above comment.

- d) The TA will review the current ratio of pre-order transactions to order transactions as well as the number and type of pre-order transactions that will occur for each type of order, and the percent of each type of order in the volume

baseline, to determine the pre-order test volumes. The test volume will be the sum of:

1. Stand-alone pre-order transactions
2. Pre-order transactions by order type (See Table 5.2.2.5-2)
3. Pre-order transactions that are part of the Service Order process

AT&T COMMENT 3/3/00: (Is the pre-order volume baseline intended to be for both flow-through and non flow-through orders? The pre-order transactions are not sensitive to whether the order is flow-through or not. Given that pre-order transactions are insensitive to whether the order turns out to be flow-through or not, it may be cleared to describe the pre-order transaction volumes independently of the order transactions.)

CGT COMMENT 3/21/00: The pre-order volume will include stand-alone transactions.

- e) U S WEST and each CLEC will provide the TA with their respective 2Q 2001 order projections. The projections will include all types of orders, (flow through and non-flow through) and identify what percent of the orders are projected to be submitted via IMA and what percent are to be submitted via EDI.

AT&T COMMENT 3/3/00: (if non-flow through orders are to be excluded, why develop forecasts for non-flow through services?)

CGT RESPONSE 3/22/00: Although the test will only include flow through orders, the non-flow through volume still has to be accounted for. For example, they will still be input via a gateway. No change.

- f) The TA will review the U S WEST and CLEC order projections and ~~make the appropriate modifications~~ reconcile any significant discrepancies between the U S WEST and CLEC views. For example, applying the non flow through volumes to the flow through orders. The volumes to be used for the Capacity Test will be the difference between this volume and the estimated volume for 2Q ~~2000~~2001. The volume will then be divided between IMA and EDI. The Capacity Subcommittee will determine the percentage mix. See table ~~XX~~5.2.2.5-1.

AT&T COMMENT 3/3/00: (This is confusing. Some sort of pictorial representation may help to understand the intent.)

CGT RESPONSE: Item was simplified. Also Table ~~XX~~5.2.2.4-1 has been added.

5.2.2.4 Test Volume Phase 2

The stress volume will be determined as follows. The daily volume from Phase 1 will be increased by 50%. The busy hour load (22.5% of the daily load) will be used as the baseline for the test. The stress test volume will be 150% of the baseline volume.

The first hour of the test will be run using this baseline volume. During the second hour the volume will be increased in fifteen-minute increments [How will fifteen-minute increments be translated to orders or transactions?] until the stress volume is reached. During the third and fourth hours the stress volume will be maintained at an even rate.

Table 5.2.2.4-1 Stress test volumes

<u>Pre-order and Order Stress Volumes</u>	<u>Total Order Volume</u>	<u>Total Pre-Order Volume</u>
Daily 2Q2001 Volume		
50% Increase to Establish Peak Daily volume		
Total Daily Volume		
Highest Percent of Orders Sent during One Hour	22.5%	22.5%
Total Peak Hour Volume		
Hour 1 (Baseline for the Stress Test)		
Hour 2 (Stress hour volume) sent in the following 15 minute increments (150% increase over Hour 1 volume):		
First 15 minutes (16% of Hour 2 volume)		
Second 15 minutes (22% of Hour 2 volume)		
Third 15 minutes (28% of Hour 2 volume)		
Fourth 15 minutes (34% of Hour 2 volume)		
Hour 3 (Stress hour volume) sent evenly over the hour		
Hour 4 (Stress hour volume) sent evenly over the hour		
Total stress volume over 4 hour test		

5.1.1.45.2.2.5 Test Mix

The test cases for the System Capacity Test define the quantities of order types that comprise the order and pre-order transactions. These test cases will be selected from the same basic group of test cases defined for the Functionality Test. Once the statistical approach and analysis is finalized, the mix of order types and interfaces (in percentages) will be detailed in a tabular format. The historical data mix supplied by U S WEST and agreed to as being indicative of actual operations by the TAG will be used to allocate the proportions of System Capacity Test cases between IMA and EDI.

Table XX5.2.2.5-1: Core Set of LSRs for Capacity Test

	<u>% of Orders (approximate)</u>	<u>Scenario Types by Product/Activity</u>	<u>% of Orders (approximate)</u>	<u>Res/Bus</u>
UNE - P [Has U S WEST confirmed that UNE-P orders will flow-through with version 5.0 ?]	?	Retail to UNE -P	?	? Res ? Bus
		Reconfigurations		
		UNE -P- Changes		
		UNE -P- Disconnects		
Stand-alone LNP [Has U S	?	Stand-alone LNP	?	? Res

WEST confirmed that UNE-P orders will flow-through with version 5.0 ?]				? Bus
UNE 2 Wire Loops with NP	?	Retail to UNE Basic Loop Reconfigurations	?	? Res ? Bus
		UNE Basic Loop – New	?	
		UNE Basic Loop – Disconnects	?	
			?	
UNE 2 Wire Loops without NP		Retail to UNE Basic Loop Reconfigurations	?	
		UNE Basic Loop – New	?	
		UNE Basic Loop – Disconnects	?	
Resale	?	Retail to Resale Migrations	?	? Res ? Bus
		Resale – New	?	
		Resale – Change	?	
		Resale – Disconnects	?	
Totals	100%	Totals	100%	

The System Capacity Test input mix will have these additional properties:

- a) It must create intentional error conditions that ~~fail edit checks~~ result in rejects in U S WEST's IMA and EDI interfaces. Although a failed transaction requires no manual work in this test, the natural occurrence of error/reject messages will be integrated into the test process.
- b) To attain a satisfactory volume of transactions, the mix will contain replications of transactions that will be created by the load generator provided by the Pseudo-CLEC. Fields on the LSRs will be "parameterized" to allow the orders to be accepted without causing duplication errors. A review of U S WEST's business rules will be used to determine the fields that are best suited for this approach.

[This list seems to be redundant to section 5.2.2.1] The distribution of the pre-order queries for the pre-order volume test will be determined by the TA based on U S WEST statistical information. The following queries will be incorporated into the pre-order tests:

1. CSR
2. Address verification/dispatch
3. Request for TN
4. Service and Feature availability
5. ~~Due Date~~ Appointment scheduling
6. Facility availability

7. PIC/LPIC [This is part of the Service and Feature Availability Query.]
8. Loop qualification Information

The following chart shows the pre-order queries that will be used for each of the order types in the System Capacity Test.

Table X5.2.2.5-2: Pre-Order Query for each System Capacity Test Order Service Request

<u>Order Type</u>	<u>Service Request – Activity / Product</u>	<u>CSR</u>	<u>Addr Ver</u>	<u>TN Rqst</u>	<u>Serv Avail (POTS only)</u>	<u>Due Date Assgn (Dispatch Only)</u>	<u>Facil Avail</u>	<u>PIC/LPIC</u>	<u>Loop Qual</u>
UNE-P	Retail to UNE -P Conversion As Is	X	X		X	X		X	X
	Retail to UNE -P Conversion As Specified	X	X		X	X			X
	UNE - P – Changes	X	X		X			X	
	UNE - P – Disconnects	X							
UNE – Loop	Retail to UNE Basic Loop Conversion As Is	X	X		X	X	X		X
	UNE Basic Loop - New		X		X	X	X		X
	UNE Basic Loop - Disconnects	X							
UNE-Loop with LNP	Retail to UNE Basic Loop with LNP Conversion	X	X		X	X	X		X
	UNE Basic Loop with LNP – Disconnects		X						
Resale	Retail to Resale Conversion As Is	X	X		X			X	
	Retail to Resale Conversion As Specified	X	X		X			X	
	Resale – New		X	X	X	X	X	X	X
	Resale – Change	X	X		X		X	X	
	Resale - Disconnects	X							
Stand-alone LNP	Stand-alone LNP	X	X						

AT&T COMMENT 3/3/00: The loop qualification transaction provides information as to whether the loop is straight copper or if it has pair gain equipment in the loop plant. A CLEC obtaining unbundled loops will likely routinely perform this query to get an idea of whether the loop order will be held for facility reasons (if a loop is served with pair gain equipment the order could be delayed while U S WEST searches for spare copper). Consequently, it would seem reasonable to have the loop qualification transactions performed for most loop service requests. For stand-alone LNP, CLECs

will routinely check the CSR for the features and services that the customer presently has and to ensure that the customer's name on the LSR is the same as the customer's name in the CSR.

CGT RESPONSE 3/22/00: Done

U S WEST COMMENT 3/6/99: The table on p. 65, entitled Pre-Order Query for each System Capacity Test Order Service Request, does not accurately reflect U S WEST's wholesale business. For example, the column entitled "Serv Avail" applies only to POTS. [U S WEST's assertion is not accurate. Since U S WEST does not provide the English language description of the USOC as part of the CSR, a CLEC must access the service and feature availability to know for certain what services a customer has/had with U S WEST. Anytime that a CLEC has reason to review a CSR, the CLEC will likely have reason to access the service and feature availability function. Therefore, AT&T has in the above table added service and feature availability queries as appropriate. For retail to UNE-P conversions, facilities will, by definition, be available and no dispatch will be required. Appointment scheduling is not a required pre-order function for retail to UNE-P conversions.] Similarly, the column entitled "Due Dte Assgn" applies only to obtaining a dispatch appointment -- not the desired due date -- for POTS. Further, the seventh row describes the "Service Requested -- Activity/Product" as follows: "Retail to UNE Basic Loop Conversion As Is with changes." This request cannot be "As Is" -- it can only be "as specified." U S WEST requests that this table be revised to accurately reflect U S WEST's wholesale capabilities and pre-order requirements.

CGT RESPONSE 3/22/00: Done

5.1.1.75.2.2.6 Capacity Test Performance Measures

The System Capacity Test performance measures identified in the MTP (Appendix B) will be used as the success criteria for the System Capacity Test. These measures, listed in the table below, will be applied to evaluate U S WEST's systems' ability to handle the forecasted volume.

The applicable Capacity Test related Performance Measures are defined in the matrix below. The evaluation column indicates for which performance measures there will be a parity/benchmark comparison made during the tests.

Table XX-5.2.2.7-1 Performance Measures

Perf Meas #	Performance Measures	Track	Evaluate	Performance Measurement
PO-1	Average Response Time (to OSS Pre-Order Queries)	Y	Y	TBD
PO-2	Electronic Flow-Through LSRs to SOP (percent)	Y	N	Resale: Diagnostic Unbundled Loops:

Perf Meas #	Performance Measures	Track	Evaluate	Performance Measurement
PO-3	Average LSR Rejection Notice Interval	Y	<u>NY</u>	<=4.5 business hours
PO-4	Percentage LSRs LSRs Rejected	Y	N	Diagnostic – no benchmark
PO-5	FOC Interval	Y	Y	5.1.395% within <u>2 hours 20 minutes</u> (IMA/EDI fully electronic)

Key for Table 2.2.2.1.2.75.2.2.7-1

Term	Definition
Track	Data will be gathered and reported
Evaluate	Data will be evaluated for parity performance or compliance with a benchmark
Y	The measure will be tracked or evaluated as a part of the results
N	The measure will NOT be tracked or evaluated as a part of the results

U S WEST COMMENT 3/6/00: In addition, the "System Capacity Test Performance Measures" table on p. 66 includes PO-3, LSD Rejection Notice Interval (average), and PO-4, LSRs Rejected (percent). For the same reasons discussed above, these performance measures should be deleted from the table.

CGT RESPONSE: CGT will not be evaluating PO-2, PO-3, or PO-4 as part of the Capacity Test. Since most of the LSRs are supposed to be flow through, we will still be tracking them to determine why LSRs fell into these categories.

5.1.45.2.3 ENTRANCE CRITERIA

Prior to commencement of the System Capacity Test, the following entrance criteria need to be satisfied:

- a) Pseudo-CLEC IMA and EDI transaction generators are operationally certified by U S WEST and ready for test. This includes the ability of the Pseudo-CLEC to isolate the performance results for the performance measurements identified in Table 5.2.2.7-1 during the Phase I and Phase II test periods.

- b) A production environment to conduct the pre-order and order tests has been validated by the Pseudo-CLEC and the TA to be operational
- c) The scheduled dates for the System Capacity Test have been identified
- d) The TA has provided the Pseudo-CLEC with the test scripts to use for generating the load volumes for the test
- ~~d)e)~~ e) The Performance Measurement process evaluation has been successfully passed
- ~~e)f)~~ f) The processes used to collect, analyze and report performance data have been validated for adequacy and compliance and U S WEST calculations have been determined to be accurate
- g) The quantitative point at which the system performance is deemed to be unacceptable has been identified for both the Phase I and Phase II volumes. The quantitative point will be described in terms of the performance measurements identified in Table 5.2.2.7-1.
- h) U S WEST is able to separately report results for the performance measurements identified in Table 5.2.2.7-1 during the execution of the Phase I and Phase II tests

AT&T COMMENT 3/3/00: (the Below "Activities" look more like test entrance criteria

CGT RESPONSE 3/22/00: Activities which were entrance criteria were either deleted or move to the entrance criteria section

5.1.5.2.4 ACTIVITIES

The System Capacity Test activities that will occur prior to the test execution beginning are:

- a) A detail plan specifying the scope, approach, entrance, exit, and execution requirements for the System Capacity Test will be provided and reviewed with the Pseudo-CLEC, the CLECs, and U S WEST. The TA will amend and finalize the plan as needed.
- ~~e)b)~~ b) The TA will prepare test scripts for the pre-order and order System Capacity Tests
- ~~d)c)~~ c) The System Capacity Test will be conducted on-site at the Pseudo-CLEC's test site. The Pseudo-CLEC's system interfaces will be designed and tested to support interface transaction volumes for U S WEST's IMA and EDI gateways and back-end pre-order and order systems.
- d) The test generator will be designed to support the replication of the appropriate volume of test transactions from the required mix of test cases needed to support a valid System Capacity Test

- | ~~f)e)~~ The TA will obtain the hourly historical production volume distribution for U S WEST's IMA and EDI systems from U S WEST. The test volumes during the System Capacity Test will be patterned to follow the same hourly transaction rates as those in U S WEST's production environment. The TA will provide the Pseudo-CLEC with the required hourly mix of test transaction volumes needed for the pre-order and order System Capacity Test
- | ~~g)f)~~ The Pseudo-CLEC will stage the hourly mix of transactions in the test generator for the pre-order and order tests validated by the TA
- | ~~h)g)~~ Based on the U S WEST and CLEC forecasts for 2Q01, the TA will determine the test load for the pre-order and order test
- | ~~i)h)~~ The TA will determine the number of times the test load needs to be processed – TAG concurrence is required
- | ~~j)i)~~ A review session will be held by the TA with the pseudo-CLEC to ensure that a complete set of verified test scripts for the pre-order and order tests are prepared and ready for the System Capacity Test execution

When the System Capacity Test execution begins, the activities will be:

- a) The Pseudo-CLEC will conduct the System Capacity Test according to the detailed test plan
- b) The TA will be on-site to observe and monitor the test
- c) Any issues or failures resulting from the processing of the scripts will be documented through the Incident Work Order process. See Attachment I
- d) If the TA believes that there was a significant number of fatal errors, then the test will be aborted and another test will be run after the cause of the errors have been resolved. Such an event will be documented in the Exception/Incident Work Order Process. The TA and Pseudo-CLEC will plan for the necessary load and cancellation transactions to conduct these tests
- e) The TA will validate that the test scripts are completed in the prescribed manner and that all results are recorded.
- | f) Following FOC (or rejection) receipt for all test orders, the Pseudo-CLEC will cancel those orders by submitting cancellation requests. The cancellation orders will be done during non-business hours and will not be tracked as part of the System Capacity Test
- | g) The TA will validate the performance measurement calculations using the definition of the performance measures (MTP Appendix B) and the captured test

data. Failure to meet the thresholds agreed upon for benchmarks and parity measurements will result in retest. The retest will be handled in accordance with the process defined in Section 7.3.5 of this document.

AT&T COMMENT 3/3/00: Change the above to read "The TA will validate the performance measurement calculations using the definition of the performance measures (MTP Appendix B), captured test data and pre-order response times for U S WEST retail transactions as provided by U S WEST."

CGT RESPONSE: Pre-Order response time performance measure is still TBD. If it is determined to be parity, then change will be made, otherwise, no change.

5.1.65.2.5 EXIT CRITERIA

For the System Capacity Test to be considered completed, the following exit criteria will need to be satisfied:

- a) The pre-order and order System Capacity Test has been completed according to the plan
- b) All tests against the appropriate performance measurements including associated pre-ordering and ordering benchmarks ~~by total LSR and by interface~~ have been completed
- c) All incidents that were opened in conjunction with the System Capacity Test have been resolved and/or closed
- d) All of the data associated with the System Capacity Test has been captured and retained by the TA
- e) The System Capacity Test evaluation and findings are included in the TA's final report compiled for the ACC
- f) All documentation related to the System Capacity Test is verified as complete by the TA and stored in the master project file

5.3 System Scalability Analysis

5.3.1 APPROACH

U S WEST's pre-order and order activities depend on the capabilities of certain computer systems. In conjunction with the Capacity Test, the TA will perform a System Scalability Analysis to determine if U S WEST has adequate procedures for scaling its systems to

provide sufficient capacity to handle future CLEC loads. The analysis will include evaluation of U S WEST's:

- a) Procedures for tracking OSS loads and capacities
- b) Procedures for forecasting future OSS loads
- c) Processes for providing OSS computer growth

5.1.35.3.2 ENTRANCE CRITERIA

The entrance criteria for the System Scalability Analysis are that the TA has received:

- a) U S WEST's procedure for tracking OSS loads and capacities
- b) U S WEST's procedure for forecasting future OSS loads
- c) U S WEST's process for providing OSS computer growth
- d) Historical OSS load information from U S WEST

5.1.35.3.3 ACTIVITIES

The System Scalability Analysis will include:

- a) Structured discussions between the TA and U S WEST subject matter experts. These discussions will be used to gain clarification on sections of the received documentation, to better understand the U S WEST system architecture, and in general, to gain knowledge of the capacity adjustment procedures used within U S WEST
- b) A review by the TA of U S WEST's procedure for tracking OSS loads and capacities and an evaluation of the procedure against the agreed upon criteria. [These criteria have not been provided.] Interface traffic, processing utilization, and industry performance measurements will be included in the review [These terms need to be clarified.]
- c) An evaluation by the TA of the procedure for forecasting OSS loads against the agreed upon criteria to be completed based on the documentation received. This evaluation will include comparing previous forecasts against historical OSS load information for both U S WEST and CLEC activity
- d) An assessment by the TA architecture SMEs to determine if U S WEST's OSS interfaces can quickly be made scalable to accommodate increases in CLEC volumes over beyond the volume currently planned for the Capacity Test. The

TA will perform this analysis based on documentation provided by U S WEST which details how it has designed its OSS interfaces to be scalable for increased demand.

The System Scalability Analysis will provide answers to the following questions:

MECHANIZED INTERFACES

1. Is there a defined documented EDI migration path for CLECs to develop their automated interfaces to connect to U S WEST?
2. Are the U S WEST network interfaces scalable to support CLEC inter-connectivity to US WEST systems?
3. Is the WAN network backbone adequately sized to meet current and projected CLEC usage?
4. Are network dial-in access devices for CLEC dial-in users sufficiently scalable to support increased network workloads?
5. Are appropriate network protocols for current and projected CLEC transaction activity being utilized?

AUTOMATED SYSTEMS

- ~~2.1.~~ Is there an established process for capacity planning and design? Are the processes sufficient and effectively executed by U S WEST?
- ~~3.2.~~ Is there a documented process and methodology in place, which is used to analyze the scalability of systems gateways and interfaces?
- ~~4.3.~~ Are there redundant sites used for the processing of CLEC orders?
- ~~5.4.~~ Do the operations support systems and gateway interfaces in use adequately scale to support projected capacity growth? Will the Gateway and other architectures in use by U S WEST scale quickly for unexpected CLEC growth?
- ~~6.5.~~ Is the amount of disk storage per server actively monitored and managed? Are the thresholds for acquiring additional disk storage sufficient to accommodate unexpected CLEC growth?
- ~~7.6.~~ Is there an established disaster recovery planning methodology?

- 8.7. _____ Is the disaster recovery process periodically tested to assess the process insuring that a recovery can take place?
- 9.8. _____ Are tape backup procedures in place and actively utilized? What archival procedures are used to secure the backups?
- 10.9. _____ Is there an established methodology for improving and maintaining CLEC service levels?
- 11.10. _____ Is there an established methodology for monitoring the ability to scale? Is sufficient monitoring done and is it effective to insure that solutions will be in place to provide sufficient service levels to CLECs?
- 12.11. _____ Is there a process in place to monitor transaction response times, and are success ratios frequently reviewed to identify systems opportunities to improve them?

CAPACITY PLANNING PROCEDURES

1. Is there an established process for obtaining performance data to determine future growth patterns? Is the performance data gathered in accordance with this process sufficient to allow proper forecasting of system growth for CLECs?
2. Are capacity planning procedures documented, in place, and executed by U S WEST?
3. Is quality ensured during the Capacity planning process? Are proper supervisory checks and balances present to insure quality of results?
4. Is there an established process for the development of capacity planning functions and procedures and its use in performing scalability?
5. Is there an established process for budgeting funds and resources in the support of capacity planning?
6. Is scalability monitoring and planning accounted for in capacity planning?
7. Are there procedures and processes in place for supporting scalability?
8. Is systems growth actively monitored and needs analysis performed?
9. Is performance monitoring software installed and used at all site locations?
10. Is systems performance monitored at acceptable levels?

11. Are systems databases accounted for in the capacity planning process?
12. Is capacity planning methodology documentation updated and maintained and is it available to the staff to support the capacity planning process?

5.3.4 REPORTING

A final report from the System Scalability Analysis will include an assessment of U S WEST's documentation and procedures related to system sizing, an evaluation of the scalability of the architecture to accommodate future market growth, and an itemization of any identified non-compliant items. Any ~~item discovered requiring corrective action by U S WEST~~ system scalability issue found in the Test will be documented on an Incident Work Order and handled in accordance with the Test Incidents Process (Attachment I).

~~5.3.5~~ 5.3.5 EXIT CRITERIA

The Exit Criteria for the System Scalability are U S WEST's:

- a) Procedure for tracking OSS load and capacity has been evaluated and the results included in the System Scalability Analysis Report
- b) Procedure for forecasting future OSS load has been evaluated and the results included in the System Scalability Analysis Report
- c) Process for expanding its OSS computer systems has been evaluated and the results included in the System Scalability Analysis Report

5.4 Staff Scalability

5.4.1 APPROACH [STAFF SCALABILITY SHOULD ALSO ADDRESS HELP DESK PERSONNEL.]

AT&T COMMENT 3/3/00: (The staff scalability evaluation should also include considerations for the provisioning of orders. While the agreement was that actual orders would be cancelled and not provisioned, there is no reason to exclude provisioning activities from the staff scalability evaluation.)

CGT RESPONSE 3/22/00: This issue needs to be discussed at the ~~3/12/00~~ TAC Meeting

In many cases the U S WEST pre-order and order activities depend on manual processes. The TA 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. The analysis will include evaluation of:

AT&T COMMENT 3/3/00: Add "ordering and provisioning" after "perform these manual"

CGT RESPONSE 3/22/00: ~~Same as above.~~

- a) U S WEST's support center workforce development modeling procedures

AT&T COMMENT 3/3/00 Add the following item: The linkages between U S WEST's future volume projections and U S WEST's workforce development modeling procedures. (The workforce development modeling procedures may be focused on what the response is to certain stimuli. The evaluation also needs to determine if the workforce development modeling procedures are linked in to the "stimuli" that cause a workforce "response".

CAP GEMINI RESPONSE 3/22/00: Done

- b) The linkages between U S WEST's future volume projections and U S WEST's workforce development modeling procedures
- c) U S WEST's volume contingency plans to meet dramatic CLEC increases in order volume
- d) U S WEST's disaster recovery plans to assure continued CLEC support
- e) The scalability of U S WEST's recruiting and training programs to provide for the availability of staff with the necessary skills to adequately perform the manual support function

AT&T COMMENT 3/3/00: Add "ordering and provisioning" after "perform these manual"

CGT RESPONSE 3/22/00: This issue needs to be discussed at the 4/12/00TAG Meeting

The results of the Capacity Test, combined with the appropriate scalability analysis will provide the ACC with sufficient information to determine the commercial readiness and robustness of the U S WEST OSSs under test.

5.1.25.4.2 ENTRANCE CRITERIA

The entrance criteria for the Staff Scalability Analysis are that the TA has received documentation detailing U S WEST's:

- a) Procedural framework for developing workforce models for its CLEC support centers, including help desks
- b) Contingency plans for dramatic increases in CLEC order volume
- c) Disaster recovery plans for assuring continued CLEC support
- d) Staff recruiting and training programs as they relate to providing the appropriate staff to perform manual CLEC support functions

AT&T COMMENT 3/3/00: ADD THE FOLLOWING ITEM: U S WEST MUST ALSO IDENTIFY WORK CENTERS THAT TOUCH CLEC ORDERS. (THE WORK CENTERS EVALUATED SHOULD NOT BE LIMITED TO JUST THE INTERCONNECT SERVICE CENTERS. IT SHOULD INCLUDE OTHER CENTERS SUCH AS DESIGN, PROVISIONING AND TEST CENTERS.

CGT RESPONSE 3/22/00: This issue needs to be discussed at the 4/12/00TAG Meeting

5.1.35.4.3 ACTIVITIES

To support future workloads, the amount of U S WEST staff needed to provide for the level of CLEC service agreed upon [as reflected in the Performance Measurements – see MTP Appendix B] must be appropriately planned. The Staff Scalability test efforts will not directly or indirectly verify the appropriate amount of staff, as it is not feasible to train and hire staff at this point in time. However, the staff planning process, in terms of the number of staff, the facilities in which to house the staff, and the required training, will be assessed by the TA.

The Staff Scalability Analysis will include:

- a) Structured discussions between the TA and U S WEST subject matter experts. These discussions will be used to gain clarification on sections of the received documentation and in general, to gain knowledge of the practical procedures used.
- b) An assessment of the support centers' ability to respond to increased workload and provide satisfactory resources to complete the manual handling of non flow-through LSRs.

AT&T COMMENT 3/3/00: Add the following to end of the last sentence "and provisioning and test the orders"

CGT RESPONSE 3/22/00: This issue needs to be discussed at the 4/12/00TAG Meeting

- c) An examination of the support centers' workforce modeling procedures and the baseline assumptions used to create the resource capacity requirements. The TA will perform an analysis to evaluate the scalability of staffing, workstation capacity, training, forecasting, and responsiveness.

This evaluation will attempt to answer the following questions:

STAFF PLANNING AND SUPPORT

1. Is there a process in place to temporarily increase staff for large-scale projects outside of the normal workflow environment?
2. Is there a plan in place to train not only the staff but emergency overflow staff, as well? Are estimated personnel orientation and training times reasonable and do they support the requirements for rapid change in the event of unexpected CLEC volume increases?
3. Is there a risk management plan in place that addresses how to handle the loss of key personnel and to cover contingencies for required personnel increases in support of unexpected CLEC growth?
4. Is the number and timing of shifts for each working day consistent and adequate for the workload?
5. Are physical limitations for future and temporary staffing such as office space and equipment addressed in scalability planning?
6. Is training of the staff performed as an ongoing process?
7. Are all staff job functions and descriptions clearly documented and understood by all employees?
8. Is the ISC/ Force [?????] model procedures and methodology documented and followed by the management and staff?

MANUAL PROCESSES

1. Can U S WEST scale their workforce to confirm receipt to the CLEC of all paper source documents?
- ~~2.~~
- ~~3.~~2. Can U S WEST scale their workforce to provide sufficient personnel for collecting and distributing CLEC faxes?
- ~~5.~~3. Is U S WEST capable of scaling their workforce to manage and handle fall-out exception processing?

~~6.4.~~ Is U S WEST capable of scaling their workforce to provide adequate staff to support call center CLEC information requirements?

~~7.5.~~ Is U S WEST capable of scaling their workforce to provide sufficient personnel for performing data entry through the CLEC access system for manual orders?

~~8.6.~~ Is there an established process in place for forecasting expected growth of CLEC business? Unexpected growth?

~~9.7.~~ Is there an established process for reviewing workload forecasts to determine their validity and accuracy?

An examination of the disaster recovery plans will be done to ensure that sufficient procedures exist for continued CLEC operations in the event of a physical, technical, or natural disaster. Some of the areas to be reviewed will be the plans for channeling traffic to backup support centers, how resources are reallocated, and backup/recovery of critical CLEC data.

5.4.4 Exit Criteria – should be developed and included in the Staff Scalability Section

5.5 Risk Analysis

The System Capacity Test will be run in U S WEST’s live production environment. While special care will be taken to minimize impact on regular U S WEST company business, the very nature of the test will introduce risks to U S WEST and the CLECs’ operations. The following table is a collection of known risks for executing in a production environment and mitigation plans for each risk.

Table 5.5-1 Risk Analysis

Risk	Impact if Risk is not Mitigated	Mitigation Approach
Production System Overload	U S WEST production system becomes unusable for all parties. Normal business operations are halted for U S WEST and CLECs until system is restarted	U S WEST will provide the TA with a detailed system schematic with sections of the architecture most vulnerable for high volume issues. Rather than following a “normal” hourly production volume pattern, the System Capacity Test will be run in

Risk	Impact if Risk is not Mitigated	Mitigation Approach
		a series of escalating volumes (staircase). The test volume will be increased until either the systems reach an unacceptable stress level or the target volume is processed.
Telephone Number Saturation in a given area	Until more TNs are assigned or the System Capacity Test orders are cancelled, U S WEST and the CLECs will be unable to assign a "real" TN in that area	The test accounts to be used in the test should be spread out across as many TN areas as possible.
Due Date Availability - Work Force Scheduling pushed out due to the capacity orders	"Real" orders have their due dates extended several days beyond what is considered normal. When the System Capacity Test orders are cancelled there may be a period of days where the work force has no work assigned.	The use of a fictitious day of 12/29/2000 <u>[It needs to be confirmed that due dates longer than 30 days out will be accepted by U S WEST]</u> will keep the work force from being affected. The orders will be cancelled prior to any provisioning occurring.
Capacity Test Performance Measure Data cannot be tracked, collected, or reported by U S WEST or the Pseudo-CLEC for the day(s) on which the System Capacity Test is executed	The only measure for success was whether or not the test caused the system to fail. Unless the test's data can be captured separately, the performance measure evaluation would be meaningless.	The TA will work with U S WEST and the Pseudo-CLEC to determine if the data can be captured and to define the exact means by which it will be collected, transmitted, and tabulated.
Orders reject due to U S WEST Business Rules. (Duplication Errors)	The System Capacity Test would be aborted until the proper number of test accounts could be created and used.	The TA will work with U S WEST to fully understand the business rules and system edits so that test orders are not rejected due to duplicate or other checks.
FOC Time will require a separate account for each test order. The hope is to use the same account for numerous orders during the test but if the FOC time is	Each test order will need to have a unique test account. This would possibly require several thousand test accounts to be created	The TA will work with U S WEST to fully understand the normal FOC time and also to fully understand the business rules that control whether an account can be

Risk	Impact if Risk is not Mitigated	Mitigation Approach
24 hours, a separate account may be necessary		used for more than one order in a day
Cancellation Orders to clean up the System Capacity Test orders overload the system	The production environment could become unusable or suffer delays due to the volume of cancellation orders	<p><u>Option 1</u> The cancellation orders will be issued during non-business hours and staged to not impact the production environment.</p> <p><u>Option 2</u> Based on the fictitious due date, U S WEST does a mass delete of the orders outside of the normal cancellation process</p>
A test order is not properly cancelled	U S WEST completes the order to SOC for the test order. As this is a fictitious order, the allocation of resources and the actual work would not be correct	Following completion of all iterations of the System Capacity Test, and upon notification of the TA, U S WEST will scan their database of orders awaiting provisioning with the fictitious due date. All orders found with this criteria will be checked to verify that they were part of the test and then properly cancelled either by the Pseudo-CLEC via a cancellation order or directly by U S WEST.

5.1.15.5.1 U S WEST SYSTEM INFRASTRUCTURE INFORMATION

This section details the information that the TA will need from U S WEST to fully understand U S WEST's system infrastructure as it relates to the System Capacity Test. This information includes system drawings and schematics, transaction flow diagrams, and the business rules and system edits that could impact the replicated orders that will be used in the System Capacity Test. All information provided by U S WEST to the TA in this regard will be public, unless marked as confidential and eligible to be treated under the confidentiality agreement covering the Test.

U S WEST's system and network schematics will need to include the following:

- a) Name of each system
- b) Description of the function of each system
- c) Description of the type of system
- d) Physical locations of each application or system
- e) The protocols involved with each of the systems' interfaces
- f) Description of any checkpoints within each of the systems that would allow a rollback or recovery of data

The transaction flow diagrams will depict, for the different order types used in the System Capacity Test, the systems that are accessed to process the order and the sequence in which the systems are accessed. Included in the transaction flow diagrams will need to include the following:

- a) Any systems in the process that require manual intervention.
- b) Any systems in the process that do not require, but do allow, manual intervention
- c) Which systems in the transaction process have logging and can provide both status and debugging information

A key assumption in preparing for the System Capacity Test is that multiple replications of a "seed" LSR will be created and submitted. To minimize the number of accounts that will be used and the number of fields that will be changed on each order, U S WEST's business rules and system edits must be provided to the TA prior to the "seed" LSRs being created. In presenting these business rules to the TA, U S WEST will need to emphasize:

- a) Any rule that could cause an LSR to reject with a duplicate error

- b) Any rule related to how long an account remains in the system after FOC and cancellation (persistence)
- c) Any limitation to how many times an order can be placed on a given account in a given time period
- d) Any constraint on how many cancellation orders can be placed on a given account in a given time period
- e) Any condition that would cause a typical flow-through LSR to require manual attention

6 RELATIONSHIP MANAGEMENT EVALUATION

6.1 Scope

The Relationship Evaluation will examine the processes associated with the business operations of U S WEST and the CLEC community. Current business processes that U S WEST uses to conduct daily operational business with the ~~CLECs~~CLECs will be evaluated and these observations and evaluations will be documented. ~~Four~~Five business operations areas will be evaluated: CLEC Account Establishment; CLEC Account Management, EDI and IMA Interface Development, CLEC Training; and U S WEST Co-provider Industry Change Management Process (CICMP).

6.1.1 CLEC ACCOUNT ESTABLISHMENT

This evaluation will examine methods and procedures provided by U S WEST for establishing a new CLEC customer. The evaluation will also examine the on-going day-to-day business relationship between U S WEST and its CLEC customers. The evaluation will focus on the readily available documentation accessible to a start-up CLEC business and on any additional documentation provided by U S WEST to its CLEC customers. The evaluation will also consider the consultative assistance provided by US WEST.

6.1.2 CLEC TRAINING EVALUATION

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

6.1.3 U S WEST CO-PROVIDER INDUSTRY CHANGE MANAGEMENT PROCESS EVALUATION

The U S WEST Co-Provider Industry Change Management Process (CICMP) will be examined to ensure that U S WEST's systems and/or processes for change management are conducted and communicated to the ~~CLECs~~CLECs effectively, based on the defined change management procedures. The result of this effort will be the evaluation of the CICMP process, validation that it works as stated, and a Change Management Report stating the findings. [Why does the section provide that a Change Management Report will be prepared? The Change Management findings should be provided in the Final Test Report.]

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. A CLEC's ability to request and have implemented changes to U S WEST's interfaces and systems will also be examined. The evaluation is also to assess that the Change Management process is executed by U S WEST according to the methods and procedures. 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,
- d) Provided test environments, documentation, and other tools necessary to prepare and pre-test changes before they are implemented,
- e) Provided with an opportunity to individually or collectively request and have implemented changes to U S WEST's interfaces and systems.

6.1.4 EDI AND IMA INTERFACE DEVELOPMENT -- a paragraph that introduces this section should be developed

6.1.4 CLEC ACCOUNT MANAGEMENT -- A PARAGRAPH THAT INTRODUCES THIS SECTION SHOULD BE DEVELOPED

6.2 CLEC ACCOUNT ESTABLISHMENT AND MAINTENANCE EVALUATION

6.2.1 APPROACH

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 detailed [it is immaterial that the procedures are detailed, it would be better to evaluate the appropriateness of the procedures] the instructions are for completing necessary paperwork and what information is contained in the documentation.

6.2.2 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 and CLEC personnel
- e) Pseudo-CLEC Interconnection Agreement
- f) Completed Pseudo-CLEC Customer Questionnaire
- g) Evaluation Criteria and Checklist
- h) Interview Questionnaire

6.2.3 ACTIVITIES

- 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

6.2.3.1 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 TA will gather the documentation through network access and through contacts with U S WEST.

6.2.3.2 Review and Evaluate Documentation

The Pseudo-CLEC will keep records of ~~their~~its account establishment experiences. The TA will review and evaluate that documentation and compare it to the documented U S WEST processes. The evaluation will attempt to answer the following questions:

- a) Is the process for becoming a CLEC clearly presented and explained?
- b) Is it clear whom the potential CLEC should contact to get started?
- c) Are the steps for becoming a CLEC clearly documented? If so, is the information required to complete each step reasonable?
- d) Does the documentation provided to the new CLEC by U S WEST clearly delineate the responsibilities of the CLEC-U S WEST Business Relationship?
- e) Does the startup documentation available to the new CLEC provide adequate contact information (LSRs, ASRs, Directory Functions)
- f) Does the startup documentation available to new CLECs identify escalation processes? If so, are these processes sufficiently broken down by functional area to be useable?
- g) Does the startup documentation available to new CLECs clearly outline the work activities required for billing IXCs for jointly provided switch access?
- h) Does the startup documentation available to new CLECs clearly outline the responses to be expected from each of the pre-order queries?
- h) h)i) Does the startup documentation available to new CLECs clearly outline the steps for processing orders of various types?
- i) Does the startup documentation available to new CLECs thoroughly identify and explain all reasons for rejects?
- j) Does the startup documentation available to new CLECs clearly set expectations on service intervals for resale and interconnection services?
- k) Does the startup documentation available to new CLECs sufficiently document the types of customized bills available for their use?
- l) Is Tariff (SGAT) pricing information made available to new CLECs?
- m) Does the startup documentation available to new CLECs clearly explain how to report troubles, create trouble tickets, obtain status on troubles, escalate and close trouble tickets?
- n) Does the startup documentation available to new CLECs have a clear process for misdirected repair calls?

- o)p) Does the startup documentation available to new CLECs provide repair contact telephone numbers for each major type of service? If documented, do these include appropriate contacts for the full collection of services utilized by CLECs?
- p)q) Are the calling card and LIDB implications for customers switching from U S West to a CLEC clearly explained?
- q)r) Are the media for receiving billing outputs and reports clearly defined and accurate?
- r)s) Does the startup documentation available to CLECs provide processes allowing the CLEC to ~~file complaints~~escalate issues in the event U S WEST doesn't respond appropriately to CLEC needs?
- s)t) Does the documentation available to CLECs provide clear tax exemption information?
- t)u) Does the documentation available to CLECs provide a clear ~~explanation~~ explanation of the interfaces available to the CLEC for OSS functions?
- u)v) Does the documentation available to CLECs provide detailed information as to the means available for OSS interconnection, available data files, and connectivity options? Is the method for ordering each clearly explained and are the timeframes for acquiring each type of interconnection identified?
- v)w) Does the documentation available to CLECs clearly identify U S WEST's SS7 certification requirements?
- w)x) Does the documentation available to CLECs clearly identify the U S WEST directory listing options available to CLECs including the features and functionality that can be made available to CLEC customers? Are the changes, if any, for these services clearly explained?
- x)y) Does the documentation available to CLECs contain a process allowing CLECs to request new services? Is the process for requesting the new services clear and are the steps required and timeframes for response clearly delineated?
- y)z) Does the documentation available to CLECs contain clear information and rules for how long distance carrier information (PIC/LPIC) changes will be handled?
- z)aa) Does the documentation available to CLECs contain appropriate rules for handling customer switches from CLEC to CLEC?
- aa)bb) Does the documentation available to CLECs contain detailed information regarding the products available for resale?

cc) Does the documentation available to CLECs contain detailed information about U S WEST Performance Measurement system?

dd) Does the documentation available to CLECs contain detailed information about the US WEST Co-provider Change Management Process?

Additional questions may be investigated as the TA's analysis is conducted and as the specific needs dictate.

6.2.3.3 Perform Interviews

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

6.2.3.4 Document Observations

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

6.2.4 EXIT CRITERIA

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

6.3 CLEC ACCOUNT MANAGEMENT EVALUATION

6.3.1 APPROACH

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 the timeliness, accuracy and completeness of US WEST Responses to Account inquiries, the timeliness and responsiveness of Help Desk Call Processing, -the appropriateness and methods applied to Help Desk call closures, the actual performance of Help Desk Status Tracking activities, the frequency and appropriateness of Problem Escalation efforts that are taken in response to CLEC inquiries, the reasonableness of Forecasting requests and the extent to which forecast information is applied by U S WEST into its various planning activities, and Communications avenues that are available to CLECs by US WEST and the extent that these are effective.

6.3.2 ACTIVITIES

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) Examine appropriate records
- d)e) Document observations

6.3.2.1 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.

6.3.2.2 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 U S WEST Process documentation clarity and sufficiency in managing their CLEC relationships.

6.3.2.3 Perform Interviews

The Test Administrator will perform interviews with- Pseudo-CLEC, participating ~~CLEC's~~CLECs 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 – the interviews should consider the topics that are provided in AT&T's comments on Paragraph 6.3.1.

6.3.2.4 Examine Records

The examinations of records maintained by U S WEST should consider the topics that are provided in AT&T's comments on Paragraph 6.3.1.

~~6.3.2.4~~6.3.2.5 Document Observations

All observations of interviews and records that are reviewed will be documented and reported in the Relationship Management summary report.

6.3.3 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
- e) Records that U S WEST is to provide to enable the TA to conduct its analysis of the Account Management function.

6.3.4 EXIT CRITERIA

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

The Account Management Evaluation section does not provide a chart that summarizes the evaluation steps. See chart in -Sections 6.4.3.3 and 6.6.2.4

6.4 CLEC TRAINING EVALUATION

6.4.1 APPROACH

This test will be used to determine the availability of training schedules to the ~~CLEC's~~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 effectiveness of the curriculum will also be evaluated. The documentation that is readily available to the ~~CLEC's~~CLECs will be used in this test, as will the training materials such as work books, student guides, curriculum plans, etc.

6.4.2 ENTRANCE CRITERIA

- a) Training Schedules
- b) Published syllabuses and handbooks
- c) Evaluation Criteria and Checklist
- d) Interview Questionnaire
- e) Pseudo-CLEC documentation of training – this should reflect training experience statements, classes taken, qualitative analysis done by the pseudo-CLEC

6.4.3 ACTIVITIES

- a) Gather U S WEST published training documentation
- b) Review and evaluate training documentation provided Pseudo-CLEC
- c) Document observations of training classes – the TA is to observe the training as delivered by U S WEST, but not necessarily the training delivered to the pseudo-CLEC by U S WEST

6.4.3.1 Gather Documentation

The U S WEST training schedules and associated documentation will be retrieved from the U S WEST web site or will otherwise be provided by U S WEST. The TA will gather the documentation through network access and through contacts with U S WEST.

6.4.3.2 Review and Evaluate Documentation

The Pseudo-CLEC will keep records of their U S WEST training and experiences. The TA will review and evaluate that documentation and compare it to the U S WEST documentation. [this sentence is unclear.] Interviews may will be conducted with the Pseudo-CLEC personnel to determine the comprehensiveness of the training they received. The evaluation will attempt to answer the following questions:

- a) Is there a process for obtaining CLEC input for the training? If so, is the process clearly written and has it been adequately communicated to the CLECs?
- b) Does the U S ~~West~~ WEST Training available to the CLECs fully address all areas in which the CLECs need training?
- c) Does U S ~~West~~ WEST provide an adequate means for CLECs to provide feedback on their experience of CLEC Training? If so are the processes for evaluating CLEC feedback properly documented?
- d) Was training schedules and documentation readily available? If yes, in what formats were the schedules and documentation available? If no, what steps were needed to get-obtain the necessary documentation?
- e) Was the documentation readable and easy to understand?
- f) Was the documentation comprehensive?
- g) What type of documentation was provided (what areas are covered)?

- h) Were the necessary types of training offered?
- i) Was the frequency of training adequate?
- j) Was the training information timely and up-to-date?
- k) Were there costs associated with the training? If yes, what types of costs and the approximate amount? Were the costs fair?
- l) Were contact names and numbers provided in case there were follow-up questions about the training programs? If so, were the contacts able to provide the assistance needed when those needing answers to questions call? Additionally, were the answers direct and complete or did significant effort have to be expended to ~~search out the answers to~~answer questions?
- m) Are the processes for monitoring U S WEST Instructor performance documented? Do CLECs have proper input into the evaluation of the Instructors? Does U S WEST have a structured method for evaluating Instructor performance?

6.4.3.3 Document Observations

Process	Area	Evaluation Measure	Evaluation Technique	Score
Training Availability	Training Coverage	Completeness of training courses and forums	Document review Inspection	
		Adequacy of procedures to maintain training quality and utilization	Document review Inspection	
	Training Awareness	Availability of Training Schedules, Content and	Document review Observation	
	CLEC Input to Training Coverage	Adequacy of process for CLEC inputs to Training Curriculum		

Process	Area	Evaluation Measure	Evaluation Technique	Score
Training Program Quality Assurance	Student Feedback	Adequacy of process to survey training recipients on effectiveness of training	Document review Observation	
	Instructor Evaluation	Adequacy of the process for evaluating the quality of Instructors	Document review Observation	
Post Training Student Experience	Post Classroom Questions	Adequacy of coverage for student CLEC questions after returning to work	Interviews	
	Training/Work Similarity	Similarity of work situation to class work situation used by U S WEST in the training	Interviews	

No explanation of the scoring methodology in the above table was provided. A description of the methodology is necessary and may result in further comments.

6.4.4 EXIT CRITERIA

- a) Completed checklists and questionnaires
- b) Documentation on results of evaluation of training information provided by U S WEST
- c) Summary report

6.5 EDI and IMA Interface Development Evaluation

6.5.1 APPROACH

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

6.5.2 ACTIVITIES

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) and implementation (EDI and IMA) efforts
- d) Attend U S WEST/CLEC or U S WEST/Pseudo-CLEC interface technical meetings
- e) Document observations

6.5.2.1 Gather Documentation

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

6.5.2.2 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 by the TA will be documented and will be included in the summary report. The focus will be on the clarity, completeness and sufficiency of the information U S WEST makes available to CLECs for developing and/or implementing EDI and IMA OSS interfaces.

6.5.2.3 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 TA will observe the processes for design and development of an EDI interface and the processes for acquiring and implementing an IMA GUI Interface to the U S WEST OSS. The TA will conduct interviews with U S WEST, Pseudo-CLEC, and CLEC personnel. This will be a cooperative process to identify, discuss, and track OSS interface development and implementation activities while they are in progress. The monitoring evaluation will attempt to answer the following questions:

- a) Are U S WEST processes, timing intervals and communications activities that are conducted during governing the development of an EDI interface to U S WEST's OSS or implementing a U S WEST IMA GUI interface to the U S WEST carried out in accordance with the U S WEST processes and procedures published and available to the CLECs?
- b) ~~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 and IMA GUI interfaces? Is the documentation clear, accurate, and sufficient to build the interface?
- d) ~~d)~~ Are meetings to discuss interface development reasonably scheduled and attended by U S WEST subject matter experts?

6.5.2.4 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 and levels of support being provided with the parties involved in the CLEC EDI Development process.

6.5.2.5 Document Observations

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

6.5.3 ENTRANCE CRITERIA

- a) U S WEST's documented Development processes and Technical Documentation for EDI development and IMA Installation/Configuration

- b) Evaluation criteria and checklists
- c) Interview Questionnaire

6.5.4 EXIT CRITERIA

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

The Interface Development Evaluation section does not provide a chart that summarizes the evaluation steps. See chart in Sections 6.4.3.3 and 6.6.2.4

6.6 CHANGE MANAGEMENT PROCESS EVALUATION

6.6.1 APPROACH

The approach for this task is an evaluation effort by the TA with involvement ~~by of~~ 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 processes, the TA will identify, discuss, and track available instances of specific OSS Interface new functionality, enhancements and maintenance. U S WestEST's capabilities and practices in testing corrections, enhancements and new functions will also be evaluated.

6.6.2 ACTIVITIES

- a) Gather documentation
- b) Review and evaluate documentation
- c) Monitor and evaluate U S WEST's ability to execute change management method and procedures to determine whether the changes are implemented as announced and that unannounced changes are not implemented
- d) Attend regularly scheduled change management meetings
- e) Document observations

6.6.2.1 Gather Documentation

The U S WEST Co-provider Industry Change Management Process (CICMP) will be retrieved from their web site or provided by U S WEST. The TA will perform the gathering of the documentation through network access and through contacts with U S WEST.

6.6.2.2 Review and Evaluate Documentation

The U S WEST change management process documentation will be reviewed and evaluated by the TA. The observations by the TA will be documented and will be included in the summary report. The evaluation will attempt to answer the following questions:

- a) Does the Change Management Process information available to the CLECs clearly document the methodology, timing and communication of U S WEST OSS software changes and releases?
- b) Are terms and definitions utilized in the Change Management Process information clearly documented?
- c) How are software releases handled? Are releases periodic and predictable or random?
- d) Does the Change Management Process information available to the CLECs clearly explain how CLECs can request changes to the OSS? Does the documentation include forms for requesting changes and clear instructions for completing, submitting and tracking progress on CLEC change requests?
- e) Does the Change Management Process provide for frequent scheduled communications regarding changes to the CLECs?
- f) Does the Change Management Process information available to the CLECs provide a clearly defined methodology for tracking and monitoring CLEC change requests?
- g) Are release notes issued as part of the Change Management Process? If so, are they complete, clearly written and distributed in a timely fashion allowing CLECs time to properly prepare for change?
- h) Does the Change Management Process information available to the CLECs provide a clearly defined escalation process?

- i) If Change Management Processes, escalation processes or other U S WEST processes providing information as to how CLECs communicate, track, or escalate changes are web based, are the URLs for this information communicated to CLECs via multiple avenues?
- j) Are the roles and responsibilities of each party clearly communicated in the U S WEST Change Management and escalation processes?
- k) Does the documentation available to CLECs for U S WEST Change Management Processes clearly identify how change requests will be evaluated and prioritized for inclusion in future releases?
- l) Does the Change Management Process information available to CLECs clearly explain how changes to the Process and forms utilized by the process will be accomplished? If so, is it clear how the new process will be distributed and how new forms will be distributed/implemented and the old process and forms retired?
- m) If utilized, are release life cycles clearly described including all activities required by each segment of the lifecycle?
- n) Monitor and evaluate U S WEST's ability to execute one significant software release through implementation. [this item should be moved to the next list of bullet points as it is not a "documentation" issue]

6.6.2.3 Monitor and Evaluate

The TA will monitor the execution of the CM 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-times 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 CM monthly meetings held by U S WEST. The TA 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~~ the introduction of OSS interface new functionality, enhancements to existing software, and required code maintenance. The monitoring evaluation will attempt to answer the following questions:

- a) Are U S ~~West~~-WEST methodologies, timing and communications for Change Management 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 Change Management documentation published and available to the CLECs understood by the parties?
- c) How are software releases handled? Are releases periodic and predictable or random?
- d) Do the CLECs and the Pseudo-CLEC understand how they can request changes to the U S WEST OSS? Do they understand where to find the necessary forms? If deficiencies exist, what is the root cause?
- e) Do frequently scheduled Change Management communications take place with the CLECs? If so, are the communications open and candid?
- f) Does U S WEST follow the documented processes for tracking and monitoring CLEC change requests? Can the CLECs determine the status of their Change Requests without unreasonable effort?
- g) Examine a number of randomly selected Release Notes to determine if they were distributed in a timely fashion and if the information was distributed in a fashion allowing CLECs time to properly prepare for change?
- h) Are the escalation processes made available to the CLECs by U S WEST followed in practice?
- i) If Change Management Processes, escalation processes or other U S WEST processes providing information as to how CLECs communicate, track, or escalate changes are web based, are the URLs for this information communicated to CLECs via multiple avenues?
- j) Are the roles and responsibilities of each party with regard to Change Management clearly understood?
- k) Do CLECs and the Pseudo-CLEC understand how change requests will be evaluated and prioritized for inclusion in future releases? If they don't, what steps could be taken to ensure awareness in the future? Does U S WEST follow the release prioritization processes communicated in their Change Management Process?
- l) Are changes to the Change Management Process executed in accordance with the information communicated in the U S WEST Change Management documentation available to the CLECs?
- m) Are release life cycles clearly communicated and does U S WEST demonstrate the discipline required to adhere to announced future releases as described in their Change Management Process

- n) Does U S WEST provide a development/change management test bed for use by the CLECs to test new development or changes before they are implemented? Does the test bed contain sufficient functionality and are proper test bed operating procedures in place to allow CLECs sufficient opportunity to implement changes in a timely fashion? Is the test bed consistent with the capabilities and functionalities of the production environment? Can CLECs obtain certification from U S WEST for updated releases through test bed testing or must certification also include production testing?

6.6.2.4 Attend CICMP Meetings

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

Document Observations

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

Process	Area	Evaluation Measure	Evaluation Technique	Scoring
Change Management	Change Requests	Quality of Instructions Adherence to Process	Document review Observation Interviews	
	Software Release Prioritization	Clarity of Release Prioritization Process and Adherence to the Process	Document review Inspection of Tracking Logs Interviews	
	Software Release Notes	Quality of the Process Documentation, Quality, accuracy and completeness of Release Notes	Document review Inspection of Release Notes Interviews	
	Software Release Life Cycles	Communication consistency, Timeliness,		
	Awareness and Communications	Completeness and consistency of communications	Documentation review Meeting Evaluations Interviews	
	Implementation of Changes	Completeness and consistency of change implementation process	Inspection Document review Report review	
	Escalations	Clarity of Escalation Process and Adherence to the Process	Document review Inspection of Tracking Logs Interviews	
	Test Bed	Adequacy and completeness of functionality and process	Document review Observations Interviews	
	Tracking and Monitoring	Adequacy and completeness of change management tracking process	Document Review Observation Interviews	

No explanation of the scoring methodology in the above table was provided. A description of the methodology is necessary and may result in further comments.

6.6.3 ENTRANCE CRITERIA

U S WEST's documented change management procedures are as follows:

- a) Evaluation criteria and checklists
- b) Interview Questionnaire

6.6.4 EXIT CRITERIA

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

7 PERFORMANCE MEASUREMENT EVALUATION

7.1 Scope

The Performance Measurement Evaluation (PME) will include an evaluation of the processes, and the procedures that U S WEST has in place for collecting retail and CLEC data and computing the results of the performance measurements documented in Appendices B & C of the MTP. The PME includes the development of a statistical approach, a performance measurement process audit/review, an evaluation of three consecutive months of U S WEST retail and CLEC performance measurement data, functionality test performance measure evaluations and capacity test performance measurement evaluations.

The PME is designed to provide a statistically valid assessment of U S WEST's performance in providing service to the CLECs and its retail customers based on established measures. Where applicable, the PME defines the standards U S WEST must meet in order to comply with Section 271 of the (TA-96) Act.

From the MTP, Performance Measurements fall into three broad categories: parity, benchmark, and report only. Parity Measures ~~show will be used to assess the degree that~~ U S 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 ~~the Commission or other regulatory body for which it was determined were of interest but were used for diagnostic purposes, often because they back-up other~~ performance measurements. The report only category also includes measures for which there is not yet sufficient information or the need to set a benchmark.

U S WEST has committed to provide retail and CLEC results of the performance measurements listed in Appendices B and C of the Master Test Plan (MTP).

Appendix B of the MTP contains detailed descriptions of U S WEST's performance measurements. Each page lists the following information: 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, (5) the formula used to compute the result of the measurement, (6) relevant notes and explanations and (7) Standards for the measures.

Appendix C lists which performance measurements will be included in the Functionality Test PME and/or in the Capacity Test PME. The Functionality Test is broken out into 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 with no "Yes" indication will only be included in the testing to the extent that they are assessed during the Performance Measurement Evaluation to verify that U S WEST is collecting adequate data and computing accurate results.

7.2 Approach

The Performance Measurement Evaluation will require a combined audit and test approach including a Performance Measurement Process Evaluation, a Historical Data Evaluation, and Performance Measurement Evaluations during the Functionality and Capacity Tests.

The Performance Measurement Process Evaluation is an audit /review of the processes and practices utilized by U S WEST for gathering and computing the retail and CLEC results for the performance measures identified in Appendix B of the MTP. Since this process evaluation is an entrance criteria for Functionality Tests, the process evaluation may be conducted in two phases. Conducting the audits in this fashion will permit testing to begin for those performance measures that are currently available. A second process audit/review will be conducted for those areas of the test feeding performance measures being developed by U S WEST.

A Historical Data Evaluation will be conducted on 3 consecutive months of U S WEST retail and CLEC data. The Historical Data Evaluation will be conducted in phases that match the completions-timing(?) of the Performance Measurement Process evaluations.

The Functionality and Capacity Test performance measurement evaluations will be conducted during the Functionality and Capacity Tests. These performance measurement evaluations will be conducted as final validations to the test cases that map to individual performance measures.

7.3 Activities

Activities that will be conducted as part of the Performance Measurement Evaluation will include the following:

- a) Develop the Statistical Approach for the Arizona 271 Tests
- b) Perform a Performance Measurement Process Audit/Review
- c) Perform a Historical retail and CLEC Data Review (using 3 consecutive months of U S WEST historical data)
- d) Gather, compute, evaluate, and appropriately retest based on Performance Measurement Data (as specified in Appendix C of the MTP) for the Functionality Tests
- e) Gather, compute, evaluate, and appropriately retest based on Performance Measurement Data (as specified in Appendix C of the MTP) for the Capacity Tests

- f) Prepare Interim and Final Reports (including PME Process Audits Report, Historical Data Evaluation Report, and PME reports for Functionality and Capacity Tests)

7.3.1 DEVELOP THE STATISTICAL APPROACH

A TAG statistical sub-committee was formed to address statistically sound quantities, and to make a recommendation for the statistical methodology to be used for the Tests. The Subcommittee met on January 25, 2000 to allow statisticians from the parties to review alternative statistical approaches presented by the TA, AT&T, Sprint, and U S WEST. It was agreed at the meeting that the TA will evaluate Benchmarks in a "Stare and Compare" fashion. If individual benchmark levels, as identified in the MTP, aren't achieved during testing, new instances of tests for the individual benchmark will be re-conducted with appropriate Incidents reported and repaired by U S WEST until the benchmark level is achieved.

For initial work establishing the test volumes and methodology, U S WEST prepared and submitted to the TA a spreadsheet including, for each measure, all product types organized by product groups, and other levels of disaggregation such as whether or not service was required to be Dispatched, and local population density. The TA worked with the CLEC and U S WEST Statistical Sub-committee representatives to identify any disaggregation levels that might be reasonably excluded from tests due to low or no future market interest or irrelevance. The committee flagged products and population densities in which the products should be tested and whether the product tests should reflect dispatched and/or non-dispatched status. The TA then calculated test quantities using Alpha and Beta equals to 0.05 and a material difference of Twice as Bad when the U S WEST performance is at 90%. It was determined that test quantities of 135 will approximately achieve the chosen level of material difference and result in the desired levels of Alpha and Beta.

As a result of these Statistical Sub-committee meetings, the statistical quantities for the Arizona 271 Functionality Tests were established at 1620-1890 (for 12-14) disaggregations. It was noted that the Retail Parity and Capacity Test quantities are not included in these numbers. Subsequently, the sub-committee met to discuss the statistical method for the tests. Following presentations by the statisticians, the sub-committee asked the TA to develop a statistical method for the tests and to develop a test plan for presentation to the sub-committee.

The following is an overview of the statistical approach that will be utilized:

In order to be allowed to compete in the long-distance market, an ILEC must positively prove, that they are providing non-discriminatory access to their OSS. The "positive" nature of such proof requires primarily that the statistical tests of compliance / parity strictly limit the risk of falsely concluding equivalent OSS access when the access provided to the CLECs is materially worse than compliance / parity (alpha risk). In

addition, the risk of falsely concluding sub-compliant / sub-parity CLEC access when in fact compliant / parity access is being provided, must also be controlled, in order to limit spurious re-test requirements (beta risk).

Sufficient test quantities of each relevantly disaggregated test cell (product, dispatch/non-dispatch, local population density indicator, interface, etc.) will be taken to ensure that, where practical, both alpha and beta risks are limited to .05, ~~where practical~~. Such statistical testing will provide the means for U S WEST to positively prove the availability-adequacy of their-its OSS, processes, and network elements to competition/competitors.

A statistical approach will be used to test parity with retail for those measures with a retail analog and compliance with benchmarks for those measures with no retail analog. [How will the statistical approach be used for benchmarks?]

The measures will be evaluated using a statistical approach consisting of those measures included in Section 1 of Appendix C of the MTP, where marked with a "Yes".

Only those test scenarios and cases that meet the levels of disaggregation outlined below will be included in the statistical tests of parity and compliance. Other test scenarios and cases will be run to test whether functionality exists, but not in sufficient volume to evaluate parity / compliance or draw conclusions based upon statistics.

For Ordering and Provisioning Measures, and Maintenance and Repair Measures, the following disaggregations will be considered:

Product	Geography	Whether Dispatched
Anal. Loop	MSA	Dispatch
Bus	MSA	Dispatch
Bus	MSA	Non-Disp.
DS1 Loop	Hi-D	Dispatch
DS1 Loop	Lo-D	Dispatch
NL-Loop-2W	Hi-D	Dispatch
NL-Loop-2W	Lo-D	Dispatch
NL-Loop-4W	Hi-D	Dispatch
NL-Loop-4W	Lo-D	Dispatch
UNE-P	"Urban"	Dispatch
UNE-P	"Rural"	Dispatch
Res	MSA	Dispatch
Res	MSA	Non-Disp.

In the above table, it remains to be determined whether the NL-Loop-4W product category can be pooled together with the DS1 Loop category.

For OP-6, Delayed Days, the measure is further broken out by whether the Delay Reason is USW Facility or USW Non-Facility, but these will not be incorporated into the design as this is a factor which is infeasible to statistically control. OP-8, LNP Timeliness, is not reported separately for each of the above-indicated cells, rather it is broken out by whether the provisioning requires co-ordination or not.

Pre-Ordering Measures are disaggregated by the interface through which the query has been made, IMA, EDI, or Fax. PO-2, Electronic Flow-through of LSRs to the Service Order Processor (%), and PO-5, Firm Order Confirmations (FOCs) On Time, in addition to interface, are also disaggregated by whether the Product is an Unbundled Loop or Resale. PO-5, Firm Order Confirmations (FOCs) On Time, is further disaggregated by whether the order was processed electronically.

Statistical Testing will occur at the above disaggregation levels, and these will exclusively define the design constraints and statistical sample size requirements within the total quantities agreed by the statistical sub-committee. Other potentially confounding factors, such as Order Type, Features Only, etc., will be controlled for via weighting. Similarly, aggregate tests, which combine data at the various disaggregation levels, will be performed using weighted combinations. The weights used (both for combining pseudo-CLEC test data from different product groups, order types, etc., and for combining comparative retail analog U S WEST data from different product groups, order types, etc.) will be determined by a detailed projection of the expected 2Q2001 CLEC market mix.

More detailed information on the statistical approach can be found in Appendix K.

7.3.2 PERFORMANCE MEASUREMENT PROCESS AUDIT/REVIEW

The TA will conduct reviews necessary to perform an assessment and documentation of U S WEST processes governing the data collection, calculation and reporting of performance measures. Process comparisons will be made against industry best practices and the Service Performance Indicator Definitions (PID) jointly agreed between U S WEST and the CLECs in the State of Arizona. The review will answer the following questions for both retail and CLEC data:

- 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) Are U S WEST procedures in place to ensure that the PID remains consistent with U S WEST's internal methods and procedures for collecting, analyzing and reporting both CLEC and retail performance data?
- h*i*) Is the U S WEST Performance Measurement Report Version Control Process documented, sufficient and practiced?
- h*j*) Are historical logs available for changes to reported performance measures?
- h*k*) Do procedures for changing data include appropriate change/version control? Are these procedures documented and consistent with the PID?
- h*l*) 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?

The TA will request copies of all U S WEST retail and CLEC Performance Measurement handling and calculation process documentation. Once received, the TA will review the documentation and will schedule appropriate interviews with U S WEST subject matter experts for clarification on the processes used for data exclusions, data gathering and computing the measures. The TA will also gather schedules for U S WEST data gathering and computations.

Additionally, the TA will conduct clarification discussions with CLEC representatives to determine if any deviations, which may have occurred in the past, should be further investigated during the Performance Measurement Testing.

During other testing, the Test Administrator will visit with U S WEST areas executing the Measurement Processes and will observe data gathering, exclusions and computations in process. The Test Administrator will evaluate, document and report all deviations from process, improperly excluded data (if any is discovered), or other information

gathered which might invalidate the Performance Measurement numbers reported by U S WEST.

The following activities will be conducted as part of the performance measurement process review:

- a) Identify the systems that impact performance measures and data that ~~is~~are collected from these systems.
- b) Gain an understanding of the data flows and processes related to each individual performance measure.
- c) Gain an understanding of the business requirements, methods and procedures, definitions, extraction criteria, calculations, exclusions, and other related information used by U S WEST to calculate performance measures?
- d) Review the U S WEST documented -performance measure business rules, methods and procedures to ensure that sufficient controls are documented to ensure the data collected and calculated is accurate and complete.
- e) Observe and document U S WEST general applications process controls, and perform walkthrough observations of performance measure transactions.
- f) Observe, evaluate and document controls related to security, change management, reliability, and integrity of information across the OSS Systems utilized to collect performance measures.
- g) Observe, evaluate and document the controls related to the completeness and accuracy of inputs and updates of performance measure data including supervisory practices for controlling accuracy and completeness.

Process deficiencies or practice deviations from documented processes discovered requiring work by U S WEST, will be entered on Incident Work Order forms and forwarded to the TAG for subsequent prioritization and submittal to U S WEST for repair and subsequent re-testing per the Test Administrator's Testing Incidents Process (Attachment I).

7.3.3 HISTORICAL DATA REVIEW

The TA will request three consecutive months of retail and CLEC historical raw data (before exclusions) and U S WEST computed Performance Measures. Upon receiving the data, the TA Statistics Team will perform an independent computation of all Performance Measure z statistics and other computations, averages, standard deviations,

rates, proportions, sample sizes, etc. from U S WEST provided raw data. The TA will compare the independently computed data to the z statistics and other computations computed by U S WEST.

The TA will evaluate, document and report all differences between the numbers computed by U S WEST and those computed by the TA. Problems discovered requiring work by U S WEST, will be entered on Incident Work Order forms and forwarded to the Test Advisory Group (TAG) for subsequent prioritization and submittal to U S WEST for repair and subsequent re-testing per the Test Administrator's Testing Incidents Process (see Attachment I).

In addition, the historical evaluation will also investigate the presence of potentially confounding factors which may need to be further controlled in the design and analysis of the functionality tests.

7.3.4 FUNCTIONALITY TEST PERFORMANCE MEASURE EVALUATION

Appendix C of the MTP lists which performance measurements will be included in the Functionality Test. The Functionality Test is broken out into OSS functionality testing and end-to-end functionality testing. Only those measurements with a "Yes" indication in the MTP Appendix C will be included in the Performance Measurement Evaluation for the Functionality Tests.

The TA will acquire and/or develop data, calculate Functionality Test Results, and validate results of ILEC, Pseudo-CLEC and CLEC analyses for the Functionality Tests. During the Functionality Tests, Performance Measurement raw data for the Pseudo-CLEC test orders, trouble reports and other transactions, calculated z statistics and other calculations will be collected from U S WEST for all those measurement with a "Yes" indication in the MTP Appendix C. Using the raw data (before exclusions) from U S WEST, the TA will perform an independent calculation of all measurements with a "Yes" indication in the MTP Appendix C and will also perform an independent calculation of the same measurements for the same orders using the Functionality Test Data provided by the Pseudo-CLEC.

The TA will compare U S WEST's ~~Computed~~ computed z statistics and other calculations to TA computed z statistics and other calculations (from U S WEST's provided raw data) and to TA computed z statistics (from Functionality Test Data collected by the Pseudo-CLEC). Discrepancies in the calculations will be evaluated, documented and reported by the TA.

Problems discovered requiring work by U S WEST, will be entered on Incident Work Order forms and forwarded to the TAG for subsequent prioritization and submittal to U S WEST for repair.

Performance Measure evaluation during testing will be performed on testing units called cells. Cells are groups of test cases for which statistical quantities were set before testing began. During the testing, performance measures will be utilized as follows:

1. Benchmarks

The TA will evaluate Benchmarks in a "Stare and Compare" fashion. If individual benchmark levels identified in the PID aren't achieved during testing of the full complement of tests for a given cell, the incident will be evaluated by the TA, reported to the TAG and repaired by U S WEST in accordance with the Testing incidents process (Appendix I). A full complement of new test instances for the cell will then be subsequently re-tested. This entire process will be repeated until the benchmark level is achieved.

2. Parity Measurements

The TA will evaluate Parity Measurement Computations for raw data collected from the Pseudo-CLEC using hypothesis testing. If individual parity levels as identified in the PID aren't achieved during testing of the full complement of tests for a given cell, the incident will be evaluated by the TA, reported to the TAG and repaired by U S WEST in accordance with the Testing incidents process (Appendix I). A full complement of new test instances for the cell will then be subsequently re-tested. This entire process will be repeated until parity is achieved.

3. Report Only Measurements

Since the report-only category is provided for those measures- the Commission or other regulatory bodies determined were of interest but were used for diagnostic purposes, often because they back-up other performance measurements, the data will be gathered and reported only. This is also appropriate since the report only category also includes measures for which there is not yet sufficient information or the need to set a benchmark. Where the results of one of the performance measurements they back up are inconclusive, statistical analysis of the appropriate report-only measurement based on the data gathered during the test is provided.

7.3.5 CAPACITY TEST PERFORMANCE MEASURE EVALUATION

[This section should have introductory language similar to the type found in Section 7.3.4. Issues such as collecting the Pseudo-CLEC data collected during the capacity test phases and comparing it to data collected during the same time using U S WEST's IRTM model needs to be addressed.]

Appendix C of the MTP lists the performance measurements that will be included in the Capacity Test. Only those measurements with a "Yes" indication in the MTP Appendix C will be tested during the Capacity Tests and evaluated during the Performance

Measurement Evaluation. During the testing, performance measures will be utilized as follows:

1. Benchmarks

The TA will evaluate Benchmarks in a "Stare and Compare" fashion. If individual benchmark levels identified in the PID aren't achieved during testing of the full complement of tests for a given cell, the incident will be evaluated by the TA, reported to the TAG and repaired by U S WEST in accordance with the Testing incidents process (Appendix I). A full complement of new test instances for all cells in the Capacity Test will then be subsequently re-tested. The failed measures within the failed cells will be reevaluated on the new test. At the discretion of the TAG, additional measures in additional cells possibly effected by the fix may also be reevaluated. This entire process will be repeated until the benchmark level is achieved.

2. Parity Measurements

The TA will evaluate Parity Measurement ~~Computations~~ computations for raw data collected from the Pseudo-CLEC using hypothesis testing. If individual parity levels as identified in the PID aren't achieved during testing of the full complement of tests for a given cell, the incident will be evaluated by the TA, reported to the TAG and repaired by U S WEST in accordance with the Testing incidents process (Appendix I). A full complement of new test instances for all cells in the Capacity Test will then be subsequently re-tested. The failed measures within the failed cells will be reevaluated on the new test. At the discretion of the TAG, additional measures in additional cells possibly effected by the fix may also be reevaluated. This entire process will be repeated until parity is achieved.

3. Report Only Measurements

Since the report-only category is provided for those measures- the Commission or other regulatory bodies determined were of interest but were used for diagnostic purposes, often because they back-up other performance measurements, the data will be gathered and reported only. This is also appropriate since the report only category also includes measures for which there is not yet sufficient information or the need to set a benchmark. Where the results of one of the performance measurements they back up are inconclusive, statistical analysis of the appropriate report-only measurement based on the data gathered during the test is provided.

7.3.6 PREPARE INTERIM AND FINAL PERFORMANCE MEASURE EVALUATION REPORTS

Interim reports will be produced and published by the TA for PME Process Audits, Historical Data Evaluation, and for the Functionality and Capacity Tests. The interim report for the PME Process Audits may be produced in two phases to allow Functionality Testing to begin based on performance measures already in operation with a second report produced and approved for those performance measures being developed by U S WEST.

The Final Report will be produced and published by the TA. Recipients of the final report will be the State Commission, U S WEST, and all CLECs participating in the test.

All intellectual property, raw data, results, reports generated, process updates, process and test documentation will be retained by Cap Gemini Telecommunications for a period of three years, or Federal Communications Commission/State Commission legal retention requirements, whichever is the greater period. All proprietary guidelines of CGT will be followed for retention and storage of test data, output, and records. Any connectivity established between U S WEST, the CLECs, and CGT for the purpose of data transfer, Pseudo-CLEC processing, report generation, and system testing will be disconnected immediately following completion of the test. Unless specifically ordered by the ACC or the FCC, any requirements for connectivity beyond the completion of the test will require negotiation and formal agreement between U S WEST and CGT, or the CLEC(s) and CGT.

7.4 Entrance Criteria

The following must be complete prior to initiating the PME:

- a) Performance Measurements as outlined in the PID are operationally ready and at least two months of performance data is available for the evaluation to begin. The evaluation may be conducted in two phases to allow testing to progress based on available performance measures.
- b) The TA has been granted access to the appropriate U S WEST site(s) to conduct the on-site testing and monitoring. This includes the creation of any necessary access arrangements such as security badges and access to private monitoring facilities and equipment
- c) Properly disaggregated historical data (before exclusions) for pre-ordering , provisioning, trouble reporting and billing transactions from U S WEST and participating CLECs has been provided to the TA
- d) All summarized historical data has been provided at the appropriate levels of disaggregation
- e) Processes for transmittal and receipt of historical data have been created and verified

- f) The Pseudo-CLEC 's ability to create and to transmit data to the TA has been confirmed

7.5 Exit Criteria

The PME will conclude upon satisfaction of the following conditions:

- a) The collected data has been analyzed by the TA
- b) All Performance Measures have passed; and/or all parties agree the test is concluded; and/or the ACC calls an end to the test
- c) The findings from the TA's analysis have been documented in the Performance Measurement Evaluation Report
- d) Interface and System errors which have been identified have been resolved via the Master Issues Log Process and/or the Test Incidents Process

8 COLLOCATION AND INTER-CONNECTION

8.1 Scope

The purpose of this evaluation is to assess the interaction between U S WEST and its CLEC wholesale customers in the areas of Network Design Requests (NDR), Collocation, and inter-connection trunking. This test will focus on qualitative evaluation obtained from pre-interview questionnaires and live interviews with the participating CLECs and U S WEST. The measures demonstrating fulfillment performance will be evaluated based on historical data.

8.2 Approach

The TA will develop a questionnaire and deliver it to each of the participating CLECs. This questionnaire will include questions on the usability and completeness of procedures and documents, adequacy of NDR, collocation forecast forms and order/provisioning processes for inter-connection trunking. The questionnaire and interview will ensure that all applicable requirements of the Performance Indicators in Appendix B of the MTP are addressed and information is collected to enable full and complete evaluation. U S WEST will be given an opportunity to reply in writing to responses received from the CLECs. The TA will review CLEC questionnaire responses and compare them to U S WEST documentation. The TA will perform any additional research necessary and prepare a report on collocation and interconnection. The results will be published in accordance with the reporting guidelines approved by the ACC.

8.2.1 COLLOCATION/INTERCONNECT QUESTIONNAIRE

The collocation/interconnect questionnaire requests milestone date information from the CLECs compiled over a ninety-day period as well as subjective information on product quality and performance. The TA will design the final questionnaire, the information requests therein to include the following:

- a) Feasibility Studies: Total number of studies undertaken in the study period, compiled by collocation product [virtual, physical (caged, cage-less or shared), augmentation] with the following associated data:
 - 1) Committed due date for feasibility study
 - 2) Date feasibility study completed or rejected

- b) Collocation Quote Intervals: Total number of applications in the study period, compiled by collocation product [virtual, physical (caged, cage-less or shared), augmentation] with the following associated data:
 - 1) Date requested by CLEC for completion of collocation quote

- 2) Date costs are established by U S WEST and transmitted to the CLEC
 - 3) Date the CLEC sends confirmation and acceptance of the rates to U S WEST
- c) Installation Intervals - Collocation:
- 1) Total number of orders
 - 2) Date U S WEST receives down payment from CLEC
 - 3) Original due date for completion of installation
 - 4) Installation interval met on original due date [What is meant by this? Is this a yes or no response?]
 - 5) Number of completion dates missed and root cause/responsible party
 - 6) Actual completion dates
- d) Trunking - Inter-connection: Total number of requests in the study period for both original and augmentation, with the following associated data:
- 1) Date requested by CLEC (application date)
 - 2) Date U S WEST accepts order (FOC)
 - 3) Date(s) U S WEST sends any supplemental FOCs not a result of a CLEC supplemental order
 - ~~3~~4) Committed Due Date (CDD)
 - ~~4~~5) Actual completion date (CD)
 - ~~5~~6) Number of completion dates missed and root cause/responsible party for missed due date
- e) Repair and trouble reporting procedures - Mean Time To Repair (MTTR) – Inter-connection:
- 1) Total number of repair reports
 - 2) Date and time trouble reported per occurrence
 - 3) Date and time trouble isolated to U S WEST network per occurrence
 - 4) Date and time trouble isolated to the CLEC's network and referred back to CLEC per occurrence
 - 5) Date and time trouble cleared per occurrence
- f) Repair and trouble reporting procedures – Trouble cleared within four hours – Inter-connection:
- 1) Total number of troubles in the study period compiled by trouble reports in high and low density areas
 - 2) Number of CLEC inter-connection troubles cleared within four hours, compiled by high and low density areas.
- g) Repair and trouble reporting procedures – Inter-connection – Repeat failure rate:
- 1) Total number of troubles reported in the study period

- 2) Number of trouble reports received by U S WEST or transmitted to U S WEST within 30 days of original trouble report in the study period
- h) Repair and trouble reporting procedures – Inter-connection – Trouble report rate per 100 trunks in-service:
 - 1) Total number of inter-connection trunks in-service each day for the study period
 - 2) Total number of inter-connection trunks out of service each day for the study period
- i) CLEC's overall rating of the performance of U S WEST wholesale activities with examples and explanations. The rating scale will be "Far Exceeds Expectations", "Exceeds Expectations", "Meets Expectations", or "Below Expectations".
 - 1) NDR
 - 2) Collocation (original and augmentation requests)
 - 3) Inter-connection (original and augmentation requests)
 - 4) Repair

8.2.2 INTERVIEW

The interviews will be conducted by the TA and structured to review the questionnaires, NDR performance, observe order, provisioning and maintenance processes. The TA's preliminary assessments may reveal that additional tests or interview materials are required.

8.2.3 ENTRANCE CRITERIA

Prior to commencement of collocation and inter-connection evaluations, the TA requires the following:

- a) Specific CLECs have been identified
- b) CLEC and U S WEST contact name, address, e-mail address and phone numbers for each area of evaluation (NDR, collocation and inter-connection trunking) have been supplied to the TA
- c) The time-frame for the evaluation has been established

8.2.4 ACTIVITIES

The collocation/interconnect evaluation will include the following sequence of activities:

- a) The TA will send a questionnaire to each of the specific CLECs

- b) The TA will request that specific CLECs complete and return questionnaires to the TA within 30 days of “Questionnaire Sent Date” (QSD)
- c) Interview dates for specific CLECs will be established upon TA’s receipt of a completed questionnaire
- d) Compile the data and information obtained by the questionnaires and interviews
- e) Conduct analysis and produce report

8.2.5 EXIT CRITERIA

The exit criteria for the collocation and inter-connection evaluations are:

- a) All questionnaires received are documented
- b) All interviews are documented
- c) No additional evaluation activities are required
- d) Evaluation report is completed and published in accordance with the reporting guidelines approved by the ACC

APPENDIX A – GLOSSARY

This appendix lists the terms and acronyms used in this document.

Acronym	Term	Definition
ACC	Arizona Corporation Commission	
ACR	Assigned Commissioner Ruling	
ATIS	Alliance for Telecommunications Industry Solutions	A trade group based in Washington, D.C. and open to membership of North American and World Zone 1 Caribbean telecommunications carriers, reseller, manufacturers and provider of enhanced services. Originally called the Exchange Carriers Standards Association (ECSA), the ATIS is heavily involved in standards issues including interconnection and interoperability issues.
BAN	Billing Account Number	
BASL	Basic Loop	A transmission path that connects an end-user's premises to a U S WEST Central Office
BTN	Billing Telephone Number	
CGA	Cap Gemini America	
CT	Capacity Test	Test ability of new mechanized systems to support the Testing Load. A pre-order and order test will be performed for purposes of this test.
CGT	Cap Gemini Telecommunications	
CIC	Carrier Identification Code	
CLEC	Competitive Local Exchange Carrier	A communications company which sells/re-sells communications services in direct competition with the Incumbent Local Exchange Carrier (ILEC)
CLLI	Common Language Location Identifier	An 11 digit alphanumeric code used as a method of identifying physical locations and equipment i.e., central office relay racks etc.
CO	Central Office	
CPE	Customer Premises Equipment	Customer-owned equipment
CRIS	Customer Records Information System	A department and system within U S WEST that records and bills exchange calls placed over the network.
CSR	Customer Service Record	A record of customer specific information such as name, address, telephone number, telecommunication services subscribed to and certain other data relating to the services provided.
	Delayed Service Order	Term used to describe service request(s) for which no available facilities are identified during Retail Parity testing
DOJ	Department of Justice	
DSL	Digital Subscriber Line	Generic name for a family of evolving digital services to be provided by local telephone companies to their local subscribers
DS1L	DS1 Loop	
DSR	Directory Service Request	
EB-TA	Electronic Bonding-Trouble Administration	

Acronym	Term	Definition
EDI	Electronic Data Interchange	Interface protocol that provides for mechanized order processing. Both the CLECs and U S WEST will have systems (EDI Interface) to support the EDI functionality
EMI	Exchange Message Interface	An Alliance for Telecommunications Industry Solutions (ATIS) standard format of messages used for the interchange of telecommunications message information among telephone companies.)
ETE	End-to-End Testing	For the purposes of this testing end-to-end is defined as testing to demonstrate the flow through capability of providing local service requests to the CLECs in parity to existing retail.
EXACT	Exchange Access Control and Tracking system	The system is used to receive Access Serviced Requests (ASR) from the Interexchange Carriers (IC) and CLECs to process the ASR and create the service order. Firm Order Confirmation (FOC) is also sent back via this system.
FCC	Federal Communications Commission	
FOC	Firm Order Confirmation	Response from the service order processor that acknowledges successful receipt of a CLEC order (i.e., provides notification SOP edits have passed).
FT	Functionality Test	A documented set of instructions designed to test and/or validate specific functions of a process or system.
GUI	Graphical User Interface	A simplified method of accessing programs within a computer by using a mouse to point to icons, which in turn cause the programs to perform a specific function.
HPC	High Performance Communications	The Pseudo-CLEC.
IABS	Carrier Integrated Access Billing System	System that provides for CLEC and inter-exchange carrier billing
IMA	Interconnect Mediated Access	A system that allows CLECs electronic access to U S WEST Operational Support System to perform pre-order, order, and repair business functions. IMA can be accessed via the WEB or through a dedicated EDI electronic interface. The WEB access, also known as the IMA GUI, provides many pre-order transactions. Pre-order requests are not presently available in the EDI version of IMA and must be handled manually.
ILEC	Incumbent Local Exchange Carrier	In this document, the term ILEC represents U S WEST.
IR	Incident Report	
ISDN	Integrated Services Digital Network	Digital services designed for use with desktop applications, telephone switches, computer telephony and voice processing systems
IXC	Inter-exchange Carrier	Long-haul, long distance inter-LATA carriers for voice, video and data traffic.
	Jeopardy (relative to MTP process)	A notice that is issued whenever a key-project milestone and/or commitment is at risk according to the MTP.
LATA	Local Access and Transport Area	As defined in 47 U.S.C. Section 3 (25)
LIDB	Line Information Data Base	Database used primarily for residential customers.
LNP	Local Number Portability	
LNPL	LNP with Loop	The ability to change Service Providers location or services while retaining the same local directory number.
LNPO	LNP Only	

Acronym	Term	Definition
LOA	Letter of Authorization	
	Loop Qualification	The Pre-order process to validate that xDSL loop meets the requirements of U S WEST for DSL service
LPIC	Local Primary Interexchange Carrier	Local primary interexchange carrier selected by end-user.
LPWP	Loop with Port	
	Loop	A transmission path that connects an end-user's premises to a U S WEST Central Office
LSOG	Local Service Ordering Guidelines	
LSR	Local Service Request	A form prepared by the CLEC to request U S WEST to provide the services as specified in the specific tariffs/contracts agreements. Information required for administration, billing and contact details is provided for in the various fields within the LSR.
M&P	Methods and Procedures	Current methods and procedures (e.g., tasks) defined to support operations required. These tasks are thoroughly planned out, explained and typically are outlined in detailed steps.
M&R / MNTR	Maintenance and Repair	Ability to provide for requests, status and resolution of potential troubles
MCIW	MCI Worldcom	
	Migration	Refers to "conversion as is" or "conversion as specified."
MLT	Mechanized Loop Test	A mechanized test used to determine loop situations
MTP	Master Test Plan	
NDR	Network Design Request	
NP	Number Portability	
OBF	Ordering and Billing Forum	Industry Standards Organization dedicated to resolving critical issues such as billing format issues between competing local exchange carriers, etc.
OC&C	Other Charges & Credits	Other Charges and Credits Bill Section
OCN	Operating Company Number	A four-digit number assigned to uniquely identify CLECs.
OSS	Operations Support Systems	For purposes of this test OSS refers to systems that are included for testing within this MTP.
PAC	Performance Approval Certificate	
PIC	Primary Inter-exchange Carrier	Primary interexchange carrier selected by end-user.
PON	Purchase Order Number	A unique number placed on an LSR to track the order.
POTS	Plain Old Telephone Service	
RESL	Resale	Service that allows a CLEC to purchase U S WEST retail services in order to resell these services to their own end-user.
RETL	Retail	
RSRP	Resale Repair	
RTRP	Retail Repair	
RPONS	Related Requests	
SME	Subject Matter Expert	
SOC	Service Order Completion	Response from the service order processor that acknowledges the provisioning systems provided a successful completion of the request (LSR) (i.e., provides notification the service has been provisioned).
SOP	Service Order Processor	

Acronym	Term	Definition
SUPP	Supplementals	
TAG	Test Advisory Group	Consists of the ACC, its consultant, the TA, the Pseudo-CLEC, U S WEST, and those CLECs and other participants who wish to participate
TA	Test Administrator / Manager	Oversees the execution and assesses the processes and test execution
	Test Case	Test Cases are comprised of Test Scenarios duplicated with different Test End-Users to make up the required number of test cases as they relate to UNE 3 rd Party Testing.
	Test Scenario	A specifically defined request and activity as it relates to UNE 3 rd Party Testing.
	Test Specification	Document defining test case scenarios, purpose, method, expected results required for various test phases
	Test Scenarios	General definition of the test and type of tests to be run
	Test Cases	Definition of instances possible within a scenario
	Test Scripts	For each test case the script is a definition of the steps required to run a test case and expected results for the test case
TN	Telephone Number	A number associated with a telephone service, typically 7 digits in length; the first 3 digits are associated with the prefix and the last 4 with a specific range
UNE	Unbundled Network Elements	As defined in MTP.
UNE-P	UNE-P	<u>UNE-P is combination of the loop, port and transport. The port includes the switch and access to vertical features associated with the switch and associated databases. The loop includes loop feeder, loop carrier, loop distribution and the NID.</u> U S WEST definition: A pre-assembled service on an as is basis. This includes a U S WEST loop and switch port defined as a typical existing IFR/IFB voice grade analog circuit, with no loading preference, connecting to a compatible switch port with like to like service as measured service. No physical work will be done. This service offering is basically a change of billing responsibility and change from flat to measured service.
UNE-L	UNE Loop	A transmission path that connects an end-user's premises to a U S WEST Central Office
USOC	Uniform Service Order Code	
	Vanity TN	Term used to describe special telephone numbers, such as those that spell a word/name, available for selection as requested by a customer
	Working Left In	Term used to describe "soft dial tone" or other service configuration in which a customer disconnect is performed via software rather than a physical removal of facilities
xDSL	Generic Digital Subscriber Line	A general name for an evolving high speed transmission technology which uses existing copper wire from the telephone company central office to the subscriber's premise and has electronic equipment at the central office and at the subscriber's premises, and transmits and receives high speed digital signals

b In the DATED field, type the date in CCYY/MM/DD format. This is a required entry if the AGAUTH field is Y-YES. The slashes are inserted automatically as you type the date.

c In the AUTHM field, type the name of the person authorizing the CSR [Would this be the name of the HPC representative or the friendly/test customer name?]. This is not a required field.

d Perform one of the following:

- In the WTN field, type the customer's billing number or working telephone number
- In the ECCKT field, enter the circuit identifier if the WTN field is not populated. The field to the right of the WTN field is populated with the customer code when the CSR is retrieved.

e In the Customer Name field, enter the listed name or the subscriber name of the customer for whom the CSR is generated.

f In the Validated Addresses field, perform one of the following:

- Use the pull-down menu to select a validated address and populate the remaining fields. [In order to have the customer's validated address, the address validation function would have already had to have been completed. Should there be an address validation activity in the script prior to the CSR retrieval activity?]

- Use the pull-down menu to select the No Validated Address option.

g Verify (if a validated address is selected) or enter (if the No Validated Address option is selected) the information in these optional fields if required:

- SANO
- SASF
- SASN
- SALOC
- SAST

3 To perform additional processes, the following buttons are available:

- Clear
- Reset
- Close

4 After the information is verified or entered, click the Review CSR button. When the Review- CSR button is clicked, one of the following windows will appear:

- Review CSR – Response
- Multiple matches found. Select one

5 When the information has been reviewed, click the Close button to save the entries.
[Does the Close button save the entries?]

Reviewing CSR Responses

After a CSR is requested through the previous process, the Review CSR Response window appears Total [There appears to be missing or erroneous text.]

After a CSR is requested through the previous process, the Review CSR Response window appears. To review a CSR response:

1 Verify the information in the following fields:

<i>Field</i>	<i>Data to Verify</i>
AN	Account 10-digit telephone number associated with the CSR
Cust Code	Code identifying the customer on the account (last three digits of the account number)
Name	Customer name as entered on the CSR Request window
ECCKT	Circuit identifier information
Summary Billing Number	Account number used to identify the Co-Provider billing account number (BAN)
Class Of Svc	Code indicating account's class of service
Orig. Svc. Established	Date when the original service was first established
Reseller ID	Identification code for the reseller associated with the account

- 2 To view additional information about the CSR, perform the following:
- Click the Listing tab to display customer listing information.
 - Click the Billing tab to display customer billing information.
 - Click the Service and Equipment tab to display the type of services and equipment on the customer account.

- 3 To perform additional processes, the following buttons are available:
- Print Preview
 - E-mail
 - Close

This information should be identified earlier in the script to alert the HPC representative that this information needs to be collected.

Total No. of fields entered: _____

No. of screens/function to create transaction: _____

How far into transaction must you go to get validation of information? [It's unclear as to what is meant by "how far into transaction must you go to get validation of information.] _____

Elapsed time to receive system response: _____

No. of fields and type of info returned with response: _____

Data content comparison: _____

It seems that there should also be a requirement for HPC to perform screen prints of the relevant screens.

TN Selection: [This test case is deemed to be one for a conversion as specified request. In that case, no TN selection function would be required. Notwithstanding the incompatibility of the conversion as specified test case for TN selection, AT&T will comment on a generic TN selection test script.]

The telephone number reservation process allows the Co-Provider to select an end user's telephone number. You must reserve a telephone number when requesting any of the following for POTS or UNE-P services:

- New service
- A new line on existing service
- A change of telephone number

Telephone number reservations are not possible with Design Services. To select a list of telephone numbers from which to choose, perform the following:

1 Ensure that there is a validated address. [The test script has not previously called for an address validation function. An address validation function should be added as the first pre-order transaction.]

2 From the menu bar, select PreOrder @? Reserve Telephone Numbers. The TN Availability window appears:

3 In the PON field, enter a purchase order number.

4 Complete the Number of TNs field with the number of telephone numbers you are requesting (1-9).

Note: You have 30 minutes to reserve a telephone number. Once the number is reserved, you have 24 hours to submit the order. If you need to reserve more than 9 numbers, call the ISC.

5 From the Validated Addresses field pull-down list, select the customer address. Selecting an address populates all the number fields. [The test script has not previously called for an address validation function. An address validation function should be added as the first pre-order transaction.]

Note: This information is pre-populated when an address has been validated and then selected. At the Request Section, verify the information in the following fields:

- 6 To access a list of available telephone numbers, click the Get TN List button. A maximum list of nine numbers are reserved.
- 7 If necessary, perform one or more of the following:
 - If a telephone number should not be selected, remove the highlight by clicking on either the telephone number or Current Status column heading.
 - If the telephone numbers should be displayed in numerical order, click on the Telephone Numbers column heading.
 - If the telephone numbers should be displayed in the Current Status in alphabetical order, click on the Current Status column heading.

Field	Data to Enter or Verify
VER	The appropriate version number (for supplementals).
Site ID	The identification number for the customer site.
TTA	The information identifying the traffic terminating area.
Preferred NPA/NXX	Generally, the area code and the number exchange (if a preferred one is desired).
Street #	The customer's street number.
ROOM	Additional information about the customer location (for example: room number or apartment number).
Floor	The customer's actual floor location.
BLDG	The building where the customer address is located.
AHN	The assigned house number where the customer address is located.
Route	Any route number associated with the customer address.
Box	Any box number associated with the customer equipment location.
City	The city where the customer address is located.
State	The state where the customer address is located.
Zip Code	The five-digit Zip Code where the customer address is located.

8 Select one or more telephone numbers.

Note: To select a block of numbers: highlight one, hold down the Shift key and click at the end of the desired list of numbers. To select non-sequential numbers: Control + left click on the numbers individually.

9 Click the Select Highlighted TNs button.

10 To perform additional processes, the following buttons are available on all response screens:

Button Name	Function
Print Preview	Opens a new browser window with a preview of the

	information.
E-mail	Transmits an electronic copy to the e-mail address specified in the personal profile (or enter a new address).
Clear	Returns all fields to their default settings.
Reset	Returns all fields to their last confirmed settings.

When finished, click the Close button to end the session.

Total No. of fields entered: _____

No. of screens/function to create transaction: _____

How far into transaction must you go to get validation of information? [It's unclear as to what is meant by "how far into transaction must you go to get validation of information.] _____

Elapsed time to receive system response: _____

No. of fields and type of info returned with response: _____

Data content comparison: _____

It seems that there should also be a requirement for HPC to perform screen prints of the relevant screens.

Feature Selection (Service Availability):

Once you have opened the Pre-Order home page, you can view service availability. If you select Print Preview, IMA opens a separate Netscape session with the service availability information. You want to leave your initial Netscape window active, so be aware that after 30 minutes you may be timed out for non-use. If you need to go between Netscape sessions, you can either cascade your windows, use <ALT>+<TAB> to switch between tasks, or minimize the initial Netscape session and click on its icon in the task bar to reopen it. You can retrieve Universal Service Order Code (USOC) information for a specified contract, state, and switch. When you choose Retrieve USOC, service and pricing information appears in the USOC # list. The prices shown are U S WEST rates and Co-Provider discounts. The information in this window is unfiltered and updated weekly.

To obtain service availability information:

1 From the Interconnect Mediated Access screen, click PreOrder ® Get Service Availability. The Service Availability Query window appears:

2 Enter the NPA (area code).

3 Enter the NXX (prefix).

Note: The NPA and NXX information can be found on the Address Validation screen. [The test script has not previously called for an address validation

function. An address validation function should be added as the first pre-order transaction.]

4 Choose either [In the real test script, this information should be specified and not left to the discretion of the HPC representative.] Business, Residential, or Governmental from the Type pull down menu.

5 To narrow your search, enter the first letter and an asterisk (such as N*) of the feature being searched, in the USOC field. [The test script should identify what the HPC representative is searching for. As this is a conversion as specified test case, the representative should be searching for the USOCs of the customer's existing service and searching for the USOCs of the services that the customer wants to add.]

Note: If the USOC field is left blank, the query returns all available USOCs for the NPA/NXX combination.

6 Click Retrieve USOCs. The list of USOCs and pricing information appears.

7 To close this window, click the X in the top right hand corner of the window or use the Close button on the screen.

Note: You can choose Print Preview, search using Edit @? Find, or save an electronic copy by File @? Save As, or print using Netscape. This also creates a separate Netscape session so the window can be reduced to use as a reference when placing the order.

Total No. of fields entered: _____

No. of screens/function to create transaction: _____

How far into transaction must you go to get validation of information? [It's unclear as to what is meant by "how far into transaction must you go to get validation of information.] _____

ElapseElapsed time to receive system response: _____

No. of fields and type of info returned with response: _____

Data content comparison: _____

It seems that there should also be a requirement for HPC to perform screen prints of the relevant screens.

PIC/LPIC Availability:

****No information for this function available in the Interconnect Mediated Access Learning Guide IMA Training & Services**** [Carriers is a tab in the service availability function]

Total No. of fields entered: _____

No. of screens/function to create transaction: _____

How far into transaction must you go to get validation of information? [It's unclear as to what is meant by "how far into transaction must you go to get validation of information.]

Elapsed time to receive system response: _____

No. of fields and type of info returned with response: _____

Data content comparison: _____

It seems that there should also be a requirement for HPC to perform screen prints of the relevant screens.

Facilities Availability: [This test case is deemed to be one for a conversion as specified request. In that case, no facilities availability function would be required.

Notwithstanding the incompatibility of the conversion as specified test case for facilities availability, AT&T will comment on a generic facilities availability test script.]

A request is sent to the U S WEST Legacy Systems to check whether facilities currently exist or new facilities are required to fulfill the end user's request. Facility availability should be checked when:

- A request for a new service (such as a new line) is received
- A request to add a line to an existing customer is received
- A request for an outside move is received

To Perform an address validation facilities availability query:

1 From the menu bar, select PreOrder ®? Check Facility Availability ®? POTS Facility Request. Perform one of the following to request POTS information [In the real test script, this information should be specified and not left to the discretion of the HPC representative.]:

- To perform an Address Request, go to Step 5.
- To perform a TN Request, go to Step 6.
- At the Local Service Office field, enter the local service office code. This field is pre-populated when a validated address is selected. [How is it obtained if the TN request option is used?]

2 At the Number of Lines Requested field, verify or enter the number of lines to be requested.

3 At the Local Service Office field, enter the local service office code. This field is pre-populated when a validated address is selected. [How is it obtained if the TN request option is used?]

4 Click the Address Request tab and perform the following:

- At the Validated Addresses field, use the pull-down list to select the validated address (if available).
- Verify or enter information in the following fields:

Field	Data to Verify or Enter
SANO	The customer's street number.
SASF	Any applicable suffix to further identify a customer location.
SASN	The customer's street name.
ROOM	Additional information about the customer location (For example: room number or apartment number).
Floor	The customer's actual floor location.
BLDG	The building where the customer address is located.
AHN	The assigned house number where the customer address is located.
Route	Any route number associated with the customer address.
Box	Any box number associated with the customer address.
SALOC	The city where the customer address is located.
SAST	The state where the customer address is located.
SAZC	The 5-digit Zip Code where the customer address is located.

- Click the Submit Request button.

5 Click the TN Request tab and perform the following: The POTS Facility Request window - TN Request tab appears:

- Enter information in the following fields:

Field	Data to Verify or Enter
Telephone Number	The 10-digit telephone number to be converted from POTS to Unbundled Loop. <u>[This would only apply for unbundled loop conversions. A facility availability query can also be done for resale or UNE-P orders. It's unclear why the POTS to Unbundled Loop language is necessary at all.]</u>
Zip Code	The 5-digit Zip Code where the customer address is located.

- Click the Submit Request button.

6 To perform additional processes, the following buttons are available:

Button Name	Function
Print Preview	Opens a new browser window with a preview of the information.
E-mail	Transmits and electronic copy to the e-mail address specified in the personal profile (or enter new address).
Submit Request	Submits the request or a facility availability check.
Clear	Returns to the default settings.
Close	Ends the session and returns to the IMA window.

7 If it is necessary to return to the IMA window without reviewing the POTS Facility information, click Close. [In the real test scripts, it should be indicated if it is

necessary to return to the IMA window without reviewing the POTS Facility information.]

8 Click the Submit Request button to submit the request.

It seems that there should also be a requirement for HPC to perform screen prints of the relevant screens.

Total No. of fields entered: _____

No. of screens/function to create transaction: _____

How far into transaction must you go to get validation of information? [It's unclear as to what is meant by "how far into transaction must you go to get validation of information.] _____

Elapsed time to receive system response: _____

No. of fields and type of info returned with response: _____

Data content comparison: _____

Due-Date Appointment Scheduling: [This test case is deemed to be one for a conversion as specified request. In that case, it would be known that facilities are available and that no dispatch is required. If no dispatch is then it is not necessary to schedule the dispatch of a technician. Notwithstanding the incompatibility of the conversion as specified test case for appointment scheduling, AT&T will comment on a generic appointment scheduling test script.]

You can schedule an appointment when a technician must be dispatched to complete an order. [The script should indicate how an HPC representative would know that a technician must be dispatched to complete an order.] The scheduler selects the first open appointment, and allows you to select from a two-week period starting with that date. Morning, afternoon, and all day are the time frames available to the customer. The morning time frame ends at noon. The afternoon time frame ends at 5:00 p.m. The all day time frame ends at 7:00 p.m. To schedule an appointment:

1 Click Schedule Appointment. The Appointment Scheduling (Calendar and General tabs) window appears.

2 Complete the Calendar/General required fields:

- PON
- WTN or NPANXX
- # of Lines
- Type of Service

3 Or, if you want to request a specific appointment time, click the Specific tab to get the following screen, and fill in a desired date.

4 In both cases (General tab and Specific tab) Click Request Available Appointment.

Available appointments appear in the Available Appointments box. This is a list of the first available dates for two weeks (or the nearest to your requested date if you used the Specific option. The Time Required fields are populated.

5 Highlight an appointment in the Available Appointments box.

6 Click Reserve Highlighted Appointment. This button is not activated until Request Available Appointments is selected. The Confirmation tab opens:

Note: You have 30 minutes to reserve an appointment. Once the appointment is reserved, you have 24 hours to submit the order.

7 Verify the information in the Confirmation tab.

8 Click Close.

It seems that there should also be a requirement for HPC to perform screen prints of the relevant screens.

Total No. of fields entered: _____

No. of screens/function to create transaction: _____

How far into transaction must you go to get validation of information? [It's unclear as to what is meant by "how far into transaction must you go to get validation of information.] _____

Elapsed time to receive system response: _____

No. of fields and type of info returned with response: _____

Data content comparison: _____

Order Functions-

Insert IMA-GUI steps for order functions [This obviously requires work to complete.]

Total No. of fields entered to create order: _____

Total No. of screens/functions to create order: _____

Data validations on entries: _____

Order Due Date Interval: _____

Data content comparison: _____

2 Determine if the customer has existing telephone service [This test case is deemed to be a residential line new connect. In that case, the customer would not have existing service.] and perform one of the following:

- If the customer has existing telephone service, go to Step 3.
- If the customer does not have existing telephone service, go to Step 4.

3 If the customer has existing telephone service:

a Select Validate by Telephone Number.

b Click Next. The Address Validation by Telephone Number window appears:

c In the WTN field, type the working telephone number.

Note: Until further notice, only use SAGA or ZIP Code in the following fields. [Why is this here?]

d Enter information in one of these fields:

- In the Customer Address Location Area (CALA) field, use the pull-down menu to select the correct CALA. [How will the HPC representative know what the correct CALA is?]

- In the Street Address Geographical Area (SAGA) field, use the pull-down menu to select the correct SAGA. [How will the HPC representative know what the correct SAGA is?]

Or

e In the SAZC field, type the customer's 5-digit ZIP code. Click Next. One of the following windows will appear.

- The Address Validation Response window
- The Address Validation Multiple Match window
- The Address Validation Near Match window
- The Supplemental Matches found: Select one: window
- The Multiple SAGA/CALAs found: Select one: window.

f Click Next.

4 If the customer does not have existing telephone service, or the address was not validated using the WTN, complete the following fields:

a In the SAGA field, use the pull-down menu to select the correct SAGA. [How will the HPC representative know what the correct SAGA is?]

Or

In the CALA field, use the pull-down menu to select the correct CALA [How will the HPC representative know what the correct CALA is?]

b In the Street # field, type the street number.

Note: For Descriptive or Unnumbered Address Validation, in the Street Name field, type @ followed by a space and then a descriptive name (for example, @ Southwest Plaza Mall). A street number is not required in this case.

c If the street address includes a street number suffix, type the correct suffix in the Street # Suffix field. For example, when information such as "A" or "1/2" is part of the address, use this Street # Suffix field.

d In the Street Name field, type in the street name.

e If the address includes any of the following information, type the information in the correct field:

- ROOM
- Floor
- BLDG
- AHN (Assigned House Number)
- Route
- Box

Note: The Street Name is a required field on many forms. If an address is validated in the PreOrder process that has no street name, you must enter an @ symbol in the Street Name field on all subsequent forms to avoid getting an error message when you validate or submit a CSR.

f When you finish entering information, or if there is no information to enter in the optional fields, place the cursor in the City field and type the city name.

g In the State field, use the pull-down menu to select the state.

h In the ZIP Code field, enter the 5-digit ZIP code if SAGA/CALA was not selected previously.

i Click the Next button. One of the following windows appears:

- The Address Validation Response window
- The Address Validation Multiple Match window
- The Address Validation Near Match window
- The Supplemental Matches found. Select one. window
- The Multiple SAGA/CALAs found. Select one. window.

§ To perform additional processes, the following buttons are available on the Address Validation window:

- Print Preview
- E-Mail
- Start Over
- Previous
- Next

- Clear
- Finish

Reviewing Address Validation Information

If there is an exact match from the validating process, the IMA system processes the request and the Address Validation Response window appears:

Note: The Validated Address field allows you to validate and save up to ten addresses at a time. Adding an eleventh address causes the first addresses to be deleted from the list. Addresses are saved and displayed on the pull-down menu, and can be used later in the Order process.

- 1 Review the information in all of the fields.
- 2 To verify the switch information for this address, click the Switch Info tab.
- 3 To verify any remarks about the account, click the PNA Remarks (Primary Number Address) tab.
- 4 To verify any remarks about the status of the line, click the SL Remarks (Service Line) tab.
- 5 To perform additional processes, use the buttons at the bottom of the window.
- 6 When the information is verified, click the Finish button. The address is saved and appears in other windows when the information is selected from the Validated Addresses field.

Selecting from Multiple Match Responses

If an exact match does not result from the validation process, a list of possible matches appears, and additional information is necessary for an exact match. The Multiple Matches found. Select one window appears:

To validate an address from multiple matches, perform the following:

- 1 Determine if one of the listed addresses is correct.
 - If one of the listed items is correct, go to Step 2.
 - If none of the listed items is correct, go to Step 3.
- 2 If one of the listed items is correct, perform the following:
 - a Click on the correct address to select it.
 - b Click the Previous button. This launches the Address Validation Response window.
 - c If additional information is required, refer to the “Reviewing Address Validation” section of this guide.

3 If none of the items listed is correct, click the Cancel button. The Address Validation window will appear to allow you to change or add to the validation information.

Selecting From Near Match Responses

If there is not an exact match from the validation process, but the address query has found a near match response, all possible address are listed. The Near Matches Found. Select one window appears:

To validate an address from near matches, perform the following:

- 1 Determine if one of the listed addresses is correct.
 - If one of the listed items is correct, go to Step 2.
 - If none of the listed items is correct, go to Step 3.
- 2 If one of the items listed is correct, perform the following:
 - a Select the correct entry.
 - b Click the Next button to launch the Address Validation Response window.
 - c If the Address Validation Response window does not display, go to Step 3.
 - d If additional information is required, refer to the “Reviewing Address Validation” section of this guide.
- 3 If none of the items listed is correct, click the Previous button. The Address Validation window will appear to allow you to change or add to the validation information.

Note: If the House # Range column in this window is populated, select a number within the range. Then, revalidate the address.

Selecting From Supplemental Matches

If there is not an exact match from the validation process, and more than one match is found at the same location; a sampling of floors, rooms, and buildings are listed using the query data. Not all possible listings are displayed. The Supplemental Matches found. Select one window appears:

To select from supplemental matches, perform the following:

- 1 Select one entry from each of the column headings.
- 2 Click the OK button. The Address Validation Response window appears with the additional information selected.
3. Click the Cancel button to void the entries. The Address Validation Response window appears without any additional information from the supplemental matches window.

Note: On a supplemental match, the LSO and Rate Zone in the Switch Info tab will not display unless the address is validated again from the Address Validation window with the supplemental information added.

Selecting From Multiple SAGA/ CALAs

The purpose of the Street Address Geographical Area (SAGA) and Customer Address Local Area (CALA) fields in the Address Validation windows is to resolve addresses that contain ZIP Codes spanning multiple SAGAs or CALAs. If the ZIP Code span more than one of these areas, the possible descriptions are listed in the Multiple SAGA/CALAs Found. Select one window appears:

- 1 Select one list entry.
- 2 Click the Next button. The Address Validation Response window displays the information selected from the SAGA/CALA window.
- 3 Click the Previous button to void the entries. The Address Validation Response window appears without the addition information.

Resolving Invalid Address Error Messages

The system may return an error message when validating an address. If the error message indicates the validation request failed, the address might have been entered incorrectly.

To resolve an invalid address error message:

- 1 Click the OK button in the error message window.
- 2 Verify the information entered in the Validate Address window is correct.
- 3 If possible, correct the information and resubmit the request.

Resolving Valid Address Failure Problems

It is possible the address entered is valid, but has not been entered in the U S WEST OSS. If an address is not loaded into PREMIS/ALOC, but is valid, and override button (ANV=Y) is available on the following forms:

- End User Information
- Centrex Resale Services
- Resale Private Line

The override button flags the address as Not Validated. The order can still be placed through IMA, but requires the Co-Provider to manually enter the address information.

Total No. of fields entered: _____

No. of screens/function to create transaction: _____

How far into transaction must you go to get validation of information? _____

Elapsed time to receive system

response: _____

No. of fields and type of info returned with response: _____

Data content comparison: _____

TN Selection:

The telephone number reservation process allows the Co-Provider to select an end user's telephone number. You must reserve a telephone number when requesting any of the following:

- New service
- A new line on existing service
- A change of telephone number

Telephone number reservations are not possible with Design Services. To select a list of telephone numbers from which to choose, perform the following:

- 1 Ensure that there is a validated address.
- 2 From the menu bar, select PreOrder ® Reserve Telephone Numbers. The TN Availability window appears:
- 3 In the PON field, enter a purchase order number.
- 4 Complete the Number of TNs field with the number of telephone numbers you are requesting (1-9).

Note: You have 30 minutes to reserve a telephone number. Once the number is reserved, you have 24 hours to submit the order. If you need to reserve more than 9 numbers, call the ISC.

- 5 From the Validated Addresses field pull-down list, select the customer address. Selecting an address populates all the number fields.

Note: This information is pre-populated when an address has been validated and then selected. At the Request Section, verify the information in the following fields:

- 6 To access a list of available telephone numbers, click the Get TN List button. A maximum list of nine numbers are reserved.

- 7 If necessary, perform one or more of the following:
- If a telephone number should not be selected, remove the highlight by clicking on either the telephone number or Current Status column heading.
 - If the telephone numbers should be displayed in numerical order, click on the Telephone Numbers column heading.
 - If the telephone numbers should be displayed in the Current Status in alphabetical order, click on the Current Status column heading.

Field	Data to Enter or Verify
VER	The appropriate version number (for supplementals).
Site ID	The identification number for the customer site.
TTA	The information identifying the traffic terminating area.
Preferred NPA/NXX	Generally, the area code and the number exchange (if a preferred one is desired).
Street #	The customer's street number.
ROOM	Additional information about the customer location (for example: room number or apartment number).
Floor	The customer's actual floor location.
BLDG	The building where the customer address is located.
AHN	The assigned house number where the customer address is located.
Route	Any route number associated with the customer address.
Box	Any box number associated with the customer equipment location.
City	The city where the customer address is located.
State	The state where the customer address is located.
Zip Code	The five-digit Zip Code where the customer address is located.

8. Select one or more telephone numbers.

Note: To select a block of numbers: highlight one, hold down the Shift key and click at the end of the desired list of numbers. To select non-sequential numbers: Control + left click on the numbers individually.

- 9 Click the Select Highlighted TNs button.

10 To perform additional processes, the following buttons are available on all response screens:

Button Name	Function
Print Preview	Opens a new browser window with a preview of the information.
E-mail	Transmits an electronic copy to the e-mail address specified in the personal profile (or enter a new address).
Clear	Returns all fields to their default settings.

Reset	Returns all fields to their last confirmed settings.
-------	--

||| When finished, click the Close button to end the session.

Total No. of fields entered: _____

No. of screens/function to create transaction: _____

How far into transaction must you go to get validation of information? [It's unclear as to what is meant by "how far into transaction must you go to get validation of information.] _____

~~Elapse~~Elapsed time to receive system response: _____

No. of fields and type of info returned with response: _____

Data content comparison: _____

Feature Selection (Service Availability):

Once you have opened the PreOrder home page, you can view service availability. If you select Print Preview, IMA opens a separate Netscape session with the service availability information. You want to leave your initial Netscape window active, so be aware that after 30 minutes you may be timed out for non-use. If you need to go between Netscape sessions, you can either cascade your windows, use <ALT>+<TAB> to switch between tasks, or minimize the initial Netscape session and click on its icon in the task bar to reopen it. You can retrieve Universal Service Order Code (USOC) information for a specified contract, state, and switch. When you choose Retrieve USOC, service and pricing information appears in the USOC # list. The prices shown are U S WEST rates and Co-Provider discounts. The information in this window is unfiltered and updated weekly.

To obtain service availability information:

1 From the Interconnect Mediated Access screen, click PreOrder ®? Get Service Availability. The Service Availability Query window appears:

2 Enter the NPA (area code).

3 Enter the NXX (prefix).

Note: The NPA and NXX information can be found on the Address Validation screen.

4 Choose either Business, Residential, or Governmental from the Type pull down menu. [Since this is a residential test case, the script should indicate that the Residential type should be chosen.]

5 To narrow your search, enter the first letter and an asterisk (such as N*) of the feature being searched, in the USOC field. [The test script should identify what the HPC representative is searching for. As this is a new connect test case, the representative should be searching for the USOCs that the customer wants to add.]

Note: If the USOC field is left blank, the query returns all available USOCs for the NPA/NXX combination.

- 6 Click Retrieve USOCs. The list of USOCs and pricing information appears.
- 6 To close this window, click the X in the top right hand corner of the window or use the Close button on the screen.

Note: You can choose Print Preview, search using Edit ® Find, or save an electronic copy by File ® Save As, or print using Netscape. This also creates a separate Netscape session so the window can be reduced to use as a reference when placing the order.

Total No. of fields entered: _____

No. of screens/function to create transaction: _____

How far into transaction must you go to get validation of information? [It's unclear as to what is meant by "how far into transaction must you go to get validation of information.] _____

~~Elapse~~Elapsed time to receive system response: _____

No. of fields and type of info returned with response: _____

Data content comparison: _____

PIC/LPIC Availability: [Carriers is a tab in the service availability function]

****No information for this function available in the Interconnect Mediated Access Learning Guide IMA Training & Services****

Total No. of fields entered: _____

No. of screens/function to create transaction: _____

How far into transaction must you go to get validation of information? _____

~~Elapse~~Elapsed time to receive system response: _____

No. of fields and type of info returned with response: _____

Data content comparison: _____

Facilities Availability:

A request is sent to the U S WEST Legacy Systems to check whether facilities currently exist or new facilities are required to fulfill the end user’s request. Facility availability should be checked when:

- A request for a new service (such as a new line) is received
- A request to add a line to an existing customer is received
- A request for an outside move is received

To Perform an ~~address validation~~ facilities check query:

1 From the menu bar, select Pre-Order ®? Check Facility Availability ®-? POTS Facility Request. Perform one of the following to request POTS information:

- To perform an Address Request, go to Step 5.
- To perform a TN Request, go to Step 6. [Since this is a new connect test case, this option could not be chosen.]
- At the Local Service Office field, enter the local service office code. This field is pre-populated when a validated address is selected.

2 At the Number of Lines Requested field, verify or enter the number of lines to be requested.

3 At the Local Service Office field, enter the local service office code. This field is pre-populated when a validated address is selected.

4 Click the Address Request tab and perform the following:

- At the Validated Addresses field, use the pull-down list to select the validated address (if available).
- Verify or enter information in the following fields:

Field	Data to Verify or Enter
SANO	The customer’s street number.
SASF	Any applicable suffix to further identify a customer location.
SASN	The customer’s street name.
ROOM	Additional information about the customer location (For example: room number or apartment number).
Floor	The customer’s actual floor location.
BLDG	The building where the customer address is located.
AHN	The assigned house number where the customer address is located.
Route	Any route number associated with the customer address.
Box	Any box number associated with the customer address.
SALOC	The city where the customer address is located.
SAST	The state where the customer address is located.
SAZC	The 5-digit Zip Code where the customer address is located.

- Click the Submit Request button.

5 Click the TN Request tab and perform the following: The POTS Facility Request window - TN Request tab appears: [Since this is a new connect test case, this option could not be chosen.]

- Enter information in the following fields:

Field	Data to Verify or Enter
Telephone Number	The 10-digit telephone numb to be converted from POTS to Unbundled Loop.
Zip Code	The 5-digit Zip Code where the customer address is located.

- Click the Submit Request button.

6 To perform additional processes, the following buttons are available:

Button Name	Function
Print Preview	Opens a new browser window with a preview of the information.
E-mail	Transmits and electronic copy to the e-mail address specified in the personal profile (or enter new address).
Submit Request	Submits the request or a facility availability check.
Clear	Returns to the default settings.
Close	Ends the session and returns to the IMA window.

7 If it is necessary to return to the IMA window without reviewing the POTS Facility information, click Close.

8 Click the Submit Request button to submit the request

Total No. of fields entered: _____

No. of screens/function to create transaction: _____

How far into transaction must you go to get validation of information? _____

Elapsed time to receive system response: _____

No. of fields and type of info returned with response: _____

Data content comparison: _____

Due Date Appointment Scheduling:

You can schedule an appointment when a technician must be dispatched to complete an order. [The script should indicate how an HPC representative would know that a technician must be dispatched to complete an order.] The scheduler selects the first open appointment, and allows you to select from a two-week period starting with that date. Morning, afternoon, and all day are the time frames available to the customer. The

morning time frame ends at noon. The afternoon time frame ends at 5:00 p.m. The all day time frame ends at 7:00 p.m. To schedule an appointment:

1 Click Schedule Appointment. The Appointment Scheduling (Calendar and General tabs) window appears.

2 Complete the Calendar/General required fields:

- PON
- WTN or NPANXX
- # of Lines
- Type of Service

3 Or, if you want to request a specific appointment time, click the Specific tab to get the following screen, and fill in a desired date.

4 In both cases (General tab and Specific tab) Click Request Available Appointment.

Available appointments appear in the Available Appointments box. This is a list of the first available dates for two weeks (or the nearest to your requested date if you used the Specific option. The Time Required fields are populated.

5 Highlight an appointment in the Available Appointments box.

6 Click Reserve Highlighted Appointment. This button is not activated until Request Available Appointments is selected. The Confirmation tab opens:

Note: You have 30 minutes to reserve an appointment. Once the appointment is reserved, you have 24 hours to submit the order.

7 Verify the information in the Confirmation tab.

8 Click Close.

Total No. of fields entered: _____

No. of screens/function to create transaction: _____

How far into transaction must you go to get validation of information? _____

~~Elapse~~Elapsed time to receive system

response: _____

No. of fields and type of info returned with response: _____

Data content comparison: _____

Order Functions-

Insert IMA-GUI steps for order functions

Total No. of fields entered to create order: _____

Total No. of screens/functions to create order: _____

Data validations on entries: _____

Order Due Date Interval: _____

Sedona 271 Functionality Test Daily Tracking Log - Example

CLEC Tracking#	PON	Process Area	Process SubArea	Transaction Media	Date Submitted	Date Completed	Pending Status	FOC Received	SOC Received	Met/Missed Expectations	Comments
LPWP001002	12345678	Functionality	UNE-P	IMA	11/29/00	11/30/00	Complete	11/29/00	11/30/00	Yes	No Errors

APPENDIX F – TEST ACCOUNT RESET FORM

Sedona 271 Project Test Account Reset Request		
Originated By:		
Contact Number:		
Email Address:		
Test Account Information		
Account Name:		
Account Address:		
Account TN/CKT:		
Change From:		
Change to:		
Comments:		
Completion Information		
Received Date:	Updated Date:	Return Date:
U S WEST Comments:		
CGT Comments:		

CLEC Tracking#	USWC Tracking#	Process Area	Process SubArea	Transaction Type	Testing Methodology	Inputs	Evaluation Measure	Evaluation Technique	Criteria Type	Expected Results	Purpose	Test Case Failure Criteria	Scenario
MNTR001001	U S WEST's trouble ticket # 1	Functionality	Initialize Trouble Ticket - Step 1 of 4	Request customer line record for a single line residence account. What is a customer line record? Is that supposed to be the CSR?	Test cases performed by Pseudo-CLEC	TN or circuit	Request customer line information returned or clearly defined error message was returned	Yes/No	Qualitative	Complete list of customer line information for the account requested	Evaluate customer line information query	Query information is not returned	1
							Response Time is within the Standard Response time specified by the PID	Time logged or stopwatch	Quantitative	Response time is within the standard response time interval	Evaluate the trouble history query response time	Response time interval exceeds the PID standards for trouble history retrieval	
							Trouble History returned or clearly defined error message was returned	Yes/No	Qualitative	Complete list of historical trouble information (40 day) [U S WEST may have a different interval for trouble history retrieval.] for the account requested	Evaluate trouble history query	Query information is not returned	
							Response time is within the standard response time specified by the PID [There is presently no PID standard for trouble history retrieval.]	Time logged or stopwatch	Quantitative	Response time is within the standard response time interval [There is presently no PID standard for trouble history retrieval.]	Evaluate the trouble history query response time [There is presently no PID standard for trouble history retrieval.]	Response time interval exceeds the PID standards for trouble history retrieval [There is presently no PID standard for trouble history retrieval.]	
							Accuracy and completeness of response	Observation and comparison against source data in the test script compared to documented formats from U S WEST	Qualitative	The trouble history report contains all fields and information defined in the U S WEST documentation	Evaluate the information displayed on the list for completeness and accuracy	Information is not complete and readable	
							Test results returned or clearly defined error message was returned	Yes/No	Qualitative	Complete list of test trouble information for the account requested	Evaluate test results query	Query information is not returned	

CLEC Tracking#	USWC Tracking#	Process Area	Process SubArea	Transaction Type	Testing Methodology	Inputs	Evaluation Measure	Evaluation Technique	Criteria Type	Expected Results	Purpose	Test Case Failure Criteria	Scenario
MNTR001001	U S WEST's trouble ticket #	Functionality Test	Initialize Trouble Ticket - Step 3 of 4	Test trouble for a single line residence account	Test cases performed by Pseudo-CLEC	Request Test function and view test results	Accuracy and completeness of response	Observation and comparison against source data in the test script compared to documented formats from U S WEST	Qualitative	The test report contains all fields and information defined in the U S WEST documentation	Evaluate the information displayed on the list for completeness and accuracy	Information is not complete and readable	
MNTR001001	U S WEST's trouble ticket #	Functionality Test	Initialize Trouble Ticket - Step 4 of 4	Initialize a trouble report (no dial tone) for a single line residence	Test cases performed by Pseudo-CLEC	TN or circuit, street address, sub-location, city, and state additional screen inputs, as appropriate	Open Trouble Report Screen or clearly defined error message was returned	Yes/No	Qualitative	Receive an open Non-Designed Trouble Report Screen	Evaluate Trouble Report Entry Screen was received	Trouble Report Entry Screen was not received	
MNTR001001	U S WEST's trouble ticket #	Functionality Test	Status Trouble Ticket - Step 1 of 1	Status a trouble report (no dial tone) for a single line residence	Test cases performed by Pseudo-CLEC	TN or circuit, date range of query	Received status report or clearly defined error message was returned	Yes/No	Qualitative	Received status report	Evaluate Status Report Screen was Received	Status Report Entry Screen was not received	
MNTR001001	U S WEST's trouble ticket #	Functionality Test	Trouble ticket completion verification - Step 1 of 3	Receive email from U S WEST with Trouble Ticket Completion Notification	Test cases performed by Pseudo-CLEC	None	Received email report	Yes/No	Qualitative	Received email completion report	Evaluate email was received	Status email was not received	
MNTR001001	U S WEST's trouble ticket #	Functionality Test	Trouble ticket completion verification - Step 1 of 3	Receive email from U S WEST with Trouble Ticket Completion Notification	Test cases performed by Pseudo-CLEC	None	Accuracy and completeness of response	Observation	Qualitative	The email completion report contained adequate Completion Information	Evaluate the information displayed for completeness and accuracy	Information is not complete and readable	
MNTR001001	U S WEST's trouble ticket #	Functionality Test	Trouble ticket completion verification - Step 1 of 3	Receive email from U S WEST with Trouble Ticket Completion Notification	Test cases performed by Pseudo-CLEC	None	Test results returned or clearly defined error message was returned	Yes/No	Qualitative	Complete list of test trouble information for the account requested	Evaluate test results query	Query information is not returned	

CLEC Tracking#	USWC Tracking#	Process Area	Process SubArea	Transaction Type	Testing Methodology	Inputs	Evaluation Measure	Evaluation Technique	Criteria Type	Expected Results	Purpose	Test Case Failure Criteria	Scenario

APPENDIX H - TEST SCHEDULE

DAILY VOLUME OF ORDERS TO BE ISSUED

APPENDIX I - TESTING INCIDENTS PROCESS

During tests, the TA will manage incidents with the following process. Incidents are test failures or items needing repair or improvement and re-test or reexamination once the source of the problem is fixed or repaired by U S WEST. Since ~~our~~ the tests are military in format, incidents will be identified, corrected and re-tested.

The process invoked on discovery of an incident will be as follows: -- the numbered items should be constructed as sentences to clearly indicate the process steps that will be followed. The steps as written are not well explained.

1. Incident Work Order is prepared -- the facts surrounding the incident should be checked at this point so that unnecessary Work Orders are avoided
2. TAG review of Incident Work Order and Assignment of Level of Importance (Critical to ensure parity, Important to CLEC Operations, Needs Improvement)
3. Performance Acceptance Certificate (PAC) -- this is later described as the mechanism used to resolve the incident. Why would this and all subsequent steps listed here be steps taken upon discovery of an incident? It seems that these would be steps taken to resolve an incident. Items 1 and 2 are steps that would be taken "on discovery of an incident"
4. Re-test or Evaluation
5. CGT Pass/Fail/Comment on Re-test
6. TAG vote as to whether fixes have been sufficiently re-tested. If not closed, return with comments to U S WEST for further work or to the TA for further testing or evaluation
7. Close Incident

1. Prepare Incident Work Order

When a fault occurs [insert "or an entry/exit/success criteria is missed"] during tests, delays to the processes occurs, an unacceptable exclusion in data gathering is discovered, etc., the TA will check the purported incident for accuracy and if accurate, will prepare an Incident Work Order describing the incident and outlining proposed corrective actions to be taken by U S WEST [It is inappropriate for the TA to propose corrective actions that U S WEST should take. The TA should identify the deficiency and U S WEST should propose the ~~corrective~~ corrective actions.]. Once this Work Order is complete, the TA will [insert "post the Incident Work Order on the web site"] either place the Incident Work Order on the agenda for the next TAG meeting or call an emergency TAG Meeting depending on the effect the incident has on continuation of the tests or to continuing Pseudo CLEC operations.

2. TAG review of Incident Work Order and Assignment of Level of Importance

The TAG will review the Incident Work Order and attempt to agree on the Level of Importance of the fix to be accomplished by U S WEST. The Work Order will then be

turned over to U S WEST for implementation. Each incident must have a proposed [is this to be conveyed in a prescribed form or format? If not, won't the TA and TAG have difficulty relating the remedy that is proposed to the problem to be solved? Assuming, of course, that there are any of these that arise.] and implemented remedy provided by U S WEST and submitted to the TA for its determination of the appropriateness of U S WEST fix in terms of resolving the incident under review. [Please add: "Changes to software, systems and interfaces that are to be implemented by U S WEST are to be made in conformance with the U S WEST CICMP procedures."

3. Performance Acceptance Certificate

Upon completing the fix, U S WEST will complete the Performance Acceptance Certificate for the work, attach a copy of the Incident Work Order and return the package to the Test Administrator.

4. Re-test or Evaluation

Upon receiving the Performance Acceptance Certificate from U S WEST, the Test Administrator will examine the fix or proposed fix, and re-test or reevaluate the items for which the Incident Work Order was prepared. [Isn't it true that the TA must determine the nature and extent of regression testing that must be undertaken related to retesting?]

5. TA Pass/Fail/Comment on Re-test

The TA will document its re-test/reevaluation findings on the Performance Acceptance Certificate and put the Performance Acceptance Certificate on the agenda for the next TAG meeting or call an emergency TAG meeting. [Please insert: "All documentation regarding each Incident will be posted on the web site."]

6. TAG Consensus

All approved proposals or fixes (for incident work orders) presented to the TA by U S WEST (using PAC) will be provided for TAG review prior to closure. TAG review and approval of the proposal or fixes by U S WEST will allow closure of the incident. In the event that the TAG cannot reach consensus on closure of the incidents, ~~parties~~ party positions will be collected by the TA and presented to the ACC for final decision as to whether the incident should or should not be closed.

7. Close Incident

[There should be some verbiage that describes what "closure" steps are taken, including final approvals, archival of records, statistics that will be maintained, etc.]

INCIDENT WORK ORDER FORM

Tracking Number	
PON <small>[optional, not all incidents will involve orders]</small>	
Date/Time of Incident	
Pseudo-CLEC Representative <small>[optional, not all incidents involve the Pseudo-CLEC]</small>	
Date /Time TA advised of Incident	
TA Representative taking referral	
Date/Time Referred to Account Manager <small>[who performs the referral, and to what Account Manager? This should not be the US WEST Account Manager!]</small>	
Person Receiving Referral <small>[who would this person be?]</small>	

Description of Incident [this form does not accommodate the requirement for a U S WEST proposal of remedy or correction; it does not provide any control information for corrections that are to be processed through the CICMP procedures. These should be added to the form]

(Description of actions taken by the Pseudo-CLEC and details of the incident ~~needing referral~~ [the incident is the issue at hand and a referral would introduce another layer of people or organizations that are only going to cloud the issue.]

8 [what does this number represent?] **DATE, TIME AND FINAL RESOLUTION**

(Date and time Pseudo-CLEC notified that the incident had been resolved and action taken to correct)

9 [what does this number represent?] **VERIFICATION OF RESOLUTION**

(Test results to verify incident has been resolved)

10 [what does this number represent?] **REFERRAL TO TAG**

(If it becomes necessary to escalate to the TAG, TA will add to Master Issues Log. Issue number will be documented here for tracking purposes)



Performance Acceptance Certificate

Incident Work Order Number	
Date/Time of Incident	
Type of Incident (Test, Process, Other)	
Date of TAG Review	
Level of Importance as determined by the TAG	
Date of Resolution by U S WEST	
Date of TAG Approval	

10.1.1.1.1 [what does this number represent?] *Description of Incident*

Resolution

Resolution completed by:		Date:	
---------------------------------	--	--------------	--

10.1.1.1.2 [what does this number represent?] *Verification of Resolution*

Verification completed by:		Date:	
-----------------------------------	--	--------------	--

TAG Recommendation

Approved

Return to U S WEST

TAG Acceptance by:		Date:	
---------------------------	--	--------------	--

APPENDIX J – MASTER ISSUES LOG PROCESS (MIL)

1.0 Scope

1.1 Purpose

The purpose of the Master Issues Log Process is to define a consistent method for identifying, escalating and resolving day-to-day issues that may affect the progress of the Test Administrator, the Pseudo-CLEC's or other work on the project and to document and provide a tracking mechanism for issues found during planning, testing and final ~~report~~ reporting. During the Project, issues will be documented, tracked and resolved following the guidelines set forth in the Master Issues Log Process (MIL).

1.2 Benefits

The benefits of utilizing a Master Issues Log Process are as follows:

- Day-to-day issues are clearly identified and ~~document~~ documented in a Master Issues Log
- Meeting issues are captured immediately
- Issues are assigned for resolution during the meeting
- Timely resolution of problems provides increased efficiency and customer satisfaction. [it is not clear what organization is represented by the term "customer" in the sense of this test]

1.3 The Master Issues Log

The Test Administrator Project Manager will maintain a Master Issues Log. Each issue in the log will be reported at the Test Advisory ~~Board~~ Group (TAG) Meetings. The Master Issues Log will be a Spreadsheet entitled Issues within the Master Issues Log Excel Workbook. The Issues Log Spreadsheet will contain the following nine columns:

- ISSUE NUMBER – an incremental number assigned to each issue
- STATUS – indicating whether the issue is open or closed
- DESCRIPTION – a brief description of the issue
- ACTION – the action the Issue Owner will take to deal with the problem
- INITIATOR – the name of the individual or group who initiated the issue
- DATE OPENED – the date the issue was entered into the Master Issue Log by the Test Administrator Project Manager
- DATE DUE – the assigned due date for the issue resolution
- OWNER – the person accountable to resolve the issue
- DATE CLOSED – the date the issue was closed

1.4 Adding Issues

Issues may be added to the Master Issues Log in the following three ways: during the Weekly Status Report Meeting with each Test Participant; by email; or during the Test Advisory Board Group Meetings.

- 1) **During Weekly Status Review Meetings (WSR)** with the Test Administrator Project Manager. For example, the Test Administrator Project Manager will be meeting weekly with each Test Participant's Team, i.e., U S WEST, the Pseudo-CLEC, the CLEC community, Commission-, Commission Advisors and the Test Administrator's Test Team. During these meetings to review the project's performance, the Team members will be asked if there are any outstanding issues. If so, the issues will be entered into the Master Issues Log, a number assigned, a responsible Team member assigned to resolve the issue and a Due date for resolution. This Log will be reviewed at each Test Advisory Board Group meeting. As the issues are resolved, the issue status will be changed from OPEN to CLOSED and moved from the OPEN Master Issues Log Tab to the CLOSED Master Issues Log Tab in the Master Issues Log Excel Workbook. If the OPEN issue due date is exceeded, the issue becomes a Jeopardy.
- 2) **By email.** In the day-to-day process of executing the Master Test Plan, for example, during the interval between WSRs, an issue may come up that affects the progress of the Test Administrator's Team or the Pseudo-CLECs Team. If the issue cannot be resolved internally within each team, the issue should be emailed to the Test Administrator Project Manager (TAPM) where it will be entered into the Master Issues Log and an Owner and Due Date will be assigned. The email address of the TAPM is sdamron@usa.capgemini.com.
- 3) **During Test Advisory Board Group (TAG) Meetings.** When issues arise during the Test Advisory Board Group (TAG) meetings that cannot be resolved ~~within a five minute discussion time interval~~ [it seems incongruous that there be a time limit imposed on the debate over issues. What purpose is served other than to force escalation of issues? What organization would be responsible for time-keeping?], they will be entered into the Master Issues Log, a number assigned, a responsible Team member assigned to resolve the issue and a Due date for resolution.

2.0 Master Issue Log (MIL) Process Diagram

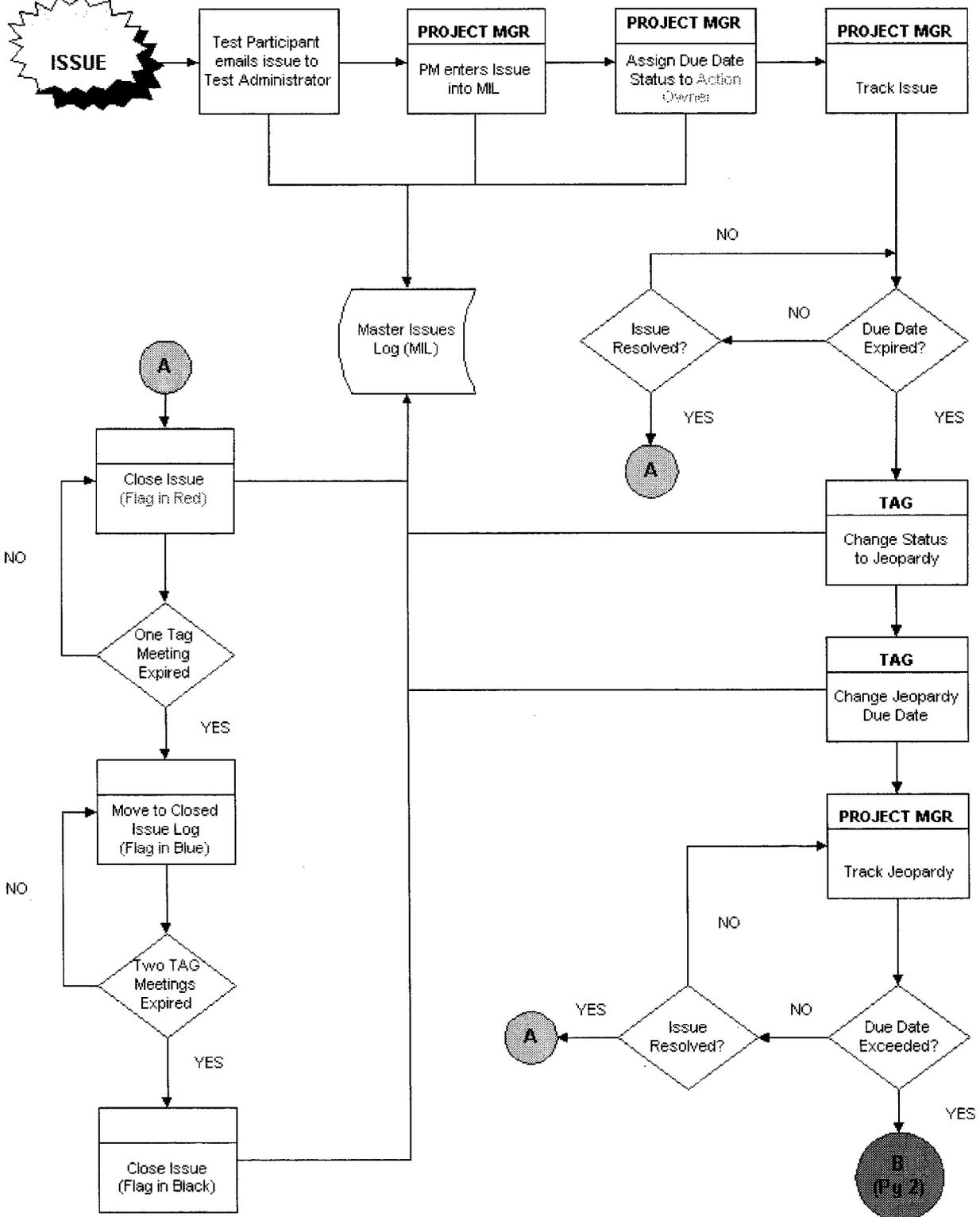
The following page contains a diagram of the Master Issues Log Process. This process begins with an Issue. As a first step to the process, the Test Participant emails the issue to the Test Administrator Project Manager. The TA Project Manager enters the issue into the Master Issues Log, assigns a due date and status to the Action Owner. The Project Manager then Tracks the Issue.

If the due date has expired, the TA Project Manager escalates the issue to a Jeopardy and assigns a Jeopardy due date. The TA Project Manager then tracks the Jeopardy. If the Jeopardy due date is exceeded, the TA Project Manger escalates the Jeopardy to the Commission for resolution.

If the issue is resolved, the TA Project Manager flags the issue as closed and changes the font of the issue to red (leaving the issue in the issues list within the Issues Tab of the MIL Workbook). The issue remains in this “red font” closed state until one regularly scheduled Test Advisory Board Group Meeting has passed and is then moved under the Closed Issues Tab of the MIL Workbook and the font is changed to blue. Following the passing of a second regularly scheduled Test Advisory Board Group Meeting, the issue (now under the Closed Tab of the MIL) is changed to a black font indicating that the two temporary closed intervals (red and blue) have passed and the issue is now closed (Please see the Master Issues Log Process Flow Charts on the next two pages).[only one page was provided]



MASTER ISSUES LOG PROCESS



APPENDIX K – STATISTICAL APPROACH

In general, AT&T agrees with the basic statistical approach. The one area in which AT&T does not agree is that there is not sufficient safeguards for CLECs to believe that in practice they will actually get beta \leq 0.05 all the time when parity or benchmark compliance is the null hypotheses. The problem is that U S WEST is ultimately protected- from being falsely declared not in compliance because any declaration of not in compliance initiates an exception report which leads to a fix and re-testing until compliance is declared. On the other hand, if declared in compliance in a situation where the theory and assumptions that have led to sample sizes are incorrect, then the CLECs may have been exposed to risks of error higher than 5% for which there is no recourse. In the last section AT&T will suggest a means to deal with this problem

Scope

A statistical approach will be used to test parity with retail for those measures with a retail analog and compliance with benchmarks for those measures with no retail analog. This statistical approach will be generally applied to such comparisons from all quantitative aspects of the AZ Third Party OSS Test, including Functionality, Capacity, Retail Parity, and Performance Measurement Evaluations, unless otherwise specified in the relevant sections.

Measures to be Evaluated

The measures to be evaluated using a statistical approach consist of those measures included in Section 1 of Appendix C of the MTP, where marked with a "Yes".

Levels of Disaggregation

Only those test scenarios and cases that meet the levels of disaggregation outlined in this section will be included in the statistical tests of parity and compliance. Other test scenarios and cases will be run to test whether functionality exists, but not in sufficient volume to evaluate parity / compliance.

For Ordering and Provisioning Measures, and Maintenance and Repair Measures, the following disaggregations will be considered:

Product	Geography	Whether Dispatched
Anal. Loop	MSA	Dispatch
Bus	MSA	Dispatch
Bus	MSA	Non-Disp.
DS1 Loop	Hi-D	Dispatch
DS1 Loop	Lo-D	Dispatch
NL-Loop-2W	Hi-D	Dispatch
NL-Loop-2W	Lo-D	Dispatch
NL-Loop-4W	Hi-D	Dispatch
NL-Loop-4W	Lo-D	Dispatch
UNE-P	"Urban"	Dispatch

UNE-P	"Rural"	Dispatch
Res	MSA	Dispatch
Res	MSA	Non-Disp.

In the above table, it yet remains to be determined whether the NL-Loop-4W product category can be pooled together with the DS1 Loop category. For OP-6, Delayed Days, the measure is further broken out by whether the Delay Reason is USW Facility or USW Non-Facility, but these will not be incorporated into the design as this is a factor which is infeasible to statistically control. OP-8, LNP Timeliness, is not reported separately for each of the above-indicated cells, rather it is broken out by whether the provisioning requires co-ordination or not.

Pre-Ordering Measures are disaggregated by the interface through which the query has been made, IMA, EDI, or Fax. PO-2, Electronic Flow-through of LSRs to the Service Order Processor (%), and PO-5, Firm Order Confirmations (FOCs) On Time, in addition to interface, are also disaggregated by whether the Product is an Unbundled Loop or Resale. PO-5, Firm Order Confirmations (FOCs) On Time, is further disaggregated by whether the order was processed electronically.

Statistical Testing will occur at the above disaggregation levels, and these will exclusively define the design constraints and statistical sample size requirements. Other potentially confounding factors, such as Order Type, Features Only, etc., will be controlled for via weighting. Similarly, aggregate tests, which combine data at the various disaggregation levels, will be performed using weighted combinations. The weights used (both for combining pseudo-CLEC test data from different product groups, order types, etc., and for combining comparative retail analog ILEC data from different product groups, order types, etc.) will be determined by a detailed projection of the expected 4Q2001 CLEC market mix.

Demonstration of Parity

Normally, statistical proof of a level of performance would require a framework in which the risk of concluding that the standard is met when the true level of performance is barely below the standard is limited to such a small probability that when the data support such a conclusion one can be reasonably certain that the underlying performance level meets or exceeds the standard. Practically this means that a performance level which somewhat exceeds the standard needs to be met during the test in order to statistically prove that the standard is met.

In Section 271 parity testing, however, it would be overly onerous on the ILEC to require better-than-parity during the test in order to demonstrate parity, as calibration of their systems at a level which would consistently demonstrate parity would put themselves at the substantial competitive disadvantage of providing substantially better service to the

CLECs than via retail to their own customers. Therefore, an equivalence-testing¹ approach will be used instead. This approach enables the “proving of equivalence” even with test performance slightly worse than parity, yet still restricts the risk of concluding parity when underlying performance is worse than parity to a suitably small probability level. It can do this only by supposing a sub-parity performance level which is “materially worse” than parity and evaluating the risk of concluding parity when underlying performance is at that materially worse value. Furthermore, the risk of concluding that performance is worse than parity, when in fact parity performance is being provided, is also similarly controlled so that spurious fix – retest cycles are not generated unnecessarily. Sufficiently large sample sizes enable the satisfaction of both risk constraints.

A policy of specifying material “worse-ness”, and a specification of the above two risks are sufficient to define a statistical approach to parity testing. From these, required sample sizes and critical values can be calculated for the appropriate distribution and test statistic. Since all the levels of disaggregation specified above will be tested with at least one binomially-distributed performance measure, and the binomial approach provides a non-parametric test of measures based on service intervals taken from the same sample – which will be less powerful than any appropriate parametric test, therefore, if the sample size is sufficiently large to handle the binomially-distributed measure, it will then be sufficiently large for any other measures. In determining the design of our parity test, it is therefore sufficient to focus on the binomial case.

Risk Policy for Arizona 271 Testing

A risk policy for statistical testing specifies the level at which we will control the two possible risks of falsely declaring disparity and of falsely declaring parity:

Risk of Declaring Disparity when service to CLECs is at Parity with Retail

The risk of falsely declaring disparity when in fact service provided to the CLECs is at parity with retail will be controlled to be no greater than .05. This will keep the number of spurious fix/retest cycles in reasonable control.

Risk of Declaring Parity when Service to CLECs is Materially Worse than Retail

The risk of falsely declaring parity when in fact service provided to the CLECs is materially worse than parity will also be controlled to be no greater than .05. This will ensure that parity declarations will be based on positive statistical evidence of equivalence, rather than on under-powered failures to find disparities.

¹ Diletti, E., Hauschke, D., and Steinijans, V.W. (1991), "Sample Size Determination for Bioequivalence Assessment by Means of Confidence Intervals," *International Journal of Clinical Pharmacology, Therapy and Toxicology*, Vol. 29, 1 -8.

Phillips, K.F. (1990), "Power of the Two One-Sided Tests Procedure in Bioequivalence," *Journal of Pharmacokinetics and Biopharmaceutics*, Vol. 18, No. 2, 137 -144.

Material Difference Policy – Binomial Case

Typical success rates tend to be in the 90% neighborhood. When the ILEC provides successful retail performance 90% of the time, an underlying CLEC performance success rate of 80% seems different enough that our procedures ought to be able to detect it. Underlying CLEC Success Rates higher than 80% might be considered too close to be detectable within the practical limitations of Sec 271 testing as the sample sizes will get too large. From another perspective, 80% seems a reasonable choice of materially worse than parity value in that it represents performance “twice as bad”, that is, twice as far from 100% as parity. From still another perspective, (and in a different context) some CLEC agreements specify performance of 95% as good as parity as a critical value in determining whether action needs to be taken. 95% of 90% is 85.5%. The critical value in an equal risks scenario when 80% is considered materially worse than a parity performance of 90% turns out to be 85.7%, which is very close to 95% of parity.

While it is true that specifying a value or policy in the absence of economic and technical analyses of the ILEC and CLEC risks on a measure-by-measure, and cell-by-cell basis is somewhat arbitrary, yet such analyses are not likely to be performed, nor do the parties seem interested in conducting negotiations on a measure-by-measure, cell-by-cell specific material difference policy.

For all the above reasons, 80% seems a reasonable choice as the materially worse than parity value when the ILEC retail analog performance is at 90%.

At higher ILEC performance levels, using a policy of “twice as bad” will require much larger sample size, and at lower performance levels (closer to 50%), “twice as bad” is very far away from retail performance, and becomes detectable with much smaller sample sizes.

Similarly, while a critical value of 95% as good is feasible at performance levels higher than 90%, as the retail performance level decreases, larger and larger sample sizes become required.

The reason for these instabilities is that the variance of the binomial depends on the level of performance, largest around 50% and near 0 close to 0% and 100%. Dr. Mallows suggested that the appropriate variance-stabilizing transformation is the arcsin of the square root of binomial proportions. Whether one works with transformed data or not, at least the transformation applied to the ILEC proportion enables determination of the material difference detectable with the same approximate sample size as 80% is when the ILEC success rate is 90%.

This is accomplished as follows:

$$\text{Arcsin}(\sqrt{.9}) - \text{arcsin}(\sqrt{.8}) = 1.24905 - 1.10715 = .1419$$

Suppose we want to find the level of CLEC performance whose material difference from an ILEC performance of 64% would be equally detectable with the same approximate sample size as 80% is from 90%.

Its arcsin-sqrt-transformed value would be

$$\text{Arcsin}(\sqrt{.64}) - .1419 = .9273 - .1419 = .7854.$$

Then $(\sin(.7854))^2 = .5$, so 50% would be the materially different CLEC success rate (from the ILEC retail rate of 64%) which would be testable with approximately the same sample size as 80% is from 90%.

Critical Values for Test of Parity – Binomial Case

The critical value for an equal risk test will be halfway between the retail success rate and the materially worse success rate on the variance-stabilized scale:

$$\text{Arcsin}(\sqrt{.64}) - .1419 / 2 = .9273 - .0709 = .8564$$

So $(\sin(.8564))^2 = 57.07\%$ would be the balancing critical value.

Since the retail parity value will not be known precisely until the test is conducted, this approach should be expressed in terms of a variance-stabilized test statistic as follows:

$$D = \text{arcsin}(\sqrt{X_i / N_i}) - \text{arcsin}(\sqrt{X_c / N_c})$$

$D > .0709$ proves disparity.

$D \leq .0709$ proves parity.

Determination of Required Sample Size – Binomial Case

Once the materially worse value is specified, the sample size for the normal approximation to the binomial is calculated using the following formula:

$$N_c = 1 / ((P_i - P_a) / (1.645 * \sqrt{P_i * (1 - P_i)} + \sqrt{P_a * (1 - P_a)}))^2 - 1 / N_i),$$

where P_i = retail parity analog success rate

P_a = materially worse success rate

N_i = number of retail parity orders

N_c = required number of Pseudo-CLEC test orders.

When the materially worse value is calculated as above, the above calculated sample size becomes the same regardless of P_i .

The following table indicates the materially different values detectable with an approximate sample size of 133 for a range of ILEC retail success rates (assuming 100000 retail orders):

Retail Parity	Materially Worse	approx. Nc	exact Nc	Critical Value	exact risk of falsely declaring parity	exact risk of falsely declaring disparity
50.00%	36.00%	133	139	59	0.044726	0.048544
60.00%	45.88%	133	135	71	0.048399	0.049619
64.00%	50.00%	133	139	79	0.048544	0.044726
70.00%	56.37%	133	138	87	0.047404	0.046929
75.00%	61.88%	133	136	93	0.048745	0.047954
80.00%	67.60%	133	138	102	0.049677	0.044737
85.00%	73.60%	133	136	108	0.048419	0.048027
90.00%	80.00%	133	135	115	0.048355	0.048968
95.00%	87.10%	133	138	126	0.044539	0.048192
98.00%	92.16%	133	149	142	0.031013	0.047975
99.00%	94.25%	133	133	129	0.045277	0.049096
99.50%	95.55%	133	140	137	0.033745	0.048612

The number of Pseudo-CLEC test orders is required to be 133 if the normal approximation for the binomial is used. However, it is preferable to use exact binomial probabilities, and then, due to the discrete nature of the binomial distribution, a slightly larger sample size will be required in order to make sure that both risks are held to less than or equal to .05. Since the retail parity and materially worse success rates will not be completely determined until the test is run, it seems appropriate to use a sample size of 140 to ensure that the risks will (nearly) always remain under .05.

Extension to Interval Measures

Typically, interval measures exhibit a skewed, longer right-tailed distribution with standard deviations increasing proportionately to the mean. This would suggest that a logarithmic transformation is appropriate, i.e. $\log(T)$ will be reasonably close to normally distributed. For some disaggregations, the square root transformation is closer to normalizing than the logarithm. Some disaggregations cannot be normalized by any smooth transformation. The above approach for the binomial can be extended to interval measures either via utilizing a normalizing or variance-stabilizing transformation such as log or square-root, or via a non-parametric approach. We will here first describe the non-parametric approach. It should be noted that smaller material differences than those presented for the non-parametric approach might be detectable if an appropriate transformation is used. Therefore, the pseudo-CLEC orders already being generated to satisfy the sample size requirements for the various binomial measures will suffice to detect the deviation from parity for interval measures which will be described here.

These same orders will suffice to detect even smaller deviations in the interval measures if an appropriate normalizing transformation is used, as will subsequently be described.

Treating Interval Measures Non-parametrically

First, suppose that one is interested in a specific percentile of the retail parity distribution – this could be (i) the median, (ii) the 64th percentile, or (iii) the 90th percentile, etc. Suppose this value turns out to be 3.2 days in the sample of 140 orders being generated for the particular product-cell of interest. Then, using the above approach, the materially different distribution detectable would have (i) 36%, (ii) 50%, and (iii) 80% of its observations less than 3.2 days. If the (i) 42.93th percentile, (ii) 57.07th percentile, (iii) 85.7th percentile of the sample distribution of the pseudo-CLEC test orders turns out to be less than or equal to 3.2 days, then parity will have been demonstrated. Otherwise disparity will have been demonstrated.

The non-parametric approach just described would be invalidated if substantial proportions of the observations were tied. An interval variable is usually (nearly) continuous, so ties ought not to be a concern. However, several measures are currently being reported only in a rounded number of days. This will result in a very large proportion of tied observations, invalidating this approach. Either data must be provided enabling the calculation of the measure in units such as seconds or minutes, or a modification to this method which un-ties the observations via some appropriate rule must be incorporated before we can use this approach. (An example of a tie-breaking approach: Suppose there are 5 observations with a result of 2 days. Then change the data from { 2, 2, 2, 2, 2 } to { 1.6, 1.8, 2.0, 2.2, 2.4 } prior to determining the relevant percentiles.)

Assuming Log-Normality

AT&T notes that for the log-normal case, CGT has not properly described a situation involving a test for the difference in two populations. The critical value they compute in the example depends on the value of median of the original population. That is presumably the ILEC population. That median is unknown so CGT must be planning to base it on the data. This sets up an improper hypothesis test for parity. Perhaps CGT was trying to illustrate what the equivalent detectable amounts would be if the median was known. AT&T is really not sure what CGT was trying to do with the discussion and would appreciate some clarification.

This criticism does not apply in the binomial case because it appears that in that case the approach leads to a critical value 0.0709 regardless what the proportions in the data are. This is a proper test situation.

The above approach in the Binomial case has been calculated by Dr. Mallows of AT&T Research as being equivalent to what he calls a delta of .28. This means that a material difference of .28 standard deviations of the (transformed) measure is detectable with the sample of size 133. Then the log of the measure will be normally distributed with a mean of $\log(3.2) = 1.163$ and a standard deviation of 1.0. The materially worse distribution we will be concerned with then will be the normal distribution whose mean is $1.163 + .28 * 1.0 = 1.443$. (In the original scale, this corresponds to a median of $e^{**}1.443 = 4.23$ days, and a mean of $5 * 128\% = 6.4$ days.) The critical value would be $1.163 + .28 * 1.0 / 2 =$

1.303. If the average of the logs of the 133 pseudo-CLEC orders' intervals turns out to be no greater than 1.303, then parity will have been demonstrated. Otherwise disparity will have been demonstrated. The critical value 1.303 corresponds in the original scale to a median of $3.2 * 114\% = 3.68$ days and a mean of $5 * 114\% = 5.7$ days.

AT&T objects to the use of approximations when not necessary and below computes corrections for the example in the forgoing paragraph. Suppose x is a random variable with mean μ and standard deviation σ and having a log-normal distribution with mean α and standard deviation β . Then,

$$\mu = e^{\alpha + \beta^2 / 2} \quad (1)$$

$$\sigma^2 = e^{2\alpha + \beta^2} (e^{\beta^2} - 1) \quad (2)$$

In the example CGT assumes that $\alpha = \log(3.2)$, and $\beta = 1.0$, which is the same as saying that the median of the original distribution of x is 3.2 days. According to equations (1) and (2) its mean and standard deviations would be $\mu = 5.275$ and $\sigma = 6.916$ respectively. For the materially worse distribution CGT has correctly calculated that x has median 4.23 days so that in this case $\alpha = 1.443$ and β is assumed still to be 1.0. Using equations (1) and (2) we find that the mean and standard deviation of x are now $\mu = 6.980$ and $\sigma = 9.149$. CGA apparently concluded that the mean of the original distribution was 5 days rather than the correct value 5.27 days and the mean of the materially worse distribution was 6.4 days rather than the correct value of 6.980 days. The original scale equivalent of the critical value in logs of 3.68 days given by CGT, as a median is correct, but the critical value equivalent in means of 5.7 days is incorrect. The correct value is 6.067 days. CGT knows the proper way to calculate these values but has resorted to shortcuts and approximations that is best suited to back-of-the-envelope calculations one might use while conceptualizing an approach. When exact, easy to implement and widely understood methods are available the formal documentation of the approach including examples should be done with the correct methods rather than the back-of-the-envelope methods.

The procedure just described in the example can also be described as using the modified z-test on the log-transformed data.

Demonstration of Compliance with Benchmarks

The benchmarks in Arizona were developed with the concept that they correspond neither to the "meaningful opportunity to compete" parity surrogate value, nor to a materially worse value, but rather to the critical value of the test. As such they will be evaluated in a "stare and compare" fashion: If the measure meets the benchmark, compliance will have been demonstrated. If not, non-compliance will have been demonstrated. While not originally stated, it is useful to know that with the 140 test orders which will be run in each product-cell, a benchmark such as 90% will be distinguishing between a meaningful opportunity to compete performance level of:

$$(\sin(\arcsin(\sqrt{.9})) + .0709) ** 2 = 93.84\%$$

and a materially worse performance level of:

$$(\sin(\arcsin(\sqrt{.9})) - .0709) ** 2 = 85.36\%$$

Benchmarks of 99.25% will enable distinguishing between “meaningful opportunity to compete” performance level of 99.975% and materially worse performance level of 97.54%.

AT&T finds it interesting to note that in the example below involving the log-normal one finds exactly the same numbers distribution parameters (i.e., 5.7, 5, and 4.3) that appeared in the example on page 190, but with an added assumption that the coefficient of variation is equal to one. Was that also assumed in the first example? If so, that conflicts with the other assumptions since a log-normally distributed random variable with mean and standard deviation equal to 5 would have the transformed mean of 1.263 and standard deviation of 0.833. Please clarify.

For lognormally distributed interval measures whose coefficient of variation (ratio of standard deviation to mean) is 100%, a benchmark of 5 days would correspond to a “meaningful opportunity to compete” performance level of:

$$5 * (1 - \delta * c.v. / 2) = 5 * (86\%) = 4.3 \text{ days,}$$

and a materially worse performance level of:

$$5 * (1 + \delta * c.v. / 2) = 5 * (114\%) = 5.7 \text{ days.}$$

AT&T would like to point out that the delta value of 0.28 mentioned by Colin Mallows was an approximation. A more precise equivalent value for delta for the normally distributed benchmark case when a sample size of 133 is used is 0.285. When the sample size is 140 the delta is 0.278. Given that in another jurisdiction AT&T is advocating a value of 0.25, then AT&T insists on a sample size of at least 140. To achieve a delta of 0.25 seems to require a sample size of 173.

Entrance and Exit Criteria (3 Phases)

Design Phase (Prior to Testing)

Entrance Criteria

The following are the entrance criteria to determination of a statistical approach and evaluation of parity and compliance.

1. Specification of Measures to be evaluated
2. Specification of Levels of Disaggregation at which statistical evaluation is to occur.
3. Statistical Paradigm
4. Consensus on Benchmark Interpretation
5. Risk Policy
6. Material Difference Policy
7. Incident Review Policy

Exit Criteria

The following are the exit criteria to determination of a statistical approach and evaluation of parity and compliance.

Per Cell Sample Size Requirements (for those cells specified as requiring statistical evaluation)

Overall Sample Size Requirements

Framework for assignment of friendlies, U S WEST facilities, CLEC facilities to test cases

Test Statistic and Critical Value Methodology for each Measure to be evaluated statistically within each disaggregated level at which statistical evaluation is to occur.

Analysis During Test**Entrance Criteria**

1. Anticipated 4Q2001 CLEC Market Mix (by Levels of Disaggregation, Order Type, etc.) (can wait till first Analysis of Aggregated data)
2. Completion of Required Number of Tests and Assembling of Relevant Data for a Measure on a Cell

Exit Criteria

1. Test Statistic Result
2. Critical Value Computation
3. Declaration of either Parity/Compliance or Disparity/Noncompliance for this measure on this cell during this round of testing.

AT&T suggests to use historical data and the 0.28 delta to specify the null and alternative hypotheses for differences in means. CGT seems to have shown that this will keep sample sizes at reasonable levels in theory. Those sample sizes are then held fixed. From that point forward the 140 samples are collected and the statistical tests are performed in a correct manner and each hypothesis (Null and Alternative) is tested separately at the 5% level. If all the theory and assumptions are correct then a failure to reject the Null hypothesis will be accompanied by a rejection of the Alternative hypothesis and vice versa. On the other hand, if in practice 140 is not actually large enough to give both parties 5% tests then the outcomes might occur as in the table.

Possible Outcome	Alternative Hypothesis (Material Difference)	Null Hypothesis (Parity or Benchmark Being Met)
<u>1</u>	<u>Accept</u>	<u>Accept</u>
<u>2</u>	<u>Accept</u>	<u>Reject</u>
<u>3</u>	<u>Reject</u>	<u>Accept</u>

For outcomes 2 and 3 the tests agree, but according to CGT's entry/exit criteria outcome 2 generates an exception report, fix and retest, while 3 is a pass and no exception. AT&T recommendation is that if outcome 1 occurs then that should be an exception report as well. In this case, the TAG can decide (given

technical advice) to either supplement the sample, or do a partial or complete retest in hopes of getting a type 2 or 3 outcome.

This way it does not matter who gets the null hypothesis because there is protection for both the CLECs and U S WEST. (In essence, both the CLECs and U S WEST get the null.)

4. Incident Report Submitted to TAG for all Disparity / Noncompliance Declarations
5. Appropriate Fix instituted, retest.

Post-Test

Entrance Criteria

1. All required cells fully tested (or re-tested) for all measures to be statistically evaluated.
2. All relevant data assembled.
3. Parity / Compliance result achieved for all measures in all cells, or ACC decision to proceed without this in certain ACC-specified cells.

Exit Criteria

1. Statistical Results Report