Final Report
of the Pacific Bell Operations Support Systems

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Prepared For:

State of California
Public Utilities Commission

Cap Gemini Ernst & Young

Telecom, Media & Networks

2301 N. Greenville Avenue

Suite 400

Richardson, TX 75082

FINAL REPORT V1.2 - TABLE OF UPDATES 2/12/01

GENERAL – ALL TYPOGRAPHICAL ERRORS WERE CORRECTED WITHOUT TRACKING TURNED ON.

GENERAL – SECTIONS 2.1.1 THROUGH 2.1.3 HAVE BEEN COMPETELY REVISED TO REFLECT RECENT FCC ORDERS IN 271 LPROCEEDINGS.

Page Number	Version	Section	Reason
Title	1.1		Changed to Operations Support Systems
Headers	1.1		Changed to Operations Support Systems
52	1.1		Removed blank page
178	1.1	4.4.4	Corrected heading to Performance Measurement
30	1.1	3.4	Footnote of Clarification Letter dated 1/2/01
162	1.1	4.3.4	Footnote of Clarification Letter dated 1/2/01
165	1.1	4.3.5	Footnote of Clarification Letter dated 1/2/01
249	1.1	Appendix O	Statistical results links inoperable – Excel files have been put on CPUC web site
5	1.2	Exec. Summary	Clarified scope
5/6	1.2	Test Effort	Clarified verbiage
7	1.2	Recommendations	Clarified categories
26	1.2	3.1.1	Clarified verbiage
27	1.2	3.1.2	Clarified verbiage
28	1.2	3.1.4	Added MTP reference
30	1.2	3.2.1	Quantified counts and gave table references
32	1.2	3.3	Clarified verbiage
33	1.2	3.4	Gave section reference
40	1.2	3.9 F	Clarification
53	1.2	4.1.1-1	Clarified table percents
54	1.2	4.1.1-2	Revised table
55	1.2	4.1.1-3	Revised table
74	1.2	4.1.1.2.7	Clarified item A
77	1.2	4.1.1.3.2	Clarified scope
84	1.2	4.1.1.3.7	Corrected chart #1
87	1.2	4.1.1.3.7	Corrected chart #3
91	1.2	4.1.1.4.6 C - F	Gave appendix reference
93	1.2	4.1.2.2	Clarified scope
102	1.2	4.1.2.8	Clarified results for item C and D
109	1.2	4.1.3 -3	Revised table
129	1.2	4.2.1.4.1.3	Corrected date for item B
144	1.2	4.2.1.5.2.2	Clarified verbiage

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151	1.2	4.2.1.6.1	Corrected response for item 2
155	1.2	4.2.1.6.2	Added response for number 4
169	1.2	4.3.4	Clarified verbiage
178	1.2	4.4.3.4.1	Corrected formula
180	1.2	4.4.4	Clarified observations
203	1.2	4.5.5.2	Clarified verbiage
219	1.2	4.7.5.2	Gave appendix reference
415	1.2	Appendix L	Added truncated verbiage

EXECUTIVE SUMMARY *7*
TEST EFFORT *7*
RECOMENDATIONS *9*
RESULTS *13*

1 FOREWORD 15

1.1 PURPOSE 15
1.2 ROLES AND RESPONSIBILITIES 15
1.2.1 Pacific Bell 15
1.2.2 California Public Utilities Commission 16
1.2.3 Technical Advisor 16
1.2.4 Test Administrator/Manager 17
1.2.5 Test Generator 18
1.2.6 WorldCom 19
1.2.7 Competitive Local Exchange Carriers 19
1.2.8 Technical Advisory Board 19
1.3 TASK ITEMS 19

2 BACKGROUND 21

2.1 OVERVIEW OF TELECOMMUNICATIONS REGULATION 21
2.1.1 Telecommunications Regulation Before 1996 21
2.1.2 Telecommunications Act of 1996 21
2.1.3 FCC Standards for Testing and Evaluating a BOC's OSS 22
2.1.4 Pacific's OSS Test Effort 24
2.2 CONTRACT SUPPORT 25
2.2.1 TA Support 25
2.2.2 TAM Support 25
2.2.3 TG Support 27

3 OSS TEST SUMMARY 28

3.1 OSS FUNCTIONALITY TEST 28
3.1.1 Pre-order/Order/Provisioning 28
3.1.2 Maintenance & Repair Testing 29
3.1.3 End-User Test 30
3.1.4 Bill Validation 30
3.2 CAPACITY TEST 31
3.2.1 Capacity (Volume/Stress) Test 31
3.2.2 Scalability Analysis 34
3.3 PERFORMANCE MEASUREMENT EVALUATION 34
3.4 PROJECT STATISTICS/METRICS 35
3.5 CHANGE MANAGEMENT 36
3.5.1 Scope 36
3.6 TRAINING 37
3.6.1 Overview 37
3.6.2 Scope 37
3.6.3 Bill Validation Training 37
3.6.4 Toolbar Training 38
3.7 SUPPORTING PROCESSES 38
3.7.1 Master Test Plan Baseline 38
3.7.2 CLEC Participation 39
3.7.3 Communication 39
3.7.4 Documentation 39
3.7.5 Administration Processes 39
3.8 ISSUES 40

3.9 VARIANCES TO THE MASTER TEST PLAN 40
3.10 RECOMMENDATIONS 44

4 OSS TEST PROCESS 50

4.1 OSS FUNCTIONALITY TEST 50
4.1.1 Pre-order/Order/Provisioning 51
4.1.2 Maintenance and Repair 94
4.1.3 End-User Test 104
4.1.4 Bill Validation 112
4.2 CAPACITY TEST 128
4.2.1 Volume/Stress Test 128
4.2.2 Scalability Analysis 160
4.3 PERFORMANCE MEASUREMENT EVALUATION 168
4.3.1 Overview 168
4.3.2 Documentation 168
4.3.3 Observations 168
4.3.4 Test Data Validation 170
4.3.5 Recommendations 174
4.4 PROJECT STATISTICS/METRICS 175
4.4.1 Overview 175
4.4.2 Scope 175
4.4.3 Statistical Approach 175
4.4.4 Observations 182
4.4.5 Recommendations 200
4.5 CHANGE MANAGEMENT (CM) 200
4.5.1 Overview 200
4.5.2 Scope 200
4.5.3 CM/CLEC Interaction 200
4.5.4 Change Management Process 201
4.5.5 Problems Encountered 204
4.5.6 Results 205
4.6 TRAINING 206
4.6.1 Overview 206
4.6.2 Bill training 206
4.6.3 Toolbar Training 207
4.6.4 Problems Encountered 207
4.6.5 Results 208
4.7 SUPPORTING PROCESSES 208
4.7.1 Master Test Plan Baseline 208
4.7.2 CLEC Participation 211
4.7.3 Communication 214
4.7.4 Documentation 216
4.7.5 Administration Processes 216
4.8 ISSUES 231

INDEX - MTP/FINAL REPORT CROSS REFERENCE MATRIX 233

APPENDIX A – GLOSSARY 240

APPENDIX B – ISSUE LOG 252

APPENDIX C – PERFORMANCE MEASUREMENT CRITERIA 321

APPENDIX D – LETTERS OF AUTHORIZATION 324

APPENDIX E – ORDER ENTRY FORM 326

APPENDIX F – TEST BED ACCOUNTS SPREADSHEET 330

APPENDIX G – FUNCTIONALITY ACCOUNT SPREADSHEET 340

APPENDIX H – OSS TEST BED FOR COLLOCATION CAGES SPREADSHEET 345

APPENDIX I – FUNCTIONALITY TEST DAILY LOG 381

APPENDIX J – FUNCTIONALITY TEST METHODS AND PROCEDURES 400

APPENDIX K – FUNCTIONALITY TEST ORDER FORM 407

APPENDIX L –LCS/LOC VISITS 417

APPENDIX M – MAINTENANCE AND REPAIR PHASE REPORT 427

APPENDIX N – BILL RECEIPT TRACKING TABLES 433

APPENDIX O – STATISTICAL ANALYSIS COMPARISONS 440

APPENDIX P – CLEC/TG INTERFACE PROCESS 442

APPENDIX Q – SUPPORTING DOCUMENTATION INVENTORY 461

EXECUTIVE SUMMARY

The scope of the California Pacific Bell (Pacific) Operations Support Systems (OSS) Test was to assess whether Pacific provides parity and nondiscriminatory access to Competitive Local Exchange Carriers (CLECs) as provided in the Master Test Plan (MTP) and related CPUC decisions. This test was run pursuant to a CPUC decision (D.98-12-069) as part of the CPUC's review of Pacific's application to enter the interLATA long distance market in California.

The test effort involved the establishment of a working relationship with various participants as part of the California Public Utilities Commission 271 Test Effort (Test Effort). The roles of the participants are described in detail in §1 Forward and §2 Background.

- The California Public Utilities Commission (CPUC) who has the responsibility of overseeing the testing.
- Pacific who, as the Incumbent Local Exchange Carrier (ILEC), provides the CLECs with service connectivity.
- CLECs.
- Three consultants (i.e., Test Administrator/Manager (TAM), Technical Advisor (TA), Test Generator (TG)).

This final report covers the findings of the TAM as a result of their participation in the Test Effort. The details of the findings for the Test Effort are provided in §3 OSS Test Summary and §4 OSS Test Process.

TEST EFFORT

To perform the test effort, four Pseudo-CLECs were established: Blackhawk, Discovery, Camino and Napa. These four Pseudo-CLECs were set up by the TG as independent companies in order to submit orders to Pacific in the same manner that an actual CLEC could submit orders. The types of products and services ordered by each Pseudo-CLEC were established as part of the Test Case/Scenario generation.

The Test Effort covered a time period from December 1999 through October 2000. The testing included each of the following areas:

A. Pre-Order, Order, and Provisioning – generation and execution of the test cases and scenarios. The testing was performed for the four regions of the Pacific territory and tested the UNE Loop with Port combination, Stand-alone LNP, UNE Loops (two-wire and four-wire), Stand-alone directory, and UNE xDSL. The summary and detail of this testing is contained in §3.1.1 and §4.1.1.

B. Maintenance and Repair (M&R) – the purpose of the M&R testing was to ensure that the trouble ticket processing resolution functioned properly and that CLEC problems were handled in a timely manner. The summary and detail of this testing is contained in §3.1.2 and §4.1.2.

C. End-Users –this testing was performed to execute calls to generate usage and ensure that the service provided through the Pseudo-CLEC functioned. The summary and detail of this testing is contained in §3.1.3 and §4.1.3.

D. Bill Validation – verified that the bills generated were correct and accurate and provided the information needed by a CLEC to bill its own customers. The summary and detail of this validation process is contained in §3.1.4 and §4.1.4.

E. Capacity and Scalability – evaluated whether the relevant OSS had sufficient systems capacity to handle the workload volumes required to support future CLEC pre-order and ordering activities, and whether Pacific has the capability to adjust their workforce to meet the future CLEC activities. The test validation evaluated the ability of the OSS and interfaces to perform in a stable manner under a defined workload and determine the ability to scale for larger workloads. The summary and detail of this testing is contained in §3.2 and §4.2.

F. Performance Measurements and Project Statistics – validated that the number of test orders submitted were accurately reflected in Pacific's performance measurements, and the associated test results met the defined parity and benchmark measurements provided in the JPSA. The summary and detail of this effort are contained in §3.3, §3.4, §4.3 and §4.4.

In addition to the testing that was performed, an evaluation was conducted of the Change Management (CM) Process and the training courses offered by Pacific. The summary and detail of the Change Management analysis is contained in §3.5 and §4.5. The summary and detail of the Training program analysis is provided in §3.6 and §4.6.

RECOMENDATIONS

A list of recommendations was created as a result of this test effort. These recommendations are detailed in the table below and in §3.10. Three categories were assigned to the recommendations:

A. Category 1 – these recommendations should be implemented prior to, and as conditions of, the CPUC recommendation of approval of Pacific for the Test Effort. Ten recommendations fall into this category, as identified below.

B. Category 2 – these recommendations should be completed within one year after CPUC's decision to recommend approval of Pacific's interLATA application to the FCC. Twenty-three recommendations fall into this category.

C. Category 3 - changes recommended are not essential, though they will be beneficial the performance of Pacific's OSS. Ten recommendations fall into this category.

A further description of the basis behind each recommendation is found in the applicable sections of the final report.

CAT	AREA	RECOMMENDATION
1	Bill Val	The CABS bills do not provide a detail listing of the daily usage. This creates an inability to validate a portion of the bill. Since the CABS bill only provides a summarized roll up of the daily usage total, the CLEC must compare it with the usage recorded over their own switches. If there is a discrepancy, the CLEC must raise this issue with the ILEC. The review process for a discrepancy can be quite lengthy (anywhere from one month to six or more months). Providing the detail information would save both the ILEC and CLEC the time that is currently spent in detailed research and billing negotiation.
1	Bill Val	The Network Element (USOCs/Features) English translation provided in the Pacific documentation (e.g., Interconnection Agreement, OANAD document) does not match the English translation on the bill. This required the bill validation team to expel a great deal of time creating a cross-reference of the USOCs. The ILEC should provide the USOC cross-reference table to the CLEC.
1	Volume/Stress Test	Conduct further analysis to determine why Pacific systems are generating systems exceptions and install a fix for the problem. Pacific systems should have a method of identifying invalid data parameters for 804 error codes. For RC-11 return codes this was caused by a DataGate module problem and this bug should be corrected. The TAM was informed that this is an infrequent occurrence however it occurred on both of the order capacity tests run by the Test Generator.

CAT	AREA	RECOMMENDATION
1	Volume/Stress Test	Insure all security servers for dial-in users to Verigate/LEX are proactively monitored by Data Center staff. Analyze the appropriateness of systems logs and whether they are providing enough information to diagnose a failure. Adequate systems monitoring should enable corrective actions to servers to be made before users are calling in to notify Pacific of a dial-in problem.
1	Provisioning	It is recommended that LEX send a jeopardy notification to Pacific and CLEC and change status to jeopardy when transmission of SOC has been delayed for any reason.
1	TG/ILEC	In EDI documentation, include comprehensive inbound matrices
1	TG/ILEC	In DataGate documentation, include a more complete description of Application Programming Interfaces (APIs)
1	TG/ILEC	Publish and maintain CLEC Managed Introduction process documentation
1	TG/ILEC	Publish and maintain documentation better summarizing standard due date intervals, including typical post-SOC completion intervals, by product and activity type
1	Performance Measurement	If all data discrepancies cannot be resolved, a full reconciliation of test case data with Pacific similar to the process currently underway between CLECs and Pacific. If, as a result of these processes, significant revisions are made to Pacific's reported performance results, then the statistical analysis should be performed again with the correct data.
2	CM	The CM process reviewed for the CPUC Test Effort has been revised to cover the 13-States now part of the SBC. A thorough analysis of this new process should be performed to ensure that no major differences have been incorporated and that the process is still working as well as it did during the October 1999 review period.
2	Training	Training should be available on how to perform bill validation. This course should at a minimum: • Review each of the sections of the bill. • Provide an understanding of where the information comes from. • Provide an understanding of recurring/non-recurring charges – what they are, where they come from, how they are calculated.

CAT	AREA	RECOMMENDATION
		• Provide an understanding of how the OANAD rates translate to the USOCs. • Provide an understanding of how usage charges are applied to the bills.
2	Volume/Stress Test	Tighten up the controls on reporting DataGate counts on queries. Follow up on changing the nightly jobs to insure that all files are received when loading the data.
2	Volume/Stress Test	Follow up on investigating the ability to add multiple paths from the SORD/AOG systems to interface with LASR. This will help fine tune their system to reduce the order FOC interval times encountered during the capacity stress test.
2	Volume/Stress Test	Tighten up the controls on loading Due Dates for the EXCO's prior to the daily production runs rather then periodically during the day.
2	Pre-Ordering	Provide complete customer service address information on the Customer Service Record (CSR) (i.e., sub-location, zip codes where appropriate).
2	Pre-Ordering	Verigate needs to show DSL up-to- loop qualifications for each address.
2	Provisioning	More emphasis need to be placed on MLT maintenance routine to ensure Loop testing equipment is available to the Maintenance Administrator at the LOC.
2	Bill Val	The CABS directory listings format should be reviewed. It is limited in the information it provides to the CLEC. Rather than providing detailed information about each listing ordered, it gives a daily roll up of the number of business and residential listings processed. It would be advantageous to the CLECs to have the Detail of Other Charges and Credits section of the Listings bill itemized by PON and TN.
2	Bill Val	Pacific should provide access to tariffs applicable to CLECs. The information contained in the tariffs is essential for the CLECs to do their validation. The Bill Validation Team had to request a copy of the Directory Listing section of Tariff 175-T from Pacific to perform validation on the Listings bills.
2	Pre-Order/ Order/ Prov	After account migration to a CLEC, any changes made to the account by Pacific must be notified to the CLEC both verbal and written.
2	Bill Val	The CLEC is required to purchase the bill format documentation from Telcordia. One copy of this documentation

CAT	AREA	RECOMMENDATION
		should be supplied by the ILEC. If additional documentation is required or the CLEC wishes to make copies, then the CLEC can purchase documents or a licensing agreement from Telcordia.
2	Bill Val	Accessibility of documentation on the Pacific web site is a problem is the CLEC does not have Word95 loaded on their machines. Word 97 will not access the documentation on the Pacific web site. This causes a problem that needs to be addressed by Pacific to determine if there is a way their web site software can be compatible to later version of Word than Word95.
2	Training	In depth training is needed in the format of the CABS bills. The current training provides an overview of the bill but does not provide the detail of where the information on the bill comes from and how it is organized on the bill.
2	Training	The training programs provided by Pacific are advertised as train-the-trainer programs. They are not in-depth enough to be train-the-trainer programs. Pacific needs to revamp their training course to provide the in-depth training required to be able to train others.
2	Volume/Stress Test	Continue to proactively monitor modem pools and connectivity software and hardware to insure that dial-in users are adequately being connected. Assess the network connectivity logs to insure that Pacific staff can readily identify when users log on and log off the network and whether they provide the needed information to track dial-in users encountering problems.
2	Volume/Stress Test	Implement an edit for detecting terminator problems when data is being transmitted via the EDI interface. Establish a method to uniformly report these errors rather then have some of these fall out as exceptions.
2	TG/ILEC	On web site clec.sbc.com, improve Accessible Letter (AL) search capability by topic within state
2	TG/ILEC	Provide separate training and/or test environments, similar to the EDI test environment, for each CLEC-accessible Pacific Operations Support Systems
2	Pre-Order/ Order/ Prov	The TAM recommends that Pacific reduce the interval between completion of an order and update of Pacific's backend system to avoid delays in the availability of the account to issue subsequent orders.
2	Performance Measurement	The statistical analysis included in the Final Report be redone with the corrected and complete data provided by Pacific.

CAT	AREA	RECOMMENDATION
2	Performance Measurement	Procedures be developed to automate and to verify data as it is entered in Pacific's performance reports.
2	Performance Measurement	A supplemental filing is needed with the findings of the test case validation.
3	Ordering	Pacific system need to be updated to accept a single service order request to move services between regions, instead of issuing two service orders,(i.e. Disconnect and New Install)
3	Pre-Ordering	Include information in CSR when the customer is served out of remote switch.
3	Provisioning	A CFA Audit process should be established to allow CLECs to verify status of their facilities.
3	Provisioning	Pacific should establish a post-SOC process to verity that requested and tested features have been provisioned in the switch.
3	M&R	Improve up-front edits in PBSM ticket generation to eliminate errors, which cause manually handled trouble tickets.
3	TG/ILEC	Bring up Verigate each day at least an hour earlier to coincide with or precede LEX availability
3	TG/ILEC	Consider making Pacific systems available standard business hours across at least the three continental U.S. time zones (5AM PDT until 5PM PDT)
3	TG/ILEC	Consolidated documentation describing how Pacific's business rules differ from EDI standards
3	Performance Measurement	The data reduction procedures should include the computation of median and interquartile distances
3	Performance Measurement	In the event the CPUC required a second statistical test, then the benchmark measures should be evaluated on a statistical basis and not by an absolute standard. This is the only way to fairly evaluate Pacific's service provisioning performance

RESULTS

Based on the Pacific OSS test performed, the TAM suggests that the CPUC condition its approval of the tested Pacific OSS components and processes. It is the opinion of the TAM that the CPUC recommend conditional approval of Pacific on the Test Effort. It is the opinion of the TAM that the 10 Category One recommendations identified in §3.9 be addressed and/or implemented as a condition to the CPUC recommendation. It is further suggested that the 23 Category Two recommendations be stipulated as requirements to be addressed within the first year after approval of Pacific into the interLATA long distance market. The 10 Category Three recommendations were made as a result of the

observations during the period of the Test Effort that the TAM feels would be beneficial to both Pacific and the CLEC community.

1 FOREWORD

1.1 Purpose

This document is divided into five sections:

Foreword – describes the purpose of this document, the roles and responsibilities of the parties involved in the test effort, and the high level items involved in the effort since inception.

Background – provides an understanding of the California Public Utilities Commission 271 Test Effort (Test Effort) performed for Pacific. The history of the project and the Telecommunications Act of 1996 is provided for those who have not been involved in the in-depth performance of the project. For those who are familiar with the project, this section may be bypassed.

OSS Test Summary – provides a summation of the detailed information included the OSS Test Project section. A brief description of each of the areas involved in the Test Effort and points of interest or concerns encountered during the project are included. The conclusion of the Test Administrator/Manager on the OSS system and its capability to meet the needs of a CLEC is provided. Negative findings are quantified to sufficiently inform the reader.

OSS Test Project – provides detail of the effort involved in the OSS testing. The Project Test Effort, Supporting Processes, and the Issues Resolution are addressed. The Performance Measurement section provides the analysis and determination of Pacific parity between the retail and wholesale customer service.

Appendices – provides the documentation in support of the four sections listed above. Appendix A contains the glossary of terms used throughout the Final Report. The other appendixes are referenced in the appropriate section of the OSS Test Summary and OSS Test Project.

1.2 Roles and Responsibilities

The following is a description of each group involved with the California OSS Test Effort.

1.2.1 Pacific Bell

In the position of Incumbent Local Exchange Carrier (ILEC), Pacific provides the CLECs the connectivity required to provide service to the CLEC's customers. In the Test Effort, Pacific was tasked with proving that the same service support (i.e., processing of orders, resolution of problems, turn-around time) provided to the CLECs as that provided to Pacific's retail customers.

The responsibilities of Pacific were:

A. Provide the Pacific OSS environment to be used for the test (e.g., production environment).

B. Support the Master Test Plan (MTP) needs, as necessary.

C. Provide a list of primary Subject Matter Experts (SMEs) and escalation contacts to all parties.

D. Provide for preparation, setup, and access to the Pacific production components for the tests as necessary (primarily for monitoring by Test Administrator/Manager).

E. Provide system processing data necessary to understand the resource usage for the test workload.

F. Extract data and compute the Performance Measures.

G. Assign an account team to interface with the Test Generator.

H. Provide documentation to the Test Administrator/Manager to enable scalability analysis of system interfaces and work center operations (Local Service Center (LSC) and Local Operations Center (LOC)).

I. Provide training for the test participants on the OSS.

1.2.2 California Public Utilities Commission

The California Public Utilities Commission (CPUC) was the overseer of the Test Effort. It was their responsibility to contract a company to develop the MTP and oversee the development of the California OSS Test Request for Proposal (RFP). Once the RFP was issued and proposals received, the CPUC had the responsibility to select the contracting firm(s) to fill the three positions defined in the RFP. The three positions are 1) Technical Advisor, 2) Test Administrator/Manager, and, 3) the Test Generator.

The role of the CPUC was to:

A. Provide overall project management.

B. Own the MTP.

C. Create the testing implementation timeline.

D. Provide support for the collaborative process in enhancing the MTP.

E. Provide final approval of MTP.

F. Appoint a Technical Advisor to act as liaison between the CPUC and the test entities.

G. Appoint a Test Administrator/Manager to manage the test activities.

H. Appoint a Test Generator to develop the testing interfaces and conduct related activities.

I. Review and approve the Final Report Template prepared by the Test Administrator/Manager.

1.2.3 Technical Advisor

The Technical Advisor (TA) was a three-person team with proven experience in the area of telecommunications, testing, and the regulatory environment under which this OSS testing functioned.

The duties of the TA were to:

A. Advise the CPUC on telecommunications issues.

B. Assist in modification of the MTP.

C. Review test cases.

D. Evaluate documentation assessment and process analysis.

E. Provide technical advice to Commission Staff.

F. Provide on-site observing of actual test, as needed.

G. Evaluate data and reports prepared by Test Administrator/Manager.

H. Analyze and assess data as requested by the CPUC.

I. Assist Test Administrator/Manager in validating Performance Measures Process/System.

1.2.4 Test Administrator/Manager

The responsibilities of the Test Administrator/Manager (TAM) were to monitor the daily action of the Test Generator. They acted as the administrator of the entire test effort and as intermediary between the parties involved.

The TAM's responsibility included:

A. Define the MTP scope to assure coverage and the ability to test scenarios expected.

B. Gather test data.

C. Compile a detailed daily log of events capturing the details of its experiences in dealing with all participants.

D. Prepare the test scripts and test scenarios.

E. Provide oversight for Test Generator.

F. Ensure the execution of the tests and provide on-site observation of the test execution by the Test Generator.

G. Monitor the test results against the performance measurements set in the MTP.

H. Validation of the bills.

I. Insurance that data and environment cleanup was accomplished successfully.

J. Generation of the TAM Final Report.

K. Administration of the test implementation timeline.

L. Prepare reports.

M. Submit test observations and test results attestation.

N. Provide Documentation Assessment and Process Analysis (e.g., LSC/LOC scalability of appropriate systems).

O. Develop test cases based on the test scenarios, including number of error scenarios.

P. Assess the operation of the LSC for consistency, timeliness and accuracy.

Q. Assess the operation of the LOC for consistency, timeliness and accuracy.

R. Assure the test scenario selection will cover both access mechanisms (Local Service Request Exchange (LEX), Electronic Data Interchange (EDI)).

S. Assess the scalability of the OSS test interfaces using documentation provided by Pacific.

T. Identify the end-user participants (80% Pacific locations, 20% test end).

U. Assess the operations scalability (force management) of the LSC and LOC.

V. Assure statistically valid approach to testing.

W. Chair the Technical Advisory Board.

X. Ensure the Test Generator does not receive any information that a CLEC would not receive under the normal course of business.

Pacific, under the direction of the TAM, provided test accounts that were used to reconfigure, change, and disconnect services for the purpose of Third Party OSS Interface Testing. These test accounts were a combination of local exchange company facilities and database entries in Pacific's systems. Pacific created dummy accounts with Telephone Numbers (TNs) and customer service records (CSRs) that were used in the testing process. Pacific input this data before the test began and established these test accounts as in-place lines of various types. The TAM was provided with the names, addresses and TNs for the test.

1.2.5 Test Generator

The role of the Test Generator (TG) was to execute the test cases and scripts created by the TAM.

The TG responsibilities were to:

A. Receive the orders generated by the TAM.

B. Create pre-orders, issue orders to Pacific.

C. Monitor the orders, ensure their completion.

D. Correct problems encountered in the order generation.

E. Develop system interfaces.

F. Install connectivity.

G. Create and input Local Service Requests (LSRs).

H. Document results of interface development and order generation.

I. Acquire appropriate documentation, attend training and assess quality and completeness of documentation, training, etc. to mirror CLEC activity to build an automated interface.

J. Create and input pre-order queries.

K. Compile a daily log of events capturing the details of its experiences in dealing with Pacific.

L. Create the TG Final Report.

The TG developed and submitted orders against the created test accounts. Test calls were made from the test line (connected to telephones dedicated to testing) so that billing information (daily usage feeds and telecommunication charges) could be collected. The test accounts were on Pacific's real production systems and set aside for the use of the TG. The TAM, based on the MTP, determined the test account requirements.

1.2.6 WorldCom

WorldCom was responsible for providing the Electronic Bonding (EB) test vehicle. The purpose of the EB testing was to evaluate the trouble request process, status and repair (e.g., the ability to receive and process a mechanized trouble report) and the ability to perform a Mechanized Loop Test (MLT) where appropriate. The test validated the electronic process of inquiries, status requests, and the proper disposition of the trouble report through the trouble report process.

The EB test process was a joint effort between the TAM and WorldCom. The on-site TAM representative provided WorldCom the information necessary to successfully enter a trouble ticket. The WorldCom service representative initiated an MLT test via the EB interface. If the MLT was successful, or if the trouble was on the provisioning side, a ticket was then submitted to Pacific via the EB system. The method by which a trouble ticket was created and submitted to Pacific is outlined in the Cap Gemini Ernst & Young/WorldCom EB Test Plan. This Test Plan is included as supporting documentation to this report.

1.2.7 Competitive Local Exchange Carriers

Under the administration of the TAM, selected CLECs were collectively responsible to provide local switch, collocation cage and Digital Subscriber Line Access Multiplexer (DSLAM) facilities to support Loop and Local Number Portability (LNP) testing. The Technical Advisory Board was the forum for this participation.

1.2.8 Technical Advisory Board

A Technical Advisory Board (TAB) convened on October 8, 1999. Its membership consisted of the CPUC, TAM, TA, TG, up to five representatives from Pacific and up to three representatives for each of the five participating CLECs. Its charter was to participate in the Test Effort in accordance with the procedures defined in the MTP and provide CLEC support as requested by the TAM.

In addition, TAB members, as determined by the TAM, reviewed specific test processes and offered advice, observations and input to the test process. This was done to enable the CLECs and Pacific to provide feedback on the testing as requested by the TAM.

1.3 Task Items

Table 1.3-1 is a high level chronological list of the key events performed in this test effort from its inception. This is a high-level list of items.

Table 1.3-1 Task Items

TASK ITEM	**DATE**
Pacific petitions to join the long distance service market	3/98
CPUC decision to conduct as OSS test issued	12/98
Initial proposed MTP submitted	2/99
A two-week work session is held to determine the performance criteria of the MTP	6/99
Joint Partial Settlement Agreement (JPSA) adopted	8/99
MTP Issued	8/99
Request for TG Proposal issued	6/99
Request for TAM and TA Proposal issued	8/99
TG selected for OSS Test Effort	8/99
TAM and TA selected for OSS Test Effort	9/99
TG Test Plan Issued	10/99
OSS Test Effort (GUI phase) commences	12/99
OSS 271 Test Effort (EDI phase) commences	3/00
OSS 271 Test Effort (Capacity phase) commences	9/00
OSS 271 Test Effort completes	10/00
OSS TG Final Report submitted	12/00
OSS TAM Final Report submitted	12/00

2 BACKGROUND

The following sections provide a description of the purpose of the CPUC 271 Test project, the approach for the test effort, and the scope of the effort. This is provided for those who were not involved in the project and would like a background understanding of what has conspired. Those who have an in-depth understanding of the Pacific project may proceed to §3 OSS Test Summary for the results of the project.

2.1 Overview of Telecommunications Regulation

2.1.1 Telecommunications Regulation Before 1996

Prior to 1996, telecommunications was regulated by two primary entities. The Federal Communications Commission regulated interstate services. Thus, it was responsible for regulating long distance calls that crossed state lines, as well as the rates local telephone companies charge long distance carriers when their customers make or receive long distance calls ("access charges"). State public service commissions, like the CPUC, regulated local or intrastate telecommunications services. For example, they oversaw the rates and quality of service local telephone companies provided to their retail customers.

In the early 1980s, a third source of telecommunications regulation became prominent. In 1984, AT&T, the monopoly provider of local and long distance telecommunications, was broken apart in a process call divestiture. The principal reason for divestiture was to promote long distance competition. The idea was that so long as one company, AT&T, controlled both local and long distance telecommunications, it could prevent (or at least would have strong incentive to prevent) competing long distance carriers from obtaining the access they needed to local telephone lines. Thus, AT&T was broken into a long distance entity (AT&T) and seven local companies, which were known as Regional Bell Operating Companies (RBOCs) or Bell Operating Companies (BOCs). And, a new legal source, called the Modification of Final Judgment ("MFJ"), prohibited the RBOCs from offering certain services, including long distance services.

2.1.2 Telecommunications Act of 1996

The Telecommunications Act of 1996 made three key changes in telecommunications regulation. First, although some individual states had begun the process of opening local telecommunications to competition, the Act established a single set of requirements to ensure that such local telecommunications competition occurred nationwide. To do that, it imposed certain requirements on BOCs, which are found in Section 251 of the Act. To encourage BOCs to more fully open local telecommunications markets and to create additional long distance competition, it also provided a way for BOCs to get rid of the MFJ's prohibition on providing long distance services. Section 271 of the Act contains a list of items with which a BOC must comply before it is allowed to offer long distance services. That list is often referred to as "The 271 Checklist."

The 271 checklist only provided a framework of those requirements; the Act required the FCC to fill in that framework by detailing the specific actions an RBOC would have to

take to demonstrate that it met each item in the checklist. The FCC did that in a series of orders beginning in August 1996.

One of those FCC requirements is that a BOC must demonstrate to its state commission, and then to the FCC, that its operations support systems ("OSSs") enable competitors (known as "CLECs") to offer local telecommunications services on a nondiscriminatory basis. (OSSs include the basic systems and functions that are part of ordering, maintaining, repairing and billing for telecommunications services.) Because this demonstration is highly technical and complex, state commissions, like the CPUC, have engaged companies like Cap Gemini to test and evaluate a BOC's OSSs.

The state commission then considers the results of that test and evaluation along with the BOC's evidence of compliance with the other 271 Checklist items, to determine whether it agrees that the BOC has met each item on the 271 Checklist. Once that determination has been made, the BOC files its application to offer long distance services with the FCC. The FCC considers the state commission's determination, along with the recommendation of the United States Department of Justice, and decides whether to grant the BOCs' application. To date, the FCC has approved four such applications: Bell Atlantic in New York, and SBC in Texas, Oklahoma and Kansas.

2.1.3 FCC Standards for Testing and Evaluating a BOC's OSS

In its orders approving these BOCs to offer long distance services, the FCC has established certain standards that apply to the testing and evaluation of a BOC's OSSs. There are three types of testing and evaluation that are required:

1. Functionality Testing
2. Capacity Testing, and
3. Performance Measurement Analysis.

This testing and evaluation is done of the five "critical" OSS functions: pre-ordering (including access to loop qualification information), ordering, provisioning, maintenance and repair and billing.[1]

2.1.3 Functionality Testing

[1] In the Matter of Joint Application by SBC Communications Inc., et al., for Provision of In-Region InterLATA Services in Kansas and Oklahoma, Memorandum Opinion and Order, CC Docket No. 00-217, (Jan. 19, 2001) ("SBC Order") at Paragraph 103

The purpose of functionality testing is to determine whether the BOC has developed sufficient electronic functions and manual interfaces to allow competing carriers equivalent access to all of the necessary OSS functions.[2] In short, the purpose of functionality testing is to determine whether the BOC's OSSs work.

As the FCC has noted, the most probative evidence of whether a BOC's OSSs meet the functionality test is actual commercial usage. Where there is insufficient commercial usage, carrier-to-carrier testing and independent third-party testing are generally required.[3]

2.1.3.2 Capacity Testing

The purpose of capacity testing is to determine whether the BOC's OSSs can handle not only current demand but reasonably foreseeable future volumes.[4] Capacity testing has two components: The first is the volume or stress test, which deliberately puts high volumes through the BOC's OSSs to determine the volume at which OSS performance begins to deteriorate. The second is a scalability analysis which assesses the ability of the BOC to increase the capacity of its OSSs to meet increasing demand.

2.1.3.3. Performance Measurement Analysis

The FCC has established two types of performance measurement analysis. The first is for those functions that are like functions that the BOC provides to its retail customers. For those functions, a BOC must demonstrate that it is providing OSS access to competitors in "substantially the same time and manner" as it does for its own retail service. For functions without a retail analog, a BOC must demonstrate that the access it provides offers an efficient carrier a "meaningful opportunity to compete."[5]

The FCC has emphasized that performance measurement standards developed through open proceedings with input from both incumbent and competing

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[2] SBC Order at Paragraph 105.

[3] Id.

[4] SBC Order at Paragraph 105

[5] SBC Order at Paragraphs 28 and 104.

> carriers, can demonstrate compliance with these requirements. To the extent there is no statistically significant difference between a BOC's provision of services to competing carriers, retail customers or a state's performance benchmark, the FCC has said that it generally won't look further absent other evidence of discrimination by the BOC.[6] Where there is a statistically significant difference, the FCC will consider the degree and duration of the performance disparity, as well as whether the performance is part of an improving or deteriorating trend. Where there are multiple measures for a 271 Checklist item, the FCC will look at performance demonstrated by all the measurements as a whole.[7]

Finally, the FCC considers the BOC's change management process, i.e. the processes the BOC uses to make changes to its OSSs systems, and the technical assistance the BOC provides to competing carriers.[8]

2.1.4 Pacific's OSS Test Effort

The CPUC was charged with the investigation of Pacific's entry into the interLATA telecommunications market, pursuant to §271 of the Telecommunications Act of 1996. In August 1999, after reviewing the MTP proposed by Pacific and conducting a two-week industry-wide workshop, the CPUC issued a finalized MTP setting up the test requirements and the need to have outside consultants assist in the test of the Pacific systems.

As part of this investigation, the CPUC facilitated an evaluation of Pacific's OSS, including the interfacing process which allows CLECs to compete with Pacific in providing local telephone service. These OSS include those that the CPUC has determined are necessary for the mechanized CLEC interfaces for pre-ordering, ordering, provisioning, maintenance and repair and billing capabilities necessary for CLECs to provide local service in Pacific's serving areas. The evaluation tested whether Pacific's OSS provides the CLECs parity or nondiscriminatory access with meaningful opportunity to compete. This was accomplished by using a third party, performing CLEC activity, providing service in Pacific territory in California.

Three parts of the OSS test effort were contracted out. The first part, the TG, was responsible for acting as a CLEC during the Test Effort. The TG interfaced with Pacific by submitting the orders on a day-to-day basis.

The second contracted group was responsible for the Test Administration. This team administered the actual Test Effort. They were responsible for the definition of the test execution and monitoring the consultant selected to act as the TG.

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[6] SBC Order at Paragraph 31.

[7] SBC Order at Paragraph 32, see also Paragraph 136.

[8] SBC Order at Paragraph 103.

The third contracted group, the Technical Advisor Team, was formed to provide an interface team to support the CPUC's overseeing of the Pacific testing.

In the summer of 1999, RFPs were issued by the CPUC. The purpose of these RFPs was to elicit proposals from consulting firms for the teams to perform in the three groups described above. The contracts were awarded to Cap Gemini Ernst & Young (CGE&Y) as the TA, CGE&Y as the TAM, and Global eXchange Services (GXS) as the TG.

2.2 Contract Support

Three contracts were awarded for the Test Effort. The following sections describe the contractual obligations of each of the teams contracted. The three teams formed were the TA, TAM, and the TG.

2.2.1 TA Support

The TA was contracted to provide on-going support to the CPUC during the term of the Test Effort. The TA team consisted of members who have expertise in the telecommunications; OSS architecture, design, and development; and, §271 of the 1996 Telecommunications Act. They assisted the CPUC in their management of the Test Effort.

2.2.2 TAM Support

The administration of the Test Effort was performed by the TAM team. Their level contributions are described in the following sections.

2.2.2.1 MEETINGS

The TAM had the responsibility to facilitate the necessary meetings. These included:

A. TAB – a biweekly meeting attended by representatives from the CPUC, TA, TAM, TG, Pacific and participating CLECs. Matters related to the test effort were discussed and issues raised during the test effort were reviewed.

B. Emergency TAB meeting that were called and facilitated when necessary.

C. Action Item Meeting with Pacific – a weekly meeting held with Pacific. The purpose for these meetings was to raise questions and items of clarification encountered by the TAM that required Pacific's assistance. Pacific maintained a database of the action items raised during these meetings. The attendees included Pacific's management and SMEs along with the management team from the TAM.

D. TAM/TG Issues Meeting – a weekly meeting attended by management representatives from the TAM, TG, TA and CPUC. The purpose of these meetings was to discuss problems encountered and issues related to the test effort. All issues were maintained and tracked in a database that was updated and reissued weekly.

E. Informal CLEC meetings.

F. Internal TAM Meetings:

a) Test Team Status Meeting – a weekly meeting held to discuss the status of the project.

b) Bill Validation Meeting – a weekly meeting held to discuss the status of the bill validation effort. The attendees included the Bill Validation team and a member of the TA.

c) Test Team Status Meeting – a weekly meeting held to discuss the status of the project.

G. Ad-Hoc Meetings were held as needed – to resolve problems during the course of the Test Effort.

2.2.2.2 TEST CASE/TEST SCRIPT GENERATION

The MTP provided the list of services required to be tested for the test effort. The TAM was responsible for generating the test cases and test scripts from the MTP and making modifications as necessary. This effort involved identifying the services to be tested, identifying the test participants, coordinating the facilities, and identifying the TNs to be utilized. The results of this effort are described in further detail in §3 OSS Test Summary and §4 OSS Test Process.

2.2.2.3 TG ADMINISTRATION

The TAM was responsible for overseeing the TG execution of test cases and test scripts created by the TAM. The TAM formed a Test Execution Team to oversee the submission of orders at the TG site. The submission of the orders was the output of the test cases. The results of this effort are described in further detail in §3 OSS Test Summary and §4 OSS Test Process.

2.2.2.4 BILL VALIDATION

The TAM was responsible for validating that the generated bills were correct. The TAM formed a Bill Validation team to review the bills for each of the four Pseudo-CLECs, on a monthly basis, to ensure charges were correct, rates were calculated correctly, compliance to industry standards, bill accuracy and understanding, rounding rules, and timeliness. These four Pseudo-CLECs, Blackhawk, Discovery, Camino and Napa, were set up by the TG as independent companies in order to submit orders to Pacific in the same manner that an actual CLEC operates. The types of products and services ordered by each Pseudo-CLEC were established as part of the Test Case/Scenario generation.

The results of this effort are described in further detail in §3 OSS Test Summary and §4 OSS Test Process.

2.2.2.5 MANAGEMENT PROCESS

The TAM was responsible for generating the daily procedures of the Test Effort. These included procedures for the processing of jeopardy issues, escalation of issues, environment clean up, data purge, expedited Change Management, TAB information dissemination, Test Case Delivery and Monitoring, and Daily Logs. These are discussed in detail in §4.4 Project Performance.

2.2.2.6 PERFORMANCE MEASUREMENTS

The TAM was responsible for tracking performance results. The TAM formed a statistical team to track and maintain performance measurement statistics based on the test effort. Analysis of the test statistics determined the results of the test and compliance under §271. The results of this effort are detailed in §3 OSS Test Summary and §4 OSS Test Process.

2.2.3 TG Support

The TG was contracted to execute the tests for the CPUC during the term of the Test Effort. To accomplish this task, the TG assumed the role of four Pseudo-CLECs in the establishment of the requisite manual and automated interconnections with Pacific for pre-ordering and ordering of various retail UNE products. A Pseudo-CLEC is a company established as a pretend CLEC. It performs the activities of a real CLEC but without real customers or profit.

In this effort, the TG was responsible for recording their contacts and experiences with Pacific and interface with the Pacific assigned CLEC Account Management Team. The TG designed and built the technical interface applications and established the processing infrastructure, including communication links and platforms to support the Pseudo-CLEC interconnection.

The TG processed the orders (Fax, GUI, and EDI) provided by the TAM. In addition, the TG worked in conjunction with the TAM to create the required order tracking mechanisms to log all order activity. As a member of the TAB, they represented the test execution effort and interfaced with the participating CLECs, Pacific, the TAM, TA, and the CPUC.

The TG will report their findings from the Test Effort under separate cover.

3 OSS TEST SUMMARY

This section summarizes the results of the Test Effort. It provides a brief description of each of the areas involved and points of interest or concerns encountered during the project. It provides the findings of the TAM on Pacific's OSS and its capability of meeting the needs of a CLEC.

3.1 OSS Functionality Test

3.1.1 Pre-order/Order/Provisioning

The goal of the Functionality test was to assess Pacific's readiness and capability to provide the CLECs with access to Pacific's OSS for the purpose of performing pre-ordering, ordering, provisioning, maintenance and repair activities to customer accounts.

To reflect the variety of customer orders for local services that CLECs could place with Pacific, LSRs were generated for both resale and UNE services, as well as for business and residential account types. These service group types (SGTs) were tested by processing LSRs for various activity types (i.e., Conversion, Conversion As Is, Changes, Outside Moves, Suspends and Restores, Record Changes, New Connects, Disconnects, Supplements, Directory Listings and Cancellations). The LSRs were transmitted to Pacific via various media including fax, GUI-LEX and EDI. The Functionality test focused on the ability of the CLECs to access Pacific's OSS, perform pre-order queries, issue orders and receive responses back from Pacific. As a result, a total of 2,975 LSRs were recorded as issued, of which 2,615 completions were received.

The Functionality Test was launched utilizing the basic structure set forth by the MTP. However, a rigorous coordination effort was required by the TAM, Pacific, the TG and the participating CLECs to establish serving addresses and collocation facilities that would most efficiently supported the test environment. The results in testing Pacific's OSS are as follows:

A. Test Service Addresses were utilized to the fullest and served the purpose of testing the OSS functionality as product requests were administered. The delivery of the measurements was obtained and end-to-end testing was accomplished regardless of the challenges faced with measuring order volumes based on statistical measures and the matching of test participants to test accounts within their respective areas through out the state of California. See details in §4.1.1.1.

B. Functionality test processes relied on the collection of service account data, test case assembly and order processing supporting the Test Effort. Regardless of the test environment, the processes were developed as close to real life as possible. Despite the complexity of managing all the activities associated with the Test Effort, the established processes supported the analytical requirements of the associated performance measurements. The efforts associated with the Functionality test processes are describe in §4.1.1.2.

C. The LSC Operations were visited twice by members of the TAM during the Test Effort in order to provide a better understanding of the structure and the internal functionality of Pacific's processing of CLEC requests. Focus was placed on observing how personnel work through a normal business day and handle the

activities derived from ordering of flow through and non-flow through orders. It was observed that Pacific LSC is set up mainly to support facilities based CLECs rather than non-facilities based, where faxed requests are not received in a normal basis and non-flow through orders underwent an internal analysis by the service representatives prior to order delivery commitments. Specifics related to the visits and walkthroughs are described in §4.1.1.4.

D. The provisioning LOC was visited by members of the TAM to observe circuit migrations, To Be Call Cuts (TBCC), hot cuts and trouble resolution as performed by the maintenance administrators (MAs). While the main function of the provisioning LOC was to interact with the CLEC, it was observed that the process is not completely automated as folders were kept as a way of scheduling and processing hot cuts. Specifics related to the visits are described in §4.1.1.4.

E. The maintenance and repair LOC was visited by members of the TAM to observe Pacific's handling of service affecting troubles. The TAM observed call-in troubles as well as troubles reported via PBSM and EB interfaces. In the course of the visits it was observed that the CLECs prefer to call in troubles rather than utilizing PBSM or EB interfaces. Specifics related to the visits and testing are described in §4.1.1.4.

F. The TAM visited Central Offices (COs) that service the LA area, Sherman Oaks, Canoga Park and Hollywood. The purpose of these visits was to inventory the 2-wire Circuit Facility Assignments (CFA) provided to the TAM by the participating CLECs. Additionally, the TAM performed frame verification and walkthrough collocation cage set-ups. Specifics related to the visit and activity is described in §§4.1.1.3 and 4.1.1.4.

G. End-to-end testing of AT&T 2-wire loop service orders was performed by the Pacific LOC with a member of the TAM guiding and overseeing the test process. The tests used established and proven procedures and were documented for each service order tested. Details of the end-to-end testing are located in §4.1.1.3.

H. Maintenance and Repair testing was performed to validate the performance of the two different electronic means of issuing trouble reports that are provided by Pacific to its CLEC customers, EB and PBSM.

3.1.2 Maintenance & Repair Testing

In order to replicate the conditions under which all of the different CLECs might operate in the state of California, Maintenance and Repair (M&R) test cases were drawn from all of the different loop types included in Functionality testing. DS-1 orders were tested according to the Assigned Commissioner's decision. M&R testing consisted of a set of test cases, the majority of which were 2-wire loops that were utilized during Functionality testing, against which trouble conditions were induced by Pacific contacts prior to the reporting of trouble. The trouble conditions placed on the lines were representative of "real world" troubles experienced by CLECs. M&R testing was also comprised of any unplanned troubles that were noticed on the lines during the course of the end-to-end testing that was performed in Functionality testing. An additional set of tests was performed to document the average amount of time that passed following the completion

of line conversions or new installations until automated trouble reports could be successfully generated against them.

PBSM was maintained at the TG site and was available for use by the TAM throughout the course of the Functionality testing. A TG resource was trained to use the PBSM system and was partially dedicated to the performance of M&R testing, as directed by the TAM.

EB testing required the use of a third-party CLEC EB system and resources. This necessitated the coordination of three separate visits to a CLEC site to perform the testing. For each phase of the testing, the EB system was made available to the TAM CLEC resources who were skilled in the generation of trouble reports through the system.

Prior to the commencement of testing, an EB test plan was adopted by the participating CLEC and the TAM that outlined the testing to be performed during each visit. The test plan defined the normal steps that occurred during the creation and submission of a trouble report through the EB system, including the steps which were unique to our testing, rather than normal practice. This test plan served as the guiding process document for EB testing and was subject to revision throughout testing as needed.

3.1.3 End-User Test

The purpose of the End-User Test (EUT) was to generate usage and create billing from specified telephone lines at multiple test sites. End Users were selected test participants with accounts established having actual service from the ILEC via the Pseudo-CLEC. The establishment of the account was for the purpose of making and receiving calls for the period of the Test Effort. The EUTs were based on a predefined set of test cases from the MTP. The detail of the EUT is provided in §4.1.3.

The results of the EUT are as follows:

A. Telephone lines were installed despite the problems outlined in the observations subsection of §4.1.3.

B. Pacific was able to provide dial tone.

C. Usage calls were made based on the EUT test cases in order to create billing.

D. The features provisioned on the telephone lines were operational except as detailed in the observations subsection of the End-User Test section.

The final result was that telephone calls could be made to generate usage and billing and Pacific was able to provide dial tone, features, and services for each Pseudo-CLEC customer and telephone line used in the EUT.

3.1.4 Bill Validation

The primary purpose of Bill Validation was to verify that Pacific, through Carrier Access Billing System (CABS), was able to supply the CLECs with accurate and timely electronic and hard copy bills per MTP section 4.2.5.1. The activities included in Bill Validation are:

Assessing the accuracy and timeliness of wholesale bills, usage data and billing records for the services, features, network items (e.g. loop, port) and functions ordered and

provisioned. Verifying that the rate center specific pricing was applied to recurring, non-recurring, usage sensitive and miscellaneous charges.

The results of the Bill Validation Test were as follows:

A. The bill complied with detail and format as indicated in the Telcordia CABS Billing Output Specifications.

B. The usage complied with detail and format as indicated in the Ordering and Billing Forum (OBF) guidelines for the EMR format.

C. The rates were applied correctly for each product, service or element.

D. Surcharges were applied appropriately for the jurisdictions.

E. Products billed in advance as well as recurring and non-recurring charges were billed accurately.

F. Discounts, adjustments and calculations were performed appropriately.

G. Rounding rules were applied accurately.

H. Prorated amounts were charged accurately according to the disconnect date.

I. What was ordered was what was billed.

J. Disconnects were processed and appeared accurately on the bill.

K. The bills (hard and electronic copies) and usage feeds were received in a timely manner.

The final result was that Pacific (through CABS) supplied the CLEC with accurate and timely electronic and hard copy bills. The detail of the bill validation effort is provided in §4.1.4.

3.2 Capacity Test

3.2.1 Capacity (Volume/Stress) Test

The purpose of the Capacity Test, was to evaluate whether Pacific's OSS had sufficient capacity to handle the workload volumes required to support CLEC pre-order and ordering activities. The Capacity Test validation evaluated the ability of Pacific's OSS and interfaces to:

A. Perform in a stable manner under a defined workload.

B. Determine the ability to scale for larger workloads.

The Capacity Test performed three tests on Pacific's systems. These tests consisted of an independent pre-order test, an independent order test and a combined pre-order/order volume stress test to test the processing limits of Pacific's systems.

Based on the Capacity Tests conducted by the TG and the evaluation by the TAM of the performance measures of the Capacity Test, the following results and recommendations are provided:

A. The pre-order test count reconciliation identified no major count discrepancies between the TG and Pacific (only 21 out of 42,762). Pre-orders transmitted to Pacific's system were processed and reported satisfactorily.

B. The pre-order test performance measures for Pacific were within the benchmarks required by the JPSA service levels (see Table 4.2.1-8). For all query types the average interval times were below the JPSA benchmarks set.

C. The order test count reconciliation did not identify any major count discrepancies between the TG and Pacific (all 7,340 reconciled). Orders transmitted to Pacific's order systems via both the LEX and EDI interfaces were processed and reported satisfactorily.

D. The order test performance measures for Pacific at capacity order volumes of 173% over their current production baseline were found to be within the benchmarks required by the JPSA service levels (see Table 4.2.1-10). The service levels for JPSA Measurement 2 – Average FOC Interval for Automatic Order Generator (AOG) orders and Measurement 3 – Average Reject Notice Interval for the order capacity test were below the JPSA requirements of 0.33 hours (20 minutes) for each of these measurements.

E. The combination pre-order/order stress test count validation for FOC AOG orders and order rejects did not identify any major discrepancies between the TG and Pacific's counts (only 1 out of 11, 643). The exception reconciliation identified a recommendation for a potential system enhancement for orders sent with non-valid terminators as described in this section.

F. The combination pre-order/order stress test count validation for pre-orders in the DataGate interface test did not find any major count discrepancies between the TG's and Pacific's pre-order counts (only 24 out of 12,705).

G. The calculation of pre-order query performance measurements for the combination pre-order/order stress test were within the JPSA Measurement 1 benchmarks for average response time for pre-order queries (see Table 4.2.1-12).

H. The combination pre-order/order stress test identified that Pacific's order system had the capacity to process a large volume of orders at an overall 251% increase over baseline with the following findings noted:

   a) JPSA Performance Measurement 2 – Average FOC time interval benchmark was met for resale orders but was not achieved for non-resale AOG eligible orders. Performance Measurement 3 – Average reject notice interval did meet the JPSA performance benchmark for error rejects in Pacific's system.

   b) The peak hour volume for which Pacific's order system could support the JPSA Measurement 2 average FOC interval was 1,223 or 297% of baseline orders. However, the JPSA benchmark could not be sustained at this volume. A more reasonable assessment for a sustained order volume of approximately 1,000 orders would be more realistic.

   c) Pacific's order systems were able to process a peak hour workload of 3,047 orders or 739% of baseline at a degraded FOC time of 3.32 hours.

d) The large volume of orders entered in Pacific's order system did not crash or harm their system but only degraded the response time of the AOG eligible orders receiving FOCs.

e) Despite the degradation in FOC times, Pacific's order system was robust enough to process all capacity test and production orders and resume JPSA measurement benchmark requirements by 7:00 p.m. that day.

f) Based on a trend analysis of Pacific's historical production volumes and a predicted ability of maintaining an approximate 1,000 orders/hour order rate, Pacific's systems have the capacity available to support production volumes for the next 10 months.

I. In as much as Pacific systems did meet the JPSA benchmarks per the MTP requirements for the pre-order and order test, the TAM noted in §4.2.1.6 a number of observations which surfaced some recommendations relative to the optimization of Pacific's systems operations. These items are delineated below and any corrective actions should be addressed by Pacific.

a) Conduct further analysis to determine why Pacific systems are generating systems exceptions and install a fix for the problem. Pacific systems should have a method of identifying invalid data parameters for 804 error codes. For RC-11 return codes this was caused by a DataGate module problem and this should be corrected. The TAM was informed that this was an infrequent occurrence, however, it occurred on both of the order capacity tests run by the TG.

1. Tighten up the controls on reporting DataGate counts on queries. Follow up on changing the nightly jobs to insure that all files are received when loading the data.

2. Follow up on investigating the ability to add multiple paths from the Service Order Retrieval and Distribution (SORD)/AOG systems to interface with Local Access Service Request (LASR). This will help fine tune their system to reduce the order FOC interval times encountered during the capacity stress test.

3. Tighten up the controls on loading Due Dates for the Exchange/Central Offices (EXCOs) prior to the daily production runs rather then periodically during the day.

4. Ensure all security servers for dial-in users to Verigate/LEX are proactively monitored by Data Center staff. Analyze the appropriateness of systems logs and whether they are providing enough information to diagnose failures. Adequate systems monitoring should enable corrective actions to servers to be made before users are calling in to notify Pacific of a dial-in problem.

5. Continue to proactively monitor modem pools and connectivity software and hardware to insure that dial-in users are adequately being connected. Assess the network connectivity logs to insure that Pacific staff can readily identify

when users log on and log off the network and whether they provide the needed information to track dial-in users encountering problems.

6. Implement an edit for detecting terminator problems when data is being transmitted via the EDI interface. Establish a method to uniformly report these errors rather then have some of these fall out as exceptions.

3.2.2 Scalability Analysis

Pacific's pre-order and order activities depend on the capabilities of certain computer systems. The TAM performed a system scalability analysis to determine if Pacific has adequate procedures for scaling its systems to have the capacity to handle the CLEC's loads. The analysis includes evaluation of:

A. Procedures for tracking OSS loads and capacities.

B. Procedures for forecasting future OSS loads.

C. Process for providing OSS computer growth.

In many cases Pacific's pre-order and order activities depended on manual processes. The TAM performed a staff scalability analysis to determine if Pacific has the ability to increase the number of personnel available to perform these manual functions. The analysis included evaluation of:

A. CLEC support centers workforce development modeling procedure documentation.

B. In-place volume contingency plans to meet dramatic increases in CLEC order volume.

C. Disaster recovery plans documentation to assure continued operations.

D. The scalability of recruiting and training programs to provide for the availability of staff with the necessary skills to adequately perform the manual support function.

The results of the Capacity Test, combined with the appropriate scalability analysis provides information relating to the commercial readiness and robustness of the Pacific's OSS under test conditions.

3.3 Performance Measurement Evaluation

As presented, the statistical analysis of Pacific's performance measured data is somewhat limited. A large amount of CLEC and Pseudo-CLEC performance data was unable to be analyzed due to incomplete Pacific data necessary for comparative analysis. Moreover, no statistical analysis of measures adhering to a benchmark standard was possible as a result of a decision by Pacific and CLECs to not use standard deviations from CLEC data.

As described in §4.3.4, the TAM believed that the test case data validation was not complete, and that depending on certain responses to several outstanding queries to Pacific, the statistical analysis might be thrown into doubt. This issue was clarified by the TAM in a letter dated 1/2/01 sent to the CPUC and service list of this proceeding and is referenced in the footnote on page 33. In the event that Pacific is unable to verify the

appropriate inclusion of all test data satisfying its business rules, the validity of data used in the statistical analysis will be potentially inaccurate. For this reason, the TAM recommends a supplemental filing with the findings of the test case validation. If all data discrepancies cannot be resolved, the TAM recommends a full reconciliation of test case data with Pacific similar to the process currently underway between CLECs and Pacific.[9]

3.4 Project Statistics/Metrics

Performance data analyzed revealed that the Pseudo-CLECs generally received parity service levels from Pacific (see section 4.4). Moreover, Pseudo-CLEC parity level surpassed the benchmark standards for most levels for most months. When a one-sided test compared commercial CLECs to the Pseudo-CLECs, commercial CLECs in most

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[9] On December 19, 2000, the CPUC hosted a workshop for parties interested in the Final Report of the Pacific Bell Operations Support Systems as presented by Cap Gemini Ernst & Young, the Test Administrator Manager (TAM). The intent of this workshop was to provide a structural overview of the report to facilitate the audience's review of the report and development of questions for the second workshop scheduled to be held January 16-18, 2001. Due to confusion regarding Section 3.3 (Performance Measurement Evaluation) and Section 4.3.5 (Recommendation), perceived by the TAM during the workshop discussion, this clarification is provided for the benefit of all readers.

As stated in Section 4.3.1 ([Performance Measurement Evaluation] Overview), the TAM

> '…was instructed to accept the findings of the PWC PME pursuant to CPUC ACR 93-04-0003 & 95-04-043 dated 9/22/00 and proceed with the statistical analysis of Pacific's existing performance results as reported to test for parity. CGE&Y was also required to validate the accuracy of all test case data reported by Pacific and its representation in Pacific's reported performance measurement results.'

Following this directive, the TAM's statistical team proceeded to check some test case data against the performance measurement raw data as a systematic approach to establish the flow of the data. During this analysis, some inquiries were submitted to Pacific regarding the status of some specific test cases. These inquiries on specific test cases were answered and the TAM was satisfied that the proper business rules had been applied to the test cases in question. However, no report of test cases excluded from each Performance Measurement with the reason for exclusion was available from Pacific to check the application of business rules on all test cases. As described in Section 4.3.4, (Test Data Validation),

> 'Although complete validation was not possible, the TAM determined that validating the performance results for two months would provide adequate evidence that Pacific was correctly applying its business rules and included all relevant Pseudo-CLEC activity. The TAM selected the months of April and July for this validation. April was selected since it is the month that functionality testing through EDI was initiated. July was selected since it is a month with high activity.'

There are no outstanding queries to Pacific Bell regarding the status of any test case in the Performance Measurements and the TAM considers the validation of the test case data complete.

The TAM statistical team continued with the Performance Measurement calculation and ILEC/CLEC/PCLEC comparison analysis under the Commissioner's directive that the data validation was to be addressed by the Commission's Performance Measurement proceeding. Therefore, the analysis in the Final Report is completed based on the assumption that all data is valid. However, as a result of this analysis and questions that were not required to be answered due to the Commission's directive, the TAM has recommended in Table 3.10-1 (Performance Measurement Category 1 recommendation), that a full data reconciliation analysis should be completed according to the process to be determined by the Commission.

cases received parity service. However, although results were in parity, it appeared that in the great majority of cases the Pseudo-CLECs received slightly better service than the commercial CLECs. This was evident by the fact that Pseudo-CLECs met or surpassed benchmark measures at a higher rate than commercial CLECs.

3.5 Change Management

The Change Management (CM) process used by Pacific is highly organized and well thought out. It is the process used by Pacific to notify the CLECs of software enhancements. This interactive process between the ILEC and CLECs provides an open avenue of communication. The CM team is clearly defined and contains CLEC contact points for problems regularly scheduled meetings, on-the-fly meetings, account management, and test management.

The Pacific CM process has evolved from the process used for one state into the process now used for the SBC 13-State area (Arkansas, California, Connecticut, Illinois, Indiana, Kansas, Michigan, Missouri, Nevada, Ohio, Oklahoma, Texas, and Wisconsin). The Pacific process became the CM process when SBC acquired Pacific as part of their eight-State alliance (Arkansas, California, Connecticut, Kansas, Missouri, Nevada, Oklahoma, and Texas). When SBC acquired the Ameritech companies (Illinois, Indiana, Michigan, Ohio, and Wisconsin) it expanded the CM process to cover all 13 companies. The TAM recommends that, due to the fact that this evaluation was for Pacific only, a thorough analysis be made of the SBC 13-State process for its effect on California.

In addition to using the CM process, the CM Manager for California CM process is now the Director of CM for SBC. This has provided a continuity of ensuring that the process works as originally designed.

3.5.1 Scope

The scope of the CM evaluation was the review of process functionality during a software release in October 1999. The reason for this determination was the original length of the Test Effort did not cover a time period when a software release was scheduled.

The original direction was to interview two CLECs regarding their interaction with the CM process for the October 1999 software release. However, interviews were conducted only with one CLEC, AT&T. Two other CLECs were contacted but were unable to participate in the interviews due to scheduling conflicts.

A meeting was held with AT&T who provided their feed back on the October software delivery and the CM process. Although AT&T did not think the process was perfect, they generally felt it was sufficient and provided a defined process.

A detailed description is contained in §4.5.

3.5.1.1 CONCERNS

The following areas of concern were encountered during the CM evaluation period and are discussed in detail in §4.5.5.

A. Accessible Letter access to the Pacific web site.

B. Future of Pacific CM process in relationship to SBC.

C. Documentation on CM processes within the Pacific teams.

3.6 Training

3.6.1 Overview

Pacific has an extensive selection of courses that are taught on a regular basis in either the Oakland or Torrance training centers. A list of the courses is maintained on their web site. Customers can log on the network and access the list of courses without the need of special access or password. These courses are available for the ILEC, CLEC and reseller staffs.

3.6.2 Scope

The scope of the training process evaluation was the review of the training provided by Pacific for the CLEC community. The evaluation provides a view of how the training is organized, its content, and its value to the customer. The training attended by the TAM covered two areas:

A. Bill Validation Training – training attended by the bill validation team associated with the billing process and how to perform the verification of the bills received. The only course attended was CLEC Workshop Billing.

B. Capacity Test Team Training – this was the training needed by the team that performed the Capacity testing. The only course attended was the Toolbar course.

A detailed description of the Training is provided in §4.6.

3.6.3 Bill Validation Training

3.6.3.1 TRAINING PROCESS

The training by Pacific was adequate but does not meet the expectations as advertised. The course provided the necessary information on bill layout. However, instruction on bill validation was a problem area. The trained instructor must have detailed knowledge of the subject to be able to teach others and have the background details to answer questions posed by the students. This problem was apparent even in the basic course that would be taught to the general users of the product, not the future instructors. More detail is provided in §4.6.

3.6.3.2 CONCERNS

The following areas of concern were encountered during the evaluation of the Bill Validation training and are discussed in detail in §4.6.2.

A. Course Description – The description provided for the course implied a more detailed level of training and training on how to validate the correctness of the bill.

B. Documentation – The training materials do not provide the breadth needed for the attendee to take the course and teach it to others. Additionally, the documentation required by the CLEC to understand the bills and the file layouts must be purchased by the CLEC as opposed to being provided by the ILEC.

C. Train-The-Trainer Program – A train-the-trainer program requires in-depth training to provide the attendee with the knowledge and comfort to take the course to others.

3.6.4 Toolbar Training

3.6.4.1 TRAINING PROCESS

The training provided by Pacific was good and the instructors knowledgeable. The course provided the basic information necessary for Toolbar operation. As with the bill validation course, the Toolbar class provided the training for a general user but did not provide the in-depth knowledge required by an individual to instruct others. More detail is provided in §4.6.3.

3.6.4.2 CONCERNS

The following areas of concern were encountered during the evaluation of the Toolbar training course and are discussed in detail in §4.6.4.

A. Course Description – The course was not a train-the-trainer course as advertised in the course description.

B. Documentation – The course material supplied was developed as a single reference source for multiple platform users. This made it difficult for users of each platform to clearly distinguish the appropriate sections for their environment.

C. Train-The-Trainer Program – A train-the-trainer program requires in-depth training to provide the attendee with the knowledge and comfort to take the course to others.

3.7 Supporting Processes

The project performance was evaluated in the areas of the support efforts accomplished for the Test Effort. The areas that were included in this evaluation were:

A. The baselining effort performed to maintain the MTP.

B. The evaluation of the CLEC participation in the Test Effort.

C. The communication process used during the Test Effort.

D. The documentation provided to the TAM for the Test Effort.

E. The administrative processes that were developed.

3.7.1 Master Test Plan Baseline

The MTP, originally created by Pacific, went through revisions as a result of reviews by Pacific and workshops participated in by the CLEC community. The initial document (version 1.0) was completed in early 1999; edits were made creating version 2.0 that was used in the workshops. The output of the workshops was version 3.0, which was provided to the TAM as the foundation for the Test Effort. The MTP was updated by the TAM as part of the Test Effort to reflect the accurate information for the level of effort performed. The final baselined version 4.0 was created on 3/31/00 and used as the basis for the Test Effort. The MTP Baseline effort is described in detail in §4.7.1.

3.7.2 CLEC Participation

Participation by the CLEC community was provided to support the testing of the UNE services during the Functionality testing. There are five modes of entry for the LSRs by the CLECs: UNE Loop with Port combination, stand-alone LNP, UNE 2-wire loops with and without number portability, and UNE DS1 Loops without number portability. The CLEC involvement was providing collocation facilities across the Pacific regions in support of the loop testing.

The CLECs solicited for involved in this effort were AT&T, Cox, ICG, Northpoint, XO (formerly XO), Sprint, Covad, Allegiance, and WorldCom. Of these support was provided by AT&T, Cox, XO, and Covad. During the generation of the LSRs and testing of UNE loops, the participating CLECs and Pseudo-CLEC were required to function as one facilities-based CLEC where the CLECs were the pseudo-provisioning group for the Pseudo-CLEC for LSR issuance. §4.7.2 provides the detail of the CLEC participation.

3.7.3 Communication

The communication during the Test Effort was the responsibility of the TAM. This involved meetings, teleconferencing, and electronic notification.

Weekly meetings and conference calls were held between the parties involved in the Test Effort (i.e., CPUC, TAM, TA, TG, Pacific, and CLECs). These meetings and calls involved the Issues meeting, TAB, TAM/TG meetings, Action Item call, CLEC meetings, and special meetings as required. The test participants were maintained in a contact list to ensure current point-of-contact information. Daily and weekly reports were generated pertaining to the test execution status.

The detail of the communication effort is detailed in §4.7.3.

3.7.4 Documentation

The documentation produced by the TAM during the Test Effort is defined in the appropriate sections within §4 OSS Test Process.

The supporting documentation that was created for the Test Effort prior to the start of the project and during the project execution required evaluation to determine what information needed to be redacted to ensure confidentiality of data. This effort is described in detail in §4.7.4.

3.7.5 Administration Processes

The administrative process was put in place to manage the support functions of the Test Effort. It provided a way to define and monitor the activities by parties affiliated with the effort. Processes were defined and documented pertaining to:

A. Reporting of daily activity.

B. Management and escalation of issues and jeopardies.

C. Risk management.

D. Management of changes encountered throughout the process.

E. Purging of data and clean up of environment at test completion.

F. Dissemination of information through the TAB meetings.

G. Project Plan.

The detail pertaining to these processes are defined in detail in §4.7.5.

3.8 Issues

Throughout the Test Effort, various action items/issues/jeopardies arose that needed to be tracked and resolved. There were a total of 87 items that were tracked during the Test Effort. Of these items, 38 were action items, 43 were issues and 6 were raised to jeopardy status.

To efficiently monitor the resolution of each item, the TAM developed an issue log, (see Appendix B). The issue log contains the item number, origination, date opened, owner, description, the date resolved and all updates from the weekly status call with the TAM, TG, CPUC and TA. The detail pertaining to the issues is provided in §4.8.

The jeopardies, which are included in the issue log, were shared with the TAB members. These 6 items can also be found in the Project Jeopardies Table 4.8-1.

3.9 Variances to the Master Test Plan

The following is a list of all of the variances encountered during the Test Effort.

A. §4.1.1 Pre-Order/Order/Provisioning

a) The use of Friendlies was incorporated in order to ensure that a sufficient number of LSRs were available for the Test Effort. The creation of the Friendlies accounts caused the following variances:

1. Addresses received that did not match collocation facilities were used to test various types of loop orders (i.e., moves, adds, changes, disconnects, suspends, restores, and stand-alone directories).
2. It was discovered that outside moves of Friendlies service addresses could not be requested between Northern and Southern California, unless In and Out Order Types were generated.
3. The final approval of the TG and Participating CLEC Interface Process Document impacted scheduled testing timeliness.
4. Friendlies moved, disconnected or simply refused to continue with participation in the test. These issues caused generation of additional test orders against the remaining friendly service addresses.
5. Reuse of CLEC facilities for regional measurements as the number of Friendlies diminished.
6. Availability and ability by all of the Participating CLECs to perform 100% end-to-end testing.

b) K1023 DSL outlined in the §4.2.1 of the MTP was not tested. The approach focused on Pacific's OSS system responses, not manual processes.

c) Major variances were made to the Customer Test Bed Accounts as documented in §4.1.1.1 Test Service Addresses and referenced in Issues Log Number 12 and 66.

d) Original end-to-end testing of all service orders was to be performed by each participating CLEC providing facilities to the Test Effort. When AT&T had a problem providing technicians to complete the required testing, the following variances occurred:

1. Pacific's LOC was used to validate end-to-end testing of all Basic and Assured Loop services provisioned by AT&T as referenced by Issues Log Numbers 36 and 60. This was monitored by the TAM.
2. Pacific's LOC was used for testing of LNP migrations for both Stand-alone LNP and LNP with Loop. This was monitored by the TAM.

B. §4.1.2 Maintenance & Repair

a) The decision to document the amount of time it took before Pacific's LMOS accepted electronically generated trouble tickets on newly installed lines was made in June 2000 and was therefore not included in the MTP.

b) The original approach for M&R testing called for an equal split in the number of test cases performed through both PBSM and EB. This became non-feasible after a series of unforeseen problems limited the productivity of the three EB testing phases. As a result, a higher percentage of the test cases were performed through PBSM. 83% of the test cases were entered via PBSM, with the remaining 17% entered via EB. This had no effect on the outcome of the testing, as both systems were front-ends into Pacific's LMOS, which was the OSS being tested.

C. §4.1.3 End-User Test

a) The EUT did not include LNP and UNE Loop (Basic & xDSL) tests. This variance was due to usage testing only being performed on Loop with Port. Pacific does not report usage on any other loop.

b) The LNP and UNE Loop (Basic & xDSL) tests were conducted outside of the EUT using separate End-User addresses, referred to as "Friendlies".

D. §4.1.4 Bill Validation

a) Since the Pseudo-CLECs filed for tax exemption, tax rates were not tested. Pacific did not apply taxes to these accounts, signifying that the tax-exempt status of the Pseudo-CLECs was accurately tracked.

b) In the middle of the testing process, a rate change was applied to the bills in accordance with CPUC 99-11-050. This added to the bill validation testing scope.

E. §4.2.1 Volume/Stress Test

a) In addition to the Pre-Order and Order Capacity tests required in the MTP, the TAM also performed a third test. This test was a combination Pre-Order and Order Stress test to identify at what capacity order limits the Pacific OSS systems would begin to degrade. While it is predicted that Pacific's EDI system will support the major workload for order processing, order

transactions for Pacific's EDI system were significantly increased to test this order threshold.

b) Some deviations to the order mix and volumes for the stand alone order test were made by the TAM which were permitted under the MTP.

c) xDSL orders originally excluded from the MTP requirements were included in the Order Capacity Test since Pacific had upgraded their systems to support AOG eligible orders of this type.

d) Basic Loops with NP new and disconnects were removed from the test because there were not any test bed accounts provided by Pacific for these types of orders. Additional UNE basic loops without number portability were replicated and substituted for these scenarios to make up the difference required for these orders

F. §4.7.1 Master Test Plan Baselining

During the test analysis, the TAM determined that sufficient statistical data was not available for evaluating the following measures for functionality since there was no control to insure an adequate number of orders would qualify for these measures to support an evaluation with a high degree of confidence.

a) Performance Measurement 5

b) Performance Measurement 6

c) Performance Measurement 15

d) Performance Measurement 16

e) Performance Measurement 19

f) Performance Measurement 22

Table 4.4.4-1 in the Project Statistics/Metrics Observation section, §4.4.4.1 detail the actual evaluations performed.

G. §4.7.2 CLEC Participation

a) Actively Participating CLECs

During the TAM's identification of service addresses to support new UNE loops, the participating CLECs were also requested to provide collocation facilities across all four Pacific operating regions to support these loops. During the same period, Pacific established additional retail lines at their building locations that were served by the central offices of the offered collocations. When the expected quantity and regional distribution of collocation facilities that would support a statistically valid sample size was not achieved, the participation of additional members of the California CLEC community was solicited through the Cox TAB representative. At the time, Cox was the point of contact for information dissemination to the non-participating CLECs. Several CLECs responded to this request. Table 3.9-1 depicts the final status of all participating CLECs.

Table 3.9-1 Final Status of Participating CLECs

CLEC	Participation Status
AT&T	2 wire and 4 wire UNE loops in offered collocations, LNP in all areas
Cox	Stand alone LNP, in San Diego and Orange County only
ICG	No reply to TAM request of 1/24/2000 for facility details or process review
Northpoint	11/15/99 notified the TAM that they would not participate.
XO	2 wire and 4 wire UNE loops in offered collocations
Sprint	1/3/2000 notified TAB via Yvonne Gamble of Cox that they will not participate
Covad	DSL only, all regions
Allegiance	1/3/2000 notified TAB via Yvonne Gamble of Cox that they will not participate
WorldCom	2/11/2000 notified TAM that they could not provide facilities

H. §4.7.3 Communication

a) TAM / TG Meetings

During functionality test execution, a weekly meeting was held between the TAM monitoring team and the TG order entry team to facilitate test planning and the resolution of interface questions. No minutes of these meetings were published.

b) Pacific Action Item Call

A weekly call hosted by Pacific was held each Tuesday at 9a.m. Pacific Time between the TAM and Pacific. The CPUC monitored the call. The purpose of the call was to air questions regarding any requirements of Pacific to support the OSS test as well as for Pacific to share pertinent information about their business processes with the CLEC community. The calls continued until 10/3/00, when there were no new questions or actions from either the TAM or Pacific. Pacific's log of the actions discussed on these calls is a part of the supporting documentation.

c) Informal CLEC Meeting/Call

In order to protect blindness to Pacific concerning the processing of test orders, an informal bi-weekly meeting was established on 12/16/00 between the TAM, TG and the CLECs. These sessions facilitated the exchange of collocation information, resolution of procedural questions and airing of CLEC issues for consideration in the test cases. When warranted, this meeting was held weekly. It was conducted both in person on regular TAB meeting days and via conference call on off-TAB weeks. This meeting was in addition to the TAB forum prescribed by the MTP. The CPUC staff also regularly attended the meeting to provide regulatory guidance. The meetings continued through 9/21/00. No minutes of these calls were published.

d) Supporting Documentation Meetings

In order to accurately review all documentation for appropriate redaction of information, which is deemed proprietary to CLECs or Pacific, periodic supporting documentation meetings were held to review samples of all documentation listed in the Supporting Documentation Inventory. See Appendix Q, Supporting Documentation Inventory. A cumulative listing was kept of decisions from these meetings (Supporting Documentation Log), and is incorporated in the Supporting Documentation of this report.

e) Statistical Discussion Calls

In order to allow all interested entities to be aware of questions and/or requests of Pacific from the TAM statistical resources, conference calls were established when requested by the TAM Statistical Team. These calls originated on October 31, 2000, and continued periodically through December 1, 2000. A cumulative listing was kept of questions asked and requests made during these calls (Statistical Discussion Log), and is incorporated in the supporting documentation of this report.

3.10 Recommendations

In the process of the TAM teams performing their various assignments, numerous observations were made. These observations pertain to the procedures followed by the CLECs in their daily activities, and Pacific in its handling of the pre-order and order processing, provisioning, bill validation and training. These observations have been included in the detail sections of §4.0 OSS Test Process.

As a result of these observations, the TAM teams have made recommendations for improvement of service, assistance in process of orders, assistance to the CLECs, better training, and improved support for bill validation. These recommendations have been incorporated into Table 3.10-1.

The Final Report Recommendations table provides a description of the recommendation, the area affected (i.e., bill validation, pre-order/order, provisioning), and the TAM recommended category. The category code (1-3) defines the recommended time frame for implementation. The following are the category descriptions:

A. Category 1 – These recommendations are deemed high priority and the TAM recommends that these items be implemented prior to CPUC approval of Pacific.

B. Category 2 – These recommendations are deemed important and should be implemented within a year after CPUC approval of Pacific.

C. Category 3 – These recommendations are low priority but would be helpful to have and should be incorporated to improve the ILEC support to the CLEC community.

Table 3.10-1. TAM Recommendations

CAT	AREA	RECOMMENDATION
1	Bill Val	The CABS bills do not provide a detail listing of the daily usage. This creates an inability to validate a portion of the bill. Since the CABS bill only provides a summarized roll up of the daily usage total, the CLEC must compare it with the usage recorded over their own switches. If there is a discrepancy, the CLEC must raise this issue with the ILEC. The review process for a discrepancy can be quite lengthy (anywhere from one month to six or more months). Providing the detail information would save both the ILEC and CLEC the time that is currently spent in detailed research and billing negotiation.
1	Bill Val	The Network Element (USOCs/Features) English translation provided in the Pacific documentation (e.g., Interconnection Agreement, OANAD document) does not match the English translation on the bill. This required the bill validation team to expel a great deal of time creating a cross-reference of the USOCs. The ILEC should provide the USOC cross-reference table to the CLEC.
1	Volume/Stress Test	Conduct further analysis to determine why Pacific systems are generating systems exceptions and install a fix for the problem. Pacific systems should have a method of identifying invalid data parameters for 804 error codes. For RC-11 return codes this was caused by a DataGate module problem and this bug should be corrected. The TAM was informed that this is an infrequent occurrence however it occurred on both of the order capacity tests run by the Test Generator.
1	Volume/Stress Test	Insure all security servers for dial-in users to Verigate/LEX are proactively monitored by Data Center staff. Analyze the appropriateness of systems logs and whether they are providing enough information to diagnose a failure. Adequate systems monitoring should enable corrective actions to servers to be made before users are calling in to notify Pacific of a dial-in problem.
1	Provisioning	It is recommended that LEX send a jeopardy notification to Pacific and CLEC and change status to jeopardy when transmission of SOC has been delayed for any reason.
1	TG/ILEC	In EDI documentation, include comprehensive inbound matrices
1	TG/ILEC	In DataGate documentation, include a more complete description of Application Programming Interfaces (APIs)
1	TG/ILEC	Publish and maintain CLEC Managed Introduction process documentation
1	TG/ILEC	Publish and maintain documentation better summarizing standard due date intervals, including typical post-SOC completion intervals, by product and activity type

CAT	AREA	RECOMMENDATION
1	Performance Measurement	If all data discrepancies cannot be resolved, a full reconciliation of test case data with Pacific similar to the process currently underway between CLECs and Pacific. If, as a result of these processes, significant revisions are made to Pacific's reported performance results, then the statistical analysis should be performed again with the correct data.
2	CM	The CM process reviewed for the CPUC Test Effort has been revised to cover the 13-States now part of the SBC. A thorough analysis of this new process should be performed to ensure that no major differences have been incorporated and that the process is still working as well as it did during the October 1999 review period.
2	Training	Training should be available on how to perform bill validation. This course should at a minimum: • Review each of the sections of the bill. • Provide an understanding of where the information comes from. • Provide an understanding of recurring/non-recurring charges – what they are, where they come from, how they are calculated. • Provide an understanding of how the OANAD rates translate to the USOCs. • Provide an understanding of how usage charges are applied to the bills.
2	Volume/Stress Test	Tighten up the controls on reporting DataGate counts on queries. Follow up on changing the nightly jobs to insure that all files are received when loading the data.
2	Volume/Stress Test	Follow up on investigating the ability to add multiple paths from the SORD/AOG systems to interface with LASR. This will help fine tune their system to reduce the order FOC interval times encountered during the capacity stress test.
2	Volume/Stress Test	Tighten up the controls on loading Due Dates for the EXCO's prior to the daily production runs rather then periodically during the day.
2	Pre-Ordering	Provide complete customer service address information on the Customer Service Record (CSR) (i.e., sub-location, zip codes where appropriate).
2	Pre-Ordering	Verigate needs to show DSL up-to- loop qualifications for each address.

CAT	AREA	RECOMMENDATION
2	Provisioning	More emphasis need to be placed on MLT maintenance routine to ensure Loop testing equipment is available to the Maintenance Administrator at the LOC.
2	Bill Val	The CABS directory listings format should be reviewed. It is limited in the information it provides to the CLEC. Rather than providing detailed information about each listing ordered, it gives a daily roll up of the number of business and residential listings processed. It would be advantageous to the CLECs to have the Detail of Other Charges and Credits section of the Listings bill itemized by PON and TN.
2	Bill Val	Pacific should provide access to tariffs applicable to CLECs. The information contained in the tariffs is essential for the CLECs to do their validation. The Bill Validation Team had to request a copy of the Directory Listing section of Tariff 175-T from Pacific to perform validation on the Listings bills.
2	Pre-Order/ Order/ Prov	After account migration to a CLEC, any changes made to the account by Pacific must be notified to the CLEC both verbal and written.
2	Bill Val	The CLEC is required to purchase the bill format documentation from Telcordia. One copy of this documentation should be supplied by the ILEC. If additional documentation is required or the CLEC wishes to make copies, then the CLEC can purchase documents or a licensing agreement from Telcordia.
2	Bill Val	Accessibility of documentation on the Pacific web site is a problem is the CLEC does not have Word95 loaded on their machines. Word 97 will not access the documentation on the Pacific web site. This causes a problem that needs to be addressed by Pacific to determine if there is a way their web site software can be compatible to later version of Word than Word95.
2	Training	In depth training is needed in the format of the CABS bills. The current training provides an overview of the bill but does not provide the detail of where the information on the bill comes from and how it is organized on the bill.
2	Training	The training programs provided by Pacific are advertised as train-the-trainer programs. They are not in-depth enough to be train-the-trainer programs. Pacific needs to revamp their training course to provide the in-depth training required to be able to train others.
2	Volume/Stress	Continue to proactively monitor modem pools and connectivity

CAT	AREA	RECOMMENDATION
	Test	software and hardware to insure that dial-in users are adequately being connected. Assess the network connectivity logs to insure that Pacific staff can readily identify when users log on and log off the network and whether they provide the needed information to track dial-in users encountering problems.
2	Volume/Stress Test	Implement an edit for detecting terminator problems when data is being transmitted via the EDI interface. Establish a method to uniformly report these errors rather then have some of these fall out as exceptions.
2	TG/ILEC	On web site clec.sbc.com, improve Accessible Letter (AL) search capability by topic within state
2	TG/ILEC	Provide separate training and/or test environments, similar to the EDI test environment, for each CLEC-accessible Pacific Operations Support Systems
2	Pre-Order/ Order/ Prov	The TAM recommends that Pacific reduce the interval between completion of an order and update of Pacific's backend system to avoid delays in the availability of the account to issue subsequent orders.
2	Performance Measurement	The statistical analysis included in the Final Report be redone with the corrected and complete data provided by Pacific.
2	Performance Measurement	Procedures be developed to automate and to verify data as it is entered in Pacific's performance reports.
2	Performance Measurement	A supplemental filing is needed with the findings of the test case validation.
3	Ordering	Pacific system need to be updated to accept a single service order request to move services between regions, instead of issuing two service orders,(i.e. Disconnect and New Install)
3	Pre-Ordering	Include information in CSR when the customer is served out of remote switch.
3	Provisioning	A CFA Audit process should be established to allow CLECs to verify status of their facilities.
3	Provisioning	Pacific should establish a post-SOC process to verity that requested and tested features have been provisioned in the switch.
3	M&R	Improve up-front edits in PBSM ticket generation to eliminate errors, which cause manually handled trouble tickets.
3	TG/ILEC	Bring up Verigate each day at least an hour earlier to coincide with or precede LEX availability
3	TG/ILEC	Consider making Pacific systems available standard business hours across at least the three continental U.S. time zones (5AM

CAT	AREA	RECOMMENDATION
		PDT until 5PM PDT)
3	TG/ILEC	Consolidated documentation describing how Pacific's business rules differ from EDI standards
3	Performance Measurement	The data reduction procedures should include the computation of median and interquartile distances
3	Performance Measurement	In the event the CPUC required a second statistical test, then the benchmark measures should be evaluated on a statistical basis and not by an absolute standard. This is the only way to fairly evaluate Pacific's service provisioning performance

4 OSS TEST PROCESS

The OSS Test Process encompasses the generation and execution of test cases, validation of the tests, validation of the bills for the executed tests, validation of the performance measurement items, and the measurement of the project statistics and metrics. The generation and execution of test cases are covered in §4.1 OSS Functional Test for the Pre-order/Order/Provisioning, Maintenance & Repair, End-User Test and Bill Validation. §4.2 contains the detailed information regarding the Capacity Test, which is comprised of a Volume/Stress Test and a Scalability Test.

The performance measurements and project statistics and metrics are detailed in §4.3 Performance Measurement Evaluation and §4.4 Projects Statistics/Metrics. Table 6-4, Performance Measurements in the MTP defined the performance measurement criteria and has been included in Appendix C, Performance Measurement Criteria.

The evaluation of the results of the Functionality Testing is provided in §4.3 Performance Measurement. The Performance Measurement criteria against which the testing was evaluated is located in Appendix C.

4.1 OSS Functionality Test

As described in §6.3 of the MTP, Functionality Test Requirements, the purpose of the Functionality Test was to "determine whether a pre-determined set of customer ordering scenarios, representing a set of customer ordering capabilities, can be originated based on information accessed from the Pacific pre-ordering system(s)" and then "pass through the ordering, provisioning and billing systems, such that service requested is provisioned and billed accurately". This set of ordering scenarios was also to reflect the anticipated future business environment as determined by the CPUC.

With the exception of DS1 service, statistically valid sample sizes of test case scenarios for each loop type were submitted. The sample size of DS1 loops completed is smaller due to a Pacific business policy that prohibits co-mingling of copper loops on the DS3 collocation facilities that were offered. On November 21, 2000 ACR 93-04-003 and 95-04-043 determined that the Test Effort would include as many DS1 orders as could be supported and further evaluation of Pacific's DS1 service would be completed outside of the Test Effort.

Measures applied to the Functionality Test included two kinds of Performance Measures that help evaluate the outcome of the Functionality Test:

1. Parity Measures – designed for OSS functions with real analogs. Tested whether the quality, accuracy, and timeliness of access Pacific provided to the CLECs equals the level that it provides to itself, its customers or its affiliates.
2. Benchmark Measurements – utilized where no retail analogs existed. Examined whether Pacific provided OSS access to the CLECs at a level of performance that satisfied commission-ordered standards (e.g., benchmarks).

4.1.1 Pre-order/Order/Provisioning

The Pre-order/Order/Provisioning (POP) test effort involved two phases, the front-end creation of the accounts and the generation and processing of the test cases. The front-end process involved the set up of the Test Service Addresses and is described in §4.1.1.1. The Functionality Test Process that includes the creation of the test cases from the information generated through the test service addresses is described in §4.1.1.1.

The MTP Table 6-1 guided the TAM in the creation of test cases. However, the number and volume of requests issued and completed depended on the TG generation and processing of the orders issued by the TAM.

4.1.1.1 TEST SERVICE ADDRESSES

4.1.1.1.1 PURPOSE

The purpose of the test service addresses was to generate Retail and Resale test lines for OSS and loop testing at statewide and regional levels. The test service addresses were used to generate test case volumes as pre-defined in the MTP (i.e., UNE Loop with Port, UNE Loops, Basic Loops with and without Number Portability, Assured Loops, Stand Alone LNPs, xDSL and DS1s).

The test service addresses were facilitated from different sources. Pacific supported the testing by generating test accounts in their systems. These accounts became to be known as the OSS Test Bed Accounts and the OSS Test Bed for Collocation Cages. Each facilitated the generation of test cases supporting the product types, the evaluation of OSS performance as well as product delivery and quality. Additional service addresses were acquired from Pacific, the TAM, the TG, and the participating CLECs. These were referred to as Friendlies. Pacific provided a list of Community Based Organizations (CBOs) that were used to select members that could participate in the test. Pacific, the TAM, the TG and the participating CLECs also provided a list of individuals that could be selected to participate in the Test Effort. These participants became the Friendlies and supported the test service addresses for order volume generation. §§4.1.1.1.5 and 4.1.1.2.5 explain in detail how these service addresses were implemented and used to test Pacific's OSS. Testing of actual usage services was provided by the End-User service addresses supported by TAM members and installed at residence and businesses, see §4.1.3, End-User Test.

4.1.1.1.2 SCOPE

The scope was to establish test accounts from the test service addresses for assignment and order processing throughout the four Pacific regions (i.e., North, South, LA and Bay area) while testing a core set of LSRs supporting the product types. The test service addresses supported testing of the three media types selected for OSS testing: GUI, EDI and Fax.

Figure 4.1.1-1 displays the relationship between test service address and the providers, which contributed with compensated and non-compensated test addresses. Figure 4.1.1-2 provides a view of the processes and interactions by the test participants. Table 4.1.1-1 provides a breakdown of the type of LSRs to be used in the test effort as intended by the §6.3.1 of the MTP, Table 6-1. Table 4.1.1-2 provides a breakdown of the number of LSR's that were issued and Table 4.1.1-3 provides the breakdown of LSRs that received a completed transaction. These tables represent the TG Daily Activity Log of the orders issued to the TG and completions received from the TG.

Table 6-1 of the MTP guided the TAM in the creation of test cases and became useful to the selection and generation of the scenario intended for the testing. However the number and volume of requests issued and completed were depended on the TG generation and processing of the orders issued by the TAM. Tables 4.1.1-2 and 4.1.1-3 show a sample of the volumes that were generated by the TG while processing the test cases issued by the TAM.

Combining the service addresses collected from the various test participants as shown in Figure 4.1.1-1, the test effort was developed. The service addresses included:

A. Embedded accounts in Pacific's internal operating systems

B. Solicited individuals from the general population in California through entities such as the CBOs or "Friendlies"

C. TAM company employees, residential and building sites and TAM End-User employees

D. TG company employees, residential and building sites

E. Participating CLEC's Company buildings

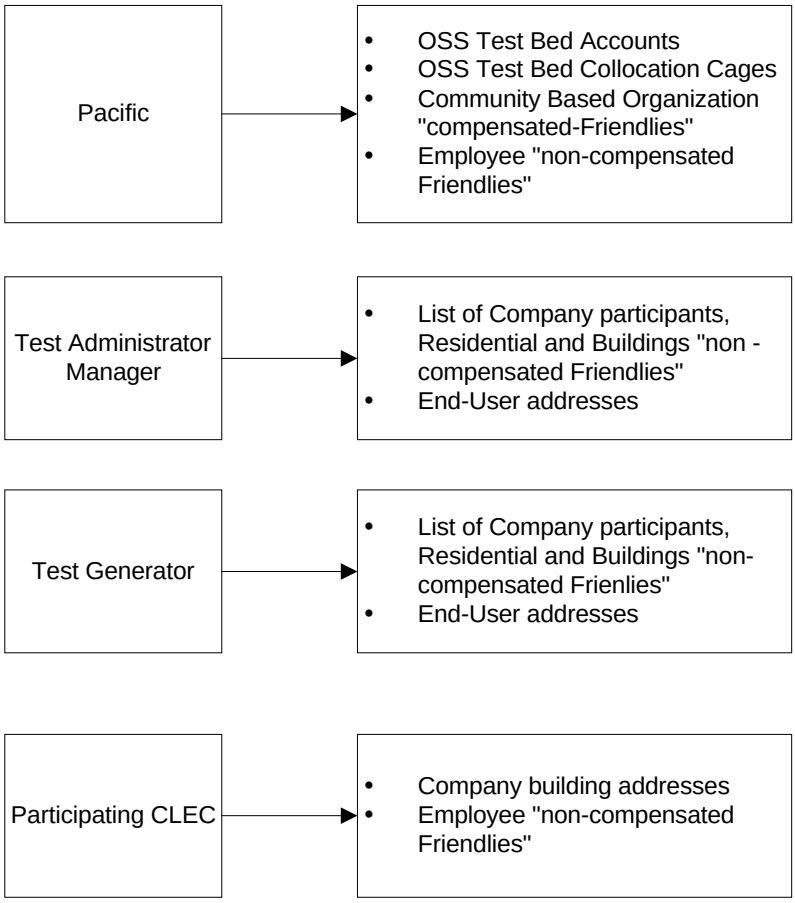
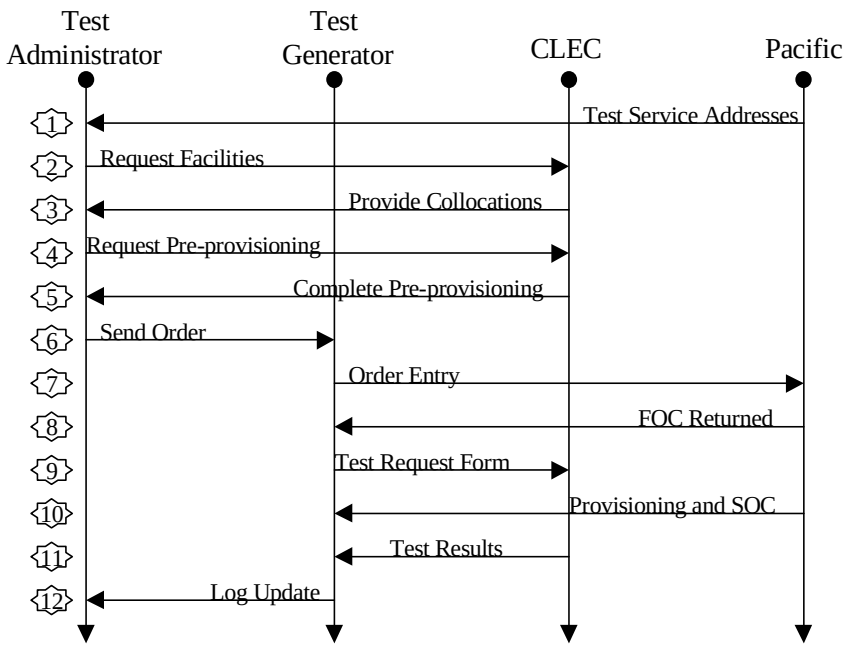


Figure 4.1.1-1 Test Service Address Providers



Interaction Points

1. Pacific created retail test service addresses (section 4.1.1.1)
2. Test Administrator requested collocation facilities from CLECs (section 4.7.2.3)
3. CLECs identified available collocations (section 4.7.2.4)
4. Test Administrator requested pre-provisioning based on test scenarios (section 4.1.1.2.5)
5. CLECs completed pre-provisioning of facilities (section 4.7.2.4)
6. Test Administrator sent order scenario to Test Generator (section 4.1.1.2.5)
7. Test Generator issued order as a pseudo CLEC (section 4.1.1.2.5.3)
8. FOC returned by Pacific (section 4.1.1.2.5.3)
9. Test Generator sent Test Request Form to CLEC (Appendix N)
10. Pacific provisioned order and returned an SOC (section 4.1.1.2.5.3)
11. CLEC returned test results (Appendix N)
12. Test Generator and Test Administrator tracking log was updated (section 4.1.1.2.5.3)

Figure 4.1.1-2 Interactions During Pacific OSS Test Setup and Execution

Table 4.1.1-1 Core Set of LSRs for Functionality Test

PRODUCTS	% of Orders (approximate)	Scenario Types by Product/Activity	%of Orders (approximate)	Res/Bus
UNE Loop with Port	27%	Retail to UNE Loop with Port Reconfigurations	5%	80%Res 20%Bus
		Resale to UNE Loop with Port Reconfigurations	1%	
		UNE Loop with Port – New	6%	
		UNE Loop with Port – Changes	10%	
		UNE Loop with Port – Disconnects	1%	
		UNE Loop with Port - Outside Moves	4%	
		UNE Loop with Port – Suspends	1%	
		UNE Loop with Port – Restores	1%	
Stand-alone LNP	10%	Number Portability – Retail	8%	50% Res 50% Bus
		Number Portability – Resale	1%	
UNE 2 Wire Loops with and without Number Portability	37%	Retail POTS to UNE Basic Loop Reconfigurations	6%	90% Bus 10% Res
		UNE Basic Loop – New	9%	
		UNE Basic Loop – Disconnects	.5%	
		Resale POTS to UNE Basic Loop Reconfigurations	15	
		Retail POTS to UNE Assured Loop Reconfiguration	2%	
		UNE Assured Loop – New	7%	
		UNE Assured Loop – Disconnects	.5%	
UNE DS1 Loops without Number Portability	14%	UNE DS1 Loop-New	9%	100% Bus
		UNE DS1 – Disconnects	5%	
UNE xDSL-Loop without Number Portability	8%	Retail ADSL to UNE ADSL	1.0%	20% Res 80% Bus
		UNE xDSL-Loop – New	5%	
		UNE xDSL-Loop – Disconnects	3%	
Stand-alone Directory Listings/911	4%	Req. Type J and MS Gateway 911	4.0%	NA
Totals	**100%**	**Totals**	**100%**	

The TAM recognizes that these columns do not equal 100%. This information, however, was taken from the MTP 4.0 table 6-1 and was used as a guide only. The actual percentage for order types is referenced in Table 4.1.1-3.

Table 4.1.1-2 Test Cases Issued in Functionality Test

Product	Product Count	% of Orders	Scenario Type by Product	EDI			LEX			Total EDI-LEX			Percent of Total
				Bus	Res	Total	Bus	Res	Total	Bus	Res	Total	
UNE Loop with Port			Conversions	7	5	12	61	64	125	68	69	137	5%
			New	0	0	0	24	122	146	24	122	146	5%
			Changes	3	4	7	275	322	597	278	326	604	20%
			Disconnects	7	22	29	13	15	28	20	37	57	2%
			Move	0	3	3	4	47	51	4	50	54	2%
			Suspend	0	1	1	8	7	15	8	8	16	1%
			Restores	0	0	0	8	6	14	8	6	14	0%
Total UNE Loop with Port	1028	35%				52			976	410	618		
Bus/Res % of Product Total										40%	60%		
Stand Alone LNP	315	11%	Stand Alone LNP	177	116	293	16	6	22	193	122	315	11%
Bus/Res % of Product Total										61%	39%		
Total UNE Basic Loop w/NP	133	4%	Conversions	117	15	132	1	0	1	118	15	133	4%
Bus/Res % of Product Total										89%	11%		
UNE Basic Loop without NP			Conversions	75	24	99	3	1	4	78	25	103	3%
			New	83	106	189	0	0	0	83	106	189	6%
			Disconnects	166	131	297	0	0	0	166	131	297	10%
Total UNE Basic Loop w/o NP	589	20%				585			4	327	262		
Bus/Res % of Product Total										56%	44%		
DS1 Loop			New	24	0	24	1	0	1	25	0	25	1%
			Disconnects	23	0	23	0	0	0	23	0	23	1%
Total DS1 Loops	48	2%				47			1	48.5552	0		
Bus/Res % of Product Total										101%	0%		
UNE Assured Loop			Conversions	50	2	52	5	1	6	55	3	58	2%
			New	132	16	148	0	0	0	132	16	148	5%
			Disconnects	170	12	182	0	0	0	170	12	182	6%
Total UNE Assured Loops	388	13%				382			6	357	31		
Bus/Res % of Product Total										92%	8%		
xDSL			Conversions	14	4	18	0	0	0	14	4	18	1%
			New	53	100	153	0	4	4	53	104	157	5%
			Disconnects	61	95	156	0	0	0	61	95	156	5%
Total xDSL	331	11%				327			4	128	203		
Bus/Res % of Product Total										39%	61%		
Stand Alone Directory	143	5%	Stand Alone Dir	0	0	0	76	67	143	76	67	143	5%
Bus/Res % of Product Total										53%	47%		
Total Test Cases Submitted	**2975**	**100%**		**1162**	**656**	**1818**	**495**	**662**	**1157**	**1657**	**1318**	**2975**	**100%**
Bus/Res % of Total Test Cases				64%	36%		43%	57%		56%	44%	100%	

Table 4.1.1-3 LSR Completions

Product	Product Count	% of Orders	Scenario Type by Product	EDI			LEX			Total EDI-LEX			Percent of all LSRs
				Bus	Res	Total	Bus	Res	Total	Bus	Res	Total	
UNE Loop with Port			Conversions	4	4	8	54	62	116	58	66	124	5%
			New	0	0	0	20	81	101	20	81	101	4%
			Changes	3	3	6	250	293	543	253	296	549	20%
			Disconnects	9	18	27	14	14	28	23	32	55	2%
			Move	0	5	5	2	32	34	2	37	39	1%
			Suspend	0	1	1	6	5	11	6	6	12	0%
			Restore	0	0	0	8	6	14	8	6	14	1%
Total UNE Loop with Port	894	33%				47			847	370	524		
Bus/Res % of Product Total										41%	59%		
Stand Alone LNP	302	11%	Stand Alone LNP	174	113	287	9	6	15	183	119	302	11%
Bus/Res % of Product Total										61%	39%		
Total UNE Basic Loop w/NP	128	5%	Conversions	113	15	128	0	0	0	113	15	128	5%
Bus/Res % of Product Total										88%	12%		
UNE Basic Loop without NP			Conversions	76	24	100	1	1	2	77	25	102	4%
			New	82	99	181	0	0	0	82	99	181	7%
			Disconnects	163	120	283	0	0	0	163	120	283	10%
Total UNE Basic Loop w/o NP	566	21%				564			2	322	244		
Bus/Res % of Product Total										57%	43%		
DS1 Loop			New	24	0	24	0	0	0	24	0	24	1%
			Disconnects	21	0	21	0	0	0	21	0	21	1%
Total DS1 Loops	45	2%				45			0	45	0		
Bus/Res % of Product Total										100%	0%		
UNE Assured Loop			Conversions	46	2	48	4	0	4	50	2	52	2%
			New	123	15	138	0	0	0	123	15	138	5%
			Disconnects	159	12	171	0		0	159	12	171	6%
Total UNE Assured Loops	361	13%				357			4	332	29		
Bus/Res % of Product Total										92%	8%		
xDSL		11%	Conversions	12	3	15	0	0	0	12	3	15	1%
			New	50	91	141	0	2	2	50	93	143	5%
			Disconnects	61	93	154	0	0	0	61	93	154	6%
Total xDSL	312					310			2	123	189		
Bus/Res % of Product Total										39%	61%		
Stand Alone Directory	134	5%	Stand Alone Dir	0	0	0	71	63	134	71	63	134	5%
Bus/Res % of Product Total										53%	47%		
Total Completed LSRs	**2742**	**100%**		**1120**	**618**	**1738**	**439**	**565**	**1004**	**1559**	**1183**	**2742**	**100%**
Bus/Res % of Total LSRs				64%	36%		44%	56%		57%	43%	100%	

4.1.1.1.3 VARIANCES

The following chronicles the variances to the initial plan of the test service address accounts.

To create a valid volume of order types that statistically supported the testing of Pacific's OSS, at regional and statewide levels, a considerable increase in test account numbers was required. Pacific supported both regional and statewide localities, and the participating CLECs presence was eminent in those areas as a method of conducting a realistic test. The CLECs were required to take a more aggressive roll by providing Access Terminal Locations (ACTL) that match the Pacific COs.

The process of matching Pacific COs to the CLECs ACTLs was lengthy due to the manual labor involved. Once Pacific validated the CLEC's collocation information against their locations, the results were not promising.

A. There were not enough ACTLs that matched Pacific's locations to achieve statistical validity in every region.

B. Statewide testing became more feasible to accomplish.

C. CLECs were asked to provide facilities that would match up to Pacific locations.

D. The TAM, TG, Pacific, and CLECs were tasked to solicit statewide participation among their management office branches to aggregate the Pacific/CLEC collocation offices.

To ensure the necessary core set of LSRs were available and that regional level testing could be accomplished, Friendlies solicitation was developed and implemented. The Friendlies provided an assurance that the volume of orders for OSS and Loop testing could be secured.

The creation of the Friendlies accounts caused the following variances:

A. Addresses received that did not match collocation facilities were used to test various types of loop orders (i.e., moves, adds, changes, disconnects, suspends, restores, and stand-alone directories).

B. It was discovered that outside moves of Friendlies service addresses could not be requested between Northern and Southern California, unless In and Out Order Types were generated.

C. The final approval of the TG and Participating CLEC Interface Process Document impacted scheduled testing timeliness.

D. Friendlies moved, disconnected or simply refused to continue with participation in the test. These issues caused generation of additional test orders against the remaining friendly service addresses.

E. Reuse of CLEC facilities for regional measurements as the number of Friendlies diminished.

F. Availability and ability by all of the Participating CLECs to perform 100% end-to-end testing.

4.1.1.1.4 APPROACH

The approach was to match service addresses to specific order types to execute the required number and type of test cases. Retail and Resale test service addresses were used to generate a sample amount of test cases that provided a degree of confidence to evaluate Performance Measurements at the systems and loop delivery levels. In addition to the test service address, the Friendlies service addresses were instituted in support of loop testing. The test service address accounts tested the internal production systems from order inception to completion, and delivery issues and concerns raised by the participating CLECs interfacing with Pacific. A process to test the delivery of loops was established with the participating CLECs to replicate real world test processes as closely as possible. The Pseudo-CLECs performed the order entry and OSS testing functions while the real CLECs performed loop testing and product delivery. Service addresses were used to simulate the standard transaction types that are transferred between the CLEC and the ILEC in a more realistic scenario.

The following is a list of order types generated for OSS testing. They are discussed in detail in §4.1.1.2 Functionality Test Process.

A. Conversion of service to new CLEC (commonly known as Account Migration).

B. Conversion as is.

C. Changes of existing service.

D. Outside moves of end-user locations.

E. Record activity to administrative changes.

F. Suspension and Restoration of services.

G. Directory listings.

4.1.1.1.4.1 Basic Elements

The TAM testing approach focused on the assignment of the test service addresses to UNE loop with port, UNE Loop (Basic, Assured & xDSL) and four-wire (DS1s) test cases. Under the direction of the TAM, Pacific built two types of spreadsheets:

A. The OSS Test Bed Accounts (Embedded accounts) spreadsheets contained account information (i.e., Billing TNs, Switch Type, Type of Service, Product, Region, Account Names, Service Addresses, and Wire Centers).

B. The OSS Test Bed for Collocation Cages spreadsheet included Friendly addresses matching the participating CLEC collocation facilities (i.e., Collocation Cages CLLIs, Available Lines, Service Addresses, Product Types, Type of Service, and Billing TNs).

To augment the original number of Friendlies accounts from Pacific, “solicited Friendlies” from the state of California were identified. These additional Friendlies accounts were acquired through solicitation of friends and family members and company employees of the test participants and CBOs in California. The “solicited Friendlies” were compensated for their participation in the Test Effort, whereas the company employees from the test participants were not compensated.

The test service addresses and Friendlies accounts combined to become the test service accounts used in the Functionality Test effort. All test service accounts received were screened prior to test case assembly and actual test case processing, via the OSS for pre-ordering, ordering and provisioning functions.

The steps performed prior to test case assembly of the test service account included:

A. Validation of address information posted in Pacific OSS.

B. Analysis of the volume of test service accounts across all four regions.

C. Evaluation of the mix of addresses at the residential and business levels supporting 2-wire and 4-wire service types.

D. Determination of assignment of test service accounts to type of service supported by the participating CLECs at their collocation addresses for loop delivery testing.

4.1.1.1.4.2 Criteria

4.1.1.1.4.2.1 ENTRANCE CRITERIA

The entrance criteria consisted of the evaluation of the test service accounts received to ensure a valid number and mix of products throughout the state and to make the test case scripts as realistic as possible from a true customer standpoint.

A. Determination of required number of test accounts to conduct a valid test.

B. Solicitation of the Friendlies service accounts for the installation of new loops.

C. Validation of test service accounts by pulling CSR.

D. Assignment of test service accounts to test cases corresponding to the appropriate Pseudo-CLECs.

E. Maintenance of the activities assigned to the test service accounts per media type (GUI and EDI).

F. Determination on the reuse of test service accounts supporting the different product types to CLEC facility assignments.

4.1.1.1.4.2.2 EXIT CRITERIA

The following is a list of exit criteria for the test service accounts assigned to test cases as established for the OSS and loop testing.

A. Issuance of orders to disconnect loops to test service accounts for the Friendlies.

   a) A list of test accounts still active at the completion of the Functionality Testing was generated. Pacific will utilize this list to purge their databases of test orders and accounts.

B. Compensation sent to CBO Friendlies for their participation.

C. Evaluation and documentation of loop test results and CLEC participation and interaction with the TG of test service accounts.

D. Closure of M&R trouble tickets generated against the test service addresses.

4.1.1.1.5 ACTIVITIES

The TAM received test service accounts for OSS and Loop testing from different sources. Test bed accounts received were "embedded" in Pacific's internal systems to support LSRs for customer migrations, feature changes, and directory listings. The majority of these accounts were utilized by issuing Loop with Switch Port (LWP) transactions. The Collocation with available facilities test accounts were used for migration of 2-wire (Basic, Assured & xDSL) and 4-wire (DS1) services. These service accounts facilitated the loop testing and processes with the participating CLECs. In addition to OSS and Loop testing, installation of new lines was ordered at the service accounts of the solicited Friendlies supporting live delivery of 2- and 4-wire end-to-end testing with the participating CLECs.

Minimal pre-ordering activities were performed by the TAM prior to test case assembly and database loads for the test service accounts received.

The pre-ordering activities performed by the TAM for test bed accounts received from Pacific's OSS Test Bed Accounts/OSS Test Bed for Collocation Cages included:

A. Pull CSRs to verify customer record existed in the system and validate customer name and address information as provided.

B. Address verification to validate that address information was current and matched CSRs and included sublocations where available.

C. CLLI look up to validate switch and collocation information.

D. Zip Code validation for test case assembly.

In addition to the pre-ordering activities mentioned above and test case assembly, the following activities were performed for the CBO Friendlies.

A. Solicitation Letters with Letters of Authorization (LOA) (See Appendix D) were sent to willing participants in the test. This included employees of participating CLECs, the TG and Pacific's list of CBOs. The CBOs received a donation for each participating Friendly.

B. Once responses to the LOA were received the initial screening of the Friendlies was performed to ensure the addresses were eligible for the test.

C. In addition to the pre-ordering steps mentioned above, the Friendlies screening also included:

   a) Matching addresses to participating CLEC collocation sites.

   b) Selection of residential and business addresses per product type.

   c) Individual and group letters sent to the Friendlies for notification of eligibility or ineligibility.

The TAM loaded the eligible Friendlies accounts in both the TAM Friendlies database and the TAM Test Case database for tracking number assignments and test case assembly. Activities corresponding to test case database are detailed in §4.1.1.2 Functionality Test Processes.

4.1.1.1.6 DATA VALIDATION AND COMPILATION

Test Service Accounts were screened for validity throughout the address collection period. The OSS Test Bed Accounts was composed of two separate information sheets received from Pacific. One sheet provided the embedded accounts built in Pacific internal legacy systems and the second sheet included the account addresses. The Billing Telephone Number (BTNs) and Product information was merged to the address information through the use of the address legend.

The service accounts received in the OSS Test Bed for Collocation Cages with Available Facilities file was validated against the participating CLEC's locations. The CBOs and Friendlies information was screened to ensure they had available facilities and their address locations matched those of the CLEC collocation sites to Pacific locations. Pulling the CSRs and address verification of the test service accounts received, helped in the test case generation and assignment for testing Pacific's OSS functionality and end-to-end service.

4.1.1.1.7 OBSERVATIONS

During the period of collecting the test service accounts, the TAM encountered a variety of issues that had an impact on the initial strategy of test case processing.

A. A number of test service accounts did not satisfy statistical validity in every region. Analysis was conducted to test at the statewide address locations.

B. A shortage of test service account locations that matched between Pacific and CLEC locations to perform loop testing. The result was the introduction of the Friendlies that provided a larger volume of possibilities to test at the regional and statewide levels. In addition, the Friendlies supported end-to-end testing of loops with the participating CLECs.

C. The final approval of the TG and Participating CLEC Interface Process Document impacted scheduled testing timeliness.

D. It was discovered that outside moves of Friendlies service addresses could not be requested between Northern and Southern California, unless In and Out Order Types were generated.

E. CSRs did not include city, state or zip code. This required access to the U.S. Post Office Zip Code directory. If the zip code changed between the set up of the test case and execution, the record was rejected for an "invalid address".

F. The need to merge the BTNs and Product information with the address information was time consuming and created the potential for error during execution of the Functionality Test.

4.1.1.2 FUNCTIONALITY TEST PROCESS

4.1.1.2.1 PURPOSE

The purpose of this portion of the Functionality Test was to assess whether a predetermined set of customer ordering scenarios, representing a set of customer ordering capabilities, could be originated based on information accessed from Pacific's pre-ordering system(s). In addition, the Functionality Test examined whether or not the

ordering scenarios were processed through the ordering and provisioning systems, such that service requested was provisioned accurately.

The main documents from which the requirements were drawn are:

A. Test Scenarios from the MTP Appendixes.

B. The amended Joint Partial Settlement Agreement (JPSA) filed May 3, 1999, regarding performance measures (parity and benchmark).

4.1.1.2.2 SCOPE

The scope of the POP portion of the Functionality Test was to evaluate and analyze all of the different activities associated with a customer's request for local service as it pertains to Pre-ordering, Ordering and Provisioning.

The Pre-ordering process allows a CLEC to retrieve customer service information in order to issue a valid request in response to a customer's service request. The Ordering process consists of the transmittal of the request in order to provide the customer with the requested service. The Provisioning process provides the customer with the associated transmission facilities and equipment to terminate the telecommunications service.

The Pre-order evaluation consisted of testing the functionality of Pacific's Verigate and DataGate systems while the TG performed system queries to attain valid customer information. The TG submittal of LSRs using the available interfaces supported by Pacific (i.e., LEX, EDI and Fax) tested the functionality of Pacific's ordering systems. Final provisioning consisted of the responses received from Pacific once order requests were processed, accepted and validated (SOC), and the end-to-end testing where possible to validate that service was provided as ordered.

Pre-provisioning was accomplished by the TAM, assembling test cases and matching the participating CLEC facilities to TNs to perform required test cases. This concept is specific to this test.

POP testing assessed the accuracy of Pacific's OSS as they were used to gather information for the various Business and Residential test cases. The types of accounts were resale and retail.

The following is the list of products tested:

A. UNE Loop with Port: Unbundled network element (retail accounts only).

B. Local Number Portability: the ability to change phone companies while maintaining same phone number within local areas (retail accounts only).

C. Basic Loop: Supports voice frequency band services with loop start.

D. Assured Loop: 2-wire analog offered as standard conditioning for ground start and reverse battery.

E. xDSL: Digital Subscriber Line, this provides a dedicated digital circuit between a residence or a business location and the telephone company CO, allowing high-speed transport of data over existing copper telephone lines.

F. DS1 Loops: A digital transmission link with a total signaling speed of 1.544 megabits per second, also known as a T1span. A T1 carries 24 voice-grade channels each running at 56 to 64 kilobits per second (kbps).

Order types relating to services on an end-user's line that were tested included:

A. Conversions: Convert a Pacific TN to a CLEC (retail accounts only).

B. Conversions As Is: Customer keeps all features and information from Pacific (retail accounts only).

C. New Installs: New phone service and TN installed.

D. Changes: Features changed on a customer line or TN change.

E. Outside Moves: Change location of Access line (from and to).

F. Suspends: Customer service shut off for non-payment.

G. Restores: Customer has paid their bill and service will be restored.

H. Disconnects: Completely remove customer service.

I. Supplemental: Making a change from original order before order SOCs.

J. Stand Alone Directory Listings: Customer wants a change made to his/her directory listing.

Pre-ordering focused on the retrieval and evaluation of:

A. CSR: Allows a CLEC to view current service records billed by Pacific.

B. Address Verification: Allows a CLEC to verify service address information registered with Pacific.

C. Reserve TNs: Allows a CLEC to reserve one or more TNs at a verified address.

D. Service Availability/Product and Feature Availability: Allows a CLEC to retrieve a list of services and features determined by Pacific's serving switch of the verified address.

E. Service Appointment Scheduling: Allows a CLEC to view available dates and appointment times for dispatch of field technicians.

F. Facility Availability: Allows a CLEC to view if dispatch is required for connection of new lines.

G. Available Primary Inter-exchange Carrier (PIC) & Local Primary Inter-exchange Carrier (LPIC) Codes: Offers a CLEC a list of long-distance carriers that provide long-distance service to the service addresses.

H. Number of Rejects and Failed Inquiries: Tests the appropriateness and timeliness of reject messages as well as a successful connection to the pre-ordering system.

Pre-provisioning consisted of the following items:

A. Type of service required for test case.

B. Service address available for service.

C. Collocation facilities available to support service types.

D. Assemble test cases.

E. Hand off to TG for ordering.

Ordering consisted of the following items:

A. TG input of pre-provisioned LSR through Pacific's OSS via TAM designated media.

B. Receipt of FOC.

Provisioning consisted of the following items:

A. Receipt of SOC.

B. Perform end-to-end testing as necessary and where possible (see §4.1.1.3).

4.1.1.2.3 VARIANCES

The following variances from the MTP were identified and approved during the course of the Test Effort.

A. K1023 DSL outlined in the §4.2.1 of the MTP was not tested. The approach focused on Pacific's OSS system responses, not manual processes.

B. Major variances were made to the Customer Test Bed Accounts as documented in §4.1.1.1 Test Service Addresses and referenced in Issues Log Number 12 and 66.

4.1.1.2.4 APPROACH

4.1.1.2.4.1 Basic Elements

During the test generation the TAM teams monitored the overall performance of Pacific's pre-ordering and ordering systems. The following events took place prior to the monitoring task:

1. Test Accounts: Test accounts were built by Pacific and entered into the TAM's database.
2. Account information accuracy: TNs and addresses were verified.
3. Test Case Assembly: Tracking numbers were generated in the TAM database and TNs and addresses were assigned to CLEC facilities.
4. Scheduling of the Test Cases: Test cases were issued by the TAM on a per-day basis.
5. Transmission of the file to the TG: The TAM generated orders and gave them to the TG for order input to Pacific's systems.

4.1.1.2.4.2 Criteria

4.1.1.2.4.2.1 ENTRANCE CRITERIA

The entrance criteria for POP testing included:

A. Names of all points of contacts and order entry personnel at the TG site.

B. Access to TG site.

C. Finalization of Order Entry Form (see Appendix E).

D. Finalization of Daily Log Form.

E. Access to OSS and service ordering reference manuals.

F. Clear understanding of the test cases expected results.

G. Valid test case volumes that included transmission method mix, product mix, geographical mix, and residence/business mix.

H. Test execution schedule that provided account billing over multiple billing cycles.

I. Usage test account locations and quantities.

J. Detailed test cases that were documented and added to the tracking database.

K. An established procedure for monitoring TG activities.

L. Operationally ready and available interfaces and systems required for the testing.

4.1.1.2.4.2.2 EXIT CRITERIA

The POP testing was completed when the TAM determined that the following conditions were met:

A. All test cases executed and repeated as necessary, until expected results were achieved.

B. All order entry results and tracking data were returned to the TAM.

C. A list of test accounts still active at the completion of the Functionality Testing was generated.

D. A list of the participating CLEC facilities was generated and delivered to both the CLECs and Pacific to deactivate all test accounts.

E. Modification requests (MR) for all severity levels were closed or cancelled. See MTP §8.3.3.

4.1.1.2.5 ACTIVITIES

4.1.1.2.5.1 TAM Database System

Test case tracking was set up in the TAM database prior to the start of testing. The database was created to generate, issue and track the test cases. It was flexible enough to allow modifications of the original design. The database was the repository for all orders created and executed during the Test Effort. It recorded all the activities generated for the test cases and the information for the accounts embedded in the records. The database tracking number served as the CSR once the service address accounts migrated to the Pseudo-CLECs.

Each test case was assigned a tracking number used by the TG to report order and activity status and by the TAM to track the progress of test cases. The format for the tracking number is defined in Figure 4.1.1-3.

TAM Database Tracking Number		
Format: AAAANNNxyn		
	Where: AAAA is product being tested (see below) NNN is numerical test case between 100-999 x is always 0 y is 0 for GUI test and 2 for EDI test z Pseudo-CLEC designation (see below)	
Product Codes	LPWP	Loop with Port
	BASL	Basic Loop
	xDSL	xDSL – Capable Loop
	ASSL	Assured Loop
	DS1L	DS1 Loop
	LNPL	LNP with Loop
	LNPO	LNP only
	SDIR	Stand-alone Directory Listing
	SUPP	Supplemental
	MNTR	Maintenance and Repair
Pseudo-CLEC designations	1 = Blackhawk CLEC 2 = Discovery CLEC 3 = Camino CLEC 4 = Napa CLEC	
EXAMPLE: LPWP127002 represents Loop with Port, test case 127, GUI for Discovery		

Figure 4.1.1-3 TAM Database Tracking Number

The starting point for the test case generation was Pacific's OSS Test Case spreadsheet that identified the criteria needed to build order types defined in the MTP. The spreadsheet was categorized by product and contained the following fields:

A. Scenario test case number

B. Order type

C. Request type

D. Features

E. Business/residence indicators

F. Directory

G. Activity type

The TAM statistician created a spreadsheet defining the number of orders by product type and activity to generate a sufficient number of tests required to accurately assess Pacific's OSS on a regional and state wide basis. The specific types were chosen to ensure an adequate mix for regional and state wide testing. Table 4.1.1-4, Outline of Number of Orders Planned, provides the number of orders the TAM planned at the beginning of the test. The TAM selected the number and type of order to meet statistical validity for each order type. These numbers were adjusted weekly based on the numbers of test cases submitted and completed.

Based on the statistical number of test cases, identified in the Required Number of Orders by Product spreadsheet, assembly of test cases was performed by selecting a BTN account and matching it to the OSS Test Cases spreadsheet and loading it in the TAM database. Table 4.1.1-5 provides an example of the number of test cases required to be issued per product based on statistical analysis. One product, xDSL, was measured at the statewide level because only one of the participating CLECs supported the product, and as a result there were not enough service addresses that supported testing at the regional level.

Table 4.1.1-4 Outline of Numbers of Orders Planned

start	1-Nov	8-Nov	15-Nov	22-Nov	29-Nov	6-Dec	13-Dec	20-Dec	27-Dec	3-Jan	10-Jan	17-Jan	24-Jan	31-Jan	7-Feb	14-Feb	21-Feb	28-Feb	
end	5-Nov	12-Nov	19-Nov	26-Nov	3-Dec	10-Dec	17-Dec	24-Dec	31-Dec	7-Jan	14-Jan	21-Jan	28-Jan	4-Feb	11-Feb	18-Feb	25-Feb	3-Mar	
workdays	**5**	**5**	**5**	**3**	**5**	**3**	**5**	**3**	**4**	**4**	**5**	**4**	**5**	**5**	**5**	**5**	**4**	**3**	**78**
per day						*9*	*15*	*21*	*28*	*35*	*35*	*35*	*35*						
GUI - N wkly						27	75	63	112	140	175	140	175	0	0	0	0		**907**
per day						*1*	*2*	*3*	*4*	*1*	*3*	*1*	*3*	*2*	*3*	*0*	*0*		
FAX - N wkly						3	10	9	16	4	15	4	15	10	15	0	0		**101**
per day						*0*	*0*	*4*	*5*	*9*	*10*	*10*	*9*						
GUI - B wkly						0	0	12	20	36	50	40	45	0	0	0	0		**203**
per day										*0*	*0*	*5*	*5*	*35*	*35*	*35*	*35*		
EDI - B wkly										0	0	20	25	175	175	175	140		**710**
per day						*0*	*0*	*0*	*0*	*2*	*2*	*2*	*3*	*3*	*3*	*3*	*3*		
FAX - B wkly						0	0	0	0	8	10	8	15	15	15	15	12		**98**
per day										*0*	*0*	*5*	*4*	*13*	*13*	*12*	*10*		
EDI - D wkly										0	0	20	20	65	65	60	40		**270**
per day											*0*	*2*	*1*	*0*	*2*	*1*	*1*		
FAX - D wkly										0	0	8	5	0	10	5	4		**32**
per day										*0*	*0*	*6*	*8*	*9*	*8*	*8*	*4*		
EDI - C wkly										0	0	24	40	45	40	40	16		**205**
per day										*0*	*0*		*0*	*0*	*0*	*3*	*1*		
FAX - C wkly										1	2	0	0	0	0	15	4		**22**
per day				*0*	*0*	*10*	*17*	*28*	*37*	*47*	*50*	*66*	*68*	*62*	*64*	*62*	*54*		***39***
Total weekly				0	0	30	85	84	148	189	252	264	340	310	320	310	216		**2548**
	GUI	EDI	FAX	Total	*d* GUI	*d* EDI	*d* FAX	% GUI	% EDI	% FAX		EDI	GUI	FAX					
Discovery (D)		270	30	300		0	-2		90%	10%	300	270	0	30	300				
Camino (C)		206	23	229		1	1		90%	10%	229	206	0	23	229				
Napa (N)	909	0	101	1010	2		0	90%		10%	1010	0	909	101	1010				
Blackhawk (B)	202	710	98	1010	-1	0	0	20%	70%	10%	1010	710	202	98	1010				
Total	1111	1186	252	**2549**	1	1	-1				2549	1186	1111	252	2549				

Table 4.1.1-5 Number of Orders per Product

Products	Pct of Orders	Pct of Orders	Residence	Business	Scenario Types by Product/Activity	Pct of SGT	Pct of Orders	Pct Flowthru	Pct Elec/Man	Pct Fax	Orders
UNE Loop with Port	24.88%	25%	80%	20%	Cvt from Retail	6.0%	1.49%	90%		10%	40
		25%			Cvt from Resale	2.0%	0.50%		90%	10%	13
		25%			New	21.0%	5.22%	90%		10%	140
		25%			Change	32.0%	7.96%	90%		10%	213
		25%			Disconnect	2.0%	0.50%	90%		10%	13
		25%			Outside Move	10.0%	2.49%		90%	10%	66
		25%			Suspend	1.0%	0.25%		90%	10%	6
		25%			Restore	1.0%	0.25%		90%	10%	6
		25%			Number Change	5.0%	1.24%		90%	10%	33
		25%			Working Svc on Premise	2.0%	0.50%		90%	10%	13
		25%			Coordinated Hot Cut	18.0%	4.48%		90%	10%	120
		25%			Total	100.0%	24.88%	13.7%	8.7%	2.5%	663
StandAlone LNP	11.19%	11%	50%	50%	Cvt from Retail	75.0%	8.39%	90%		10%	225
		11%			Cvt from Resale	5.0%	0.56%	90%		10%	15
		11%			Supplemental	20.0%	2.24%		90%	10%	60
		11%			Total	100.0%	11.19%	8.1%	2.0%	1.1%	300
UNE 2w Loops with and without Number Portability	36.07%	36%	50%	50%	Retail->UNE Basic Loop	5.0%	1.80%	90%		10%	48
		36%	50%	50%	Retail->Basic (CHC LNP)	12.5%	4.51%		90%	10%	120
		36%	7%	93%	New UNE Basic Loop	24.0%	8.66%	90%		10%	232
		36%	6%	94%	Disconnect Basic Loop	1.0%	0.36%	90%		10%	9
		36%	6%	94%	Change Basic Loop	20.0%	7.21%		90%	10%	193
		36%	6%	94%	Supplement Basic Loop	0.0%	0.00%		90%	10%	0
		36%	50%	50%	Resale->UNE Basic Loop	2.5%	0.90%		90%	10%	24
		36%	50%	50%	Resale->Basic (CHC LNP)	2.5%	0.90%		90%	10%	24
		36%	0%	100%	Retail->UNE Assured Loop	5.5%	1.98%	90%		10%	53
		36%	0%	100%	New UNE Assured Loop	17.5%	6.31%	90%		10%	169
		36%	0%	100%	Disconnect Assured Loop	1.0%	0.36%	90%		10%	9
		36%	0%	100%	Change Assured Loop	8.5%	3.07%		90%	10%	82
		36%	0%	100%	Supplement Assured Loop	0.0%	0.00%		90%	10%	0
		36%	14.2%	85.8%	Total	100.0%	36.07%	17.5%	14.9%	3.6%	963
UNE DS1 Loops without NP (HDSL 1.544Mbps)	14.77%	15%		100%	New	32.0%	4.73%	90%		10%	126
		15%			Change	64.0%	9.45%		90%	10%	253
		15%			Supplemental	0.0%	0.00%		90%	10%	0
		15%			Disconnect	4.0%	0.59%	90%		10%	15
		15%			Total	100.0%	14.77%	4.8%	8.5%	1.5%	394
UNE xDSL Loops without NP	8.58%	9%	20%	80%	Retail ADSL => UNE ADSL	8.0%	0.69%		90%	10%	18
		9%			New	24.0%	2.06%	90%		10%	55
		9%			Change	64.0%	5.49%		90%	10%	147
		9%			Supplemental	0.0%	0.00%		90%	10%	0
		9%			Disconnect	4.0%	0.34%	90%		10%	9
		9%			Total	100.0%	8.58%	2.2%	5.6%	0.9%	229
Stand Alone Directory Listings	4.51%	5%			Req Type J and MS Gateway 911	100.0%	4.51%	100%			121

Four sources of information were accessed in order to create a test case.

A. OSS Test Bed Accounts spreadsheet (Appendix F)

   a) Product – resale/retail

   b) Region – North/South/Bay/Los Angeles

   c) Switch type – DMS100/5ESS

   d) Type of Service – Business/Residential

e) Number of lines

f) Customer name

g) Address Legend

h) TN

B. Functionality Test Account Locations spreadsheet (Appendix G)

a) Address: street, city, county (no zip code)

b) Wire center

C. OSS Test Bed for Collocation Cages spreadsheet (Appendix H)

a) Region

b) CLLI

1. number of available facilities per cage in the CLLI
2. number of lines assigned or built by Pacific

c) Available lines

d) Building Addresses provided by TAB members for utilization in the test

e) Friendlies – uncompensated participants in Test Effort (Pacific, GXS, CGT and CLECs)

f) Product – Retail/Resale

g) Type of Service – Business/ Residential

h) Test Bed by BTN

D. Friendlies database (provided under separate cover)

a) Actual customer name

b) TN

c) Address (city, state, zip)

d) Region

e) Contact TN

f) Business/Residential

The following steps were executed to create a test case:

1. Access the OSS Test Bed Accounts spreadsheet and select a BTN that meets product and region requirements as set forth in the Required Number of Orders by Product spreadsheet.
2. Match Address Legend indicators between OSS Test Bed Accounts and Functional Test Account Locations.
3. Access U.S. Postal zip code directory web site to acquire zip code.

4. Access Pacific's Verigate system (an on-line windows-based application developed to support pre-ordering function) to validate data from the following screens:
    a. CSR: TN, address, name, features, and service type (Residential/Business).
    b. Address: address with zip code and sublocation.
    c. CLLI: wire center information.

In addition to the above (numbers 1 – 4), the TAM completed the following steps for end-to-end type test cases:

A. Collocation
    a) The TAM first matched the collocation cage CLLI code from the OSS Test Bed for Collocation Cage spreadsheet with CLEC provided information in order to locate facilities.
    b) The BTN from the OSS Test Bed for Collocation Cage spreadsheet was compared to the BTN in the OSS Test Bed Accounts for availability of Connecting Facility Assignment (CFA).
    c) Steps 2 through 4 outlined above were completed.

B. Friendlies
    a) Friendlies accounts were screened for eligibility. In addition to the pre-ordering steps mentioned in this section (numbers 1 – 4), the Friendlies screening also included:
        1. Matching addresses to participating CLEC collocation sites.
        2. Selection of residential and business addresses per product type.
    b) Due to the fact that the Friendlies were "live" customers with actual addresses, fictitious names were assigned.
    c) Steps 2 through 4 outlined above are completed.

4.1.1.2.5.2 Order Generation

The determining factor for creating an order was the test case which identifies the type of order, account type, features, and special instructions. The purpose of the order process was to generate service order activities to test the functionality of Pacific's OSS responses.

Once the service order was completed for an account, the TAM would generate another order for that account, with another type of activity (e.g. directory change, disconnect, feature change). For Friendlies accounts, when the account was disconnected, the account address and CFA were used to create a new account with new telephone numbers. Disconnected Pacific test bed accounts could not be reused for Friendlies accounts.

Initially, testing was done via GUI and Fax, since the TG EDI interface was not available. Loop with Port was the only product type tested in the beginning of the Test Effort, due to the fact that the other product types required much greater CLEC interaction with the

TG and TAM. As the Test Effort progressed and the TG completed their EDI interface for production use, additional products were tested which required much closer CLEC involvement. At this time a closer, more involved interaction between the CLECs, TG and TAM was developed.

The types of products included in the Functionality testing were:

A. LPWP – Loop with port

B. LNPO – LNP only

C. LNPL – LNP with loop

D. BASL – Basic loop

E. ASSL – Assured loop

F. xDSL – xDSL capable loop

G. SDIR – Standalone directory listing

H. DS1L – DS1 Loop

The TAM performed the following activities to generate orders from test cases.

1. Selected a product.
2. Identified accuracy/completeness and availability of the test cases.
3. Forecasted and coordinated future order activity.
4. Added issue date for hand off to the test cases.
5. Generated Order Entry Form – (see Appendix E).

Following the generation of the order entry forms for a selected date, the forms were placed into a test case packet, which was handed off to the TG, who signed and dated the packet.

4.1.1.2.5.1.3 TAM Monitoring Activities

The responsibility of the TAM was to monitor the execution of the test orders and evaluate Pacific's OSS performance. The level of effort involved all the activities required for order processing by the TG team as they performed the system queries prior to entering the LSR of each individual test case. The TAM maintained a presence of 4 to 5 resources at the TG site to monitor the TG's activities throughout the duration of the Functionality testing process. All of the necessary monitoring activities occurred through a method of passive observation that allowed the TAM to document all of the necessary information without interfering with the TG. A daily log was generated to capture the issues and observations made by the TAM.

The following items were monitored and noted in the Daily Log:

A. Order Entry methods

B. Training Effectiveness

C. CLEC/ILEC Interaction

Observations are documented in the Daily Logs (see Appendix I) and §4.1.1.2.7.

Some of the activities included in the TAM's monitoring of the TG included:

A. Analysis and correction of all errors that were received during the ordering process. The TAM received errors from the TG that were prior to the actual entry of the orders into Pacific's OSS, as well as those that resulted in the rejection of the orders post-entry.

B. Updated Database and generated reports to verify that the information contained in the TAM database matched what was reflected in the status reports generated by the TG.

C. Monitored the scheduled completion dates for notifying Friendly participants of pending Pacific technician visits.

Additional monitoring was performed through the verification of information contained within Pacific's OSS (LEX and Toolbar), the TG's EDI, and the TG maintained collection of recorded test-case documentation.

The LEX was used to verify the GUI orders. For EDI orders the App-to-App system was used for verification.

The TAM performed the following steps in monitoring the order entry methods.

1. Verified the TG order process to ensure that the test case packet was:
   a) Test case packet was delivered to the order entry bin for process.
   b) The order entry team performed pre-order, ordering, and provisioning process.
   c) The order execution team returned order to the SOC/FOC/Error/System Reject bin.
   d) The orders remaining from previous test case packet(s) were processed.
   e) Escalate any problems encounter during the course of the test to TAM Project Manager.
2. Processed orders returned from TG:
   a) If error/reject could be resolved, research was performed, corrections were made, and the order was returned to the TG for processing.
   b) If error/reject could not be resolved, the test case was cancelled in the TAM database, and a request was generated for the TG to process a supplement canceling the LSR.
   c) Generated a new test case to replace the original test with correct information.
   d) Informed TAM Project Manager of any problems corresponding with the data or test cases, systems functionality and processes. The Project Manager would in turn escalated issues that could not be resolved at this level with the appropriate project entities.
3. Updated TAM database due to errors/changes on orders.
4. Verified the TG Friendly process to:

a) Notified Friendly of installation date.

b) Where a WorldCom Friendly was involved, notification was sent to WorldCom who performed the verification of the installation circuit tag. WorldCom notified TAM of tag status. If no tag, TAM requested the TG to issue a Trouble Ticket (TT) through PBSM.

5. Loaded GXS daily report files into TAM database, updating order status and adding new records, and performed queries to determine:

   a) List of FOC orders.

   b) List of SOC orders.

   c) List of error orders.

   d) List of other order statuses.

6. Generated Daily Log (see Appendix I).

   a) Number of orders completed.

   b) TAM activities of the day.

   c) Number of orders SOCed.

   d) Number of orders FOCed.

   e) Number of errors encountered.

   f) Action items.

   g) Number of orders outstanding.

   h) Planned/not accomplished with plan of attack.

   i) Accomplished/not planned.

   j) Planned for next day.

4.1.1.2.6 DATA VALIDATION AND COMPILATION

Data validation consisted of verifying the accuracy of the test accounts in order to assemble the test cases. CSRs were pulled by the TN of the test accounts to verify the address, name, and type of service. The address zip code information was obtained through the use of the US Postal Service Zip Code Directory to locate the zip code. The address was then validated by the address verification system in Verigate.

Test case compilation was achieved by coordinating test account CLLI with the CLLIs of available CLEC CFAs. These test cases were used for a combination of different service types and account types through out the testing.

4.1.1.2.7 OBSERVATIONS

The following observations were made by the TAM during the POP portion of the Functionality test.

A. An error was received when trying to process outside move orders. Pacific stated that since the service was moving from the North region to the South region while

the NPA was not changed, a disconnect and a new order had to be placed as a work around. Recommendation is that Pacific's OSS needs to be updated to accept a single service order request to move services between regions, instead of issuing two service orders (i.e. disconnect and new install). Pacific has stated that this situation will be corrected by December 2000, after completion of the test.

B. During the course of the project numerous service accounts from the test bed provided by Pacific appeared to have been either disconnected or assigned to actual customers. These types of incidents caused delays in testing. As a result, orders failed and the TAM had to ask Pacific for additional service accounts replacing those that were lost.

C. Multiple test bed accounts had the same customer name. This caused concern with respect to the blindness of the test. Pacific remedied the problem within 4 days of being notified.

D. Multiple test cases were issued where the sub-location provided by the CSR was found to be missing. This was referred to Pacific's account manager to follow up on. The TAM recommends that Pacific modify Verigate to add complete customer address information to the CSR and link the CSR address information to correspond with all required entries of the address verification functionality.

E. Many errors were received on Pacific's Test Bed account service addresses due to lack of sub-locations. Pacific was notified and addresses were reissued with correct sub-locations.

F. Due to the fact that the MTP did not require testing beyond the initial demarcation point, the list of addresses provided by WorldCom did not include sub-locations. However, sub-addressed must be present on order entries regardless of the degree of testing.

G. The TG experienced several delays while processing Blackhawk service orders due to the fact that Verigate's tables were not updated. The problem was referred to the IS Call Center on each occurrence. It is recommended that a more robust preproduction test be established with the CLECs prior to the CLECs production approval.

H. The TG received due dates that were prior to the issue date while processing service orders. The incidents referred to the IS Call Center by the TG but no corrections were made or known to have been made.

I. TN Reservations caused a delay in processing Blackhawk service orders on 12/21/99. The problem was referred to the IS Call Center. Subsequently, Pacific informed the TAM that a table update was made that alleviated the problem.

J. Change orders generated for feature changes to already migrated accounts had to be supplemented and cancelled because the features originally set on the customer line were no longer available at the time the change was processed by Pacific. This problem was ongoing throughout the testing period. The TAM recommends that Pacific validate the features requested on LSR to minimize subsequent reports of missing features.

K. On many service orders issued through LEX, the system transaction that posted the SOC document on the LSR in LEX was several weeks (up to 2 weeks) later than the order commitment date. The issuing of Supplemental and or Change orders as part of the test were delayed, as they could not be issued until the actual SOC was received in LEX. The TAM recommends that LEX systems sends a Jeopardy notification to Pacific and changes the status to Jeopardy when the transmission of the SOC date has been delayed.

L. On several occasions the TG received manual rejects due to service type conflicts from Pacific after issuing follow up Change orders against already established accounts. The original orders service types, either Residential or Business, were no longer available in Pacific's system. When additional Changes were issued against these accounts, the orders were rejected as having the incorrect service types. When the TG questioned Pacific why the rejects were not received on the prior supplemental orders processed, Pacific's response was that all prior orders should have been rejected. The TAM recommends that Pacific's internal systems validate any previous transactions submitted by the CLECs for their own customers prior to issuing manual rejects.

M. An error for an invalid TN was received from Pacific on supplemental order dated 2/9/2000, LPWP371001 adding call waiting. This occurred after receiving the SOC on 2/8/2000 for service order LPWP065001 issued on 1/28/200). When the TG questioned the error with the LSC they were told to contact the LOC, as there was no record for this TN. The LOC stated that the TN was never installed and the service address only had a Pacific business line working there. The TG was unaware of the error until the LOC was contacted. The TAM recommends that notification be provided to the CLEC when a service order request cannot be worked or completed as scheduled and why it cannot be completed.

N. Service requests rejects were received for incorrect loop length when DSL orders were issued. This was caused by Verigate allowable loop qualifications measurements being inconsistent with the actual loop length measured by Pacific from the serving CO. The TAM recommends that Verigate be updated with the correct loop length measurements and to show the loop qualifications for each specific facility type available to an address.

O. Facility information provided by the participating CLECs did not include the type of facility or capacity to which a selected product type could be assigned.

P. The TAM could not meet the predetermined number of DS1 test orders defined by the MTP due to an insufficient number of CFAs received for these services. The original CFAs received were unusable, as they were T3s for customers not available for TAM use, and they were associated with AT&T and XO facilities. The LSC informed the TG that contracts must be entered into with AT&T and XO before the Pseudo-CLECs could use these facilities.

Q. The TG received LSR rejects due to invalid ACTLs. After the TG contacted the Account Manager it was verified that the ACTLs had not been loaded in Pacific's system tables. Once the ACTLs were loaded, the orders issued with the assigned ACTLs and were processed without any further problems.

R. Many delays in testing were caused by the assignments of CFAs provided by the CLECs being rejected as unavailable or busy by the LSC. These problems were referred to the appropriate CLEC for resolution. The TAM recommends that working CFAs be verified by the ILEC and any supporting information returned to the CLEC. The TAM also recommends that Pacific reduce the interval between completion of an order and update of Pacific's backend system to avoid delays in availability.

S. There were several Retail Accounts given to us by Pacific that required a mileage charge. As mileage charges were not to be allowed in the Test Effort, these accounts were removed from the database and not used.

T. After receiving several errors on CFAs, the participating CLECs were contacted to verify the facility assignment. The e-mail response received back from the participating CLECs was that the COLLO assignment had been changed and the TAM would receive an updated file, which subsequently occurred.

U. The participating CLECs were able to test only a limited the number of new loops without negatively impacting their normal operations. With many test cases being categorized as new, the effect of this limitation was to extend the time it took to complete the Test Effort by approximately a month.

V. An "actual" Pacific customer TN was given to the TAM as an embedded account by Pacific. Unknowingly, the number was converted to Blackhawk on service order BASL17021. This situation was rectified and service restored on 6/6/2000 after the report was received by Pacific on 6/2/2000.

W. The first batch of Coordinated Hot Cuts issued by the TG had to be re-issued due to some confusion as to the proper field entries on the LSR and the coordination required with Pacific to complete a Coordinated Hot Cut. Once the TG discussed the process with Pacific's Account Manager, the batch of orders were re-issued and processed accordingly.

X. On several occasions the TG received manual rejects on Change requests issued to migrated accounts. The rejects were cause because the service type (residential or business) in the Change order was not corresponding with Pacific records on the account. After further investigation by the TG Pacific stated that the original migration requests were incorrectly processed. The TAM recommends that Pacific's internal systems be programmed to validate CLEC customer service types when subsequent requests for migrated customers are issued by the CLEC against the original migration request in file.

4.1.1.3 PACIFIC LOC LOOP TESTING

4.1.1.3.1 PURPOSE

To monitor the end-to-end testing performed by the Pacific LOC of all AT&T 2-wire service orders.

4.1.1.3.2 SCOPE

The scope included establishing testing procedures to be performed by the Pacific LOC for all AT&T 2-wire service orders, (i.e., Assured, Basic with and without number portability, and Local number portability) processed on and after June 12, 2000. These procedures had to prove that each order was provisioned and working from the CLEC switch to the customer location as ordered. All testing done by Pacific's LOC was monitored and the results documented by a TAM representative.

4.1.1.3.3 VARIANCES

Original end-to-end testing of all service orders was to be performed by each participating CLEC providing facilities to the Test Effort. When AT&T had a problem providing technicians to complete the required testing, the following variances occurred:

A. Pacific's LOC was used to validate end-to-end testing of applicable Basic and Assured Loop services provisioned by AT&T as referenced by Issues Log Numbers 36 and 60. This was monitored by the TAM.

B. Pacific's LOC was used for testing of LNP migrations for both Stand-alone LNP and LNP with Loop. This was monitored by the TAM.

4.1.1.3.4 APPROACH

4.1.1.3.4.1 Basic Elements

Establishing a method of testing that fulfilled the requirements was the major element of the testing process (see Appendix J for the Methods and Procedures). This led to the need of establishing a place to conduct the testing, the requirement for experienced personnel to complete the testing, and a TAM member to monitor the testing. It was decided that the Pacific LOC located in Pasadena California fulfilled all the requirements and could be monitored by a member of the TAM.

4.1.1.3.4.2 Criteria

4.1.1.3.4.2.1 ENTRANCE CRITERIA

The entrance criteria for Pacific's on-site test monitoring by a TAM Member were:

A. Access to Pacific's LOC site by a TAM Member.

B. A knowledgeable Pacific Maintenance Administrator to perform the testing.

C. A method of documenting all test service orders by service order basis.

D. Use of established methods and procedures as documented in Appendix J.

4.1.1.3.4.2.2 EXIT CRITERIA

A. All test specifications completely executed and classified pursuant to the MTP.

B. All Service orders tested and documentation completed.

C. All major system outputs (i.e., output files, user interfaces) produced and validated.

4.1.1.3.5 ACTIVITIES

Originally, testing at a customer site was to be accomplished by the Friendlies having lines installed into their locations (see §4.1.1.1 Test Service Addresses). With the number of end-user testing being minimal compared to the total number of 2-wire loop orders tested, the time and cost to install each order completely was questioned. The Friendlies would have needed to be trained and access to their residence or place of business for completion of installation was required. Many locations required the installation of drop and/or inside wire. Some of the test service addresses did not allow the possibility of running inside wires for testing only. In addition, end-to-end testing was still a requirement.

In a meeting on March 30, 2000, the CLECs brought up the issue requiring end-to-end testing to validate the installation of 2-wire loops complete to the Network Interface Device (NID). At that time, there were five options of how to accomplish this task.

1. CLEC technicians would do the validation.
2. The project would hire contract technicians to do the validation.
3. XO and Covad available technicians would validate their own circuits while AT&T would analyze production data, as they did not have available technicians.
4. Readdress the role of the Friendlies (see §4.1.1.1 Testing Service Addresses) to check the lines that would require inside wiring and added equipment.
5. Have the TAM go to the LOC to ensure that each order was tested by sending a Pacific technician to the NID at the customer site.

After several discussions with all the involved parties it was decided that XO and Covad would validate using their own technicians. The Pacific LOC would test all the AT&T 2-wire orders with a TAM representative overseeing and documenting the process. This is referenced in the Issues Log 36 and 60.

Experienced Pacific Maintenance Administrators would validate the AT&T 2-wire orders from Pacific's LOC located in Pasadena, California. A member of the TAM was present to monitor all testing. The TAM member, known to Pacific as an Auditor, directed and monitored post testing by the Pacific LOC of 2-wire Loop Service to assigned testing service addresses. Validation of successful installation was determined by the success of two tests performed at the Pasadena LOC:

1. Testing of the Loops by use of MLT.

   The MLT Shoe Tests connected at Pacific's CO MDF enables a person to test each loop in both directions, both Inward connectivity (toward the Collocation cage) and Outward connectivity (toward the Testing Service Address or Customer location). By use of the Loop Length measurements, received while testing outward connectivity, and comparing them to the "Loop Qual" attained from the Verigate 'actual data inquiry', it can be determined whether or not the circuit has complete connectivity. If the MLT measurement value was greater than 1000 feet less than the "Loop Qual" value from Verigate and tested 'clear and open out' it was ascertained that the loop was complete to the Testing Service Address. For example, if the Verigate value for the test loop was 10,000 feet and the MLT

measurement was both greater than 9,000 feet and tested 'clear and open out', then the loop was determined to be complete. These comparisons were documented according to the methods and procedures set forth in Appendix J.

2. Automatic Number Identification at the Cable Head and/or CLEC Tie Pair Location.

   A. The Automatic Number Identification (ANI) of the circuit at the Main Distribution Frame (MDF) verified that the correct TN was translated to the circuit, that the TN originated from the CLEC, and that the jumper from the MDF to CLEC Tie Pair was connected correctly. AT&T provided the ANI dialing code for these tests. A Pacific Network Technician at the serving CO was called and requested to perform the ANI testing. The technician connected their Test Set to the Cable and Pair at the MDF and dialed the AT&T ANI code. The ANI for that switch would transmit an audible response stating the TN translated to the circuit.

   B. If the use of the AT&T ANI code did not give back the audible identification then a Universal 1-800 ANI code was used to determine what number was translated to the circuit. Since the AT&T ANI code did not work, the Network Technician was requested to perform an ANI at the CLEC Tie Pair appearance on the MDF. This would determine that the correct CLEC Tie Pair was connected and it had the correct TN translated to it. These results were also documented according to the methods and procedures set forth in Appendix J.

The following daily processes were performed by the Pacific LOC and monitored by the TAM Auditor. All documentation performed by the TAM Auditor was posted to the Testing Information Form of the Service Order Test Document (See Appendix K Documentation).

A. Pre-test process:

   a) The TAM Auditor received a file via e-mail from the TAM that consisted of orders to be tested the following day.

   b) The TAM Auditor inserted this file into a soft copy of the Order Test Document and printed each order for testing.

   c) The TAM Auditor placed the hard copy of the Order Test document into a manila folder. Each order had a separate folder.

B. Test process:

   a) The TAM Auditor directly monitored all testing.

   b) In the LOC, the TAM Auditor gave the Maintenance Administrator the Circuit Testing Request Form from the order folder. From the form information, the Maintenance Administrator accessed the Pacific back-end systems, Loop Maintenance Operations Systems, and Facility Assignment and Control System, to attain the serving CO and Cable and Pair. This information was

used to place the MLT Test Shoe at the MDF location of the Cable and Pair leaving the serving CO.

c) ASSL and BASL orders:

1. The Maintenance Administrator called the Network Technician for the serving CO and requested a MLT Test Shoe be placed in the specific Cable and Pair appearance at the MDF. After the Network Technician said the shoe was in place, the Maintenance Administrator performed the MLT Shoe Test. The test showed both inward and outward connectivity from the MDF and the loop length. The TAM Auditor documented all findings in the 'AFTER CUT or when SOCed' section of the Testing Information Form. A copy of all MLT screens were printed by the Maintenance Administration and filed in the order folder by the TAM Auditor.
2. With the MLT Shoe Test completed the Maintenance Administrator requested the Network Technician to ANI the Cable Pair using the AT&T ANI number. By using the speakerphone both the Maintenance Administrator and the TAM Auditor could hear the audible response. The TAM Auditor documented the results on the Testing Information Form.
3. If the AT&T ANI code did not work the Maintenance Administrator instructed the Network Technician to use the Universal ANI. Both the Maintenance Administrator and the TAM Auditor heard the audible response by the Network Technician and recorded the results.
4. If there was no dial tone at the MDF, the Maintenance Administrator instructed the Network Technician to go to the CLEC Tie Pair Appearance on the MDF, check for dial tone, and perform an ANI at the CLEC Tie Pair. Both the Maintenance Administrator and TAM Auditor heard the audible response and recorded the results on the Testing Information Form.

d) LNPL orders with Coordinated Hot Cut (CHC).

a) On the due date one hour prior to the CHC time:

1. The Maintenance Administrator performed a MLT Line Test, using the TN to perform the test. Using the TN, the Maintenance Administrator ensured the circuit originated in Pacific's switch and had not been migrated prior to the test.
2. The Maintenance Administrator called the Network Technician for the serving CO and requested a MLT Test Shoe be placed in the specific Cable and Pair appearance at the MDF. After the Network Technician said the shoe was in place, the Maintenance Administrator performed the MLT Shoe Tests. The tests showed both inward and outward connectivity from the MDF and the loop length. The TAM Auditor documented all findings in the 'PRIOR TO CUT' section of the Testing Information Form. A copy of all MLT screens were printed

by the Maintenance Administrator and given to the TAM Auditor to be filed in the order folder.

3. With the MLT Shoe Test completed the Maintenance Administrator requested the Network Technician to ANI the Cable and Pair using the universal ANI number. By using the speakerphone both the Maintenance Administrator and the TAM Auditor could hear the audible response. The TAM Auditor documented the results on the Testing Information Form in the 'PRIOR TO CUT' section of the Testing Information Form.
4. The Maintenance Administrator would instruct the Network Technician to access the CLEC Tie Pair Appearance on the MDF, check for dial tone, and perform an ANI using the AT&T ANI code. If the Tie Pair would not ANI using the AT&T code, the Network Technician was instructed to use the Universal ANI code. Both the Maintenance Administrator and TAM Auditor heard the audible response and recorded the results on the Testing Information Form in the 'PRIOR TO CUT' section.

b) On the due date one hour after the CHC time:

1. The Maintenance Administrator executed a MLT Line Test, using the TN to perform the test. This test showed the TN as 'Open In' if the CHC had been completed.
   a. If the Hot Cut had not been completed, the TAM Auditor contacted the TAM to check the status of the order.
   b. If the Hot Cut had been completed, the testing would proceed.
2. The Maintenance Administrator called the Network Technician at the serving CO and requested a MLT Test Shoe be placed in the specific Cable and Pair appearance at the MDF. After the Network Technician said the Shoe was in place, the Maintenance Administrator performed a MLT Shoe Test. The test showed both inward and outward connectivity from the MDF and the loop length. The TAM Auditor documented all findings in the 'AFTER CUT or when SOCed' section of the Testing Information Form. A copy of all MLT screens were printed by the Maintenance Administrator and filed in the order folder by the TAM Auditor.
3. With the MLT Shoe Test complete the Maintenance Administrator would request the Network Technician to ANI the Cable Pair using the AT&T ANI code. By using the speakerphone both the Maintenance Administrator and the TAM Auditor could hear the audible response. The Auditor documented the results in the 'AFTER CUT or when SOCed' section of the Testing Information Form.
4. If the AT&T ANI code did not work the Maintenance Administrator instructed the Network Technician to use the Universal ANI code.

Both the Maintenance Administrator and the TAM Auditor heard the audible response and recorded the results in the 'AFTER CUT or when SOCed' section of the Testing Information Form.

5. Only if the Universal ANI code had to be used at the Cable and Pair was the Network Technician instructed to do an ANI at the CLEC Tie Pair and verify the jumper connections.

e) LNPO orders with Coordinated Hot Cut (CHC)

1. The TAM Auditor requested the Maintenance Administrator to print a copy of the Pacific Disconnect Service Order from the Service Order Retrieval and Distribution (SORD) System. The TAM Auditor recorded the date and time shown by the order for the Disconnect to take place, which was to be the CHC date and time, on the Testing Information Form in the Pacific Frame Due Time (FDT) section. The TAM Auditor filed the copy of the Pacific Disconnect Service Order in the service order folder.
2. One Hour Prior to the CHC time, the TAM Auditor performed a test call to the TN and documented the date, the time, and results in the 'PRIOR TO CUT' section of the Testing Information Form.
3. One hour after the CHC time, at the end of the working day of the CHC date, and the morning the day after the CHC date, the TAM Auditor performed test calls to the TN and documented the date, time, and results in the 'POST CUT' section of the Testing Information Form.

C. Post Test Process:

a) After all order testing completed, the TAM Auditor input all findings on the same forms in the soft copy of the order folder.

b) The TAM Auditor requested a Trouble Ticket be issued for any order not meeting the test criteria as set forth in the "Description of End to End Testing M&P" (see Appendix J).

c) The soft copy was sent back to the TAM to be recorded and compiled with the other monitored test results.

d) The TAM Auditor printed a hard copy of the updated Order Test Document, stapled the hard copy to the MLTs along with any other copies of information received during testing, and placed them into the Service Order Folder. The TAM Auditor filed the Service Order Folders into a file box.

e) The TAM Auditor sent an e-mail containing all observations and other information to the TAM for entry in the Daily Log.

f) The next days orders were pulled and the process started over again.

4.1.1.3.6 PACIFIC LOC DATA VALIDATION AND COMPILATION

For all ASSL, BASL, and LNPL order testing for AT&T, MLTs and ANI were used to test the end-to-end connectivity.

The MLT Shoe Tests connected at the Pacific CO MDF enables a person to test each loop in both directions, both Inward connectivity (toward the Collocation cage) and Outward connectivity (toward the Testing Service Address or Customer location). By use of the Loop Length measurements, received while testing outward connectivity, and comparing them to the "Loop Qual" attained from the Verigate 'actual data inquiry' it can be determined whether or not the circuit has complete connectivity. If the MLT measurement was greater than 1000 feet less than the "Loop Qual" value from Verigate and tested 'clear and open out' it was ascertained that the loop was complete to the Testing Service Address. For example, if the Verigate value for the test loop was 10,000 feet and the MLT measurement was both greater than 9,000 feet and tested 'clear and open out', then the loop was determined to be complete to the Testing Service Address. These comparisons were documented according to the methods and procedures set forth in Appendix J.

The ANI of the circuit at the MDF verified that the correct TN was translated to the circuit, that the telephone number originated from the CLEC, and that the jumper from the MDF to CLEC Tie Pair was connected correctly. A specific ANI code was given by AT&T for these tests. A Pacific Network Technician at the serving CO was called and requested to perform the ANI testing. The technician connected their Test Set to the Cable and Pair at the MDF and dialed the AT&T ANI code. The ANI for that switch transmitted an audible response stating that the TN translated to the circuit.

A Universal 1-800 ANI code was used to determine what number was translated to the circuit if the AT&T ANI code failed to give back the audible identification. The Network Technician performed an ANI at the CLEC Tie Pair appearance on the MDF. This would determine that the correct CLEC Tie Pair was connected and it had the correct TN translated to it. These results were also documented according to the methods and procedures set forth in Appendix J.

For LNPL orders a MLT Line Test was used. This test proved whether the dial tone originated in the Pacific switch. If the test showed 'Dial Tone Test OK' the number originated in the Pacific switch. If the test showed 'Open In' the number was not working in the Pacific switch. By doing a MLT Line Test both PRE-CHC and POST-CHC validation could ascertain that the CHC had converted the number from Pacific to the CLEC correctly and at the scheduled time. An added step to the PRE-CHC test was to ANI the CLEC Tie Pair, at the Pacific MDF appearance, to verify that preprovisioning was completed and the correct number was ported.

The LNPO order hot cuts testing consisted of actual telephone calls place to the number ported and the results of each call documented. The principal validation was a specific intercept recording, recorded by AT&T for this test, received when all number porting and AT&T translations were completed. That recording was, "The number you have reached, XXX-XXXX, has been changed. The new number is area code XXX-XXX-XXXX." With the number XXX-XXXX being the telephone number being ported. All porting orders were validated by this recording and remained on intercept until all testing was completed.

4.1.1.3.7 TAM POST TEST ANALYSIS OF PACIFIC LOC

The analysis of the AT&T testing by the TAM was done by the results of the test findings. The description of the end-to-end testing methods and procedures is located in Appendix J. Also described is the pass/fail criteria for the ASSL, BASL, and LNPL orders. Pacific failures were established by the comparison of the 'Loop Qual' measurements from Verigate against the measurements obtained from the "MLT Shoe Test" used to test the loop for each of these order types. If the MLT Shoe Test measurements were less than 1000 feet less than the "Loop Qual" measurement and/or did not test 'clear and open out', it was ascertained that these loops were not complete to the "Customer Service Address" and were counted as failures by Pacific. At the same time failure to ANI using the AT&T ANI or no dial tone at the CLEC Tie Pair appearance at the MDF were counted as CLEC failures. It was possible and it did occur that single test could fail both the Pacific and CLEC criteria. The results of these are as follows:

1. ASSL Order: Figure 4.1.1-4 illustrates the following Assured Loop results:
    - 50 total orders sent to be tested.
        - 35 orders passed all tests.
        - 1 order was Held with no subsequent Due Date.
        - 1 order was cancelled
        - 8 orders were CLEC failures
        - 5 orders were Pacific failures.
            - 1 order failed both the Pacific and CLEC test criteria.

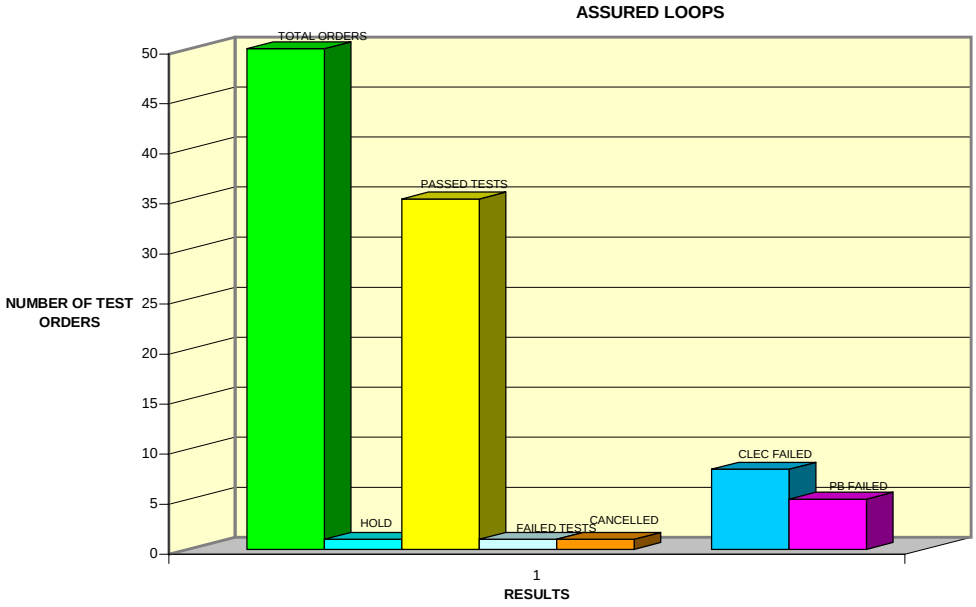


Figure 4.1.1-4 Assured Loop Results

2. BASL Orders - Figure 4.1.1-5 illustrates the following Basic Loop results
    - 63 Total orders sent to be tested.
        - 33 orders passed all tests.
        - 30 orders failed of which:
            - 25 were CLEC only failures.
            - 4 were Pacific only failures.
            - 1 order failed both Pacific and CLEC tests.

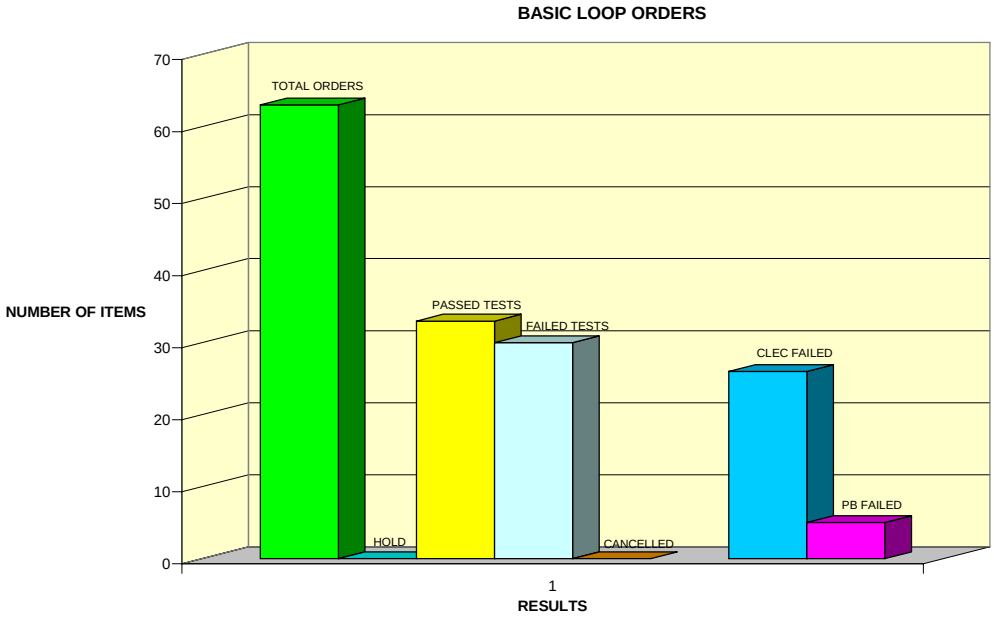


Figure 4.1.1-5 (Basic Loop Results)

3. LNPL Orders (Figure 4.1.1-6 illustrates Local Number Portability wit Loop Results)
   - 112 total orders sent to be tested.
     - 0 orders were made held with no subsequent Due Date.
     - 16 orders were Cancelled.
     - Of the 96 orders that were not cancelled or made Held:
       - 82 orders Passed all tests.
       - 14 orders Failed, of which:
         - 11 were CLEC failures.
         - 3 were Pacific failures.

Note: 104 Coordinated Hot Cuts were also completed as coordinated. 8 of these were either cancelled or made held.

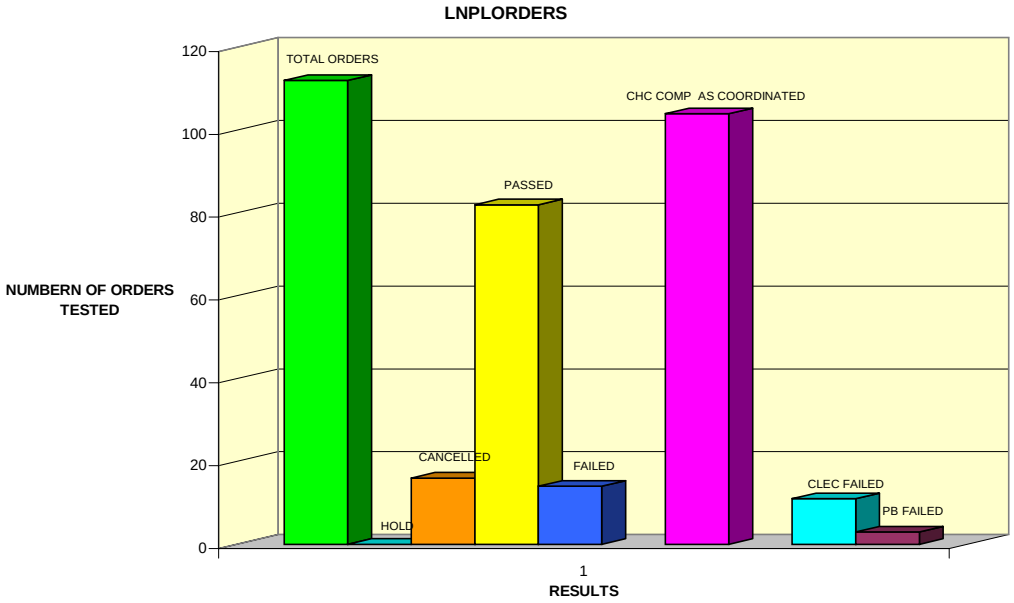


Figure 4.1.1-6 (Local Number Portability with Loop Results)

4. LNPO Orders (Figure 4.1.1-7 illustrates Local Number Portability Only Results)
   - 144 total orders sent to be tested.
     - 0 orders were Held.
     - 3 orders were cancelled because of due date change.
     - 141 CHC completed as coordinated.
       - 139 orders tested good through process.
       - 2 orders failed the test process.
         - 1 CLEC failure due to no intercept recording received.
         - 1 CLEC failure due to incorrect recording received on the Post Test of day after cut.

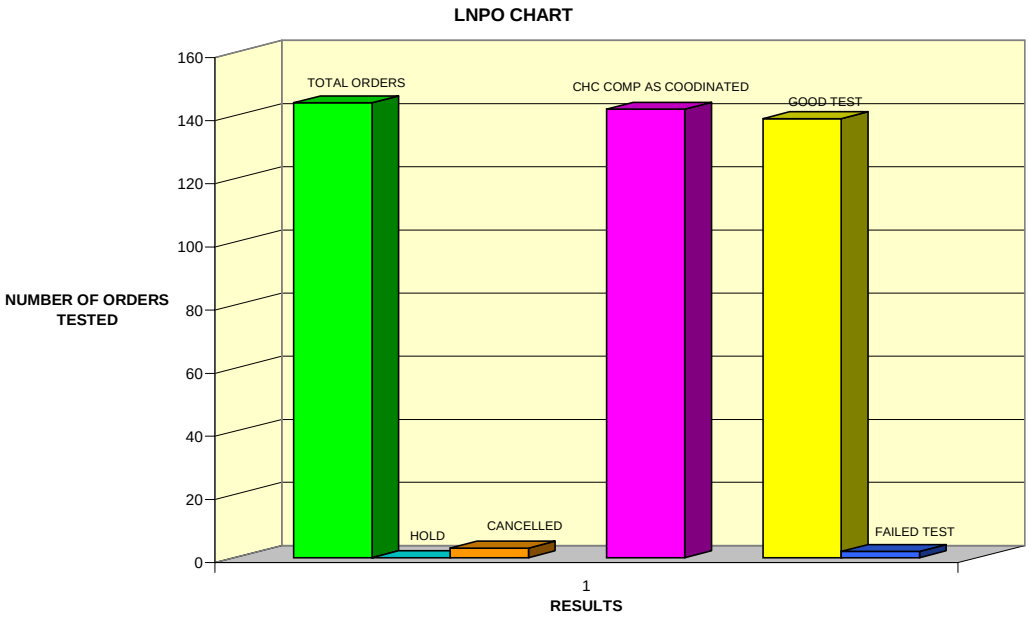


Figure 4.1.1-7 Local Number Portability Only Results)

4.1.1.3.7.1 Results of Pacific LOC Testing

A. For the ASSL orders, there were a total of 48 completed orders tested. Of these completed ordered 8 failures caused by the CLEC, for a 16.7% CLEC failure rate, and 8 failures caused by Pacific for a 16.7% Pacific failure rate. On three tests failures were observed for both CLEC and Pacific.

B. For the BASL orders, there were a total of 63 completed orders tested. Of these completed orders 26 failures were caused by the CLEC, for a 41.3% CLEC failure

rate and 5 failures were caused by Pacific, for a 7.9% Pacific failure rate. One test failed both CLEC and Pacific.

C. There were 96 total LNPL orders that completed testing. Of the 14 orders that failed 11 were caused by the CLEC for an 11.5% CLEC failure rate and 3 failures were attributed to Pacific for a 3.1% Pacific failure rate.

D. When all the ASSL, BASL, and LNPL orders are combined, the total orders that completed testing were 207. CLEC caused 45 failures for an average CLEC failure rate of 21.7%. Pacific caused 16 failures for an average Pacific failure rate of 7.7%.

E. With 141 LNPO orders completed the test process, only 2 orders failed to have the correct intercept message received. This equates to a 1.4% failure rate.

4.1.1.3.8 OBSERVATIONS

A. While the TAM conducted monitoring activities at the LOC it was noted that the Sacramento CO 11 had bad MLT Test Shoes. This was referred to the attention of the LOC manager on 6/22/2000. On 7/19/2000 the TAM was informed that the problem was escalated to the Sacramento Area Manager by the LOC manager. By 7/21/2000 an estimated date of repair had not been received and the TAM was informed that the problem was escalated to the General Manager. On 8/3/2000 the LOC manager informed the TAM that the problem had been turned over to the maintenance and repair manager. The maintenance and repair group tested the system and found hardware and software problems. At this time the TAM was informed that the repair would take 6 to 8 weeks, however, on 8/24/2000 the Area Manager informed the TAM that an additional 4 weeks was needed. On 10/1/2000 the TAM made an additional attempt to get the status of the Sacramento 11 MLT Test Shoes and found that it was still not working. A call was received from the Maintenance Administrator on 10/16/2000 that the Sacramento MLT Test Shoes had been corrected and working as designed. By that date the TAM had concluded LOC monitoring activities and could not test the Sacramento 11 MLT Test Shoes. The TAM recommends that a regular testing and maintenance routine be performed at each CO to ensure all MLT machines function properly.

   The lack of MLT test shoes in the Sacramento11 CO only affected the testing of one ASSL and one BASL service order. All LNPL orders affected could be tested with the MLT Line Test prior to cut and test results were derived from these tests. The MLT Line Tests provide the same data as a shoe test except that the line is being tested via the telephone number and can only be used if the telephone number originated in the serving CO. The TAM recommends that a regular testing and maintenance routine be performed at each CO to ensure all MLT machines function properly.

B. Maintenance Administrators:

a) Twelve new Maintenance Administrators being trained on 6/28/2000. Through the time of TAM monitored testing at the Pacific LOC there were three training classes training new MAs.

4.1.1.4 LSC/LOC AND CENTRAL OFFICE VISITS

4.1.1.4.1 PURPOSE

Visits were made to the various locations to become familiar with the processes performed at each center and to validate the processes and data when handling the various functionalities derived from ordering, provisioning and maintenance & repair activities of CLEC generated requests.

4.1.1.4.2 SCOPE

To acquire the knowledge of how the departments are structured and their daily operational activities. By actually visiting the different centers and departments, meeting with their personnel, and observing their operations first hand the functions and daily activities could be documented. There was also a need to validate facility data attained from the CLEC that was being used for service order processing.

4.1.1.4.3 APPROACH

4.1.1.4.3.1 Basic Elements

Knowledge of the basic functions of each of the operations and their locations were critical to these visits. After attaining this information, the agendas were established with criteria established for each visit. See Appendix L, LSC/SOC Visits for more detail.

4.1.1.4.3.2 Criteria

4.1.1.4.3.2.1 ENTRANCE CRITERIA

Visits to Pacific's LSC and LOC sites, as required by the MTP, were coordinated with Pacific. Pacific and TAM groups meet and set visits expectations and walkthrough requirements of the facilities. The TAM representatives were introduced as Auditors to maintain test blindness.

4.1.1.4.3.2.2 EXIT CRITERIA

The TAM documented all LSC and LOC visit experiences and observations. To ensure that all agenda items (i.e., site walkthrough, observation of daily tasks as performed by Pacific's representatives) were completed as defined.

4.1.1.4.4 ACTIVITIES

Visits were made to Pacific's LSC in Anaheim, LOC – Provisioning in Pasadena and the LOC – Repair in Pasadena at different times before and during the testing process. The first visit, which occurred, on 11/15/99 through 11/16/99 was for basic fact finding and knowledge gathering prior to the start of testing. See Appendix L.

Another visit was made to the LSC in Anaheim on 8/15/00. The purpose of this revisit was to observe the LSC process and determine how the work was "Turfed" (distributed) through the centers. Particular attention was to be taken to any processes that had changed especially in regards to the processing of service order for each individual

CLEC. The agenda for this visit and the document explaining the findings and observations are located in Appendix L.

4.1.1.4.5 OBSERVATIONS

Observations made during the LSC/LOC and Central Office visits included:

A. The facilities provided by the participating CLECs given for the Hollywood CO did not exist as specified in the document. The COLLO cage and the CLEC tie cable designation did were not present.

B. Seventy MA's representatives were present at the Pasadena LOC receiving statewide inbound calls from multiple CLECs.

C. There was an increase in the number of available service personnel at the LSC between the first and second visits. Operations had doubled in size to include service order screeners, service order writers, service managers and a customer group.

D. Observed how incoming calls were routed through an automated call distributor to each group.

4.1.1.4.6 RESULTS

The results in testing Pacific's OSS are as follows:

A. Test Service Addresses were utilized to the fullest and served the purpose of testing the OSS functionality as product requests were administered. The delivery of the measurements was obtained and end-to-end testing was accomplished regardless of the challenges faced with measuring order volumes based on statistical measures and the matching of test participants to test accounts within their respective areas through out the state of California. See §4.1.1.1 for more details.

B. Functionality test processes relied on the collection of service account data, test case assembly and order processing supporting the Test Effort. Regardless of the test environment, the processes were developed as close to real life as possible. Despite the complexity of managing all the activities associated with the Test Effort, the established processes supported the analytical requirements of the associated performance measurements. The efforts associated with the Functionality test processes are described in §4.1.1.2.

C. The LSC Operations were visited twice by members of the TAM during the Test Effort in order to provide a better understanding of the structure and the internal functionality of Pacific's processing of CLEC requests. Focus was placed on observing how personnel work through a normal business day and handle the activities derived from ordering of flow through and non-flow through orders. It was observed that Pacific's LSC is set up mainly to support facilities based CLECs rather than non-facilities based, where Faxed requests are not received on a normal basis and non-flow through orders underwent an internal analysis by the service representatives prior to order delivery commitments. Specifics related to the visits and walkthroughs are described in Appendix L.

D. The provisioning LOC was visited by members of the TAM to observe circuit migrations, To BE Call Cuts (TBCC), hot cuts and trouble resolution as performed by the MAs. While the main function of the provisioning LOC was to interact with the CLEC, it was observed that the process is not completely automated as folders were kept as a way of scheduling and processing hot cuts. Specifics related to the visits are described in Appendix L.

E. The maintenance and repair LOC was visited by members of the TAM to observe Pacific's handling of service affecting troubles. The TAM observed call-in troubles as well as troubles reported via PBSM and EB interfaces. In the course of the visits it was observed that the CLECs prefer to call in troubles rather than utilizing PBSM or EB interfaces. Specifics related to the visits and testing are described in Appendix L.

F. The TAM visited COs that service the LA area, Sherman Oaks, Canoga Park and Hollywood. The purpose of these visits was to inventory the 2-wire CFA provided to the TAM by the participating CLECs. Additionally, the TAM performed frame verification and walkthrough collocation cage set-ups. Specifics related to the visit and activity is described in §§4.1.1.3 and Appendix L.

G. End-to-end testing of AT&T 2-wire loop service orders was performed by the Pacific LOC with a member of the TAM guiding and overseeing the test process. The tests used established and proven procedures and were documented for each service order tested. Details of the end-to-end testing are located in §4.1.1.3.

H. Maintenance and Repair testing was performed to validate the performance of the two different electronic means of issuing trouble reports that are provided by Pacific to its CLEC customers, EB and PBSM.

4.1.2 Maintenance and Repair

4.1.2.1 PURPOSE

The purpose of Maintenance and Repair (M&R) testing was to evaluate the two different Pacific interfaces for electronic trouble report generation: the Pacific Bell Service Manager (PBSM) and the Electronic Bonding interface (EB).

PBSM is a system that provides user access through a gateway to Pacific Operating Support Systems and Network Management Systems. Users access PBSM through either a dial-up or dedicated circuit.

EB is an application to application (app-to-app) trouble administration system which is available for use by potentially high volume CLECs that seek electronic bonding between the local telephone company systems and the CLEC's own trouble administration application.

4.1.2.2 SCOPE

The M&R test included the following activities:

A. Tested the ability to electronically generate trouble tickets on lines that were installed during Functionality testing. This was tested for both PBSM and EB.

B. Tested Pacific's ability to receive the trouble tickets that were created and electronically close the ticket back to the CLEC once the trouble was corrected. This was tested for both PBSM and EB.

C. Evaluated Pacific's ability to meet the commitment dates quoted during the trouble ticket submission process. This was tested for both PBSM and EB.

D. Evaluated the average amount of time that it took for Pacific to restore a line that was out of service. This was tested for both PBSM and EB.

E. Documented the average amount of time it took before Pacific's Line Maintenance Operating System (LMOS) accepted an electronically generated trouble ticket on a newly installed line.

F. Evaluated the ability to successfully initiate MLTs (Mechanized Loop Tests) through both the EB and PBSM methods of trouble management.

4.1.2.3 VARIANCES

The following deviations from the MTP were made during the course of the testing:

A. The decision to document the amount of time it took before Pacific's LMOS accepted electronically generated trouble tickets on newly installed lines was made in June 2000 and was therefore not included in the MTP.

B. The original approach for M&R testing called for an equal split in the number of test cases performed through both PBSM and EB. This became non-feasible after a series of unforeseen problems limited the productivity of the three EB testing phases (See Appendix M). As a result, a higher percentage of the test cases were performed through PBSM. 83% of the test cases were entered via PBSM, with the remaining 17% entered via EB. This had no effect on the outcome of the testing, as both systems were front-ends into Pacific's LMOS, which was the OSS being tested.

4.1.2.4 APPROACH

The approach of the M&R focused primarily on generating trouble reports through the two available electronic means of trouble reporting, PBSM and EB. The ability of our test tickets to be received by Pacific was documented, as was the final outcome, or resolution, of the tickets.

4.1.2.4.1 BASIC ELEMENTS

Prior to the initiation of any M&R tests, 2-wire loops established during the Functionality testing were selected, removed from the normal cycling of orders, and designated in the test account database for use in M&R testing. This eliminated the possibility of the circuits being disconnected or otherwise altered during the time period in which the EB or PBSM testing occurred. Once the lines were isolated for use in M&R testing, they were assigned unique M&R test case tracking numbers with the troubles reported on each of them.

To be able to send trouble tickets to Pacific that would return a resolution from Pacific's technicians, rather than a response of "No Trouble Found", an arrangement was made to have trouble conditions artificially induced on lines that were installed during the course

of Functionality testing. The TAM's contact person for the trouble inducements was a Product Manager in Pacific's Interconnection Services Division. A process was agreed upon where the TAM would e-mail the contact person a list of telephone numbers or circuit IDs, depending on the type of product to be tested, along with the CLLI codes and types of trouble to be induced on each line.

A. To allow Pacific's line records to be fully updated prior to testing, it was agreed that all lines tested would be in service for at least five (5) business days prior to trouble inducement.

B. It was also agreed that the Pacific contact person needed five (5) business days to arrange for the specified trouble conditions on the lines contained within the TAM's list.

C. To assure that the induced troubles would not be repaired through Pacific's routine maintenance, it was agreed that induced troubles were tested within approximately two weeks of the inducement.

In the event that there were circumstances that would prohibit the desired trouble from being induced on a test line (e.g., Pair-Gain equipment), the contact person would send an e-mail to the TAM identifying the line(s) in question and an explanation of why trouble could not be induced. The TAM would then append the list and replace any unusable lines with alternate choices. Once troubles had been induced on all of the lines, the contact person would return the list to the TAM confirming that the inducements had been implemented.

Troubles that were induced on the test lines are shown in Figure 4.1.2-1.

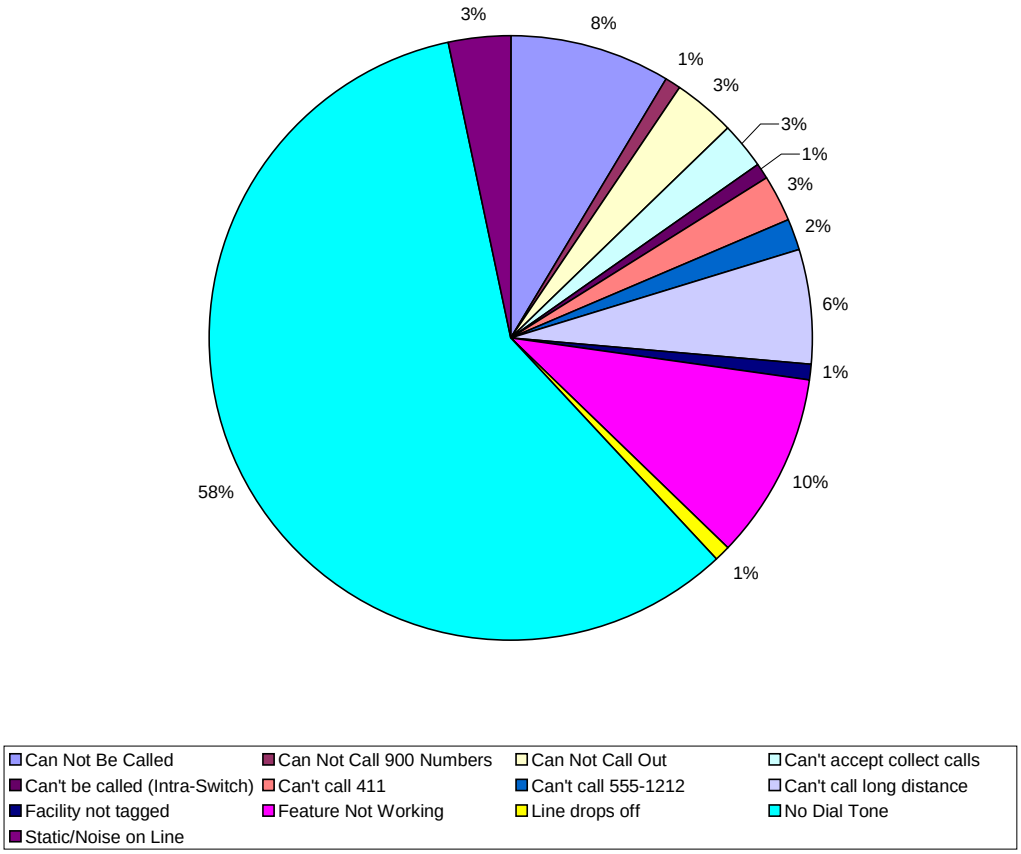


Figure 4.1.2-1 M&R Trouble Conditions

An additional set of trouble reports were generated against troubles discovered on any of the lines that were installed for usage testing. For example, if no dial tone was detected by a TAM end-user, that TN would be would become an unplanned trouble report and submitted through PBSM. The percentage of unplanned troubles in relation to the total number of test cases performed is shown in Figure 4.1.2-2.

Figure 4.1.2-2 Trouble Types: Planned vs. Unplanned

4.1.2.4.2 CRITERIA

4.1.2.4.2.1 Entrance Criteria

The following were criteria that had to be satisfied prior to M&R testing.

A. For PBSM:

a) Access to the PBSM trouble management system.

b) A TG resource, trained to utilize the PBSM system, was responsible for entering all the information provided by the TAM necessary to create a trouble report on a circuit through PBSM.

c) A supply of 2-wire loops were created during the Functionality testing and set aside for use in M&R testing.

B. For EB testing:

a) Access to the EB System at WorldCom's site in Sugarland, Texas.

b) Use of a WorldCom resource while at the Sugarland site to input the test case information, transmit trouble reports over the EB gateway, check status of pending tickets and print all pertinent information once the trouble tickets were closed.

c) A supply of 2-wire loops were created during the Functionality testing and set aside for use in M&R testing.

4.1.2.4.2.2 Exit Criteria

In order to conclude the M&R testing, the following must have occurred.

A. For PBSM:

a) All information resulting from the creation of test trouble tickets through PBSM was captured for test documentation purposes (written or printed). This includes all pertinent information screens populated by PBSM for each trouble ticket.

b) All documentation from the M&R test effort was collected and removed from the TG site.

c) Any outstanding or unresolved trouble tickets were cancelled out of PBSM prior to the conclusion of testing.

B. For EB:

a) All information resulting from the creation of test trouble tickets through EB was captured for test documentation purposes (written or printed). This includes all pertinent information screens populated by EB for each trouble ticket.

b) All documentation from the M&R test effort was collected and removed from the TG site.

c) Any outstanding or unresolved trouble tickets were cancelled out of EB prior to the conclusion of testing.

d) All internal WorldCom tickets generated as part of the EB process were deleted out of WorldCom's "Test Queue" that was created to accommodate EB testing.

4.1.2.5 ACTIVITIES

4.1.2.5.1 TESTING USING PACIFIC'S SERVICE MANAGER

Eighty-three percent of the M&R test cases were performed via Pacific's PBSM system of trouble reporting. The reason for the disproportionate number of test cases was the constant availability of PBSM (maintained at the TG site) as compared to EB Testing, which required the coordination of visits to the site by a third-party participating CLEC. Access through a dial-up connection to PBSM was available for use throughout the duration of the Functionality testing, as was a TG resource that was trained to use the trouble-reporting interface.

The test cases entered through PBSM were made up of two different categories of troubles; planned (induced) and unplanned. Planned troubles consisted of pre-selected loops on which specific reportable troubles were intentionally placed. Unplanned troubles were made up of anything out of the ordinary discovered on the test loops during the course of the Functionality testing. Examples of these troubles were features found to be missing from the lines and problems with making long-distance calls from the lines installed during testing.

PBSM Testing Trouble Reporting Process consisted of the following steps.

1. The TG was established as the Pseudo-CLEC for Napa, Blackhawk, Discovery and Camino.
2. The TG generated a trouble report using PBSM, simulating a legitimate customer trouble, such as no dial tone.
3. The TG initiated a Mechanized Loop Test (MLT) through PBSM system prior to issuing the trouble report.
4. After receiving the results from the MLT, the TG documented the test results and transmitted the trouble ticket information over PBSM.
5. Once the information was received into the LMOS, the PBSM system returned a commitment date and time the reported trouble would be corrected.
6. The TG documented the date and time of the initial report, the type of trouble reported, and the commitment date and time returned by Pacific.
7. TG representatives were listed on the tickets as the contacts for the Pacific technicians who worked the tickets. They fielded all calls from Pacific and answered any questions.
8. A separate telephone line at the TG location was maintained as the contact number for use with the PBSM trouble tickets.
9. Once the PBSM ticket was closed, the TG recorded the actual clearance date and time returned by Pacific.
10. The TG returned the documentation for the completed trouble to the TAM.

4.1.2.5.2 TESTING USING THE ELECTRONIC BONDING INTERFACE

Per §4.2.4.2 of the MTP, a selected set of M&R troubles were tested using WorldCom's interface to the EB gateway. WorldCom and the TAM agreed that WorldCom's service center located in Sugarland, Texas was the most conducive to the M&R testing.

To minimize the impact to WorldCom's production environment and maximize resources, the M&R testing performed through the EB system was scheduled for two phases. A third phase was added when the first two failed to produce a viable number of successful test cases.

The TAM encountered problems during each of the three EB test phases. The problems were substantial enough that each time the round of testing was prematurely concluded. Rather than a deficiency in the EB system, the problems were complications stemming from modifications made to the test cases to accommodate the passing of Pseudo-CLEC

line information through a third-party interface (see Appendix M). Following the third phase of testing, enough test cases were processed through EB to allow the TAM to observe and document the process of issuing trouble reports, and any problems that occurred. To facilitate the testing, Pacific updated the data tables with the Pseudo-CLECs' Access Customer Name Abbreviations (ACNAs), thus allowing information from the fictitious CLEC accounts to be transmitted via WorldCom's EB interface.

After the appropriate modifications were made on Pacific's side, a process was defined between the TAM and WorldCom for entering and tracking trouble tickets created for the test that would not impact WorldCom's normal work flows and performance statistics. A TAM representative was provided with a direct line and voice mail in order to act as the point of contact answering calls from Pacific's technicians. The trouble ticket process was:

1. In order to create a trouble ticket via EB, a WorldCom representative first created an internal "dummy" ticket, called a trouble ticket request (TTR). This internal ticket provided the gateway to EB. This ticket was exclusively internal to WorldCom and was not reported as part of the M&R testing.
2. Create the EB ticket to be sent to Pacific via the "Create ETTR" tab of WorldCom's system. This included entering information such as the TN, address, customer name, trouble code and description, and contact information provided by the TAM.
3. The trouble ticket was transmitted to Pacific by the WorldCom service representative through the ETTR ticket menu.
4. If the transmission was successful, the frame containing the phrase "ticket has been successfully created" was received. If the transmission was unsuccessful, a message was received explaining what information was missing in order to create a ticket or why the ticket was not created.
5. The service representative printed the information from the TTR ticket that captured all of the information transmitted through the gateway to Pacific and returned back to WorldCom.
6. Upon successful creation of an EB trouble ticket, the TTR ticket was moved into a WorldCom created test queue named LTSC-EB Test and placed on a 30-day customer time clock. This was done to keep WorldCom representatives not involved in the testing from working the tickets or performing follow-up testing on the tickets. Placing the tickets in the test queue also kept them out of WorldCom's internal reporting processes. This step was internal to WorldCom and not reported as part of the M&R testing.
7. During the ticket creation, only the entries in the notes section of the trouble ticket added by the WorldCom service representative were placed on Customer Time. The EB process generated all other notes until the TTR was closed.
8. Upon completion of the trouble ticket, Pacific sent notification that the trouble was cleared, followed immediately by another notice stating that the ticket was closed.

9. When WorldCom received Pacific's close notice, the TTR ticket information was printed for a final time. This printout reflected every transaction that occurred for the ticket, from inception to the date and time Pacific closed the ticket.
10. WorldCom then cancelled the TTR, thus eliminating any potential reporting issues created by the TTR. This was only internal to WorldCom and did not affect the testing performed by the TAM.

WorldCom made arrangements for two telephone numbers to be available for the TAM's use as the contact numbers on the test trouble tickets. These numbers were forwarded to the cellular telephone of a TAM member who acted as the point of contact for the trouble tickets and answered calls from the Pacific technicians working the tickets. Once the EB testing was concluded, the TNs were re-claimed by WorldCom.

4.1.2.6 DATA VALIDATION AND COMPILATION

For each M&R test case, planned or unplanned, all of the information contained in the trouble tickets created in either PBSM or EB was captured through screen prints from every relevant phase of the trouble ticket process. Also captured was all of the information returned by Pacific during the trouble resolution process including trouble ticket numbers, commit dates and times, status updates, and resolution codes.

From the information collected, all data relevant to the Performance Measurements specified in the MTP was collected and input on a spreadsheet for post-test evaluation and analysis.

4.1.2.7 OBSERVATIONS

The following observations were made during the course of the M&R testing:

A. The EB problems that prevented the division of the M&R test cases equally between EB and PBSM were not related to the production performance of Pacific's LMOS system. The problems encountered were related either to WorldCom which hosted the EB testing phases or to the modifications that were made to an existing EB that allowed for the transmission of Pseudo-CLEC information over WorldCom's EB interface (See Appendix M).

B. Lines that were on PairGain were excluded from M&R testing, as any trouble that was induced for their testing would also affect Pacific customers' service.

C. Of the 102 planned and unplanned trouble tickets successfully generated in the PBSM system, 24 of the planned trouble tickets returned a confirmation message of:

```
+-----------------------------------------------+
|                                               |
|   Trouble report has been received.           |
|                                               |
|   For status information:                     |
|   - Call the ISC in 2 hours at                |
|     1-800-662-4664 or,                        |
|   - Check the status in Service Manager       |
|     in 2 hours or,                            |
|   - The ISC may contact you within two        |
|     hours of your placing the trouble.        |
|                                               |
|                                               |
|                  << OK  >>                    |
|                                               |
+-----------------------------------------------+
```

PBSM Confirmation #2

a) Per the PBSM User Guide, this confirmation message indicates that the trouble report was received at the Interconnection Service Center (ISC) either as a message report (MR) or as a Paper Record printed to the ISC's printer. This confirmation does not return a commitment date/time to the user.

b) The trouble ticket will not be created in PBSM, but rather a service representative will create a ticket directly into LMOS if needed, or will contact the CLEC to discuss the resolution of the trouble report.

c) These 24 tickets were manually worked and closed. This number corresponds to 23.5% of the trouble tickets. The TAM does not know if percentage is representative of the typical percentage of trouble tickets that have to be manually worked and closed.

4.1.2.8 RESULTS

Following the completion of the M&R section of the Functionality testing, an analysis was done of all of the information collected from the test cases performed through PBSM and EB.

From both the planned and unplanned troubles:

A. All of the trouble tickets that were successfully entered were evaluated to determine the percentage of test cases that were not resolved by the commit time that was returned by Pacific. This was to test Performance Measurement 20.

a) Method of Calculation: (Total trouble reports not cleared by the commitment time for ILEC reasons / Total trouble reports completed) X 100

B. The amount of time that passed between the time that the trouble ticket was entered and the time that the trouble ticket was closed out by Pacific was calculated to give the "average time to restore" of the test cases. This supported the testing of Performance Measurements 21 & 22.

   a) Methods of Calculation:

      1. Performance Measurement 21. (Total duration of trouble reports) / (Total number of trouble reports)

      2. Performance Measurement 22 (Total number of out of service troubles cleared in less than 24 hours / (Total number of out of service network troubles reported) X 100

C. An additional set of 37 test cases were evaluated to determine if a disproportionate amount of time passes from the time that a line migration or new install order was completed, until an electronic trouble report was able to be successfully generated on the line. Of the 37 test cases that were entered into PBSM to evaluate the amount of time between order SOC and when a trouble ticket can be electronically generated on the line, 16 of the test cases were not tested with a frequency that would allow for an accurate measurement. Information from the remaining 21 test cases was examined, and it was found that an average of 32.027 hours passed between the time that an order SOCs and the time that a trouble ticket could be generated against the line. Additionally, a set of 8 test cases was selected to determine the amount of time that passed after order SOC before an MLT test could be successfully performed on the line. From the 8 test cases, an average of 11.781 hours passed from the time of SOC until the time that an MLT could be successfully performed.

D. The ability to run MLT tests was included as part of the M&R testing. A total of 81 MLTs were performed through PBSM and EB. Of the 81 MLTs, 5 returned errors and 76 returned successful MLTs. Of the 5 that were unsuccessful, 3 were able to return completed MLTs on subsequent attempts.

4.1.3 End-User Test

4.1.3.1 PURPOSE

The purpose of the End-User Test (EUT) was to generate usage and create billing from specified telephones lines at multiple test sites. The EUTs were based on a predefined set of test cases from the MTP §6.5.5, the OSS Master Test Plan, Version 3.1, Attachment 1A and the OSS Test Cases Usage, dated 9/30/99.

4.1.3.2 SCOPE

The EUT Team, comprised of employees of the TAM, was tasked to generate usage and create billing from multiple test sites by executing specific predetermined test cases and scripts. The End-User testing focused on UNE Loop with Port.

4.1.3.3 VARIANCES

The following variances from the MTP stated EUT tasks were identified and approved during the course of the test:

A. The EUT did not include LNP and UNE Loop (Basic & xDSL) tests. This variance was due to usage testing only being performed on Loop with Port. Pacific does not report usage on any other loop.

B. The LNP and UNE Loop (Basic & xDSL) tests were conducted outside of the EUT using separate End-User addresses, referred to as "Friendlies".

4.1.3.4 APPROACH

4.1.3.4.1 BASIC ELEMENTS

The End-User testing approach focused on UNE Loop with Port. The Test Team generated usage and billing data, and validated test results in a controlled manner pursuant to the specified test procedures. Tests that covered LNP and UNE Loop (Basic & xDSL) were not part of the EUT but are described in the Pre-order/Order/Provisioning subsection of the OSS Functionality Test Section, located at §4.1.1.

End-User Test Team responsibilities included:

A. Creating test cases and scripts.

B. Determining the number of Test End-Users required.

C. Determining the distribution of Test End-Users and locations for installation of test lines.

D. Enlisting the support of test sites.

E. Providing a description of each physical location where test activities would take place.

F. Overseeing the installation of telephone lines at various predefined test locations, both business and residential.

G. Mapping (e.g., services and feature test mapping) Test End-Users/locations to test scenarios/call scenarios.

H. Providing End User detailed testing schedules.

I. Creating an EUT database for tracking locations, testers, dates, times, and usage. The EUT database is provided the supporting documentation.

J. Executing test cases/scripts creating usage and billing.

A set of predefined End-User tests were used to participate in the UNE Loop with Port test utilizing test telephone lines installed at each test location. These test telephone lines were to include additional telephone lines installed at the EUT premises.

The TAM was to execute predefined telephone calling/usage scripts from the test locations and identify the quantity of business and residential end users.

The purpose for the end-user test scripts was to generate usage for billing and usage evaluation.

Once the usage generation was completed at each of the EUT locations, the lines were disconnected.

4.1.3.4.2 CRITERIA

4.1.3.4.2.1 Entrance Criteria

The entrance criterion for the EUT was the activation of the test telephone lines for the five identified test sites: San Diego, El Sequndo, Irvine, San Francisco, and Atherton.

A decision was made to begin the EUT after a minimum number of test telephone lines were activated at each site.

4.1.3.4.2.2 Exit Criteria

The exit criterion for the EUT was the execution of the End-User Test scripts in sufficient numbers to provide adequate usage for billing verification.

4.1.3.5 ACTIVITIES

The End-User testing activities focused on UNE Loop with Port. The Test Team generated usage and billing, and validated the test results in a controlled manner pursuant to the specified test procedures. In addition to making calls to generate usage, calls were made to test the features provisioned on each telephone line.

The EUT Team performed the following activities that satisfied the End-User Test Team responsibilities and accomplished this portion of the test:

A. Created test cases and scripts: EUT test cases were developed based on a set of test cases from the MTP. These test cases became the bases for test scripts that were organized by Pseudo-CLEC and test site. Additionally test cases and test scripts were developed for the features and services on each EUT telephone line.

B. End Users required: The determinations that were made are detailed in Table 4.1.3-1.

C. Enlisted the support of test sites: Agreements were created with three business sites and two residential sites. The agreements established that the EUT Team would have access to perform the End-User Tests for the duration of the test.

D. Test Activity locations: The description of each physical location and address was included in the EUT database.

E. Installation of telephone lines: Thirteen lines were installed. A small subset of the EUT telephone lines was initially installed at each site with additional telephone lines installed as the test progressed.

   a) A total of five test sties were used in the EUT. Three test sites were located at businesses with only business lines installed. One test site was located at a residence where one residential line was installed. One test site was located at a residence where both residential and business lines were installed. The additional business telephone lines installed at the End-User Test premises were used solely to conduct the test. The EUT lines and their type and location are described in Table 4.1.3-1.

   b) The installation of all telephone lines was monitored. Installation consisted of two parts: external installation by Pacific and internal installation by an independent telephone installer. The test team was responsible for arranging

the internal installation of the telephone lines. For most of the installations by Pacific, a test team member was not present for observations. However, a test team member was present and observed the installation at the El Segundo site.

c) As for the internal installations, a test team member was present and observed the internal installations at the Atherton, San Francisco and Irvine sites. No internal installation occurred at the El Segundo or San Diego sites, due to the amount of prep work that was required before a line could be installed (e.g., digging of trenches in test participants yard or drilling through floors to install extra lines).

Table 4.1.3-1. End-User Test Information

CLEC/Site	Environmental Needs	Number & Type of lines	Telephone Numbers
BLACKHAWK El Segundo	3 Telephones Identification for each line	2 Loop w/port - Business 1 Loop w/port –Residential	310-322-xxxx 310-322-xxxx 310-322-xxxx
NAPA Irvine	3 Telephones Caller Id System 3 24-ft Modular Line Cords	3 Loop w/port - Business	949-833-xxxx 949-851-xxxx 949-851- xxxx
NAPA Atherton	3 Telephones 1 Caller Id System 3 25-ft Modular Line Cords	3 Loop w/port - Business	650-365-xxxx 650-367-xxxx 650-216-xxxx
NAPA San Francisco	3 Telephones Identification for each line 1 Caller Id System 3 25-ft Modular Line Cords	3 Loop w/port - Business	415-227-xxxx 415-227-xxxx 415-543-xxxx
NAPA San Diego	1 Telephone 1 50-ft Modular Line Cord 1 Caller Id System 1 Message Answering Machine	1 Loop w/port - Residence	858-451-xxxx

F. Test Scenarios/Call Scenarios: The features and services on the End-User Test telephone lines were mapped to the test cases and scripts in the End-User Test database.

G. Test Schedules: A spreadsheet was developed and populated with the End-User testing schedule.

H. EUT Database: An Access database was developed which correlated test cases and test scripts to the telephone lines and each usage call that was made.

I. Test Script Cases/Scripts: A predefined set of test cases was executed at the five EUT sites in order to generate sufficient usage for two complete billing cycles. The generated usage was evaluated and is described in the Data Validation and Compilation section, §4.1.3.6 .

The total number of test cases and test scripts executed is included in Table 4.1.3-2.

Table 4.1.3-2. Test Case/Script Execution Statistics

STATISTC	TOTAL
Total Number of End-User Test Cases	450
Total Number of End-User Test Scripts	450
Total Number of End-User Test Scripts Executed	600
Total Number of End-User Test Scripts Completed	450
Total Number of End-User Test Scripts with Problems	450

The order of the test was as follows: Once the test sites were identified, test accounts were identified for the EUT. These test accounts are listed in Table 4.1.3-1. Since a production environment approach was used, the EUT used "live" accounts and sites. Accounts were mapped to each site and EUT telephone lines were provisioned to each account/site. Once a minimum number of telephone lines for the EUT sites were provisioned and installed, End-User testing began using the EUT test scripts.

The 450 test scripts were executed multiple times at each test site. Calls were made as indicated by the test scripts, the calls were tracked and recorded in call logs capturing call date, from and to TNs, and the call start and stop times. The call data was then loaded into the End-User database, at which time the call duration was calculated.

Once the usage generation was completed at each of the End-User Test locations, the lines were disconnected. At that time, usage generation for each test location was completed. Change/Disconnect Orders were generated to disconnect the lines for each test location.

The following is a list of changes that were made during the test execution:

A. Per agreement by the CPUC, the E911 feature was not tested since testing would interrupt emergency services.

B. The Call Trace feature was not tested because in order to maintain the blindness of the test, official law enforcement involvement in the test would have been required.

C. Specific test calls were not made from Pacific telephone lines to CLEC telephone lines.

D. Test Case to track Collect Calls was added to the last end-user billing cycle.

E. The Test Case "Incoming Calls" was added to the scripts to track incoming calls to the end-user TNs.

F. The test case "Bill Test" was added at the beginning of the test to capture calls not detailed in the Test Specification and test cases.

G. Upon discovery that the San Diego site could not accept another line, test cases for the business line were not executed.

4.1.3.6 DATA VALIDATION AND COMPILATION

Throughout the EUT, telephone calls were made from 5 sites under 2 Pseudo-CLECs. The calls that were made and the usage generated was checked and validated against the daily usage as reported by Pacific. Table 4.1.3-3 gives the total number of minutes of usage that were generated and the total number of calls by CLEC, site, and TN.

The usage generated for billing was analyzed and validated by converting Exchange Message Record (EMI) data-tapes to display usage in an Excel spreadsheet. Once this conversion took place, each call was highlighted on the spreadsheet. Calls that did not appear on the data-tape but on the call log were noted as “not in database”. Calls that were not on the test call log but appeared on the data-tape were noted as “not in call log” on the spreadsheet. Calls that were not made from a test location were not highlighted and were left blank. Since the Pseudo-CLECs lacked their own switch to capture calls when they were generated, calls that could have been dropped appeared on the data-tapes. The TAM could not determine the validity of these calls. A conversation with a Pacific representative revealed that calls that were not included on the data-tapes were no longer available. It would be necessary to recreate the calls in order to recapture them. Of the calls made, the predominant types were long-distance and were recorded by the long-distance provider.

The validation of the calls against the bills is discussed in the Billing Test section of this document, §4.1.4.

Table 4.1.3-3. Total Number of Test Calls and Minutes of Usage

CLEC/SITE/TELEPHONE	NUMBER OF CALLS	MINUTES OF USAGE
NAPA	2373	14608:55:00
Atherton	530	3564:47:00
650-365-xxxx	178	1101:38:00
650-367-xxxx	229	1798:30:00
650-216-xxxx	123	664:39:00
San Francisco	488	4197:21:00
415-227-xxxx	190	2296:13:00
415-227-xxxx	260	1645:18:00
415-543-xxxx	38	255:50:00
Irvine	627	2775:47:00
949-833-xxxx	252	513:57:00
949-851-xxxx	168	894:25:00
949-851-xxxx	207	1367:25:00
San Diego	728	4071:00:00
858-451-xxxx	727	4071:00:00
858-487-xxxx	1	0:00
BLACKHAWK	613	9926:43:00
El Segundo	613	9926:43:00
310-322-xxxx	226	2829:50:00
310-322-xxxx	167	2864:00:00
310-322-xxxx	220	4232:53:00
TOTAL	2986	24535:38:00

4.1.3.7 OBSERVATIONS

The following observations were made during the EUT:

A. Upon completion of telephone installation by Pacific, binding posts were not marked on a consistent basis.

   a) When the binding post was not marked, Pacific was inconsistent in whether or not it would give the binding post number to the independent installer. On one occasion the number was given out immediately and on other occasions it was not, causing a delay in the installation.

B. The 900/976 block feature was not operational on line LPWP052004 (949-833-3172) as expected.

C. The EUT test telephone lines were not made unlisted and unpublished as requested. Therefore, the 411 operator provided several EUT TNs to the public. The lines were also designated for courtesy listings in the telephone book.

D. The San Diego account was set up on Napa CLEC rather than on the Blackhawk CLEC.

E. A line was installed by Pacific to the 10th floor not the 14th floor where the test site was located. This was an installation error by Pacific and was corrected via an outside vendor.

F. A line was installed by Pacific to the 12th floor not the 14th floor where the test site was located. This was an installation error by Pacific and was corrected via an outside vendor.

G. AT&T long distance was dropped numerous times. This occurred at each site on various phone lines. This occurred due to the fact that the AT&T bills were not paid during the Test Effort.

4.1.3.8 RESULTS

The results of the End-User Test are as follows:

A. Telephone lines were installed despite the problems outlined in the Observations subsection section above, §4.1.3.7.

B. Pacific was able to provide dial tone in all phones installed.

C. Usage calls were made based on the EUT test cases in order to generate billing.

D. The features provisioned on the telephone lines were operational except as detailed in the Observations subsection above, §4.1.3.7.

Overall, after resolution of the problems listed in A – D above, telephone calls could be made to generate usage and billing and Pacific was able to provide dial tone, features, and services for each Pseudo-CLEC customer and telephone line used in the End-User Test.

4.1.4 Bill Validation

4.1.4.1 PURPOSE

The primary purpose of Bill Validation was to verify that Pacific (through CABS) was able to supply the CLECs with accurate and timely electronic and hard copy bills.

4.1.4.2 SCOPE

The scope of the Bill Validation test was to assess the accuracy of the bills Pacific provided to the CLECs. The activities included in Bill Validation included:

A. Assessing the accuracy and timeliness of wholesale bills, usage data and billing records for the services, features, network items (e.g. loop, port) and functions that were ordered and provisioned.

B. Verifying that the rate center specific pricing was applied to recurring, non-recurring, usage sensitive and miscellaneous charges.

The MTP sought to ensure for bill validation, the following 13.

1. The bill complied with detail and format as indicated by Industry Guidelines such as the OBF guidelines.
2. What was ordered is what was billed.
3. The wholesale bill provided for non-recurring, recurring and usage sensitive charges.
4. The rates were applied correctly for each product, service or element.
5. Surcharges were applied appropriately for the jurisdictions.
6. Usage charges were billed within the timing limitations or criteria established by local or state jurisdictions.
7. Products billed in advance, as well as, recurring and non-recurring charges were billed accurately.
8. Discounts, adjustments and calculations were performed appropriately.
9. Timeliness of the bills (i.e., were they sent/received within the amount of hours/days required).
10. Bill data is validated for accuracy and understandability.
11. Rounding rules were applied accurately.
12. Prorated amounts were charged accurately according to the disconnect date.
13. Discounts were processed and appear accurately on the bill.

4.1.4.3 VARIANCES

The following deviations from the tasks in the MTP were encountered during the Test Effort.

A. Since the Pseudo-CLECs filed for tax exemption, tax rates were not tested. Pacific did not apply taxes to these accounts, signifying that the tax-exempt status of the Pseudo-CLECs was accurately tracked.

B. In the middle of the testing process, a rate change was applied to the bills in accordance with CPUC D99-11-050. This added to the bill validation testing scope.

4.1.4.4 APPROACH

4.1.4.4.1 BASIC ELEMENTS

The Test Effort involved the establishment of four Pseudo-CLECs. These Pseudo-CLECs were the owners of the test accounts created by the test cases. Each Pseudo-CLEC was divided into two regions (North and South) with each region receiving monthly bills. The Pseudo-CLECs were assigned to the following bill cycles:

Napa Communications	14th of each month
Camino Communications	14th of each month

Discovery Communications 26th of each month

Blackhawk Communications 26th of each month

Each month both electronic and hardcopies of the bills were sent to the TAM Bill Validation team. In addition, the team received the monthly usage files to validate the end-user calls. The bills received and validated were for the time period of October 1999 through August 2000.

Pacific sent the Daily Usage files to the Pseudo-CLECs on a weekly basis. The Pseudo-CLECs e-mailed the file to the TAM on a weekly basis. The electronic file was provided to the TAM Bill Validation Team to validate that the calls made by the end-user team were reflected on the file.

When the bills were received, the validation process was performed. The rate charges on each bill were validated against the rate tables embedded in the Interconnection Agreement, the OANAD documentation, and the Directory Listing section of Tariff 175-T provided by Pacific to the Pseudo-CLEC. The TAM compared the results of the test cases which provided the feedback on what was ordered successfully with what was processed in the Pacific bill. Any discrepancies were researched and handled as necessary. Errors in billing were identified and raised through Pacific's billing inquiry process.

4.1.4.4.2 CRITERIA

4.1.4.4.2.1 Entrance Criteria

In order to do the bill validation, the Bill Validation Team required:

A. Hard copies of the CLEC bills.

B. Electronic copies of the bill files.

C. Daily usage records in electronic format.

D. Access to the CLEC Handbook.

E. Rate tables from the Interconnection Agreement, the OANAD documentation, and the Directory Listing section of the Tariff 175-T.

F. Telcordia CABS documentation.

G. ATIS/OBF EMI documentation.

4.1.4.4.2.2 Exit Criteria

The exit criteria for the Bill Test process were accurate and timely bills for each of the four Pseudo-CLECs. All bills received were validated.

4.1.4.5 ACTIVITIES

The Bill Validation Team testing activities focused on the review of the electronic and the paper output of the billing system (customer bill) and the usage magnetic tapes provided to CLECs.

Over the period of 11 months of bills received, the Bill Validation team reviewed the bills for the four Pseudo-CLECs. The Bill Validation Team validated the test results in a

controlled manner pursuant to the specified test procedures. These 13 validation items under §4.1.4.2 Scope were incorporated into eleven areas of validation. The Bill Validation Team performed the following eleven (11) activities during the Test Effort: Usage, Bill Format, Bill Content, Bill Accuracy, Rate Charges, Discounts and Adjustments, Taxes and Surcharges, Proration Accuracy, Accurate Rounding, Accurate Discounts, and Timeliness.

4.1.4.5.1 USAGE

The validation of usage feeds and the usage portion of the bill was limited to the actual calls that were done by the end-user group due to the fact that neither the TAM nor the TG owned a switch to record usage. The calls that the EUT made and the usage generated were checked and validated against the daily usage tapes that the TAM received from the TG on a weekly basis. The detail of the validation process is discussed in the End-User Test section of this document, §4.1.3.

Validation of individual usage charges on the bill was not achievable, as the CLEC CABS bill did not itemize the usage charges. The usage charges were summarized by rate categories within office codes. These charges appear in the Detail Summary of Usage Charges section of the bill.

The validation of the usage sections of the bills was limited to the rounding and the roll-up of charges. The amount charge per rate category was validated for accuracy by multiplying the quantity of the calls made by the rate. When rounded, this product should equal the amount charged. After verifying the accuracy of the detail of usage charges per Access Service Group (ASG), the next task was checking to make sure that the quantities and amounts of all the ASGs were rolled up in the Detailed Summary of Usage Charges for Account section of the bill.

4.1.4.5.2 BILL FORMAT

Upon receipt of the electronic copy of the bills, the Bill Validation Team verified that the file complied with the industry standard format. This was accomplished by comparing the file layout specified in the CABS Billing Output Specifications Volume 3 - Billing Data Tape documentation with the electronic copy of the bill. All different types of record ID's (header, detail, trailer) were checked.

The format of the hardcopy of the bills was also compared to the format in the CABS Billing Output Specifications Volume 1 – Paper Bill and CSR Specifications. Each section of the bill was validated against the CABS documentation to ensure that all the required elements are displayed in the sequence specified in the CABS documentation. The overall appearance of each bill section was also evaluated against the examples supplied in the CABS documentation.

The Billing Data Tape (BDT) was then compared to the printed bill. The Bill Validation Team verified that the BDT records contained the same information that was displayed on the printed bill and appeared in the same sequence.

4.1.4.5.3 BILL CONTENT

The Bill Validation Team requested the TAM POP Team to generate a Service Order Completion (SOC) report. This report contained fields relevant to the validation of the contents of the bill. Some of the relevant fields on the report are:

A. Tracking Number

B. TN

C. Customer Name

D. Activity Request

E. SOC

F. Purchase Order Number (PON)

G. Features

The Bill Validation Team used this report to ensure that what was ordered was what was billed and that what was billed was ordered. Every order that appeared on the report was verified on the bill. During this validation, the team ensured that all entries on the bills had a corresponding entry on the report. The team made sure that there was a complete match between the order and the bills (i.e. PONs, Service Order Completion Dates, Activity (New, Change, Suspend, Restore, and Disconnect), Features requested were printed on the bill).

When discrepancies were encountered, the Bill Validation Team followed through on resolution to completion. The following is a description of the types of errors encountered and the resolutions:

A. Order listed on SOC but not on bill. There were several reasons why this occurred.

   a) Order cancelled – either the order was cancelled by the TG and not removed from the report or there were problems encountered after receipt by Pacific and the order was cancelled. For those orders that were cancelled by Pacific that were appropriate, notification was not provided to the CLEC. There were no procedures for notification. In a discussion with Pacific, the TAM recommended that the CLEC should be called and notification sent (e-mail or fax) to the CLEC so that the CLEC has a paper trail to include in the account file. The Pacific representative submitted a recommendation to management to institute the recommended process.

   b) A duplicate order was issued which was processed. In this case the researched order had been cancelled. In one case the problem was encountered during the software installation period for the OANAD rate change upgrade. There was a time period of 14 days during the installation when the orders were put on hold. During this time period an order was issued and put on hold. Then the duplicate order was issued and also put on hold. Once the software release was completed the on-hold orders were released. The second order was processed first and the first order was then cancelled. Pacific did not notify

the Pseudo-CLEC of this situation, and as a result, the Pseudo-CLEC's records were not updated properly.

B. Bill record existed with no corresponding order. There were two reasons why this occurred:

   a) Order missing on report. The order was not included on the report. The validation team researched the orders that were filed at the Pseudo-CLEC and located an order for the bill record.

   b) No order for bill record. There were cases when an order was issued and processed but after the order was SOCed, problems were encountered. In these cases the Pacific service representative would disconnect the order and reissue a new one when the problem was resolved. In these cases, the Pseudo-CLEC should have been notified by a call and written notification. Modification has been made to the service representatives procedure and documentation developed for CLEC notification.

   c) LNPO orders. Since these orders were for a transfer of the account to a different CLEC they should no longer appear on the Pseudo-CLEC's bill.

C. Order cancelled but still appears on bill. This was caused when an order was completed in error.

   a) The bill contained charges for an incorrect time period. A Pacific internal methods and procedures document has been developed for the service representatives to handle this situation.

   b) The Pacific service representative manually issued a service order. Refresher training was provided to the service representatives and job aids created and distributed to eliminate this problem.

D. For a Move Order the Order SOC date and bill SOC date were different. When a move order was issued it involved a two-step process for Pacific. First, Pacific issued a disconnect (OUT order) on the order for the current address. When this was issued, the order was SOCed and returned to the Pseudo-CLEC. This was the SOC date recorded on the order. Second, Pacific issued a New connect (IN order) for the new address and this was the SOC that appeared on the bill.

E. Multi-wire center order. Two multi-wire center orders were issued which should not have been. These were not part of the test effort and should have been cancelled. Pacific did cancel both orders but then reissued them by mistake. Additionally, the second order was cancelled as a jeopardy because there were no facilities.

4.1.4.5.4 Bill Accuracy

The following is a list of the bill sections and the validation criteria.

A. Bill Face section.

   a) Accuracy of the Account Number, Bill Date, Billing Name and Address.

b) The Invoice portion reflected the correct amounts for current as well as past due invoices.

c) The Total Due amount equaled the sum of the Balance Due and Current Charges.

B. Balance Due Information and Detail of Current Charges section.

a) The amount on the Balance Due Information equaled the sum of all unpaid invoices for the account.

b) The amounts reflected on the Detail of Current Charges were a result of the roll-up of the Late Payment Charge, Monthly Charges, Other Charges and Credits, Usage Charges, and the Surcharge.

C. Bill Message section.

a) The Initial Bill Message was printed on the first bills for each account.

b) The Tariff Change Bill Message was printed due to a Rate Change (99-11-050) issued by the CPUC.

D. Detail of Payments Applied section. This section never showed up in any of the Pseudo-CLEC bills since no payments were made by the Pseudo-CLECs.

E. Detail of Adjustments section.

a) Accuracy of the adjustment amount credited to the CLEC as a result of the mandated Rate Change.

b) The Adjustment Description, Adjustment From Date, Adjustment Through Date, and Exchange Carrier Circuit ID (ECCKT)/TN was validated against the order being adjusted.

c) The description on the Customer (Claim) Number was checked to see if it agreed with the adjustment being made (e.g. OANADNRCADJSTMNT).

F. Detail of Balance Due section.

a) This section displayed a concise summary of each separate invoice balance.

b) The total of the invoice balances due was equal to the Total Balance Due in the Balance Due section.

G. Detail of Disputed Amounts section. The Bill Validation Team did not expect to see a Detail of Disputed Amounts section since the Pseudo-CLEC reported no dispute. A Detail of Disputed Amounts section appeared in one of the Camino bills. After consulting with the Pacific Billing SME, the Bill Validation Team found out that this was an error on the part of Pacific. The dispute belonged to a different CLEC and was inadvertently issued against Camino. It took five billing cycles (the dispute was reflected in the bills from April until August) before the dispute was taken out of the bill.

H. Detail of Late Payment Charges section was verified for the following:

a) The Late Payment Charge was calculated by multiplying the Base Amount by the Late Payment Charge Rate of .0005 times the number of days overdue. ((LATE PAYMENT CHARGE RATE X .0005) x # DAYS OVERDUE).

b) When the rate change took effect, the Base Amount was calculated using the Aged Balance less any Credit Adjustments.

I. Detail of Other Charges and Credits section was verified for the following:

a) The bills provided for detailed non-recurring and recurring charges for services added, disconnected or changed between the monthly billing dates.

1. Data appearing under the Initial One-Time Charge portion are only the non-recurring charges associated with the account.

2. Data appearing above the Initial One-Time Charge portion are only the recurring charges associated with the account.

b) The USOCs/Features were validated against the Interconnection Agreement and the OANAD documentation to check whether it was a recurring or non-recurring element. The Customer Service section of the bill also was checked to make sure that the recurring elements are listed.

c) The From Date was checked for a match against the SOC Date on the SOC report. The Through Date was verified to make certain it matched the bill cycle end date.

d) The Purchase Order Number and TN was mapped against the PON and TN on the SOC report.

e) The Other Charges & Credits (OC&C) Description/Explanation and OC&C Amount are discussed in §4.1.3.5.5 Rate Charges.

f) The value of the Per Month field was validated to ensure it contained the total net change in monthly charges due to an individual order. Individual rates were verified using the Customer Service Records (CSR) section of the bill.

g) The value of the Fractional field was validated to ensure it contained the total fractional charges for an individual order.

h) The value of the One-Time field was validated to ensure it contained the total of non-recurring charges for an individual order.

i) The value of the Billed Amount field was validated to ensure it contained the sum of the Fractional and One-Time amounts for the account.

j) The sum of the individual Fractional charges was matched to the Total Fractional Charges to guarantee accuracy.

k) The sum of the individual One-Time charges was matched to the Total One-Time Charges to guarantee accuracy.

l) The sum of the individual Per Month charges was matched to the Total Per Month Charges to guarantee accuracy.

J. Usage section. The Usage sections (Detail of Usage Charges, Detailed Summary of Usage Charges, Summary of Usage Charges, Minutes of Use Data) of the bill was limited to the rounding and the roll-up of charges. The amount charge per rate category was validated for accuracy by multiplying the quantity of the calls made by the rate. When rounded, this product should equal the amount charged. After verifying the accuracy of the detail of usage charges per Access Service Group, the next task was checking to make sure that the quantities and amounts of all the ASGs were rolled up in the Detailed Summary of Usage Charges for the Account section of the bill.

K. Detail of Surcharges section.

   a) The value of the Monthly field was calculated by multiplying the Intrastate Monthly charges by 0.0010992.

   b) The value of the Other field was calculated by multiplying the Intrastate portion of the Other Charges and Credits by 0.0010992.

L. Circuit Listing section.

   a) The active circuits on the account were displayed in this section along with their associated monthly billing charges.

4.1.4.5.5 RATE CHARGES

The validation of the rate charges ensured that the rates were applied correctly for each product, service or element. The rate charges on each bill were validated against the rate tables provided by Pacific. The bills for each Pseudo-CLEC were reviewed to confirm that the correct rates were applied and the charges were correct.

4.1.4.5.5.1 Rate Tables

The rate tables were part of the Interconnection Agreement, the OANAD documentation, and the Directory Listing. The rate descriptions in these documents were not the same as the rate description in the CABS bills. The OANAD provides a description of the rates broken down within categories (i.e., UNE, Basic Switching, Cross, Connect, Digital Cross-Connect, Features, LINK). The Pacific bills list the rates by USOC with a minimal rate description. Due to this, the bill validation team had to create a cross-reference table between the two in order to perform the rate verification for the on-going monthly bill validation. This was both a challenging and time-consuming effort. The process to create a cross-reference bill rate table involved:

A. Determining which OANAD rate description matched the bill rate.

B. Determining whether the rate was recurring or non-recurring.

C. Determining whether the bill rate was a connect, disconnect, change, or record type of order.

D. Creating an entry in the appropriate cross-reference rate table.

E. Calculating the daily rate (rate/30 (defined days per month)) for pro-rating.

The maintenance of the cross-reference bill rate tables was an on-going process throughout the bill validation process. As a new bill rate was encountered, it had to be researched and added to the cross-reference bill rate table.

There needs to be a better coordination between the OANAD tables and the ILEC bill rate descriptions. The TAM recommends that Pacific create a glossary of their rates. This information is contained in their OSS system to calculate the rates for the generation of the bills. The creation of the cross-reference table was time consuming and allows an error factor. The information resides on the ILEC system and should be used to create a bill rate table by USOC for the CLEC community.

4.1.4.5.5.2 Rate Changes

The bill rates are standardized charges for the service order codes applied to bills. These rates are approved by the CPUC. There was a rate change that was established by the CPUC in November 1999 (CPUC 99-11-050). Pacific was granted until March 2000 to make the necessary OSS system modifications to apply the new rates. The new rates were applied in the March billing cycle pro-rated to November 1999. In most cases the new rates were a zero value requiring that the original rate be zeroed out. In other cases the new rate was a fraction of the original rate indicating that there would be a new charge but at a much lower amount.

This required a detailed evaluation of the new rates to ensure that all the new rates were applied correctly. The validation for this effort involved the creation of an Excel spreadsheet to track the original rate charges and the credits applied for the rate change. This was done on the bills for Nov. 99 – Feb 00. After the original rates and credits were entered into the spreadsheet, it was sorted by USOC code and date. This ordered the file so that the original debit and corresponding credit were together. Each debit was examined to ensure that there was a corresponding credit. Three conditions were detected:

A. The debit had a corresponding credit for the original amount. A valid condition.

B. The debit had a credit for a different amount – these conditions were highlighted and researched by Pacific. It was validated that the differences were correct and due to the new rates.

C. The debit had no corresponding credit – these conditions were investigated by the TAM and Pacific and discovered to be the credits for the February 26 bill cycle. Pacific researched the problem and discovered that the tapes for the February 26, 2000 bill cycle had not been pulled to have the rate adjustments applied. This condition was corrected and the proper rate credits were applied in the April bill cycle.

Validation also was performed to ensure that the rate charges and credits were consistent for each USOC.

4.1.4.5.6 DISCOUNTS AND ADJUSTMENTS

4.1.4.5.6.1 Discounts

The Pseudo-CLEC negotiates with the ILEC what the rate charges will be and if discounts will be applied to the Pseudo-CLEC bills. For the Test Effort, it was negotiated that a discount would be applied to one of the four Pseudo-CLEC accounts (Camino). This discount was applied to Camino because Camino was the Pseudo-CLEC that handled the xDSL accounts. This discount was applied through the Advanced Services Discount USOC. The discount was applied to the Camino accounts appropriately and was validated by the TAM Bill Validation team.

4.1.4.5.6.2 Adjustments

Adjustments were applied to bills for various reasons. These adjustments were validated to ensure correctness of both the charge and the amount of the rate adjustment.

A. Incorrect charges on an account – When an account was activated incorrectly or an order was cancelled the account was corrected through the issuance of a credit for service removed. This adjusted the account to generate a credit for rates previously charged. In the case where service was removed but there were charges to meet minimum billing requirements, then that amount was debited to the account.

B. Additional charges to an account for labor performed – When an account was activated and provisioning required, a rate was charged for labor. If there was additional labor required, then the account was adjusted for the additional labor charges through a record order. This condition was validated when it occurred on the bills.

C. Rate changes that result in account credits.

   a) The rates charged on the bill fluctuate. When a rate changed, an adjustment was made to the appropriate accounts. In the case referenced in §4.1.4.5.5.2, the adjustments required considerable programming and were applied starting in the March bills. These adjustments were made and indicated on the bill in the Detail of Adjustments Applied section of the bills.

   b) Rates decrease when there is a credit for access service due. These rate changes were applied by TN in the Detail of Other Charges and Credits section of the bill.

4.1.4.5.7 TAXES AND SURCHARGES

The Pseudo-CLEC applied for and was granted a tax-exempt status. For this reason, no taxes were applied to the CABS bills. This was validated throughout the bill validation process.

The surcharges applied on the Pacific CABS bills were the CPUC Reimbursement Fee. This is calculated monthly for each of the four Pseudo-CLECs. The rate charged is determined between the CPUC and Pacific. The calculation of the reimbursement was validated for all four of the Pseudo-CLECs for each billing cycle.

4.1.4.5.8 PRORATION ACCURACY

The Bill Validation Team tested the accuracy of proration by calculating charges in the following manner:

For a new account opened in the middle of a billing cycle – the recurring charges were only applied for the portion of the month that the account was active (i.e., from the start date to the billing cycle end date). The non-recurring charges were applied in full.

For an account disconnected in the middle of a billing cycle – the account was credited for the portion of the month that the account was disconnected (i.e., from the disconnect date to the billing cycle end date). The non-recurring disconnect charges were applied in full.

4.1.4.5.9 ACCURATE ROUNDING

The Bill Validation Team calculated the charges by multiplying the rate associated with the network element with the number of days between the Service Order Completion Date and the Bill Cycle Date. The product was then rounded to the nearest hundredth position.

4.1.4.5.10 ACCOUNT DISCONNECTS

The Bill Validation Team used the SOC report to determine which orders had been disconnected by looking at the Activity Request. The next step was to look-up the disconnected order on the bill.

The Detail of Charges and Credits section of the bill was verified by:

A. Ensuring the SOC Date on the bill matched the SOC Date of the disconnected order on the report.

B. Credits were applied to the account from the Disconnect Date to the end of the billing cycle.

C. Minimum Billing Charges were applied if applicable.

D. Examining that the disconnected account was not reflected on the bill for the following month's billing cycle.

The Service and Features section of the CSR was verified by ensuring that the disconnected order was not included on the CSR.

4.1.4.5.11 TIMELINESS

The TG provided the data reflected in this section. The TG received the bill and usage feeds directly from Pacific. TG, in turn, sent hard copies of the bills and electronic copies of both the bill and the usage record to the TAM Bill Validation Team for verification.

Based on the data gathered, on the average the Pseudo-CLEC received the paper copy of the bill in 10.63 days and the electronic copy of the bill in 4.26 days from the Bill Cycle Date.

The usage feeds were generated on a daily basis by Pacific and then sent to the Pseudo-CLEC. This was the frequency of transmission agreed upon by Pacific and the Pseudo-

CLEC. Occasionally, an extra feed was sent at the end of the month. Tables reflecting the receipt date, time, and number of days to receive the paper copy of the bill, the electronic copy of the bill, and the usage feed are located in Appendix N.

4.1.4.6 OBSERVATIONS

The Bill Validation Team made the following observations:

A. As mentioned in the Training section of this Final Report, the CABS Billing Output Specification Documents were needed by the Bill Validation Team to be able to validate the bills (both paper and electronic copy). These documents were not provided by Pacific. The TAM had to purchase these documents directly from Telcordia.

B. There was no blindness in the part of Pacific as far as having a designated Billing Subject Matter Expert handling the TAM's billing issues. The designated SME was aware of the Bill Validation Test Team that the CPUC selected to perform the Test Effort. The timeliness of Pacific's response to our questions might not be comparable to the response time a normal CLEC receives.

C. The Bill Validation Team did not expect to see a Detail of Disputed Amounts page since the Pseudo-CLEC reported no dispute. A Detail of Disputed Amounts page appeared in one of the Camino bills. After consulting with the Pacific Billing SME, the Bill Validation Team found out that this was an error on the part of Pacific. The dispute belonged to a different CLEC and was inadvertently issued against Camino.

D. According to the designated Account Representative, Pacific does not get a whole lot of billing inquiries from CLECs. The CLECs generally do not scrutinize their bills the same way the TAM Bill Validation Team did.

E. The Network Element (USOCs/Features) English translations provided in the Pacific documentation (e.g. Interconnection Agreement, OANAD documents) do not match the English translations in the bill. The Bill Validation Team spent quite some time mapping the features accurately.

F. There were a few erroneous rates that the Bill Validation Team caught and reported to Pacific. This was caused by wrong rates loaded in Pacific's table. Pacific had to open a Modification Request (MR) and resolved this problem.

G. Some of the USOCs in the bill (less than 1%) were not found in the Pacific documentation. The TAM recommends that Pacific update their documentation to reflect all USOCs, and periodically review for completeness.

H. The CABS listings bill format was limited to the information it provides. It did not provide the appropriate cross-reference information to perform validation. The TAM recommends that the Detail of Other Charges and Credits section of the Listings bill itemized by PON and TN.

I. The information contained in the tariffs are essential for the CLECs to do their validation. The Bill Validation Team had to request from Pacific a copy of the Directory Listing section of Tariff 175-T to be able to perform validation on the

Listings bills. The TAM recommends that Pacific provide access to tariffs applicable to CLECs.

4.1.4.7 RESULTS

This section describes the conclusions reached from the test. It includes any recommendations that are a result of the Test Effort. These conclusions will be included in the OSS Test Summary.

Table 4.1.4-1. Bill Validation Results

Test	Comments
Ensure the bill complies with detail and format as indicated by Industry Guidelines such as the OBF guidelines.	The bill complies with detail and format as indicated in the Telcordia CABS Billing Output Specifications.
Ensure the usage complies with detail and format as indicated by Industry Guidelines such as the OBF guidelines.	The usage complies with detail and format as indicated in the OBF guidelines for the EMR format.
Ensure what is ordered is what is billed.	There were cases where the bill reflects orders that were not ordered for a particular billing cycle.
Ensure the wholesale bill provided for non-recurring, recurring and usage sensitive charges.	The wholesale bill non-recurring, recurring, and usage sensitive charges were provided and validated for accuracy.
Ensure the rates were applied correctly for each product, service or element.	There were a few erroneous rates that the Bill Validation Team caught and reported to Pacific. This was caused by wrong rates loaded in Pacific's table. Pacific opened a Modification Request (MR) to resolve this problem.
Ensure surcharges were applied appropriately for the jurisdictions.	The surcharges were applied accordingly (i.e. .10992% of the Intrastate portion of the Monthly Charges and the Other Charges and Credits).
Ensure usage charges were billed within the timing limitations or criteria established by local or state jurisdictions.	Validation of the usage charges on the bill was not achievable, as the CLEC CABS bill do not itemized the usage charges.
Ensure products that were billed in advance, as well as, recurring and non-recurring charges were billed accurately.	The products and charges billed in advance were accurate.

Test	Comments
Ensure discounts, adjustments and calculations performed appropriately.	Discounts, adjustments and calculations were performed as needed.
Ensure the timeliness of the bills (i.e., are they sent/received within the amount of hours/days required).	The TG receives the bill and usage feeds directly from Pacific. The TG then sends the Bill Validation Team a hard copy of the bills and electronic copies of both the bill and the usage record.
Validate the bill data for accuracy and understandability.	A dispute filed by a different CLEC and was inadvertently issued against Camino. It took five billing cycles (the dispute was reflected in the bills from April until August) before the dispute was taken out of the bill.
Check rounding rules were applied accurately.	All charges were rounded according to the rounding rules.
Ensure prorated amounts were charged accurately according to the disconnect date.	Prorated amounts were charged appropriately.
Ensure disconnects were processed and appear accurately on the bill.	Disconnects were processed and appear accurately on the bill.

4.2 Capacity Test

4.2.1 Volume/Stress Test

4.2.1.1 PURPOSE

The purpose of the Capacity Test, was to evaluate whether the relevant Pacific OSS systems had sufficient systems capacity to handle the workload volumes required to support CLEC pre-order and ordering activities. The Capacity Test validation evaluated the ability of the Pacific OSS and interfaces to:

A. Perform in a stable manner under a defined workload.

B. Determine the ability to scale for larger workloads.

4.2.1.2 SCOPE

The Capacity Test consisted of three tests that were performed on Pacific's systems. These tests included a Pre-Order test; an Order test; and a Combined Pre-order/Order Volume Stress test.

The Pre-Order and Order tests evaluated Pacific's OSS by processing a pre-defined workload of simulated transactions via Pacific's Verigate and DataGate pre-order systems and the LEX and EDI order systems. The results were used to evaluate the selected Performance Measures (PMs) as specified in the JPSA.

For the Pre-Order test, flow through queries and automated error rejections were used. Orders for the test of LEX and EDI included AOG-eligible LSRs and forced errors. Because the objectives of the Capacity Test were to evaluate Pacific's automated systems, only flow through orders and queries were used for the test measurements. Non-flow through transactions requiring resources to work as a result of manual activity were not evaluated as part of the Capacity Test.

The purpose of the Combined Pre-order/Order Volume Stress test was to incrementally increase the transaction load volumes on Pacific's OSS to identify the limits by which their systems would begin to degrade in performance. This test would evaluate the capability of Pacific's systems to scale for larger workloads. It would also allow the TAM to assess, based on predicted historical volume trends, how many months of production activity Pacific systems could sustain under their current capacity reserve levels.

The Capacity Test was performed on Pacific's live OSS production environment. The capacity tests for the order systems executed through the SORD system including the backend systems that provided SORD distribution to generate a FOC. Pacific's Provisioning, M&R, MS Gateway, Pacific Service Manager (PACIFICSM), EBI, Billing and Usage, and CABS were considered to be out of scope for the purposes of the tests, and were not included.

Since these tests ran in a production environment, special care was taken to ensure there would be minimal impact on regular Pacific business. To ensure that these test orders would not impact other systems and to provide an alternative way to identify test orders for extraction and cleanup purposes, the LSRs generated for the test a separate set of CLEC OCN numbers with due dates of 12/29/00. This provided an alternative way for Pacific to readily identify these test orders for the data extraction and cleanup process.

4.2.1.3 VARIANCES

The following variances to the MTP were identified and approved during the course of the test.

A. In addition to the Pre-Order and Order Capacity tests required by the MTP, the TAM also performed a third test. This test was a combination Pre-Order and Order Volume Stress test to identify at what capacity order limits Pacific's OSS would begin to degrade. Order transactions for Pacific's EDI system were significantly increased to test this order threshold due to the fact the EDI system is predicted to support the majority of order processing.

B. Some deviations to Table 6.3 in §6.4 of the MTP regarding the order mix and volumes for the stand alone order test were made by the TAM. These deviations were permitted under the MTP.

C. xDSL orders, which were originally excluded from the MTP requirements, were included in the Order Capacity Test since Pacific had upgraded their systems to support AOG eligible orders of this type.

D. Basic Loops with NP new and disconnects were removed from the test because Pacific did not provide any test bed accounts for these types of orders. Additional UNE basic loops without number portability were replicated and substituted for these scenarios to keep the total number of orders the same. Since both these types of orders processed in Pacific's system as basic loops, and the Order Tests were only going to FOC, this substitution did not significantly affect the test.

4.2.1.4 APPROACH

4.2.1.4.1 BASIC ELEMENTS

The following sections defined the approach and detail the overall process for administering, managing and conducting the Capacity Test. The test requirements and specification plan for the test were reviewed with the TG prior to conducting the Capacity Test. To accommodate fairness and blindness of the test, neither Pacific nor the CLECs were informed of the actual dates the capacity tests were performed.

Three separate capacity tests were performed. The pre-order and order capacity tests were executed on separate consecutive days as permitted under the MTP. The combination pre-order and order stress test consisting of pre-orders for DataGate and orders for LEX and EDI was executed concurrently during a single day of testing.

4.2.1.4.1.1 Capacity Test for Pre-Order

The pre-order process of the Capacity Test included the same inquiry services list as the Functionality Test with the exception of the manual K1023 Form. For the DataGate and Verigate OSS evaluation, the TG provided pre-ordering volume sufficient to cover the planned test workload at an hourly rate. The total number of queries used in the Pre-order test was 42,762 of which 22% (9,299) were processed though the Verigate system and 78% (33,463) were processed through the app-to-app DataGate interface. The Pre-Order Test was run over a 10-hour period from 7:00 a.m. – 5:00 p.m. Pacific Time. The mix of pre-order queries were established from a base of 7,340 LSRs which were used to test Pacific's order systems. The volumes were calculated at a ratio of 5.8 pre-orders per LSR order. For the Verigate system, the TG used 10 workstations dialing into Pacific's ToolBar system through 56 kbps modems. The

processing of these queries followed the approximate same hourly volume patterns as specified for the order tests in the MTP. This mix was selected from the activity list of query types shown below:

A. CSR - view current service records as a result of a customer providing authorization for a change.

B. Address Verification/Dispatch - verify service address information as registered.

C. Request for TN - reserve one or more telephone numbers for new connections.

D. Service Availability/Product and Feature Availability (PFA) - retrieve a list of services and features that are provided from a particular local serving office. The CLLI Code represents the switch that provides service to the TN requested.

E. Service Appointment Scheduling - Due Date - view available dates and appointment times for the verified address. Note: Applicable for Resale (Capacity Test only) and UNE Loop with Port.

F. Facility Availability - Access to LFACS Information (ALF) – allows a CLEC to view whether dispatch is required for connection of a new line for service at a verified residential address, and provides Facilities, spare and defective pair information for residential customers at the verified address.

G. PIC selection/LPIC selection/Carrier Identification Code (CIC) – identifies the available Inter-exchange Carrier (IXC) selections for customer PIC/LPIC selection at the switch level.

H. Number of Rejects/Failed Inquiries.

4.2.1.4.1.2 Capacity Test for Ordering

The order test was the second capacity test that was performed. LSR activities associated with the capacity tests for inbound and outbound transactions received by Pacific systems were observed. The simulated order volume processed for this test was 7,340 LSRs. The OSS systems tested during this component of the test were Pacific's LEX and EDI OSS systems. The order test was conducted over a 10-hour period during Pacific's peak hourly production times from 7:00 a.m. – 5:00 p.m. Pacific Time. For the purpose of this test, the following rules applied:

A. The ability of the Pacific OSS, EDI and LEX systems to receive residence and business, single and multiple line LSR transactions were tested.

B. While the test consisted primarily of clean AOG-eligible LSRs in order to present the maximum workload, mechanized error rejects were also included to evaluate the systems abilities to process within the volume defined.

C. The suspend/restore order type was not included.

D. Provisioning was not included.

E. xDSL AOG orders were tested since Pacific had upgraded their order systems to support the automated processing of these types of orders.

F. Supplemental orders were not to be included because the Capacity Test was flow through only and supplements did not flow through Pacific's system.

G. The hourly volumes approximated the historical hourly volumes that Pacific supports within its production environment. The hourly volumes were calculated using Pacific's latest production month's statistics prior to the capacity test.

H. The TG provided for the order volume, mix and hourly arrival rates for the processing during the test.

4.2.1.4.1.3 Combined Pre-Order/Order Volume Stress Test

The purpose of the third capacity test was to stress test Pacific's OSS to identify the limits of their systems to process a high volume of orders and pre-orders. The hourly volumes used were significantly higher than Pacific's normal production volumes and ranged from 194% to 777% over their highest average historical hourly volumes.

The following information outlines the environment and approach that was used to perform the stress test:

A. The stress test was conducted on a single day of testing. The TG and TAM performed the testing. The TA was also present to observe and consult on the test.

B. The capacity test was conducted on Pacific's "live" production environment in addition to their normal daily production workload for that day. The TAM calculated Pacific's average normal daily workload from their latest production month prior to the Capacity Test (August, 2000) as 4,116 orders.

C. Systems tested included DataGate, EDI and LEX. These systems were tested concurrently during the stress test. All systems tested were using Pacific's latest system release. Verigate was not tested during the stress test because it was determined that the volume of pre-order queries executed from the DataGate app-to-app interface would be sufficient to provide a significant workload for the combination test. Also, the Verigate responses received during the first Verigate test were well within the service intervals of the JPSA requirements.

D. The stress test was conducted during the first week of the month, which was considered as Pacific's highest production volume period of the month. It was executed over a 6-hour period from 8:00 a.m. to 2:00 p.m. Pacific Time which was considered Pacific's peak production time.

E. The approach for the test was to transmit a high volume of concurrent orders and pre-orders for the EDI, LEX and DataGate systems with the intent of stressing the systems.

F. For the EDI system, capacity volumes used for the test were increased every 2 hours from the baseline of 800 orders. The total number of orders transmitted during the stress test was 11,216. Order volumetrics used for the EDI test included the following:

a) Hour 1 - 800 orders (Baseline - 194% of current hourly average production volume)

b) Hour 2 - 800 orders

c) Hour 3 - 1,600 orders (Baseline + 100%)

d) Hour 4 - 1,600 orders

e) Hour 5 - 3,208 orders (Baseline + 400%)

f) Hour 6 - 3,208 orders

G. For the DataGate system, a total of 12,705 pre-order transactions were sent for 3 hours during the 6-hour test with transactions transmitted on hours 2, 4 and 6.

H. For the GUI LEX system, a total of 427 orders were sent during the 6 hours of the stress test. These were transmitted using 5 workstations on 56 kbps modems through Pacific's ToolBar interface.

I. The TAM and TA were present at Pacific's Data Center in St. Louis, Missouri during the test execution to observe their operations and help coordinate the test with the TAM and TG managing the test in Tampa, Florida.

J. Pacific personnel were not notified that the test was going to be performed prior to the test execution. Approximately 1 hour after the test had commenced, the TAM and TA notified the Pacific Team that the test was underway. Pacific Team personnel were also notified once the test had completed.

4.2.1.4.1.4 Performance Measures Success Criteria

Table 4.2.1-1 below details the performance measures that were used to identify the success criteria for the Capacity Test. These measures were applied to evaluate Pacific's pre-order and order systems. The parity and benchmark expectations to be used for these measurements were defined per the JPSA standards for performance measurements. Performance measurement benchmark 1 for pre-ordering was a proposed SBC benchmark for the JPSA measurements. The TA analyzed the performance measurement and directed that the currently used times are sufficient for the pre-order benchmark measurements for the test. The evaluation column indicates for which performance measures there were parity/benchmark comparisons made during the tests.

Table 4.2.1-1 Performance Measures

Process	Perf Meas #	Performance Measures	Track	Evaluate	Performance
Pre-Ordering	1	Average Response Time (to OSS Pre-Order Queries)	Y	Y	Benchmark: DataGate: Verigate Address Validation 4.5sec. 4.5sec TN Selection 4.5sec 4.5sec CSR 1-30 lines 10sec 10sec CSR 31 lines or more 24hrs. 24hrs Service Availability 5.5sec 8.0sec Due Date 2.0sec 2.0sec Dispatch 11sec 11sec
Ordering	2	Average FOC/Local Service Confirmation Notice Interval	Y	Y	Average of 20 minutes
Ordering	3	Average Reject Notice Interval	Y	Y	Average of 20 minutes
Ordering	4	Percentage of Flow Through Orders	Y	N	Track Only

4.2.1.4.1.5 Capacity Test Overall Process

The pre-order and order capacity tests were performed in three phases. Each of these phases consisted of an entrance, activities and exit procedure. The three phases of the capacity test were defined as:

1. Capacity Test Planning and Preparation Phase:

   The Capacity Test planning and preparation phase involved all necessary activities to plan for and prepare the test cases and TG interface systems to be able to successfully stage and execute the capacity tests. During this phase, the TAM, Pacific and the TG were responsible for this step. Key activities involved in this phase included selecting the appropriate product types and volumes for the test data; creation of test scripts; cleansing and staging of the test data; and developing and testing the TG's interface systems with Pacific's Verigate, DataGate, LEX and EDI OSS to insure that the OSS executed properly.

2. Capacity Test Execution Phase:

   The Capacity Test execution phase involved the actual execution and monitoring of the pre-order, order and stress capacity tests and the recording of all relevant data as a result of the tests. During this phase the TAM monitored the tests at the TG's site and Pacific's Data Center where the test data was actually processed. Pre-ordering and ordering Capacity Tests were not interdependent. The pre-order test was executed as the first test with the order test subsequently executed on the following day. The combination pre-order/order stress test was executed as the third test for capacity testing. During all three capacity tests, members of the TA team were also requested to be present to oversee the tests and observe the execution and management of the test process.

3. Capacity Test Reporting Phase:

The Capacity Test reporting phase involved the gathering, evaluation and analysis of the test results and the compilation of the TAM and TG's test findings in a report. This activity also required the collection of all test files, test data, project documentation and correspondence to be turned over to the CPUC at the completion of the project.

4.2.1.4.2 CRITERIA

4.2.1.4.2.1 Entrance Criteria

4.2.1.4.2.1.1 PLANNING AND PREPARATION

The Capacity Test entrance criteria for the planning and preparation phase of the Capacity Test was performed as follows:

A. The selection of CGE&Y as the TAM for the test were approved and finalized by the CPUC.

B. The selection of GXS as the TG for the test was approved and finalized by the CPUC.

C. A valid MTP was completed, approved and finalized by the CPUC.

D. The capacity test plan requirements were included in the TAM's Test Execution Document.

E. A database was developed to load all Pacific test bed accounts and address locations to support the generation of seed order test cases to be provided to the TG.

F. A "live" (i.e., production) test environment to conduct the pre-order and order tests was validated by the TG and the TAM to be operational.

G. The scheduled dates for the Capacity Test were identified. The dates for executing the Capacity Test occurred after the Functionality Test was completed. Approximately one month prior to the actual execution of the Capacity Test, the TAM was expected to provide the TG with the seed test cases and scripts to use for generating the transaction load volumes for the test.

4.2.1.4.2.1.2 CAPACITY TEST PLANNING AND PREPARATION ACTIVITIES

The planning and preparation requirements for the Test Planning and Preparation Phase of the Capacity Test were defined below:

A. All criteria from the Capacity Test Planning and Preparation Entrance criteria were completed.

B. The TAM's Test Execution Plan detailing the plan and process specifying the scope, approach, entrance, exit and execution requirements for the Capacity Test was provided and reviewed with the TG. The TAM and TG amended and finalized the plan as needed.

C. A process for the Capacity Test pre-order and order staging and testing activities required for the test data preparation was provided to the TG.

D. The test loads processed for the Capacity Test were defined.

E. The TAM prepared test cases outlining the input and the definition of expected observations for the ordering and pre-order Capacity Tests. Test cases were prepared from the test bed accounts provided by Pacific for capacity testing. For these test cases,

Seed orders with test bed account TNs were converted to basic LSRs by the TG to enable them to be replicated for the Capacity Test.

F. The TAM obtained 8 months of hourly historical production volumes from 2/7/99 – 10/9/00 from Pacific's LASR/CLEO systems for calculating the number of orders processed through the LEX and EDI system interfaces. These production volumes were used to extrapolate the approximate percentages of hourly production volumes to use during the hours of the test. These test volumes were staged during the execution phase of the test by the TG and transmitted to Pacific's OSS to simulate the respective hourly transaction patterns as the Pacific production environment.

G. Preparations were made for personnel to conduct the Capacity Test on-site at the TG's test site. TAM members and the TA were also required to be present at Pacific's Data Center to monitor and observe the test processing for the capacity tests.

H. The TG's system interfaces were developed and unit tested to support interface transaction volumes for Pacific's pre-order Verigate and DataGate systems and LEX and EDI order systems. The EDI and DataGate load generators were designed to support the replication of the appropriate volume of test transactions from the required mix of test cases needed to support a valid Capacity Test.

I. Test pre-order queries and LSR transactions were unit tested and debugged by the TG to insure they would be flow through AOG eligible orders and flow through forced errors.

J. System wide tests were performed to confirm the interoperability of the TG's interface systems and Pacific's Verigate, DataGate, LEX and EDI OSS systems to insure that multiple replicated LSRs could be processed through Pacific's OSS. The TAM, TG and Pacific coordinated this system test effort.

K. The performance measurement data from the JPSA for the Capacity Test was reviewed to insure that the benchmark intervals for the four measurements for the pre-order and order tests were defined with their appropriate measurement data.

L. The TAM determined the number of times the test load needed to be processed to make up a statistically valid test (i.e., a baseline), for both ordering and pre-ordering Capacity Tests.

M. The TG staged the hourly mix of transactions in the load system for the pre-order and order tests.

N. There were three tests scheduled for the Capacity Test. The pre-order and order capacity tests were scheduled to run independent of each other on consecutive days. Each of these tests were executed during a 10-hour period during Pacific's peak hours of operation. The combination pre-order/order volume stress test was scheduled on a separate test day and executed during a 6-hour period.

4.2.1.4.2.1.3 CAPACITY TEST PLANNING AND PREPARATION EXIT CRITERIA

To complete the Volume/Stress Test planning and preparation phase, the following exit criteria were preformed:

A. All criteria documented for the Capacity Test Planning and Preparation phase must have been completed.

B. Test scripts for the pre-order test and test cases for the order tests must have been validated by the TAM.

C. A review session was held by the TAM to ensure that a complete set of verified test cases for the pre-order and ordering tests were prepared and ready for the Capacity Test Execution Phase.

4.2.1.4.2.2 Exit Criteria

The following sections describe the exit criteria that were performed for the Capacity Test.

4.2.1.4.2.2.1 CAPACITY TEST REPORT ENTRANCE CRITERIA

A. All required criteria for the activities in the Capacity Test Execution Phase must have been completed.

B. This phase required that all outcomes were recorded for the test cases.

4.2.1.4.2.2.2 CAPACITY TEST REPORT ACTIVITIES

The TG produced TG test results, which included:

A. Pre-order and order transaction counts with their appropriate Pacific test responses.

B. Documentation of test inputs and outputs

C. Documentation of the test environment that was used to conduct the Capacity Test.

Pacific produced documentation for the test environment, the applicable test performance measures, raw test data files, environmental issues, outstanding issues, and problem resolutions. The TAM reviewed and included a compilation of Pacific's documentation in the Evaluation Report.

The TAM's Evaluation Report conveyed findings based on:

A. The monitoring of the phases of the Capacity Test.

B. The work performed in validating the Capacity Test data and compilation of the results.

C. Evaluation of the TG and Pacific's capacity test results.

D. All captured performance measurement data that was received from Pacific and the TG.

E. All logs that were used to record the transmission and receipt of information between the TG and Pacific.

F. All LSR test data and query transactions that were used for the test.

4.2.1.4.2.2.3 CAPACITY TEST REPORT EXIT CRITERIA

The Exit Criteria for the Capacity Test Report included:

A. The TAM and TG presentation of the findings of the final report to the Commission.

B. All completed documentation for the tests.

4.2.1.4.3 ACTIVITIES

This section describes the activities that were performed during the test execution phase of the Capacity Test. The test execution phase consisted of the processing and monitoring of the three individual capacity tests that were performed. The TAM and TG monitored and managed the

test from the TG's test center in Tampa, Florida. Pacific processed the TG's simulated test data at their Data Processing Center located in St. Louis, Missouri. All three capacity tests were performed in Pacific's "live" production environment. To ensure blindness, neither Pacific nor the CLECs were informed that the 3 capacity tests were going to be conducted on the scheduled test days.

4.2.1.4.3.1 Pre-Order Capacity Test

The pre-order test was performed by the TG using Pacific's Verigate system and their app-to-app DataGate interface. This test was conducted on September 18, 2000. Its purpose was to evaluate whether Pacific's pre-order systems could perform with a large volume load within the performance measure for JPSA performance Measure 1 – Average Response Times to Pre-Order Queries. The volumes used for the test included 42,762 queries of which 9,299 queries were executed through Verigate and 33,463 queries were tested in the DataGate system. This test was executed over a 10-hour period during Pacific's peak production hours. The following activities were performed during the test.

A. For the Verigate test, the TG used 10 PC workstations connected to 56 kbps modems using Pacific's Toolbar application loaded on each workstation. Pre-Order Query test scripts were set up on each workstation and executed using a screen macro generator (Silk Test from Segue Software) which automatically executed the online actions and query replications necessary to perform the test queries.

B. The TG's app-to-app DataGate interface was set up to transmit a large volume of transactions to Pacific via a T1 circuit using a 1.544 Mbps frame relay port connected to Pacific's Data Processing Center.

C. Prior to the Verigate test execution, the TG and TAM verified that all test scripts were staged on their 10 workstations.

D. Prior to the DataGate test execution the TG and TAM verified that the test data was staged on the TG's application interface.

E. The pre-order test was started at 7:00 a.m. and completed at 5:00 p.m. Pacific Time.

F. TAM members were available at the TG site and Pacific's Data Center to monitor and observe the test. During the testing a log was maintained by the TAM of all hourly occurrences during the test execution.

G. A member of the Test Advisor team was present at Pacific's Data Center to observe the test operations and advise the TAM on the test.

H. During each hour of the test for the Verigate system, each of the TG's workstations was rebooted, reconnected to the Pacific network and the staged hourly transactions were released. Members of the TG test team actively monitored and managed the operations of the workstations in the test room. Some difficulties in establishing a dial up connection were identified during the testing. The details of these are covered in §4.2.1.6 Observations.

I. A TG test team member monitored the release and responses of test transactions transmitted to Pacific's DataGate interface during each hour of the DataGate app-to-app test.

J. At the completion of the test all major system outputs were verified by the TG and TAM.

K. The TG and TAM verified that all systems responses from Pacific for the test data that was executed was received and captured by their systems.

4.2.1.4.3.2 Order Capacity Test

The order test was performed as the second test of the Capacity Tests and was run on September 19, 2000. The purpose of this test was to test whether Pacific's GUI LEX and app-to-app EDI OSS systems would perform within the performance measures based on the JPSA for a large sustained volume of orders. A total of 7,340 orders were processed during Pacific's peak 10-hour production period from 7:00 a.m. – 5:00 p.m. Pacific Time. Each Network Data Mover (NDM) file transfer transaction by the TG's order capacity test script sent a single EDI 850 LSR document. The following activities were performed during the day of the order test.

A. For the LEX test, the TG used 10 PC workstations connected to 56 kbps modems with Pacific's Toolbar application loaded on each workstation. Order test scripts for the number of hourly orders were prepared on each workstation and executed on each hour using a screen macro generator (Silk Test from Segue Software) which automatically simulated online order actions and replications necessary to perform the test orders.

B. The TG's app-to-app EDI interface was configured to transmit a large volume of hourly orders to Pacific via a T1 circuit using a 1.544 Mbps frame relay port connected to Pacific's Data Processing Center.

C. Prior to the LEX and EDI tests, the TG and TAM verified that all test scripts and order transactions were staged on their 10 workstations and on their EDI interface application.

D. The order test was started at 7:00 a.m. Pacific Time and completed at 5:00 p.m. Pacific Time.

E. TAM members were available at the TG testing site and Pacific's Data Center to monitor and observe the test. During the testing a log was maintained by the TAM of all hourly occurrences during the test execution. In addition, a TA was present at Pacific's Data Center to observe the operations of the test.

F. During each hour of the test for the LEX system, each of the TG's workstations was rebooted, reconnected to the Pacific network and the staged hourly transactions were released. Members of the TG test team actively monitored and managed the operations of the workstations in the test room with the TAM observing these operations. During hour 2 a severity level 1 error was experienced on the dial-in connections. The severity level 1 error was corrected by Pacific and the test resumed. During hour 10 a severity level 1 error was experienced by the TG due to a power outage to the site during an electrical storm. This occurred at the start of the hour and after 10 minutes the workstations resumed operations with no loss of data. The details of these events are documented in §4.2.1.6 Observations.

G. During each of the hours of the EDI test, a TG test team and TAM member monitored the release and receipt of responses of test transactions transmitted to Pacific's EDI interface. During hour 10 a severity level 1 error was experienced due to a power outage in the building from a thunderstorm. The outage lasted for approximately 10 minutes. Once

the power was restored the TG resumed their operations for the test with no loss of data or problems to their equipment.

H. At the completion of the test, the TG and TAM verified that all major systems outputs that were transmitted were produced for the test.

4.2.1.4.3.3 Combined Pre-Order/Order Volume Stress Test

The Capacity Test was executed to stress the capacity limits of Pacific's systems and evaluate at what level of hourly order volumes it would take to begin to degrade them in performance. This measurement would also aid in predicting, based on projected production trends, the reserve capacity Pacific's OSS had available to support future CLEC volume loads. The stress test was conducted using simulated test data on Pacific's LEX, DataGate and EDI systems with their app-to-app EDI system tested with the largest volumes. Volumes executed were 12,705 queries for DataGate, 427 orders for LEX and 11,216 for the EDI interface. The test was executed during Pacific's highest production week and during their highest peak volume hours for a 6-hour period during the day. Volumes of test transactions were significantly increased every 2 hours for the duration of the test. The following activities were performed during the capacity stress test.

A. Neither Pacific nor the CLECs were notified prior to conducting the test that the test was going to be performed on the scheduled test day. However, because of the potential risks of running this type of test in Pacific's live production environment, key Pacific management personnel were notified that the test was being conducted an hour into the test. This was done to enable Pacific to assist the TAM to monitor their systems and stop the test in the event that the degradation would cause a hard crash to their systems.

B. For the LEX test, the TG used 5 PC workstations connected to 56 kbps modems to with Pacific's Toolbar application loaded on each workstation. Order test scripts for the number of hourly orders were prepared and executed on each hour using a screen macro generator (Silk Test from Segue Software) which automatically simulated online order actions and replications necessary to perform the test orders.

C. The TG's app-to-app DataGate interface was set up to transmit a large volume of hourly orders to Pacific via a T1 circuit using a 1.544 Mbps frame relay port connected to Pacific's Data Processing Center. Staged replicated query transactions were released on hours 2, 4 and 6 of the test.

D. The TG's EDI interface was also staged with test data and utilized the same frame relay circuit as their DataGate interface for the test. The maximum NDM file transfer capability with the TG's test environment was determined to support approximately 800 NDM file transfers per hour. The TG therefore staged 800 NDM file transfers per hour with increasing numbers of EDI 850 LSR documents per NDM file transfer for hours 3, 4, 5 and 6.

E. Each NDM file transfer transaction by the TG's order capacity test script sent a single EDI 850 LSR document during hours 1 and 2 of the combined test. For hours 3 and 4 of the combined test, each NDM file transfer transaction by the TG's order capacity test script sent two EDI 850 LSR documents. For hours 5 and 6, each NDM file transfer transaction by the TG's order capacity test script sent four EDI 850 LSR documents.

This approach resulted in the following number of EDI LSRs being sent during the combined test.

a) 800 EDI 850 LSRs in hours 1 and 2.

b) 1,600 EDI 850 LSRs in hours 3 and 4.

c) 3,200 EDI 850 LSRs in hours 5 and 6.

F. Prior to the LEX and EDI tests, the TG and TAM verified that all test scripts and order transactions were staged on their workstations and on their DataGate and EDI interface applications.

G. The order test was started at 8:00a.m. Pacific Time and completed at 2:00 p.m. Pacific Time.

H. TAM members were available at the TG testing site and Pacific's Data Center to monitor and observe the test. Activities/incidents during the test were recorded in a log. In addition, a TA was present at Pacific's Data Center and the TG's testing site to observe the operations of the test.

I. During each hour of the test for the LEX system, each of the TG's workstations was rebooted, reconnected to the Pacific network and the staged hourly transactions were released. Members of the TG test team actively monitored and managed the operations of the workstations in the test room with the TAM observing these operations.

J. During each of the hours of the EDI test, a TG test team and TAM member monitored the release and receipt of responses of test transactions transmitted to Pacific's EDI interface.

K. During hour 3 of the stress test the TG was notified by the TAM and TA that Pacific was monitoring a large volume of failed transactions due to a second transaction terminator on the ends of each of the transactions. The TG was able to modify their test data to remove the second terminator character on their test transactions and resumed the test.

L. At the completion of the test, the TG and TAM verified that all major systems outputs that were transmitted were produced for the test.

4.2.1.5 DATA VALIDATION AND COMPILATION

4.2.1.5.1 CAPACITY TEST MIX AND VOLUMES

This section describes the simulated workload and volumes used for each of the three capacity tests. The Capacity Test was limited to AOG eligible orders and forced error rejects, although some exception orders were executed during the tests. The test cases for the capacity tests defined the quantities of transactions that comprised the pre-order and order tests. Test case types were selected from the capacity test bed accounts and address locations provided by Pacific. An LSR order could not be replicated in Pacific's system more than 10 times due to their systems processing constraints. Consequently, all test bed account TN's were needed to be used and could only be replicated 10 times by the TG for the order tests. A total of 479 seed orders were generated by the TAM. Where possible, multiple TNs utilizing the same addresses and wire centers from the test bed accounts were assigned to the seed orders. The seed orders were then provided to the TG for unit testing, cleansing and replication to LSR orders in electronic format to be used for the tests. For the pre-order queries, address and TN information with the required number of replications was provided to the TG to be replicated for their pre-

order tests. The following tables provide the mix of pre-orders and orders used for the three capacity tests.

4.2.1.5.1.1 Pre-Order Test Volumes

Table 4.2.1-2 defines the volumes and mix of transactions issued for the queries in the first test that was executed in Pacific's Verigate and DataGate systems. For this test a total of 42,762 queries were executed with 22% run in Verigate through their Toolbar application and 78% in EDI. The mix of clean queries to forced errors was 94% to 6% respectively.

Table 4.2.1-2 Pre-Order Test Volumes Submitted

	Verigate			Datagate			Total Pre-Order			
Function	Successful Trans	Failed Trans	Total Trans	Successful Trans	Failed Trans	Total Trans	Successful Trans	Failed Trans	Total Trans	Percent
Address Verification	2149	271	2420	5750	640	6390	7899	911	8810	20.6%
CSR	1456	70	1526	6563	160	6723	8019	230	8249	19.3%
Due Date	1418		1418	5691	160	5851	7109	160	7269	17.0%
FACS Dispatch	316		316	640	798	1438	956	798	1754	4.1%
PIC/LPIC	1186	56	1242	4790	160	4950	5976	216	6192	14.5%
Request for Telephone Numbers	1191		1191	3148		3148	4339	0	4339	10.1%
Service Availability	1186		1186	4803	160	4963	5989	160	6149	14.4%
Totals	8902	397	9299	31385	2078	33463	40287	2475	42762	100.0%
Percent	95.7%	4.3%	100.0%	93.8%	6.2%	100.0%	94.2%	5.8%	100.0%	

4.2.1.5.1.2 Order Test Volumes

The order test, which was run as the second test, utilized the volumes and transaction mix shown in Table 4.2.1-3. The total number of orders executed for this test was 7,340 with 15% representing orders run through Pacific's GUI LEX system and 85% executed in their EDI application interface. The number of forced errors generated represented 5% of the total volume of orders processed. A baseline for Pacific's orders was calculated from the latest month prior to the actual execution of the test. The baseline was computed by taking the total of Pacific's daily orders processed between the hours of 7:00 a.m. Pacific Time and 5:00 p.m. Pacific Time for each business day during the month. These hours approximated the hours that the order test would be executed. The baseline derived was 4,116 daily orders during that period. The number of orders that were submitted to be processed for the test represented 178% of the baseline.

Table 4.2.1-3 Order Test Volumes Submitted

Product	Product Count	% of Orders	Scenario Type by Product	EDI			LEX			Total EDI-EDI			Percent
				Bus	Res	Total	Bus	Res	Total	Bus	Res	Total	
UNE Loop with Port	1898	25.9%	Conversions	215	230	445	76	306	382	291	536	827	11.3%
			New	23		23	10	30	40	33	30	63	0.9%
			Changes	58	440	498	25	107	132	83	547	630	8.6%
			Disconnects	115	243	358		20	20	115	263	378	5.1%
Stand Alone LNP (LNP0)	933	12.7%	Stand Alone LNP	501	283	784	68	81	149	569	364	933	12.7%
UNE Basic Loop with NP (LNPL)	751	10.2%	Conversions	540	70	610	127	14	141	667	84	751	10.2%
UNE Basic Loop without NP	2487	33.9%	Conversions	680	80	760	190	17	207	870	97	967	13.2%
Basic & Assured			New	500	500	1000	30	15	45	530	515	1045	14.2%
			Disconnects	456	10	466	9		9	465	10	475	6.5%
DS1 Loop	500	6.8%	New	500		500				500	0	500	6.8%
Resale	68	0.9%	Conversions	5	16	21				5	16	21	0.3%
			New	2	4	6				2	4	6	0.1%
			Changes	11	23	34				11	23	34	0.5%
			Disconnects	2	5	7				2	5	7	0.1%
XDSL	703	9.6%	New	499	194	693				499	194	693	9.4%
			Disconnects		10	10				0	10	10	0.1%
Totals	7340	100.0%		4107	2108	6215	535	590	1125	4642	2698	7340	100.0%
Percent				66.1	33.9	100	47.6	52.4	100	63.2	36.8	100	

4.2.1.5.1.3 Combined Pre-Order/Order Volume Stress Test Volumes

The Capacity Stress Test focused on executing a high volume of combined flow through transactions through Pacific's DataGate, LEX and EDI systems. The volume and mix of transactions is shown in Tables 4.2.1-4 and 4.2.1-5. This test was conducted over a 6-hour period during Pacific's peak volume hours of production.

The number of queries executed through Pacific's app-to-app DataGate system during the Stress test was 12,705. These were transmitted during hours two, four and six of the test with an approximate average of 4,250 queries per hour. The transaction mix for this test consisted of 11,866 flow through queries and 839 forced error rejects. This represented 93.4 % and 6.6 % for the total 12,705 queries respectively.

Table 4.2.1-4 DataGate Volumes Submitted

	Datagate Queries					
Transaction Type	**Clean**	**Percent**	**Errors**	**Percent**	**Total**	**Percent**
Address Verification	2220	18.7%	252	30.0%	2472	19.5%
Customer Service Request	2529	21.3%	63	7.5%	2592	20.4%
Dispatch	2018	17.0%	63	7.5%	2081	16.4%
Due Date	1839	15.5%	63	7.5%	1902	15.0%
PIC/LPIC	243	2.0%	306	36.5%	549	4.3%
Request Telephone Number	1166	9.8%	29	3.5%	1195	9.4%
Product Service Availability	1851	15.6%	63	7.5%	1914	15.1%
Grand Total	11866	100.0%	839	100.0%	12705	100.0%
Percent	93.4%		6.6%		100.0%	

The order volumes and mix of transactions consisted of orders for Pacific's LEX and EDI systems. The total number of orders executed for this component of the test were 11,643 with the major number of transactions tested through the EDI interface at 11,216. The total of simulated test orders represented 283% of the order baseline of 4,116 orders.

Table 4.2.1-5 Stress Test Order Volumes Submitted

Product	**Product Count**	**% of Orders**	**Scenario Type by Product**	**EDI**			**LEX**			**Total EDI-LEX**			**Percent**
				Bus	**Res**	**Total**	**Bus**	**Res**	**Total**	**Bus**	**Res**	**Total**	
UNE Loop with Port	2648	22.7%	Conversions	290	1030	1320	20	118	138	310	1148	1458	12.5%
			New	30		30	5	10	15	35	10	45	0.4%
			Changes	60	470	530	8	37	45	68	507	575	4.9%
			Disconnects	180	380	560		10	10	180	390	570	4.9%
Stand Alone LNP (LNP0)	606	5.2%	Stand Alone LNP	370	180	550	28	28	56	398	208	606	5.2%
UNE Basic Loop w/NP (LNPL)	670	5.8%	Conversions	540	70	610	54	6	60	594	76	670	5.8%
UNE Basic Loop without NP	3383	29.1%	Conversions	680	70	750	74	6	80	754	76	830	7.1%
Basic & Assured			New	1000	1000	2000	15	5	20	1015	1005	2020	17.3%
			Disconnects	520	10	530	3		3	523	10	533	4.6%
DS1 Loop	1000	8.6%	New	1000		1000				1000	0	1000	8.6%
Resale	328	2.8%	Conversions	40	130	170				40	130	170	1.5%
			New	20	30	50				20	30	50	0.4%
			Changes	20	40	60				20	40	60	0.5%
			Disconnects	10	38	48				10	38	48	0.4%
XDSL	3008	25.8%	New	1000	1998	2998				1000	1998	2998	25.7%
			Disconnects		10	10				0	10	10	0.1%
Totals	11643	100.0%		5760	5456	11216	207	220	427	5967	5676	11643	100.0%
Percent				51.4	48.6	100	48.5	51.5	100	51.2	48.8	100	

4.2.1.5.2 TEST RESULTS AND VALIDATION

4.2.1.5.2.1 Pre-Order Test

Table 4.2.1-6 shows the results of the DataGate pre-order validation that was conducted for the 10-hour pre-order test. The TG processed 33,463 pre-order queries with a count of 30,461 successful transactions and 3002 forced errors. Pacific reported a count of 30,480 successful transactions with 3,004 errors. The TAM validated these counts from the raw data files for the Pacific data 9/18/00 run and concurred with the counts reported. There were an unexpected number of unforced errors for the Due Date queries received by the TG which were not planned for the test. These Due Date queries accounted for 870 unforced errors in addition to the normal 160 forced errors used for the test. These errors occurred in hours 1 through 6 with no further errors occurring in hours 7 through 10 of the test. Pacific's explanation for these errors is that due dates were not loaded for a particular EXCO that was queried during the test. Due dates may be loaded for various EXCO's during the day. The reason that the error conditions stopped after hour 7 was that these due dates were subsequently loaded at that time into their system. A detailed explanation from Pacific on this error condition is referenced in §4.2.1.6. Observations. There was a difference of 21 additional queries between the TG counts reported and Pacific's count of which the TAM could not reconcile.

Table 4.2.1-6 DataGate Validation Results

Datagate Test										
	Pacific			TAM Validation			Test Generator			
Function	Successful Trans	Failed Trans	Total Trans	Successful Trans	Failed Trans	Total Trans	Sent	Successful Trans	Failed Trans	Total Trans
Address Verification	5749	640	6389	5749	640	6389	6390	5750	640	6390
CSR	6564	169	6733	6564	169	6733	6723	6554	169	6723
Due Date	4819	1029	5848	4819	1029	5848	5851	4821	1030	5851
FACS Dispatch	640	802	1442	640	802	1442	1438	639	799	1438
PIC/LPIC	4800	160	4960	4800	160	4960	4950	4790	160	4950
Request for Telephone Numbers	3103	44	3147	3103	44	3147	3148	3104	44	3148
Service Availability	4805	160	4965	4805	160	4965	4963	4803	160	4963
Totals	**30480**	**3004**	**33484**	**30480**	**3004**	**33484**	**33463**	**30461**	**3002**	**33463**
Difference	**19**	**2**								

The data reconciliation for the Verigate test is shown in Table 4.2.1-7. For this reconciliation, Pacific reported 9,260 total queries of which 8,724 were successful and 536 were failed transactions. The TAM validated these counts from the raw data file provided by Pacific for the Verigate test. The TG sent a total of 9,260 queries and received 8,724 successful transactions and 536 errors of which 178 Due Date queries were unforced errors. These Due Date errors relate to the same situation as the DataGate Due Date errors in that Due dates were not loaded in Pacific's system for the EXCO for which the queries were being processed against. The TG had initially staged 70 CSR forced errors. There were 39 CSR forced errors staged by the TG that were not issued during the test.

Table 4.2.1-7 Verigate Validation Results

Verigate Test										
	Pacific			TAM Validation			Test Generator			
Function	Successful Trans	Failed Trans	Total Trans	Successful Trans	Failed Trans	Total Trans	Sent	Successful Trans	Failed Trans	Total Trans
Address Verification	2149	271	2420	2149	271	2420	2420	2149	271	2420
CSR	1456	31	1487	1456	31	1487	1526	1456	31	1487
Due Date	1240	178	1418	1240	178	1418	1418	1240	178	1418
FACS Dispatch/Facilities Available	316	0	316	316	0	316	316	316	0	316
PIC/LPIC	1186	56	1242	1186	56	1242	1242	1186	56	1242
Request for Telephone Numbers	1191	0	1191	1191	0	1191	1191	1191	0	1191
Service Availability	1186	0	1186	1186	0	1186	1186	1186	0	1186
Totals	**8724**	**536**	**9260**	**8724**	**536**	**9260**	**9299**	**8724**	**536**	**9260**
Difference										

After the pre-order test was conducted, the TAM subsequently received a performance measure report for the JPSA performance Measurement 1 on the response time for pre-order queries. In addition to this report, the TAM used Pacific's raw data transactions from the two query tests to recalculate and confirm that the measurements were reported correctly. There were no disparities between Pacific's measurements and those calculated by the TAM. Table 4.2.1-8 documents the performance measures for each of the queries that were validated for the Verigate and DataGate tests. The benchmark column details each of the benchmark interval requirements as referenced in the JPSA measurements. The PIC/LPIC query type does not have a current benchmark interval defined yet in the JPSA, however, this measurement was recorded for informational purposes only for the test. The average interval columns under Pacific and TAM Validation reflect the average intervals for the performance measurements calculated by Pacific and the TAM using the raw transaction data that was validated. Based on these calculations, each of the queries that were measured were within the required benchmarks. Although the TG's measurements are not a requirement for evaluating parity by the MTP, the TG's query responses are also shown in the performance measurement table, Table 4.2.1-8. The TG's calculations are for information purposes only and show the relative responses received by the Pseudo-CLECs during the tests. The TG's responses for the app-to-app DataGate interface reflected average intervals within the JPSA benchmarks for each of the query types. The TG's connectivity to Pacific for the DataGate interface was through a full T1 frame relay port. The difference in response times between Pacific's measurements is primarily due to the latency incurred by their frame relay access having to go through several hubs before reaching Pacific's point of presence. The TG's measured response time for the Verigate test was outside the bounds of the JPSA benchmarks. This is due to the poor performance inherent in using Plain Old Telephone Service (POTS) lines connected to 56 kbps modems to the TG's workstations. Because of the variability of using POTS lines and modems, CLECs using this means of connectivity should not expect the same performance levels as that of using a dedicated access port connected to Pacific's systems.

Table 4.2.1-8 Pre-Order Performance Measurements

Function	Datagate Performance Measures				Verigate Performance Measures			
	Benchmark (seconds)	Pacific Average Interval	TAM Validation Average Interval	Test Generator Average Interval	Benchmark	Pacific Average Interval	TAM Validation Average Interval	Test Generator Average Interval
Address Verification	4.5	1.9	1.9415	2.2	4.5	2.3	2.3374	12.0
CSR	10	1.2	1.2176	1.5	10	1.2	1.1532	14.0
Due Date	2	0.9	0.9418	1.1	2	0.8	0.8258	4.0
FACS Dispatch/Facilities Available	11	6.1	6.0899	10.4	11	3.7	3.6899	35.0
PIC/LPIC	n/d	10.9	10.906	11.9	n/d	5	5.0481	18.0
Request for Telephone Numbers	5.5	2.5	2.4916	2.8	4.5	1.5	1.4836	52.0
Service Availability	5.5	5.3	5.2893	5.4	8	6.5	6.5152	18.0

4.2.1.5.2.2 Order Test

The order capacity test conducted by the TAM and TG provided the testing of Pacific's LEX and EDI systems interfaces. A total of 7,340 orders were generated during Pacific's peak production activity over a 10-hour period. The number of orders for the LEX and EDI systems issued were 1,125 and 6,215 respectively. Forced errors generated for the test were 365 or 5% of the order mix. Of the orders issued, 7,142 were AOG flow through orders which represented 173% of the baseline. Table 4.2.1-9 details the validation of these orders between Pacific and the TG. The raw data files from Pacific's Resale Provisioning (CLEO) and Local Access Service Request (LASR) systems were used to validate the counts. The counts between the TG and Pacific's systems were in agreement on flow through FOC, resale and forced errors. There was a difference of 10 orders between Pacific's EDI system interface and the TG's due to 10 orders that were erroneously sent through the TG's EDI interface to Pacific's test system which were flagged as exceptions during the test. There were also 2 orders that initially processed as FOC orders by Pacific and were subsequently reported as jeopardy orders by their system because the due dates requested on the transactions were not available.

Pacific modified the manual processing of LSRs for the capacity test so that orders that did not flow through were prevented from being routed for manual review. This was done to prevent normal LSC operations from being unintentionally interrupted by the Capacity Test and to insure that LSC personnel were blind to the test while it was being conducted. When an LSR did not flow through during the Capacity Test it was interrupted by a Pacific OSS Test member so that it would not be manually processed by the LSC staff.

During the test there were 188 exceptions requiring manual activity that were reported. Of these exceptions, 109 were CLEC exceptions transmitted by the TG and 79 were identified as Pacific systems exceptions which should have gone to FOC but were flagged as exceptions from their system. These system exceptions occurred for both the EDI and LEX interfaces. Some of these exceptions generated an 804 error code that related to an invalid data parameter passed to a program in their CESAR system. An analysis of what data parameters that caused this error could not be identified at the time of the test because their analysts would have had to analyze the orders through their CESAR system during flow through. The other type of system exception generated an RC-11 error code, which specified that a DataGate module was down. According to Pacific, both of these system problems can occur in high volume conditions. There were a total of 14,000 test and production orders processed in their system during the first order test and over 19,000 orders processed during the capacity stress test. A complete response to

these system exception conditions was provided by Pacific and is documented in §4.2.1.6.2, Item 1.

Table 4.2.1-9 LEX and EDI Validation Results

Type	Pacific			Test Generator		
	EDI	LEX	Total	EDI	LEX	Total
Resale	68		68	68		68
FOC	5778	931	6709	5778	931	6709
Rejects	267	98	365	267	98	365
Exceptions	92	96	188	102	96	198
Total	6205	1125	7330	6215	1125	7340
Difference				10		10
Exception Reconciliation						
System Exceptions	56	23	79	102		102
CLEC Exceptions	36	73	109		96	96
Total	92	96	188			198
TG sent to Test System						10

Table 4.2.1-10 presents the evaluation of the performance measurements that were calculated and validated for the order test. The TAM used Pacific's raw data files for the Pseudo-CLECs from Pacific's CLEO and LASR systems to calculate and validate the performance measurement results. The measurements evaluated were Measurements 2 – Average FOC Time Interval and Measurement 3 – Average Reject Time Interval. Benchmarks for both of these measurements are 20 minutes or 0.33 hours from the elapsed time the service order is received in Pacific's system to the time that the order goes to FOC or the time the notice of rejection for the service order is posted. The following JPSA formulas comprised the method of calculating the average notice intervals:

A. Average FOC/LSC Notice Interval – SUM ((Date and Time of FOC/LSC) - (Business Date and Time of Receipt of Valid Service Request))/(Number of FOCs/LSCs Sent in a Reporting Period).

B. Average Reject Notice Interval – SUM ((Business Date and Time of ILEC Transmission of Order Rejection) – (Business Date and Time of Order Receipt)) / (Number of Orders Rejected).

Based on the average intervals for FOC time and Reject Notice, the results of the order test showed Pacific's performance levels to be within the average benchmark requirements for the test. The TAM calculation of the performance measures validated these measurements to be slightly better than reported by Pacific in that the average FOC times for FOC Resale orders and LEX and EDI reject notice intervals were 0.1954 and 0.1532 respectively. The difference being primarily due to the extension of the decimals of the elapsed times when calculating the results. Although not required to be used as a factor in assessing the performance measurements, the TAM also calculated the test results of the TG's timings of the test. These measurements are somewhat higher than reported by Pacific due to the latency involved in the connectivity and

ability of their interface to send and receive responses during the test. The TG sent orders via one order file per NDM transaction during the test.

Table 4.2.1-10 Order Test Performance Measurements

Order Test Performance Measures				
		Pacific	TAM Validation	Test Generator
Measurement Type	Benchmark	Average Interval	Average Interval	Average Interval
Measurement 2 - Avg FOC/LSC Notice Interval (hours)	0.33			
Resale		0.20	0.1954	0.3198
LEX and EDI		0.31	0.3116	0.4153
Measurement 3 - Avg Reject Notice Interval (hours)	0.33			
Resale		-	-	-
LEX and EDI		0.16	0.1532	0.2518

For JPSA Performance Measurement 4 – Measurement of the Percentage of Mechanized Service Requests Processed on a Flow Through Basis, the TAM requirements were to track these measurements and not provide an assessment or evaluation. For the flow through orders submitted by the TG, there were 7,221 valid mechanized flow through orders of which 7,142 were flow through without manual intervention.

4.2.1.5.2.3 Combination Pre-Order/Order Volume Stress Test

The intent of the combination Pre-Order/Order test was to stress Pacific's OSS to identify their capability to process a high volume of orders and pre-orders in their systems. Unlike the independent pre-order and order tests, the combination test entered large volumes of orders concurrently with pre-orders to identify at what volume limits the systems may begin to degrade in performance. The stress test was executed over a 6-hour timeframe during Pacific's peak production volume hours from 8:00 a.m. – 2:00 p.m. Pacific Time. Orders were entered consecutively during the 6-hour period while pre-orders were entered on hours two, four and six of the test. The stress test was conducted on Pacific's "live" production environment. The test objective was to attempt to degrade the systems and not to seriously break Pacific's systems and halt production. For this combined test, the number of orders were increased by 58% over the original order test and the time for submitting the LSRs was reduced by 4 hours. These parameters resulted in a much higher order delivery rate over the original order test.

The hourly number of DataGate queries sent during the combined test was the same as the highest hourly query rate during the pre-order capacity test. The intention was to identify if a large DataGate pre-order load would cause any increased stress on the ordering systems.

The pre-order test was conducted on Pacific's EDI app-to app interface. For the test, the TG submitted a total of 12,705 queries consisting of 11,866 successful queries and 839 forced errors. Table 4.2.1-11 shows the breakdown of queries by query type. The TAM validated Pacific's processing of the transactions processed by verifying the counts from their raw data file. The TG's transactions were also verified by examining the counts and responses received from their EDI interface. The TAM validated all transactions between Pacific and the TG with the exception of 24 additional queries reported by Pacific that could not be reconciled.

Table 4.2.1-11 Pre-Order Stress Test Validation Results

10-3 Datagate Test										
	Pacific			TAM Validation			Test Generator			
Function	Successful Trans	Failed Trans	Total Trans	Successful Trans	Failed Trans	Total Trans	Sent	Successful Trans	Failed Trans	Total Trans
Address Verification	2219	252	2471	2219	252	2471	2472	2220	252	2472
CSR	2539	63	2602	2539	63	2602	2592	2529	63	2592
Due Date	2019	63	2082	2019	63	2082	2081	2018	63	2081
FACS Dispatch	246	308	554	246	308	554	549	243	306	549
PIC/LPIC	1848	63	1911	1848	63	1911	1902	1839	63	1902
Request for Telephone Numbers	1166	29	1195	1166	29	1195	1195	1166	29	1195
Service Availability	1851	63	1914	1851	63	1914	1914	1851	63	1914
Totals	11888	841	12729	11888	841	12729	12705	11866	839	12705
Difference										24

The performance measures for the pre-order test are shown in Table 4.2.1-12. The TAM used Pacific's raw data file to calculate the performance measures and these measurements agreed with those reported by Pacific. All performance measures were found to be within the benchmark required by the JPSA measurement requirements. For information purposes, the TG's performance measures were calculated and although these measurements were slightly higher, these also were within the JPSA benchmark measurements. The combination of pre-orders and orders simultaneously processed during the stress test by the TG did not appear to impact the capacity performance on Pacific's DataGate interface.

Table 4.2.1-12 Pre-Order Stress Test Performance Measures

10-3 Datagate Performance Measures				
		Pacific	TAM Validation	Test Generator
Function	Benchmark (seconds)	Average Interval	Average Interval	Average Interval
Address Verification	4.5	2.2	2.2342	2.38
CSR	10	1.2	1.1813	1.57
Due Date	2	0.7	0.7391	0.95
FACS Dispatch/Facilities Available	11	9	9.0121	9.27
PIC/LPIC	n/d	10.4	10.4512	11.73
Request for Telephone Numbers	5.5	2.5	2.5155	2.76
Service Availability	5.5	4.7	4.6979	4.96

During the order stress test LEX and EDI orders were submitted into Pacific's system for a 6-hour period. There were 427 LEX and 11,216 EDI orders submitted for a total of 11,643 orders. The number of AOG eligible orders and forced rejects that processed through Pacific's systems was 9,114 and 1,223 for a total of 10,337. The TAM was able to reconcile all orders and forced errors from Pacific's raw data files. The number of exceptions reported by Pacific was 634. The TG's counts for exceptions were reported as 1,306. Table 4.2.1-13 shows the breakdown of the orders sent and processed with the exceptions. During this test the TG submitted a number of orders in the 3rd hour which contained double terminator delimiters after each of these orders. The correct number of terminator characters required by Pacific is one terminator delimiter. Although the problem was corrected by the TG during the test, those orders with double terminators caused the orders not to be processed and reported in Pacific's system. There was a difference of 672 transactions between Pacific and the TG. The reconciliation is shown under TG exceptions in Table 4.2.1-13. Of the 800 orders that contained double terminators, 143 were

processed and reported as exceptions through Pacific's system. Fourteen additional Discovery Pseudo-CLEC orders were not processed as a result of the double terminator problem during the third hour of the test. Discovery orders were removed from processing so as not to impact Pacific's actual production orders. Of the 672 additional TG exceptions, the TAM was able to reconcile them all except for 1 exception that could not be accounted for. The TAM could not explain why 143 of the double terminator orders processed as exceptions in Pacific's system while the remaining 657 orders with double terminators were rejected during transmission from their systems and not reported as exceptions.

Table 4.2.1-13 Order Stress Test Validation Results

Type	PACIFIC			Test Generator		
	EDI	LEX	Total	EDI	LEX	Total
FOC & Reject						
Resale	303		303	303		303
FOC	8449	362	8811	8449	362	8811
Rejects	1183	40	1223	1183	40	1223
Total FOC & Reject			10337			10337
Exceptions	609	25	634	1281	25	1306
Total	10544	427	10971	11216	427	11643
Difference			672			
TG Exceptions						
PONs with 2x Terminators		800				
Pons with 2x terminators, w/exception		143				
Net exceptions with 2x terminator		657				
1st Discovery PONs Hr 3 unprocessed		14				
Total Exceptions		671				
Difference		1				

The performance measurements reported for the order stress test are shown below in Table 4.2.1-14. The orders entered for the test were 800 orders in each of the first 2 hours, 1600 orders each in hours 3 – 4, and 3,200 orders each in hours 5 – 6. Because of the large volume of orders, the TAM was able to stress Pacific's systems for the LEX and EDI FOC orders to the point of degradation. The average FOC interval for the LEX and EDI orders was 2.3 hours versus the 0.33-hour benchmark for the JPSA. While the LEX and EDI FOC orders were degraded, however, the Resale orders and forced error rejects still were within the 0.33-hour benchmark with average intervals of 0.25 and 0.21 hours respectively. The TAM validated Pacific's reported performance measures to be correct by recalculating the measurements using Pacific's raw data files for the test CLECs from the order stress test. For information purposes, the TG's data responses were also calculated and are shown in Table 4.2.1-14.

Table 4.2.1-14 Order Stress Test Performance Measurements

Order Stress Test Performance Measures				
		Pacific	TAM Validation	Test Generator
Function	Benchmark	Average Interval	Average Interval	Average Interval
Measurement 2 - Avg FOC/LSC Notice Interval (hours)	0.33			
Resale		0.25	0.2519	0.3198
LEX and EDI		2.30	2.295	2.3223
Measurement 3 - Avg Reject Notice Interval (hours)	0.33			
Resale		-	-	-
LEX and EDI		0.21	0.2122	0.2926

The TAM was able to stress Pacific's OSS to the point where they experienced degradation in their order system. In evaluating the overall performance measures for average FOC interval, Pacific measurements were also analyzed to identify at what level the maximum number of

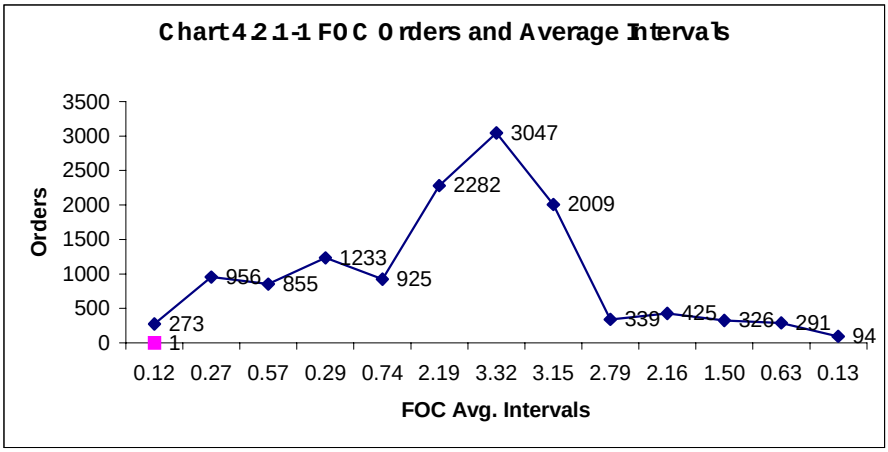
hourly orders could be processed and still be within the JPSA benchmark requirement. To evaluate this, all test and production order data for the CLECs during the test day were analyzed from Pacific's raw data files reported from their LASR system which processed orders from their LEX and EDI interfaces. Overall, there were 19,295 orders by Pacific's OSS of which LASR processed 14,197 FOC orders and 3,368 rejects. Chart 4.2.1-1 below shows the number of orders (production CLECs and Test CLECs) with their respective FOC interval times that were processed between 7:00 a.m. and 7:00 p.m. Pacific Time. The points on the graph line represent each of those hours with their respective number of hourly orders that were processed. The X-axis shows the FOC interval times reported for the hours. The line starts to sharply slope during hours 4 and 5 of the test as 1,600 and 3,200 orders were entered into Pacific's system with the peak volume of 3,047 orders processed. From the test, the maximum number of orders that could be processed with the JPSA benchmark was 1,233 at a 0.29/hr interval. This represented a 299% increase over the calculated average hourly baseline of 412 orders per hour. Because the order volumes were significantly increased starting in the 3rd hour of the test, it is unclear as to whether Pacific's FOC times for the 1,223 orders would be able to be sustained during a full day of activity. It is more probable that a sustained rate of orders at 1,000 per hour would be achievable within the benchmark. At this rate Pacific's order volume increase would be 242% over the hourly baseline.

Another evaluation of significance is that during this high volume activity:

A. Pacific's systems did not fail. Only FOC intervals were degraded.

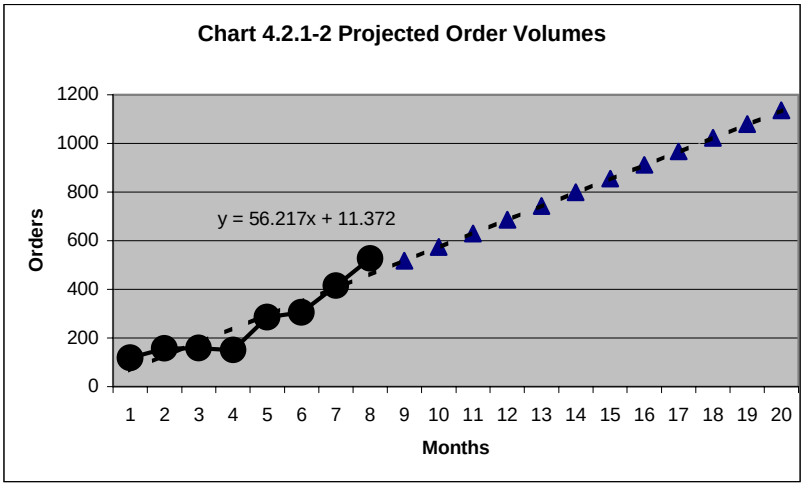
B. FOC and Reject errors were not lost.

C. The LASR system was robust enough to recover from a large volume of orders as shown by the bell curve represented in the graph.



To further assess the capacity of Pacific's systems, the TAM performed a historical analysis of Pacific's order volumes by compiling the orders processed over an 8-month period (January, 2000 – September, 2000). Based on these order volumes, a trend line of the predicted order volumes was produced for the next 12 months. Given that Pacific could support an average

order volume of 1,000 orders per hour it is anticipated that at their current capacity configuration Pacific would be able to support these volumes for the next 10 months.



4.2.1.6 OBSERVATIONS

During the three individual Capacity Tests that were conducted, the capacity team noted a number of observations during the execution of the tests and as a result of the analysis of the test data. The following observations are detailed below. Where appropriate, responses were requested from Pacific. These responses have also been documented in this section.

4.2.1.6.1 PRE-ORDER AND ORDER VOLUME/STRESS TEST

1. Severity Level 1 Error During Hour 2 of Order Test.

   When attempting to dial into the LEX system the TG experienced dial-in difficulties on their workstations during hour 2 of the test that prevented accessing the system. When the St. Louis, Missouri Data Center was notified of this problem, the TG was informed that 3 of their 5 Security servers were experiencing problems which would necessitate restarting their servers. This resolution corrected the problem. What was the original problem that occurred to make these security servers non-operational? Do Pacific systems personnel have a method or procedure for actively monitoring their dial-in servers to prevent this occurrence from happening?

   Pacific's Response:

   > At about 8:00 am pacific, three of the four active Toolbar Security software services that were running began to fail to respond to heartbeats issued by the DataGate Resource Manager, which is the automated middleware facility that monitors the well-being of the software services. Pages were sent to Middleware Product Support (MPS) at that time by the Resource Manager. The paging logs show that pages were sent however the MPS staff who were on-call report that the pages were not received. One of those Security services terminated and was restarted automatically by the DataGate Resource Manager. At about 8:40 the other two failing Security services were shutdown but new instances were not started. At about 8:45, after responding to the client call from LEX, MPS brought up

three more instances of the Security service and the user reported that the problems had stopped.

There was a period of time that the Security services were alive though not processing effectively. The DataGate Resource Manager did appropriately monitor and page, however the pages were not received and/or acted upon by MPS staff.

The Toolbar staff reviewed the logs to determine the root cause of why the instances of the Security service failed. The logs did not indicate any explanation for the failure. Toolbar staff did note that the hardware server had not been rebooted since August 6th and the same instances of the Security service which were started on August 6th were still running that morning prior to the 8:00 am incident.

2. Dial-in Difficulties for Verigate and LEX

On the pre-order test the TG experienced some dial-in difficulties where they needed to dial into the network several times before a session was established. Does Pacific systems actively monitor their dial-in communications network and what steps do they take for identifying these types of problems?

Pacific's Response:

The PRAF support staff does actively monitor both modem usage levels and modem failures. A daily report is generated that identifies any modem that falls below an 80% success rate on connect. Due to the fact that connect failures are not necessarily indicative of a modem problem on our remote servers, this success rate enables the staff to quickly identify problem modems and respond with corrective action. This includes but is not limited to busying out the modem, resetting the modem, reflashing the modem with the correct firmware, and replacing the 6-port modem module. There were no changes made to the dial-up access servers between 9/19 and 10/3.

3. Severity Level 1 Error During Hour 10 of Order Test.

During hour 10 of the order test the TG's test site experienced a power failure to the building. This caused a temporary stoppage of the test because the TG did not have a backup battery source for their workstations. The interruption occurred at 7:00 p.m. while TG test personnel were staging their workstations to execute the hour 10 test scripts. This stoppage only lasted for 5 minutes and the test was restarted once the power was turned up in the building. The power outage did not cause any damage to the equipment. Once the power was turned on, the TG personnel rebooted their workstations, staged the test scripts, reconnected to the Pacific network and resumed processing their scripts. Since the workstations had not been running at the time of the test no data was lost.

4. Processing Time Throughput between 1st and 2nd Order Tests for EDI

On the September 19, 2000 order test the TG ran the EDI interface using 1 order file per NDM transaction. The TG processed their orders so that in the last 5 minutes of their

hourly cycle the orders were stopped and the next hours cycle was staged. During this test the TG was unable to process all their staged orders for a number of their hourly cycles. This delay in processing was not experienced in the second test when using the same scheme of one order file per NDM transaction. Can Pacific Bell explain why it took longer to process the orders during the September 19, 2000 capacity test? The staged orders and the orders actually sent are shown in Table 4.2.1-15.

Table 4.2.1-15 Staged vs. Actual Orders

Time	Sent	Processed
7:00	958	707
8:00	990	659
9:00	888	669
10:00	952	683
11:00	968	612
12:00	919	677
13:00	812	606
14:00	681	569
15:00	592	592
16:00	441	441

Pacific's Response:

> The number of files that were staged and actually sent (by the Test Generator (TG)) by hour was different between the 9/19 test and the 10/3 test. Apparently on 9/19 the maximum files sent per hour was 700, yet over 800 per hour on 10/3. There were no upgrades to hardware or software reported by either the TG or PB to explain this difference.
>
> A proposed explanation could involve a difference in the number of files sent in response by PB to the TG. A file being sent or received counts as a process in NDM, and is a good measure of work. If there was a constraint on the originating system, so that "n" processes per hour were capable of being executed, then "n" must account for both the sending processes and the receiving processes. If there were fewer files being sent by PB (and therefore received by the TG), due to EDI sending fewer but larger files, then the TG could originate more files. The EDI response files were larger and fewer since the data was slightly more grouped inbound and FOCs/rejects from LASR that were delayed allowed EDI to group the responses.
>
> In a production environment this situation would not be critical. One of the reasons that NDM is one of the SBC recommended protocols is that there is an automatic retry feature. This would ensure that all files that were staged were actually sent.

5. Flexible Due Date Unforced Errors in DataGate

   When analyzing the DataGate pre-order system results, the TG received an unexpected number of unforced error responses during hours 1 – 6 for Flexible Due Date (FDD) pre-orders on the test. The number of errors reported during hours 1 – 6 were 400, 94, 94, 112, 101 and 69 respectively. After hour 6, the number of unforced errors for hours 7 – 10 went to zero. Can Pacific assist the TAM in explaining why these unforced errors occurred in hours 1 – 6?

   Pacific's Response:

   > The Flexible Due Date (FDD) errors received via the DataGate and Verigate interfaces were the result of messages returned by the FDD systems. The error indicates that no due dates were loaded for the particular Exchange/Central Office (EXCO) being queried. This is a parity situation. Had retail representatives queried FDD for due dates on these EXCOs, they would have received the same results. The situation that occurred on 9/18 was referred to the Work Control Centers (WCC) organization that loads the due dates into FDD. What happened on 9/18 to make the errors cease, is that due dates were loaded for the EXCOs being queried throughout the day. Though typically due dates are loaded before 7:00 a.m. pacific time, they can be loaded throughout the day. DataGate and Verigate performed appropriately since there was no FDD data available for the EXCO at the time the queries were made.

6. Dial-in Connectivity Logs

   During the capacity test the Test Observers were able to identify when dial-in users logged onto the network but the logs did not show when they logged off. Does Pacific have a system log for this activity?

   Pacific's Response:

   > The PRAF dial-up servers provide information regarding the connecting user id (but in the case of an async passthru directly to the application, as is the case for most CLECs accessing the CESAR application, we only know that a customer is connecting to CESAR, but we do not know whom). We also have information regarding the modem port they are connected to, transmit and receive rates for the connection, the amount of signal loss, etc. At the present time, we do not track this type of data in a log file for future review. We perform real-time analysis with customers who are experiencing repeated problems establishing a connection. We can identify when they establish a good connection and subsequently when they disconnect, and recommend a resolution that will provide them better success in keeping an established connection active.

4.2.1.6.2 COMBINATION PRE-ORDER/ORDER VOLUME STRESS TEST

1. Systems Exceptions for Flow Through Orders

During both capacity order tests there were a number of valid flow through orders that received systems exceptions when processed by Pacific's systems. Can Pacific identify why these system exceptions occurred?

Pacific's Response:

> This issue addresses 376 PONs. Because the PONs were not observed by CESAR flowing into the system an accurate determination cannot be made of exactly which fields/parameters are causing the CESAR program to exception on PONs.
>
> The 804 error code points to an invalid parameter passed to the program. With the volume of PONs (20,000) that were processed it is not unusual to have PONs experience corrupted/missing data as it flows through CESAR. A fix cannot be identified without more analysis of the error during flow-through. Because CESAR does not retain production data past 24 hours, CESAR would need the list of PONs in error within the same day of issue in order to reference the LASR MPR log. This log details the keys passed to CESAR and could pinpoint exactly which data/parameter is causing the problem.
>
> The other error code returned, RC – 11, is due to a system error (DataGate module down). The RC-11 error in normal processing occurs infrequently (approximately once a month) for a 30 second timeout and is reconnected immediately.

2. Pre-Order Counts for DataGate

There is a difference in the counts between the TG and Pacific pre-orders. The difference was shown to include one full hour of processing during hour 6 of the DataGate pre-order test during the capacity stress test.

Pacific's Response:

> One file (of the multiple nightly files) was not received and processed in the DataGate load into the Decision Support System (DSS) for reporting purposes. Therefore a portion of the DataGate pre-order data was missing on the DSS initial counts/reports for the 10/3 test.
>
> To make sure that this does not happen in the future, the nightly job will be changed in 2 ways. First, mechanized checks will be implemented in the JCL to ensure all files are received before the job loads the data. Secondly, the load jobs will be monitored by the DSS staff to ensure they process correctly. This is a common practice for the measurement loads and will be implemented for this load process.

3. 2.3 hour average FOC time interval during combination pre-order/order stress test

It was anticipated that the execution of the capacity stress test would degrade the performance of Pacific's OSS order systems based on the large volume of orders and time window these orders were entered. Although Pacific's systems did show that they were able to sustain a large increase in workload of 297% of normal volume activity

during at least one hour, the system began to degrade later in the test. This degradation resulted in an average FOC time of 2.3 hours.

Pacific's Response:

> There was a 3 hour period (noon to 2) that LASR received nearly 10,000 PONs. Over 7,000 of these were AOG eligible. There is no warranty benchmark that says it is guaranteed to process so many PONs per hour but this is an unusually high volume. For comparison on the 9/19 Cap test LASR only reached 1,000 AOG eligible requests per hour.
>
> a) No system or software failed as a result to the test.
>
> b) LASR is investigating a FOC/SOC transaction (program) change that might improve the processing.
>
> c) LASR is investigating adding multiple paths from SORD/AOG instead of the current thread. The single thread is in place to prevent to prevent transactions from competing with each other when processing SORD/AOG orders. The possibility of adding up to 5 paths to process orders from SORD/AOG is being investigated.
>
> d) These potential upgrades are under investigation.

4. Inconsistent method of reporting exceptions for double terminator problem

During the capacity stress test the TG transmitted 800 orders with multiple transaction terminators. These orders were not processed because Pacific's system requires that a single terminator be supplied. On reconciliation, 143 of these orders were included as exception orders while the remaining 657 were not reported as exceptions. Pacific should have an edit that will consistently report these invalid transactions as having syntactical errors during transmission. Because Pacific did not have an edit check, the reporting of these transactions yielded unpredictable results.

Pacific's Response:

> The four 'CLECs' used during this test came in through two data streams. The files for Napatel, Camino and Blackhawk all use the EDCOLLPT job, with many other production CLECs. The Discovery files, which had been lower volume, trigger their own job EDRNAAPT.
>
> During the test, when the double delimiters were sent, these jobs operated as designed. EDCOLLPT accumulated all of the available files, processed all recognizable transactions, sent them to EDI translator, and posted a return code of 0004 to ask for manual review. Since many CLECs are involved, the transactions are sent so as not to impact the other companies. The EDRNAAPT job tried to process the file, saw the problems and returned the 0004 without sending to the EDI translator. No transactions are sent to EDI because the manual review is pending on a single file from a single company.
>
> During our manual reviews it as determined that the Discovery problems could be ignored as part of the test. This was done by the test moderators to allow us to spend

the time reviewing the EDCOLLPT jobs to ensure that the double delimiters did not generate a problem with the data from production CLECs.

We have since put in code changes to allow for mechanized processing of this double delimiter problem should it occur in production in the future. Although we had never seen this particular issue before, we will be ready should it occur in the future.

4.2.1.6.3 RECOMMENDATIONS

As a result of the observations made by the TAM, the following recommendations are made relative to Pacific's systems operations.

A. Conduct further analysis to determine why Pacific systems are generating systems exceptions and install a fix for the problem. Pacific systems should have a method of identifying invalid data parameters for 804 error codes. For RC-11 return codes this was caused by a DataGate module problem and this bug should be corrected. The TAM was informed that this was an infrequent occurrence, however, it occurred on both of the order capacity tests run by the TG.

B. Tighten up the controls on reporting DataGate counts on queries. Follow up on changing the nightly jobs to insure that all files are received when loading the data.

C. Follow up on investigating the ability to add multiple paths from the SORD/AOG systems to interface with LASR. This will help fine tune their system to reduce the order FOC interval times encountered during the capacity stress test.

D. Tighten up the controls on loading Due Dates for the EXCO's prior to the daily production runs rather then periodically during the day.

E. Ensure all security servers for dial-in users to Verigate/LEX are proactively monitored by Data Center staff. Analyze the appropriateness of systems logs and whether they are providing enough information to diagnose failures. Adequate systems monitoring should enable corrective actions to servers to be made before users are calling in to notify Pacific of a dial-in problem.

F. Continue to proactively monitor modem pools and connectivity software and hardware to insure that dial-in users are adequately being connected. Assess the network connectivity logs to insure that Pacific staff can readily identify when users log on and log off the network and whether they provide the needed information to track dial-in users encountering problems.

G. Implement an edit for detecting terminator problems when data is being transmitted via the EDI interface. Establish a method to uniformly report these errors rather then have some of these fall out as exceptions.

4.2.1.7 RESULTS

Based on the three capacity tests conducted by the TG and the evaluation by the TAM of the performance measures of the capacity test, the following test results and recommendations are provided:

A. The pre-order test count reconciliation identified no major count discrepancies between the TG and Pacific's orders. Pre-orders transmitted to Pacific's system were processed and reported satisfactorily.

B. The pre-order test performance measures for Pacific were within the benchmarks required by the JPSA service levels. For all query types the average interval times were below the JPSA benchmarks set.

C. The order test count reconciliation did not identify any major count discrepancies between the TG and Pacific. Orders transmitted to Pacific's order systems via the LEX and EDI interfaces were processed and reported satisfactorily.

D. The order test performance measures for Pacific at capacity order volumes of 173% over their current production baseline were found to be within the benchmarks required by the JPSA service levels. The service levels for JPSA Measurement 2 – Average FOC Interval for AOG Orders and Measurement 3 – Average Reject Notice Interval for the Order Capacity Test were below the JPSA requirements of 0.33 hours (20 minutes) for each of these measures.

E. The combination pre-order/order stress test count validation for FOC AOG orders and order rejects did not identify any major discrepancies between the TG and Pacific's counts. The exception reconciliation identified a recommendation for a potential system enhancement for orders sent with non-valid terminators as described in this section.

F. The combination pre-order/order stress test count validation for pre-orders in the DataGate interface test did not find any major count discrepancies between the TG's and Pacific's pre-order counts.

G. The calculation of pre-order query performance measurements for the combination pre-order/order stress test were within the JPSA Measurement 1 benchmarks for average response time for pre-order queries.

H. The combination pre-order/order stress test identified that Pacific's order system had the capacity to process a large volume of orders at an overall 251% increase over baseline with the following findings noted:

   a) JPSA Performance Measurement 2 – Average FOC Time Interval benchmark was met for resale orders but was not achieved for non-resale AOG eligible orders. Performance Measurement 3 – Average Reject Notice Interval did meet the JPSA performance benchmark for error rejects in Pacific's systems.

   b) The peak hour volume for which Pacific's order system could support the JPSA Measurement 2 - Average FOC Interval was 1,223 or 299% of baseline orders. However, the JPSA benchmark could not be sustained at this volume. A more reasonable assessment for a sustained order volume of approximately 1,000 orders would be more realistic.

   c) Pacific's order systems were able to process a peak hour workload of 3,047 orders or 739% of baseline at a degraded FOC time of 3.32 hours.

   d) The large volume of orders entered in Pacific's order system did not crash or harm their system, but only degraded the response time of the AOG eligible orders receiving FOCs.

e) Despite the degradation in FOC times, Pacific's order system was robust enough to process all capacity test and production orders and resume JPSA measurement benchmark requirements by 7:00 p.m. that day.

f) Based on a trend analysis of Pacific's historical production volumes and a predicted ability of maintaining an approximate 1,000 orders/hour order rate, Pacific's systems have the capacity available to support production volumes for the next 10 months.

4.2.2 Scalability Analysis

4.2.2.1 PURPOSE

Pacific's pre-order and order activities depended on the capabilities of certain computer systems. The TAM performed a system scalability analysis to determine if Pacific has adequate procedures for scaling its systems to have the capacity to handle the CLEC's loads.

4.2.2.2 SCOPE

The analysis included evaluation of:

A. Procedures for tracking OSS loads and capacities

B. Procedures for forecasting future OSS loads

C. Process for providing OSS computer growth

In many cases Pacific's pre-order and order activities depended on manual processes. The TAM performed a staff scalability analysis to determine if Pacific had the ability to increase the number of personnel available to perform these manual functions. The analysis includes evaluation of:

A. CLEC support centers workforce development modeling procedure documentation.

B. In-place volume contingency plans to meet dramatic increases in CLEC order volume.

C. Disaster recovery plans documentation to assure continued operations.

D. The scalability of recruiting and training programs to provide for the availability of staff with the necessary skills to adequately perform the manual support function.

The results of the Capacity Test, combined with the appropriate scalability analysis provides sufficient information to determine the commercial readiness and robustness of the Pacific's OSS under test condition.

4.2.2.3 APPROACH

A series of interviews, using a prepared list of Scalability questions, were planned by the TAM of the appropriate Pacific personnel in charge of the various OSS being evaluated.

Pacific provided access to the web site maintained by their Capacity Planning group.

Pacific also provided documentation of their Capacity Planning process. This included description of the process, the forecasting assumptions, CPU demand and capacity data, and the LSC/LOC Force Model.

Finally, the results of the Capacity Test were also deemed to be pertinent to a discussion of system scalability.

4.2.2.4 ACTIVITIES

A series of four interviews over two days were conducted at the IC Call Center in St. Louis, Missouri. The capacity planning process documentation was reviewed. The web site was visited and reviewed. The Capacity Test results were reviewed for insights into the Scalability of Pacific's OSS.

4.2.2.5 OBSERVATIONS

Pacific was very responsive in providing access to all information and personnel requested by the TAM. Any request was typically treated as a high priority.

4.2.2.6 RESULTS

4.2.2.6.1 INTERVIEWS

A series of 53 questions divided into five sections were asked of each of four Pacific groups representing the various OSS. Not every question was pertinent to every group. The interview results are listed in the Tables 4.2.2-1 and 4.2.2-2.

Table 4.2.2-1 Interview Results

Mechanized Interfaces	**DataGate**	**Verigate**	**EDI**	**Capacity Planning**
Is there a defined documented EDI migration path for CLECs to develop their automated interfaces to connect to Pacific Bell?	ATIS body maintains standards; required training for CLECs (before software and API); API, I/O structures	Front-end given to CLEC	LSO Req, LSO Guidelines, The Service Order Subcommittee (SOSC), Exceptions in CLEC Handbook, Alliance for Telecom Industry Solutions, Order and Billing Forum	
Are the Pacific network interfaces scalable to support CLEC inter-connectivity to Pacific systems?	PREF remote access facility; once in PB network	Yes	WAN scalable, NDM scalable, Interactive Agent (Unix scalable instances)	
Is the WAN network backbone adequately sized to meet current and projected CLEC usage?	Based on trends and usage	Yes	Yes, same LAN/WAN used by ILEC & CLEC	
Are network dial-in access devices for CLEC dial-in users sufficiently scalable to support increased	Modem banks	Yes, PREF		

network workloads?				
Are appropriate network protocols for current and projected CLEC transaction activity being utilized?	FTP, Ethernet, token ring	Ethernet, token ring, FTP, FDDI, large bandwidths		
AUTOMATED SYSTEMS	**DataGate**	**Verigate**	**EDI**	**Capacity Planning**
Is there a documented capacity planning methodology that is actively utilized?	Yes	Yes, Capacity Planning group	Yes	Putting it together for 1 ½ years, high level guidelines done, 5 people, UNIX capacity planning, Measureware, sizing servers and hosts, SAS – demand charts
Is there an established process for capacity planning and design?	Yes	Yes	Yes	Yes
Is there a documented process and methodology in place that is used to analyze the scalability of systems gateways and interfaces?	Yes	Yes	Yes, translator instances are started to improve performance	Network capacity planning group
Are there redundant sites used for the processing of CLEC orders?	Yes, in Hayward, San Diego, (Fairfield) infrastructure	7 state going to 13, enterprise platform, San Francisco, San Diego, Oregon, St. Paul, MN; San Diego 3 days in Dec., failover to TX, zero downtime	Hot site recover to St. Louis with a major disaster, MVS system	
Do the operations support systems and gateway interfaces in use adequately scale to support projected capacity growth?	Yes	Yes	EDI SORD, yes, 7 cpus BT00 IBM	yes
Is the amount of disk storage per server is actively monitored and managed?	Yes	Definitely	System managed storage, dedicated disks for EDI,	Monitored and improving, DF

			disk is cheaper than tape	
Is there an established disaster recovery planning methodology?	Yes, disaster recovery plan	Yes, operations recovery manuals	yes	
Is the disaster recovery process periodically tested to assess the process to insure that a recovery can take place?	Portions, full in six months	Busiest part of month and week, 1st Mon, 1st Tue; test in Dec. 12 & 13, mechanized, big pipes between states	Walked through, recovery manual exercise schedule, Application Recovery Manual	
Are tape backup procedures in place and actively utilized?	Yes, grandfather, -2 offsite	Nightly incremental, weekly incremental, monthly full, 36 months maintained, data center		
Is there an established methodology for improving and maintaining service levels?	Yes	Yes, performance measurements, root cause analysis		
Is there an established methodology for monitoring the ability to scale?	Yes	Yes		Thresholds, triggers
Is there a process in place to monitor transaction response times, and are success ratios frequently reviewed to identify systems opportunities to improve them?	Performance measurements, extensive root cause analysis, optimized individually	Yes		
CAPACITY PLANNING PROCEDURES	**DataGate**	**Verigate**	**EDI**	**Capacity Planning**
Is there an established process for obtaining performance data to determine future growth patterns?	Trend analysis and forecasting, every three months for 12-18 months			Yes, Measureware, SAR
Are capacity planning procedures documented and in place?	Yes			Working on driving to greater detail
Is quality ensured during the Capacity planning process?	Capacity planning meeting			Yes, system planners

	reviews			checked and reviewed
Is there an established process for the development of capacity planning functions and procedures and its use in performing scalability?	By capacity planning			Yes, frequent meetings, automation
Is there an established process for budgeting funds and resources in the support of capacity planning?	Yes, formal documentation			Yes, baseline capital funding process
Is scalability monitoring and planning accounted for in capacity planning?	Expedited procedures, can add additional servers for DataGate (12 machines currently in production			Yes, three year sizing, quarterly charting
Are there procedures and processes in place for supporting scalability?	Yes			Yes
Is systems growth actively monitored and needs analysis is performed?	Yes			Yes
Is performance monitoring software installed and used at all site locations?	Measureware			Measureware or SAR
Is systems performance monitored at acceptable levels?	Yes, system admins and automated tools (Patrol)			SSS daily performance monitoring. Capacity planning – weekly to daily
Are systems databases accounted for in the capacity planning process?	DataGate doesn't store data			Yes
Is capacity planning methodology documentation updated and maintained and is it available to the staff to support the capacity planning process?	On the web, SBC intranet			Yes, internal docs., web site
STAFF PLANNING AND SUPPORT	**DataGate**	**Verigate**	**EDI**	**Capacity Planning**
Is there a process in place to temporarily increase staff for large scale projects outside of the normal workflow environment?		Yes, development	Case by case	

Is there a plan in place to train not only the staff but emergency overflow staff, as well?		Crosstrained, availability management, A-team	OJT, classes GENTrain	Training internal and classes
Is there a business continuity plan in place that addresses how to handle the loss of key personnel?	For LSC, contact list, business continuity (yes), multiple backups	Yes		Crosstrained
Is the number and timing of shifts for each working day consistent and adequate for the workload?	7x24 schedule	Yes		
Are physical limitations for future and temporary staffing such as office space and equipment addressed in scalability planning?	Floor space coordinators, communication coordinators	Yes		
Is training of the staff performed as an ongoing process?	Yes	Yes		Classes (min. of 1/year)
Are all staff job functions and descriptions clearly documented and understood by all employees?	Extensive online documentation	Correct career path, job keys		Yes, job keys
Is there a career development plan in place that allows for the normal progress of PacBell careers, and are there plans for the normal movement of staff in and out of the department?	Yes, 24 month commitment, 6 month training, job postings, resumes on file, self nominate	Career path process		

Table 4.2.2-2 Interview Results

MANUAL PROCESSES (LSC/LOC)	**Yes / No**	**Comments**
Does Pacific have the ability to support the processing of paper source documents that are arriving from CLECs?	Yes	During the LSC visits the representatives coordinating the LSR's also attended Fax machines receiving transactions from the CLEC's.
Is there an established process to confirm receipt to the CLEC of all paper source documents?	Yes	The LSC will also send confirmation of requests received back to the CLEC via faxes. There were established processes in place.
Is the process and staff in place or planned adequate for managing the number of paper source documents arriving from CLECs per day?	Yes	The LSC feedback is that FAX is not common since their business process is 100% automated with the CLECs they interact. They do maintain Fax machines to support the order process for start-up CLEC's and machine outages.
Is there an established process and sufficient number of personnel for collecting and distributing CLEC faxes.	Yes	The LSC had two people available who actually scanned and distributed the faxes to the exception handling group.
Are there plans for eliminating or replacing the function of receiving faxes and paper source documents?	No	The use of fax machines will be used as a backup and until start-up CLEC's get on-line.
Is there an established process for managing and handling exception processing?	Yes	Process in place. The LSC representative calls the CLEC representative within 20 minutes of receiving the request, coordinates the request and turns over to exception processing to complete.
Are there adequate staff to support call center CLEC information requirements?	Yes	There is a separate group that is well staffed for handling CLEC calls and inquiries.
Is the number of personnel performing data entry through the CLEC access system for manual orders adequate?	Yes	At the LSC visited there was well over 100 representatives supporting manual and non-flow through orders.
Is there is an established process for obtaining access to the manual procedures documentation?	Yes	LSOR documentation is available. Also, CLEC Web site available with user documentation handbook for access.
Is there an established process for entering information from source documents via the OSS?	Yes	Process is in place. Maintain methods and procedures documentation and conduct on-going training.
Is there an established process in place for collecting and monitoring performance metrics?	Yes	All part of the appraisal process. Use automatic call distributor and
Is performance actively monitored as part of the duties of the	Yes	All part of the appraisal process. Maintain running board display of all calls and status.

management staff?		
Are performance monitoring metrics accessible to the staff?	Yes	Yes. Also, available via SBC Web server of which CLEC's and staff have access. Maintin a running board of all calls placed, received and in-progress.
Is there an established process in place for forecasting expected growth of business?	Yes	Utilize prior year, current year history by month and trend analysis.
Is the LSC/LOC Force model procedures and methodology documented and followed by the management and staff?	Yes	The LSC/LOC Force model actively used.
Is there an established process for reviewing workload forecasts to determine their validity and accuracy?	Yes	LSC/LOC Force Modeling procedures.

4.2.2.6.2 CAPACITY PLANNING PROCESS DOCUMENTATION

A brief description of Pacific's Capacity Planning process is included below. The detailed documentation is proprietary but has been reviewed.

4.2.2.6.2.1 Process Description

The Capacity Planning process tracks and forecasts CPU utilization on the MVS systems. For the UNIX systems tracking and forecasting is done for CPU, memory and disk space. The tracking is done to identify utilization percentages and which applications are responsible.

4.2.2.6.2.2 Forecasting Assumptions

Product time studies were conducted and periodically reviewed for continuing accuracy. Forecast volumes were based on a trend analysis of previous months. Forecasts assumed the growth rate trend will continue.

4.2.2.6.2.3 CPU Demand and Capacity Data

Data was gathered and graphed for the OSS Gateways. It included the observed and projected utilization of CPU, memory and disk space for the UNIX systems. The high threshold levels are also indicated.

For the MVS systems, CPU capacity demand was recorded and projected. Effective capacity and installed capacity levels are also indicated.

4.2.2.6.2.4 LSC/LOC Force Model

The force model includes for each product the required FTE, projected call volumes and the growth rate over at least 24 months. It takes into account the impact of non-production adjustments, vacation, illness and training on available resources.

4.2.2.6.3 CAPACITY PLANNING WEB SITE

The Capacity Planning group maintained a web site on the SBC intranet. The home page explains the services provided and includes links for forecast charts, demand charts, system health, project support, CP support and others.

Among them is a link for forecast input. This connected the an on-line form for gathering Capacity Planning requirements from the user community which are reviewed at least quarterly using the previous 18 months data.

4.2.2.6.4 CAPACITY TEST INSIGHTS

Based on a review of the Capacity Test results, installed capacity stayed well ahead of current demands. The daily data Pacific provided to the TAM over an eight-month period showed they keep a detailed eye on both volumetrics and responsiveness of their OSS.

4.3 Performance Measurement Evaluation

4.3.1 Overview

Prior to the functionality test, PricewaterhouseCoopers (PWC) conducted a Performance Measurement Evaluation (PME) to validate Pacific's business rules and data processing. CGE&Y was instructed to accept the findings of the PWC PME pursuant to CPUC ACR 93-04-0003 & 95-04-043 dated 9/22/00 and proceed with the statistical analysis of Pacific's existing performance results as reported to test for parity. CGE&Y was also required to validate the accuracy of all test case data reported by Pacific and its representation in Pacific's reported performance measurement results.

4.3.2 Documentation

The TAM requested and received from Pacific reported performance measurement results for the period of December 1999 through September 2000 on a CLEC aggregated (Purple Report) and disaggregated (Rose Report) basis. These reports included all performance results for the Pseudo-CLECs, commercial CLECs, and Pacific retail operations for this period. Pacific furnished the TAM with standard deviation data necessary for the statistical analysis. These results are identical to those available to CLECs on SBC's web site (https://clec.sbc.com). In addition, Pacific provided the TAM with data detailing specific CLEC activity for each measurement result. Pacific provided similar data detailing Pacific's retail activity for each measurement. Pacific also provided the TAM with business rules for each of the performance measures, as well as a description of all the data points and the appropriate comparisons.

4.3.3 Observations

The TAM encountered several difficulties in reading and interpreting the data provided by Pacific. In several instances, the data provided was incomplete and/or inaccurate. This served to delay the TAM's efforts in starting its analysis. In an effort to mitigate any further delays, beginning on October 31 the TAM and Pacific began to conduct several conference calls in an effort to mitigate any further delays. Interested CLECs were invited to monitor/participate. These calls continued until December 1, 2000. During the course of these conference calls, two of them were suspended due to TAB member concerns.

§§4.3.3.1 – 4.3.3.3 detail data issues uncovered during the statistical analysis.

4.3.3.1 PACIFIC RETAIL DATA DETAIL DATA ISSUES

When first considering how to analyze the performance data, the TAM was concerned that the excessively long time intervals in the data could have an effect on the basic assumptions used in standard statistical analysis. A few long service intervals can shift the average to a higher value than the actual experience suggests, and also increase the variability so that it is more difficult to detect departures from parity. This would be magnified where the number of observations is relatively small and is only partially ameliorated by using Pacific data to measure variability. Transformations of this type may provide a better a better fit to the data, but they can lead to some confusion in their interpretation because the units of measure (e.g., logarithms) are unfamiliar. There are alternative ways to deal with this problem that retain the normal units of measurement, while requiring little more computational complexity. Using the median of a set of observations instead of or in conjunction with the average removes the effect of the extreme outlying observations while still providing a good measure. Similarly, interquartile distances, the difference between the third-quartile value and the first-quartile value, provide measures of the variability in the data in a manner similar to the standard deviation. For these reasons, the TAM recommends data reduction procedures include the computation of medians and interquartile distances.

However, the TAM was unsuccessful in its attempts to analyze the data files detailing Pacific's retail data to correct for the possible effect of a long time interval. This data was provided to the TAM on 8-track tapes. The TAM was unable to read this data, as it was in an unrecognizable format. The TAM contacted the Pacific personnel responsible for producing the data. However, no response from Pacific was received. Due to time constraints, this effort was discontinued, as it was not a critical element of this analysis due to the TAM's instruction to utilize Pacific data as given.

4.3.3.2 ROSE REPORT DATA ISSUES

Initially, Pacific provided the TAM with a Rose Report for Nevada Bell for July 2000. The TAM notified Pacific of this error on November 1, 2000. Pacific informed the TAM that the Rose Reports previously provided might contain data errors that newer versions would correct. Pacific requested the TAM use a corrected set of Rose Reports that were sent via e-mail as a replacement for the ones already in the TAM's possession. The corrected Rose Reports were received on November 1, 2000. Using the corrected Rose Reports, the TAM noticed that the June Rose Report was missing several numerator and denominator values for the Pacific retail results. Moreover, they were not available on SBC's CLEC web site. Pacific provided the data requested by the TAM, however, data sufficiency problems remain.

For example, the TAM found 741 records in the Rose Report for the months December 1999 through April 2000 with Pacific data items marked "N/A", specifically the fields for the retail numerator and retail denominator, but for which a Z-statistic was computed. However, records marked "N/A" were evenly distributed throughout the ten-month period. The initial understanding of "N/A" was "not applicable." This was later changed to "not available." The TAM also noticed that both the standard deviation, "PB Goal" (the ratio of Retail Numerator to retail denominator), and Z statistic were provided. This implies that although the missing data had not been entered, it had been used in these calculations.

For parity comparisons, the retail denominator is necessary. However, assuming the standard deviation, PB Goal, and Z-statistic are correct, it is possible to "reverse engineer" the given

results to produce the required retail denominator (see the formula in §4.4.3.3 below). However, the TAM is not inclined to produce these calculations because it is uncertain as to the reliability of the data, specifically the standard deviation files, provided.

4.3.3.3 STANDARD DEVIATION FILES

The standard deviation data provided by Pacific included data for only those measurements that are compared to the parity standard. The TAM inquired as to why only this data had been provided. Pacific explained that the CLECs and the CPUC had agreed to only statistically analyze measurements compared to the parity standard and not a benchmark. This raises serious concerns as to the completeness of any statistical analysis of the data. Analyzing benchmark measurements on the absolute standard of meeting a fixed benchmark does not correct for the variability of the CLEC data or the number of observations considered. The TAM believes such an analysis could subject Pacific to a higher standard than originally considered. The TAM has made some effort to statistically measure the overall success rate at observationally achieving the benchmark over the entire CLEC population and over the Pseudo-CLEC population. See §4.4.3.4.1**.**

The TAM confirmed that the Z-statistic calculations done by Pacific are correct. The discrepancies that did arise were more likely to occur because some of the early data elements were incorrect. Pacific examined some of the errors found by the TAM, and stated that they had been corrected in the current Pacific data sets, or were the result of early use by the TAM of the August Standard Deviation data to approximate the September Standard Deviation data. Pacific later provided the September Standard Deviation file, which resolved the problem.

4.3.4 Test Data Validation

An exit criterion of the test was to validate that all relevant test data were reflected in Pacific's reported performance results. This required the TAM to compare the TG's test case tracking data with the Rose Reports and underlying raw data provided by Pacific. This process was complicated by the exclusion of several test cases from the performance results according to Pacific's business rules. Several test cases were correctly excluded from Pacific's performance measurements as the result of invalid requested appointment dates (orders with requested appointment dates other than those offered by the company are considered x-coded) and customer-caused delays. Pacific provided the TAM with a manually generated list of x-coded orders throughout the testing phase, but this list was incomplete. Pacific was unable to generate a list of orders excluded for customer-caused delays. This caused the TAM to make the assumption that orders which did not appear on the Pacific raw data, but were in the TG tracking data, were correctly excluded per JPSA business rules for each measurement.

In order to validate the performance results, the TAM compared the PONs reported in the CLEC measurement details provided by Pacific where available to the PONs in the TG test case tracking database. However, for the months December 1999 through February 2000, the Pacific data did not provide a PON for the orders. This made validation of these months impossible, as the TAM was unable to determine which specific orders were being included in the performance results. Although complete validation was not possible, the TAM determined that validating the performance results for two months would provide adequate evidence that Pacific was correctly applying its business rules and included all relevant Pseudo-CLEC activity. The TAM selected the months of April and July for this validation. April was selected since it is the month that

functionality testing through EDI was initiated. July was selected since it is a month with high activity.

Where the TAM encountered differences between the TG test case tracking database and the Pacific measurement detail data, the TAM provided Pacific with the PONs of the orders in question. Pacific researched these orders and provided the TAM with additional details. Based on this information, the TAM would make a determination whether the test data was correctly omitted from Pacific's reported performance results. Since the TAM was instructed to accept the findings of the PWC PME, the TAM accepted Pacific's classification of orders as x-coded or customer delayed.[10]

The TAM attempted to validate those measures to be considered in the statistical analysis set forth in MTP Table 6-4 (see Appendix C). However, the TAM was unable to validate Performance Measurements 1 since no detail raw data was captured for this measurement by Pacific. The TAM also validated measurements 2 and 3 against the time stamps tracked in the

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[10] On December 19, 2000, the CPUC hosted a workshop for parties interested in the Final Report of the Pacific Bell Operations Support Systems as presented by Cap Gemini Ernst & Young, the Test Administrator Manager (TAM). The intent of this workshop was to provide a structural overview of the report to facilitate the audience's review of the report and development of questions for the second workshop scheduled to be held January 16-18, 2001. Due to confusion regarding Section 3.3 (Performance Measurement Evaluation) and Section 4.3.5 (Recommendation), perceived by the TAM during the workshop discussion, this clarification is provided for the benefit of all readers.

As stated in Section 4.3.1 ([Performance Measurement Evaluation] Overview), the TAM

> '…was instructed to accept the findings of the PWC PME pursuant to CPUC ACR 93-04-0003 & 95-04-043 dated 9/22/00 and proceed with the statistical analysis of Pacific's existing performance results as reported to test for parity. CGE&Y was also required to validate the accuracy of all test case data reported by Pacific and its representation in Pacific's reported performance measurement results.'

Following this directive, the TAM's statistical team proceeded to check some test case data against the performance measurement raw data as a systematic approach to establish the flow of the data. During this analysis, some inquiries were submitted to Pacific regarding the status of some specific test cases. These inquiries on specific test cases were answered and the TAM was satisfied that the proper business rules had been applied to the test cases in question. However, no report of test cases excluded from each Performance Measurement with the reason for exclusion was available from Pacific to check the application of business rules on all test cases. As described in Section 4.3.4, (Test Data Validation),

> 'Although complete validation was not possible, the TAM determined that validating the performance results for two months would provide adequate evidence that Pacific was correctly applying its business rules and included all relevant Pseudo-CLEC activity. The TAM selected the months of April and July for this validation. April was selected since it is the month that functionality testing through EDI was initiated. July was selected since it is a month with high activity.'

There are no outstanding queries to Pacific Bell regarding the status of any test case in the Performance Measurements and the TAM considers the validation of the test case data complete.

The TAM statistical team continued with the Performance Measurement calculation and ILEC/CLEC/PCLEC comparison analysis under the Commissioner's directive that the data validation was to be addressed by the Commission's Performance Measurement proceeding. Therefore, the analysis in the Final Report is completed based on the assumption that all data is valid. However, as a result of this analysis and questions that were not required to be answered due to the Commission's directive, the TAM has recommended in Table 3.10-1 (Performance Measurement Category 1 recommendation), that a full data reconciliation analysis should be completed according to the process to be determined by the Commission.

TG Activity Logs. Similarly, the TAM's documentation does not contain the level of specificity necessary to validate several of the billing measures (Performance Measures 28, 30, 31, 32, and 33) or database update measures (Performance Measures 37, 38, and 39).

4.3.4.1 OBSERVATIONS

The following sections briefly detail the results and status of the validation process:

4.3.4.1.1 PERFORMANCE MEASURE 7

In April 2000, the Pseudo-CLECs ordered assured loops, basic loops, xDSL loops, loops with port, and standalone LNP. In July 2000, the Pseudo-CLECs ordered assured loops, basic loops, xDSL loops, DS1 loops and, standalone LNP.

In April, the TG's data shows that 18 assured loop orders were submitted, five of which were x-coded. The Rose Report includes only 12 assured loop orders. The TAM was able to match these 12 activities with the TG data. However, the TG data still has one PON not accounted for. The TAM provided Pacific with the PON, and as of December 12, 2000, Pacific is still researching this discrepancy. In July, the Rose report detailed 18 assured loop orders. The TG's data reported that there were 30 assured loop orders in July, four of which were x-coded. The remaining eight PONs not accounted for in Pacific performance data are assumed to be correctly excluded based on JPSA business rules.

All test data for basic loops are contained in the April Rose Report. However, the report also includes three additional activities for basic loops with PONs not contained in the TG data. The TG data for July contains 24 additional orders for basic loops that are not contained in the Rose Report. These PONs are assumed to be correctly excluded based on JPSA business rules.

In July, the TAM was able to validate all Pseudo-CLEC xDSL orders except for one. However, the Rose Report also included one PON that did not match any PON contained in the TG data.

The April Rose Report includes eight Pseudo-CLEC orders for standalone LNP. However, the PONs for these orders do not match any in the TG's data. The TG's data show 17 standalone LNP orders in April, all but four of which were classified as x-coded. In July, the TG data contains 53 LNPO orders. However, the July Rose Report does not contain any of these activities. These PONs are assumed to be correctly excluded based on JPSA business rules.

In April, Pacific reports 40 Pseudo-CLEC loop with port orders. The TG data contains 50 orders, four of which were x-coded. There were seven PONs in the TG data not contained in the Rose Report. These PONS are assumed to be correctly excluded based on JPSA business rules. There were four PONs in the April Rose Report not in the TG data. In addition, two of the PONs in the Rose detail were recorded in the TG data with an earlier SOC date (one in February and one in March). Finally, one PON included in the Rose detail is listed as a suspend order in the TG data.

The Rose Report for July includes only one DS1 order. By comparison, the TG data includes five. The four PONs not reported in the Rose Report are assumed to be correctly excluded based on JPSA business rules.

4.3.4.1.2 PERFORMANCE MEASURE 8

The only orders included in this Performance Measure ordered by the Pseudo-CLECs are assured loops, xDSL loops, and DS1. The results in the Rose Report for this measure match the results for the same disaggregation for Performance Measure 7.

4.3.4.1.3 PERFORMANCE MEASURE 9

There was no Pseudo-CLEC data for this measure in April. In July, the TG data reported an additional 14 orders not included in the Rose Report detail. The PONs are assumed to be correctly excluded based on JPSA business rules.

4.3.4.1.4 PERFORMANCE MEASURE 11

In April and July, several orders in the Rose report are classified as basic loops when the TG data shows them as assured loop orders. In addition, several orders are not contained in the Rose results.

The discrepancies in results for xDSL orders are the same as those discussed for Performance Measure 7.

For loop with port orders, there are five orders included in the Rose Report that have PONs that do not exist in the TG data. In addition, five orders in the TG data are not included in the Rose report. These PONS are assumed to be correctly excluded based on JPSA business rules. Moreover, two x-coded orders have not been included in the Rose Report.

The results for loop with port orders are the same as discussed in Performance Measure 7, §4.3.4.1.1.

4.3.4.1.5 PERFORMANCE MEASURE 18

The April Rose Report includes 14 orders that are not included in the TG data. The July Rose Report contains two orders that are not in the TG data. In addition, the TG data includes eight orders that are not reflected in the Rose Report. These PONs are assumed to be correctly excluded based on JPSA business rules.

4.3.4.1.6 PERFORMANCE MEASURE 20

In April, both the Rose detail and the TG data report 5 trouble reports. However, in July the Rose detail includes only 10 trouble reports as compared to 16 reported by the TG data.

4.3.4.1.7 PERFORMANCE MEASURE 21

In April, both the Rose detail and the TG data report 3 trouble reports cleared. However, in July the Rose detail includes only 10 trouble reports as compared to 16 reported by the TG data.

4.3.4.1.8 PERFORMANCE MEASURE 34

According to the Rose Report, the total bill for all CLECs in April was $17,636.80. The bills in possession of the TAM total $16,249.06, a difference of $1,387.74. The Rose Report indicates that the total amount billed in July was $28,203.48. However, the TAM summed its July bills and the result was $28,110.50 a difference of $92.98. These differences may be due to corrections to previous bills.

4.3.5 Recommendations

Given the many issues concerning the data completeness, the TAM recommends that the statistical analysis included in this final report should be redone with the corrected and complete data provided by Pacific. The TAM also recommends that procedures be developed to automate and to verify data as it is entered in Pacific's performance reports.

As described in §4.3.4, the test case data validation is not yet complete. Depending on the response provided by Pacific to several outstanding queries, the statistical analysis may be thrown into doubt. In the event that Pacific is unable to verify the appropriate inclusion of all test data satisfying its business rules, the validity of data used in the statistical analysis will be potentially inaccurate. For this reason, the TAM recommends a supplemental filing with the findings of the test case validation. If all data discrepancies cannot be resolved, the TAM recommends a full reconciliation of test case data with Pacific similar to the process currently underway between CLECs and Pacific. If, as the result of these processes, significant revisions are made to Pacific's reported performance results, the TAM recommends performing the statistical analysis again with the correct data.[11]

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[11] On December 19, 2000, the CPUC hosted a workshop for parties interested in the Final Report of the Pacific Bell Operations Support Systems as presented by Cap Gemini Ernst & Young, the Test Administrator Manager (TAM). The intent of this workshop was to provide a structural overview of the report to facilitate the audience's review of the report and development of questions for the second workshop scheduled to be held January 16-18, 2001. Due to confusion regarding Section 3.3 (Performance Measurement Evaluation) and Section 4.3.5 (Recommendation), perceived by the TAM during the workshop discussion, this clarification is provided for the benefit of all readers.

As stated in Section 4.3.1 ([Performance Measurement Evaluation] Overview), the TAM

> '…was instructed to accept the findings of the PWC PME pursuant to CPUC ACR 93-04-0003 & 95-04-043 dated 9/22/00 and proceed with the statistical analysis of Pacific's existing performance results as reported to test for parity. CGE&Y was also required to validate the accuracy of all test case data reported by Pacific and its representation in Pacific's reported performance measurement results.'

Following this directive, the TAM's statistical team proceeded to check some test case data against the performance measurement raw data as a systematic approach to establish the flow of the data. During this analysis, some inquiries were submitted to Pacific regarding the status of some specific test cases. These inquiries on specific test cases were answered and the TAM was satisfied that the proper business rules had been applied to the test cases in question. However, no report of test cases excluded from each Performance Measurement with the reason for exclusion was available from Pacific to check the application of business rules on all test cases. As described in Section 4.3.4, (Test Data Validation),

> 'Although complete validation was not possible, the TAM determined that validating the performance results for two months would provide adequate evidence that Pacific was correctly applying its business rules and included all relevant Pseudo-CLEC activity. The TAM selected the months of April and July for this validation. April was selected since it is the month that functionality testing through EDI was initiated. July was selected since it is a month with high activity.'

There are no outstanding queries to Pacific Bell regarding the status of any test case in the Performance Measurements and the TAM considers the validation of the test case data complete.

The TAM statistical team continued with the Performance Measurement calculation and ILEC/CLEC/PCLEC comparison analysis under the Commissioner's directive that the data validation was to be addressed by the Commission's Performance Measurement proceeding. Therefore, the analysis in the Final Report is completed based on the assumption that all data is valid. However, as a result of this analysis and questions that were not required to be answered due to the Commission's directive, the TAM has recommended in Table 3.10-1 (Performance

Further recommendations with respect to the manner of the statistical analysis are contained in §4.4.5.

4.4 Project Statistics/Metrics

4.4.1 Overview

Using the performance results and standard deviations provided by Pacific. The TAM performed various statistical analyses on the data to determine if Pacific provided the Pseudo-CLEC and actual CLECs parity service over the testing period. Currently, CLECs and Pacific are working to reconcile performance results. This process will validate the performance results Pacific is currently reporting. Once this process is complete, the CPUC may require the statistical test to be performed again, if the performance results have changed as a result.

4.4.2 Scope

Pacific has performance measures for pre-ordering, ordering, provisioning, maintenance, billing, and database services. Measures are further disaggregated by type of service (e.g., Assured Loop), by dispatch status, order type, and region. Pacific identifies these disaggregation by a 7-digit data point, also called an ItemID. In this report the TAM will refer to this disaggregation as "data points." The performance measures considered in this test are outlined in MTP Table 6-4 (see Appendix C). Within those measures, only data points with Pseudo-CLEC activity were considered.

The TAM performed three separate comparisons, and considered only those performance measurements where Pseudo-CLEC data was available. First, the TAM analyzed the performance results for the Pseudo-CLEC against the appropriate benchmarks and Pacific retail results. This analysis offers evidence of service levels Pacific provided to the Pseudo-CLEC. Second, the TAM compared the performance results for the Pseudo-CLEC versus commercial CLECs. The purpose of this comparison was to determine whether the Pseudo-CLEC was provided better service than the average competitor. Finally, the TAM ran the standard analysis for commercial CLECs versus Pacific. The results of this analysis show whether Pacific is offering competitors parity levels of service and a meaningful opportunity to compete.

4.4.3 Statistical Approach

4.4.3.1 BLOCKING FACTORS

Summary data files (Rose Reports) were provided for each of the last ten months, December 1999 through September 2000. Each file contains information for a specific month. Performance results are often based on months, which are artificial constructions commonly used for reporting purposes. Although service provisioning and repair processes operate independently of months, segregating performance results by month serves a useful purpose. Months act as surrogates for different operational situations (e.g., weather) that can affect the delivery or repair of service. Of course external events do not correlate exactly with months, but often there is a relationship of months to weather, and to employee availability. Months are used to control for different conditions that occur in different months. The usual statistical phrasing

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Measurement Category 1 recommendation), that a full data reconciliation analysis should be completed according to the process to be determined by the Commission.

for this practice is to "block by month." Similarly, different types of provisioning (Dispatch and Non-Dispatch) are also used as blocking factors.

It is common to analyze performance data on a monthly basis. In fact, previous 271 applications before the FCC have presented data in such a manner. For all these reasons, the TAM performed the comparison of all CLECs and Pacific retail operations using months as a blocking factor. However, for comparisons involving Pseudo-CLEC data alone, this was not possible due to concerns about sample sizes. See §4.4.3.2.

4.4.3.2 SAMPLE SIZE

Most statistical procedures were developed for moderate sample sizes in times when there was much less data available. Many statistical tables that depend on sample size are usually indexed by sample sizes in the range from two to at most several hundred. Some of the statistical tests reported here have sample sizes in that range. Others have much larger sizes. As sample size increases it becomes easier to discriminate between two different populations. However, it is important to note that the actual differences that can be recognized between two populations becomes smaller and smaller. These differences detected may not have a significant effect or impact on the real world. In the case being considered, a difference may be detected between the average installation interval CLECs experience versus Pacific. However, this difference may be so small, for example 1 minute, as to have little impact in the real world. Thus, it is important to examine any statistical result for the meaningfulness of the difference between two groups.

4.4.3.3 STATISTICAL MODEL

The TAM has applied two similar procedures to the comparison of Pacific and CLEC performance, depending on whether the measure involves averages or involves proportions. They are similar because a proportion is essentially an average of successes (or of failures). The statistical model for each is different, resulting in somewhat different calculations. Both procedures are designed to control for different variability in the two groups being compared.

For averages, the Modified Z statistic is a modified form of the standard Normal (or Gaussian) statistic for comparing two averages, or more generally a student 's procedure for comparing two averages. Here the general opinion agreed to by the CPUC, Pacific, and the CLECs is that the usual measure of variation in data, the standard deviation, should be computed only from Pacific data, and used as if it were the true variance for both Pacific and a CLEC. The TAM followed this procedure for all measures involving averages. Pacific currently reports Modified Z statistics for its performance measurements. The standard model for the Modified Z is as follows:

$$Z = \frac{\mathrm{DIFF}}{S_{\mathrm{DIFF}}} \qquad \mathrm{DIFF} = M_{\mathrm{CLEC}} - M_{\mathrm{ILEC}} \qquad S_{\mathrm{DIFF}} = \sqrt{V_{\mathrm{ILEC}}\left(\frac{1}{N_{\mathrm{ILEC}}} + \frac{1}{N_{\mathrm{CLEC}}}\right)}$$

Where:

M_{ILEC} is the ILEC mean or average and M_{CLEC} is the CLEC mean or average,
V_{ILEC} is the calculated variance for the ILEC,
N_{ILEC} is the number of observations or samples used in ILEC measurement, and
N_{CLEC} is the number of observations or samples used in the CLEC measurement.

Some of the Rose Report entries contain a value for the Z-statistic and the ILEC standard deviation, and the data for individual CLECs, but no values for the *Retail Numerator* or the

Retail Denominator. However, in most cases a computed Z-statistic, the ILEC standard deviation, the CLEC mean, the ILEC mean, and the number of CLEC observations are usually provided.

Thus, it is possible to compute the missing *Retail Denominator* by the following formula:

$$N_{\mathsf{ILEC}} = \frac{1}{\frac{1}{Z^2}\frac{(\bar{x}_{\mathsf{CLEC}}-\bar{x}_{\mathsf{ILEC}})^2}{V_{\mathsf{ILEC}}} - \frac{1}{N_{\mathsf{CLEC}}}}$$

For performance measures reporting a proportion, the standard formula to calculate a Modified Z-statistic is as follows:

$$Z = \frac{\mathsf{DIFF}}{\delta_{\mathsf{DIFF}}}$$

Where

$\mathsf{DIFF} = P_{\mathsf{ILEC}} - P_{\mathsf{CLEC}}$.

P_{ILEC} is ILEC percentage and P_{CLEC} is CLEC percentage.

$\delta_{\mathsf{DIFF}} = \sqrt{P_{\mathsf{ILEC}}(1-P_{\mathsf{ILEC}})(1/N_{\mathsf{CLEC}} + 1/N_{\mathsf{ILEC}})}$.

N_{ILEC} is the number of observations or samples used in ILEC measurement.

N_{CLEC} is the number of observations or sample used in the CLEC measurement.

Pacific has used both of these calculations in a reasonable manner. Following standard statistical procedures, they use the statistics, essentially large positive values of the statistics, to highlight data points that appear to be out of parity. They are used as a traditional statistical "rule-of-thumb," following guidance from tabulated values. Pacific's criterion for an out of parity condition is a Modified Z-statistic, mean or proportion, greater than 1.645, the significance value for a one-sided statistical test at the 0.05 level.

The tests performed are one-sided. For averages, the Null Hypothesis, or basic assumption, is that the true CLEC mean is less than or equal to the Pacific mean. This represents being in parity. The Alternative Hypothesis, or alternative assumption, is that the true CLEC mean is greater than the Pacific mean. A popular significance level for a test of this kind is 0.05. One would prefer to never reject the Null Hypothesis when it is true, but data variability prevents that certainty. A test that rejects the Null Hypothesis at the 0.05 level is one that has only a 5% chance of wrongly rejecting it when it is true.

The TAM has provided the results from the application of the Modified Z-statistic to Pacific's performance measures when grouped by commercial CLECs and all Pseudo-CLECs. TAM applied the Z-statistic in each month for each measure where data was available. Thus, an overall pattern of parity or discrimination can be identified if one exists. Maintaining quality control over several months is a challenging operational and statistical issue that should be continually addressed. If there is an interest in measuring a significance level across the blocking factors, a Modified Z-statistic can be computed by a weighted summing over months of the observed differences. See §4.4.3.4.1. However, it is not necessarily appropriate to do such summations, especially if the results vary considerably from block to block.

There is a problem with having to look at a large number of statistical results. Because there are so many, the chances are that some of the Z-statistics will appear statistically significant, when in fact, their large magnitude is only representing chance variation. Remember that 5% of the time the statistical test will suggest a difference when in fact the difference is caused only by random variation. To provide a rule of thumb, the TAM has included with each table a bound different than the traditional 1.645, which is the maximum value that could appear by chance when none of the observational situations differ from parity. For example, assume that there is certain parity in 100 different operational settings for which a Z-statistic is computed. Because the level of significance has been set to the 0.05 level, that means that roughly 5% or 5 of the 100 Z-statistics will be above the value 1.645 simply by chance variation. The bound provided in Table 4.4.3-1 shows that 2.51 is the largest value you would expect to see in 100 Z-statistics when all 100 operational settings are at parity. The table does not provide values for each number of operational settings because the change in the expected maximum is not rapid, although it is reasonable to interpolate. For example, with 70 observational settings, you could average the values for 60 and 80, getting 2.37.

Table 4.4.3-1 Estimated Maximum Expected Z-Statistic

(When all k are in parity)

Number of Z-Statistics (k)	Maximum Z-Statistic
15	1.73
30	2.04
45	2.21
60	2.32
80	2.43
100	2.51
140	2.64
180	2.71
240	2.81
300	2.88
360	2.94
500	3.04

The agreed upon significance level for this test is 0.05. Thus, from the Normal distribution for one-sided tests, it follows that Z-statistics below 1.645 lead to the statistical conclusion of parity. However, it is useful to have at hand a more extensive table of significance levels from the Normal distribution. These are provided in the following Table 4.4.3-2.

Table 4.4.3-2 Normal Probability Levels for One Sided Tests

Z-Statistic	Significance

	Level
0.84	0.200
1.28	0.100
1.64	0.050
2.33	0.010
3.09	0.001

4.4.3.4 TEST DATA

During the testing period, Pacific provided the TAM with a report of X-coded orders. Pacific's business rules exclude X-coded orders from several of the provisioning measures. See X-Coded Order Report in supporting documentation. In addition, the validation process uncovered several test cases that were excluded from Pacific performance results due to customer-caused delays. These exclusions served to reduce the number of test cases considered in the statistical analysis. Other Pseudo-CLEC performance results reported by Pacific were excluded, as they were not actual test data, rather lines set up in anticipation of conversions and changes as part of the functionality test.

The normal model for analysis in 271 proceedings is to group performance data by month. See §4.4.3.1. However, when the test data is examined by month, the number of observations in any given month is often very small. This can serve to limit the ability of the statistical test to detect differences in results. However, combining of data over a period of time is often misleading.

4.4.3.4.1 COMBINING DIFFERENCES

Because the limited data from the Pseudo-CLECs is distributed over months, it can be said that data should be combined to achieve an effective sample size. This approach is similar to the statistical procedure called Analysis of Variance (ANOVA), because differences in individual settings are averaged together, sometimes with different weightings. However, often there are comparisons of interest other than between two different groups for a single data point.

For a specific data point, the two groups involved are compared by subtracting the mean, or percentage, of one group from the other. Because each measure is a rate, subject to similar analysis, the TAM will continue the example using means. Consider the comparison between CLECs and Pacific. Each mean,

$$\bar{x}_{\text{CLEC}} \qquad \bar{x}_{\text{ILEC}}$$

is an estimate based on the observed services of true but unknown values,

$$M_{\text{CLEC}} \qquad M_{\text{ILEC}}$$

which are not observable because of random variation (e.g., rain, snow, etc.).

But for a specific data point, a problem arises because observations of service differences occur over several months. Previously, the TAM has pointed out that months serve a useful function of blocking for conditions like weather, but blocking also cuts down on the amount of data that can

be analyzed together. For a specific month, the i-th month, the difference between the observed means is an estimate of the true difference in service, that is, for month "i", the difference is:

$$D_i = \overline{X}_{i\text{CLEC}} - \overline{X}_{i\text{ILEC}}$$

D_i is an estimate of the true difference

$$\Delta_i = M_{i\text{CLEC}} - M_{i\text{ILEC}}$$

The question is how can these differences be combined over several months to get a more accurate estimate of differences that tell us more accurately whether there is or is not parity. Given the assumption that the unknown difference is the same every month, or very close to the same, then there is a standard way to combine the individual estimates. This is very much the same as saying that if the differences are consistent from month to month, then there is a reasonable way to get a better estimate of the differences. If this is not the case, then the world out there is chaotic, and the best that can be done is to look at individual statistics, and live with a totally inconsistent picture of process. However, a practical approach is to give credence to the combined result if almost all of the differences that go to make up the combined difference have the same direction or sign, itself a good sign of consistency.

If we assume a consistent picture so that the Pseudo-CLEC data can be combined over months, then the estimate of the difference is:

$$D = \frac{1}{\sum_{i=1}^{k} \frac{1}{\sigma_i^2}} \sum_{i=1}^{k} D_i/\sigma_i^2$$

and the standard deviation of D is

$$\text{StDev} = \sqrt{\frac{1}{\sum_{i=1}^{k} \frac{1}{\sigma_i^2}}}$$

The formula makes sense because it gives less weight to differences that have a large variance (i.e., a large standard deviation).

If D_i is less than 0, or a very small, but positive, number, according to statistical procedures, we say that the comparison shows parity. This is equivalent to saying that parity means that we believe that D_i is very close to 0. To say that something is out of parity is to say that D_i is positive and meaningfully greater than 0.

For proportions, within each block the TAM applies a similar test that bases variance estimates on the form of the binomial distribution which is used when analyzing count data (e.g., counts of success versus counts of failure). This statistic is often called the "X-squared" statistic because in its original form developed by Karl Pearson in 1905, he used the symbol X raised to the power 2 to denote his calculation. His form was actually a square of a statistic that looks more like the Modified-Z statistic used to compare two means, and in fact, as it is used here, it too only uses

standard deviation information from Pacific. The "X-squared" Statistic has retained its form in statistical reporting. However, it is straightforward to put it back in a form similar to the Modified-Z statistic.

Due to time constraints this combination of test data over the length of the test was not possible. The TAM recommends this analysis be continued as it may provide useful insight to both the Pseudo-CLECs performance results as compared to Pacific and other CLECs.

4.4.3.5 COMPARISONS

Pacific's performance measures are evaluated by one of two methods: (1) a parity standard, or (2) a fixed benchmark. Parity measures consider the level of service provided to competing carriers as compared to the level of service provided to Pacific's retail operations. Benchmark measures compare the level of service provided to competing carriers as compared to a fixed standard.

4.4.3.5.1 BENCHMARK MEASURES

The basis for statistically meeting a benchmark is a statement that you cannot reject the hypothesis that the underlying percentage of appointments met is equal to the benchmark. This procedure is not followed here for historical reasons. See §4.3.3.3. If the sample size is very small, then the relatively small observed percentage cannot be used to reject the hypothesis of meeting the underlying benchmark. However, it is still the case that some of the low percentages should be interpreted exactly as they appear, without reference to a statistical test.

As discussed earlier, Pacific did not provide standard deviation data to the TAM for benchmark measures. The CPUC, Pacific, and the CLECs have agreed to analyze benchmark measures based on meeting the absolute standard. Following this opinion prevented the TAM from using standard deviations that are theoretically available for examining benchmark data. Pacific did not provide the standard deviations for benchmark measures, and although the actual standard deviations for CLECs could be computed using CLEC raw data, the pre-established statistical model prevented that approach.

This approach severely limited the TAM's analysis for all three comparisons. Moreover, the TAM believes the reliance on an absolute standard is inaccurate. In cases of limited observations, the result provided is not always a true indication of actual performance levels because one extraordinary event can have undue influence on the measurement result.

For example, consider DataPoint 0201000, the Average FOC/LSC Notice Interval for *UNE Loop 8dB weighted 2/4-wire analog basic/coin*. The benchmark is 20 minutes, or 0.33 hour. Each event may or may not meet the benchmark. However, the benchmark requirement is that the average meets the benchmark. It would be possible to have 10 operational events, 9 taking 16 minutes each, and 1 taking 60 minutes. This produces an average that does not meet the benchmark, although 9 out of 10 of the events do meet the benchmark.

In addition, with respect to the Pseudo-CLEC versus commercial CLEC comparison, the TAM believes it would have been appropriate to remove benchmarks from consideration and apply a parity test to all measures. Because the purpose of this comparison is to determine whether the Pseudo-CLECs received better service than commercial CLECs, the benchmark measures provide little meaning. It would be appropriate to apply a one-sided parity test to these measures to detect any discrimination in favor of the Pseudo-CLECs. Pacific's insistence that the TAM

should not calculate the standard deviation of the CLEC data prevented this valuable comparison.

The TAM recommends in the event the CPUC requires a second statistical test, that benchmark measures are evaluated on a statistical basis and not by an absolute standard. This position has some historical support. In SBC's Texas 271 application, benchmark measures were evaluated within a statistical framework.

4.4.3.5.2 PARITY MEASURES

For all three comparisons, parity measures were evaluated in the same manner Pacific currently employs. The TAM finds these methods as described earlier to be statistically valid.

It is important to note that in the case of the Pseudo-CLEC and commercial CLEC comparison that the Pseudo-CLEC assumed the role of the ILEC.

4.4.4 Observations

As described earlier, only those measures and disaggregation with Pseudo-CLEC activity were considered in this analysis. A list of these measures can be found in MTP Table 6-4 (see Appendix C). The actual results of the statistical analysis can be found for each of the three comparisons (Pseudo-CLEC vs. Pacific; Pseudo-CLEC vs. commercial CLECs; and commercial CLECs vs. Pacific) in Appendix O, Statistical Analysis. The following sections provide a brief summary of the statistically findings. The measures divide into Parity measures, which require direct use of Pacific data for their computation; and Benchmark measures which require only CLEC data to be matched with previously established criteria.

The TAM was instructed to compare pseudo-CLEC and commercial CLEC performance results to determine if pseudo CLECs and commercial CLECs experienced similar provisioning levels. The TAM performed a modified Z test, subtracting the pseudo-CLEC mean from the commercial CLEC mean and using the Pacific Bell standard deviation. The results of the **p**seudo-CLEC to commercial CLEC comparison, contained in Appendix O may be used as a guide for identifying datapoints where pseudo-CLECs may or may not have received different treatment than commercial CLECs. By contrast, the comparisons of Pacific Bell performance data to **p**seudo-CLEC and commercial CLEC data provide parity conclusions based on performance results. For this reason, the summaries comparing pseudo-CLEC to commercial CLEC performance lack the specificity contained in the Pacific Bell to pseudo-CLEC and Pacific Bell to commercial CLEC parity conclusions**.**

In several instances, there was insufficient data to calculate a Z-statistic for a given data point in a given month (see §4.3.3.2). Most of these cases are due to insufficient data on Pacific's side and not CLEC inactivity. The several comparisons omitted from consideration due to Pacific data sufficiency problem underscores the need for the statistical analysis to be redone when complete data is available.

4.4.4.1 BENCHMARK MEASURE RESULTS

The TAM has previously discussed the limitations of the current analysis of benchmark data. The limited analysis is straightforward, and there is so little variation in the results that the TAM has separated out benchmark analysis into a single section. The basic benchmark procedure is to compare an observed CLEC average or proportion to a previously established result.

Table 4.4.4-1, Percentage of Benchmarks Made, computes for each datapoint, the percentage of times that a CLEC/Pseudo-CLEC's average or proportion meets the benchmark. The data was combined over months to shorten the table for, as can be seen from the table, meeting by average a benchmark was almost always the norm. It is of some interest that Pseudo-CLECs usually have a better rate of meeting benchmarks.

The TAM followed Pacific's convention of excluding entries with fewer than 5 events from analysis. Overall, this removes a small fraction of the observed events. This could have more effect on the limited Pseudo-CLEC data, but the TAM chose to stay with this convention. If the benchmark analysis had been based on actual events, and not on averages, then it would have been straightforward to include this data as well.

Benchmarks are used in measures 1, 2, 3, 18, 28, 30, 32, 33, 34, and 39.

Table 4.4.4-1 Percentage of Benchmarks Made

Data Point	Description	Pseudo-CLEC	CLEC
0103900	Mechanized DataGate | Address Verification | Roundtrip	100.0%	100.0%
0100400	Mechanized DataGate | Request for Telephone Number | Roundtrip	100.0%	100.0%
0104100	Mechanized DataGate | Request for CSR | Roundtrip	100.0%	66.7%
0104500	Mechanized Verigate | Address Verification | Roundtrip	47.1%	80.9%
0104600	Mechanized Verigate | Request for Telephone Number | Roundtrip	100.0%	97.9%
0104700	Mechanized Verigate | Request for CSR | Roundtrip	100.0%	74.5%
0104800	Mechanized Verigate | Service Availability | Roundtrip	100.0%	97.6%
0104900	Mechanized Verigate | Service Appointment Scheduling (due date) | Roundtrip	81.8%	73.9%
0201000	Electronically Received/Electronically Handled | UNE Loop 8dB weighted 2/4-wire analog basic/coin	93.3%	90.6%
0201100	Electronically Received/Electronically Handled | UNE Loop 5.5dB 2/4-wire analog assured	90.0%	100.0%
0201300	Electronically Received/Electronically Handled | UNE Loop 2-wire Digital xDSL capable	80.0%	83.6%
0202200	Electronically Received/Electronically Handled | UNE Platform	96.0%	60.0%
0202500	Electronically Received/Electronically Handled | PNP	100.0%	93.2%
0203600	Electronically Received/Manually Handled | UNE Loop 8dB weighted 2/4-wire analog basic/coin	100.0%	96.9%
0203700	Electronically Received/Manually Handled | UNE Loop 5.5dB 2/4-wire analog assured	100.0%	87.5%
0203800	Electronically Received/Manually Handled | UNE Loop 2-wire Digital ISDN capable	100.0%	98.3%
0203900	Electronically Received/Manually Handled | UNE Loop 2-wire Digital xDSL capable	100.0%	95.4%
0204000	Electronically Received/Manually Handled | UNE Loop 4-wire Digital 1.544 Mbps capable/HDSL	100.0%	92.8%
0204800	Electronically Received/Manually Handled | UNE Platform	100.0%	100.0%
0205100	Electronically Received/Manually Handled | PNP	100.0%	91.2%
0300200	Electronically Received/Electronically Handled LEX –CLEO/LASR | Facilities Syntax (edit engine) Reject Notice	100.0%	99.4%
0300400	Electronically Received/Electronically Handled EDI -CLEO/LASR | Facilities Syntax (edit engine) Reject Notice	95.2%	77.8%
0300700	Electronically Received/Manually Handled LEX - CLEO/LASR (Exceptions to LSC) |	100.0%	94.0%

	Facilities Content Errors (other edits) Reject Notice		
0300900	Electronically Received/Manually Handled EDI - CLEO/LASR (Exceptions to LSC) | Facilities Content Errors (other edits) Reject Notice	100.0%	98.4%
1800100	Fully Electronic | Prior to Nov '99 in days / as of Nov '99 in hours | LEX/EDI LASR	67.9%	30.6%
2800400	Meet Point	100.0%	99.7%
3000200	Unbundled	100.0%	100.0%
3000300	Facilities/Interconnect	100.0%	100.0%
3200400	UNE Other	100.0%	66.4%
3200500	Facilities/Interconnection	92.3%	46.3%
3300400	UNE Other	100.0%	60.3%
3300500	Facilities/Interconnection	100.0%	70.3%
3401100	UNE Other | Recurring	100.0%	99.2%
3401200	UNE Other | Non-Recurring	100.0%	97.9%
3401400	Facilities/Interconnection | Recurring	100.0%	95.2%
3401500	Facilities/Interconnection | Non-Recurring	100.0%	96.4%
3900300	Local Wholesale Products | Direct Gateway Updates	100.0%	100.0%

4.4.4.2 PERFORMANCE MEASURE 1

Performance Measure 1 reports the average response time to OSS pre-order queries. This measure is reported on a statewide basis and adheres to a benchmark standard. The interval begins when a request is received by Pacific, and stops when Pacific has completed the transmission of the response to the CLEC. This measure is disaggregated by major query type. The benchmarks are based on individual query type, Address Validation; TN Selection; CSR Summary 1-30 Lines; CSR 31 Lines or more; Service Availability; Due Date; Dispatch Required; and PIC.

Performance Measurement 1 was problematical. Because Pacific is using the FCC benchmarks, not all measurements had FCC specified benchmarks. Those measurements without FCC benchmarks were not included in the analysis. In the remaining cases Pacific stated that the calculation was based on a “Roundtrip”, which is a combination of two activities: (1) PRAF to Legacy and (2) Legacy only-CLEC. For Mechanized Verigate the “Roundtrip” was directly available. For Mechanized DataGate, it was not, and had to be computed by summing the averages for the two activities. This required that both entries be present for a CLEC in a specific month, which was not always the case.

The May Rose Report also had 6 negative time entries for the Numerator in Measurement 1. The TAM decided to remove these obviously erroneous entries from the analysis. They all occurred in the Mechanized Verigate category.

4.4.4.2.1 PSEUDO-CLEC VERSUS PACIFIC

A. **Address Validation:** Pacific failed to meet the benchmark for address validation queries submitted by the Pseudo-CLEC via Verigate in five of the seven months with data available, including February, March, April, June, and August. Pacific met the benchmark in January and September. Pacific met the benchmark for DataGate transactions in all seven months with available data, March through September.

B. **TN Selection:** Using Verigate, Pacific met the benchmark in all seven months with available data. Moreover, Pacific also met the benchmark in both months where data was available for DataGate.

C. **CSR Request:** Using Verigate, Pacific met the benchmark in all seven months with available data. Pacific failed to meet the benchmark in April via DataGate. However, Pacific did meet the benchmark in the last four consecutive months, the only other months with data.

D. **Service Availability:** Using Verigate, Pacific met the benchmark in all seven months with available data. Pacific met the benchmark in four of six months for DataGate. In the two months missed, July and August, the average times were just over the 5.5-second benchmark.

E. **Due Date:** Pacific failed to meet the benchmark for Verigate transactions in two of the seven months with data, including June and August 2000. In addition, Pacific failed to meet the benchmark for DataGate in three of five months, with available data, including June, July, and August.

F. **Reject/Failed Inquiries:** Pacific failed to meet the benchmark for DataGate in August 2000. Overall, Pacific met the benchmark in six of seven months with available data. For Verigate, Pacific met the benchmark for all seven months with available data.

4.4.4.2.2 PSEUDO-CLEC VERSUS COMMERCIAL CLECS

A. Results for benchmark measures for this comparison are discussed in §4.4.4.1.

4.4.4.2.3 CLECS VERSUS PACIFIC

A. **Address Validation:** Pacific met the benchmark for address validation queries submitted via Verigate or DataGate in all months with available data.

B. **TN Selection:** Pacific met the benchmark for queries submitted via Verigate or DataGate in all months with available data.

C. **CSR Request:** Pacific met the benchmark for CSR requests submitted via Verigate in all months with available data. However, Pacific failed to meet the benchmark for DataGate in three of seven months, March, April, and May, with available data.

D. **Service Availability:** Pacific met the benchmark for queries submitted via Verigate in all months with available data.

E. **Due Date:** Pacific failed to meet the benchmark for Verigate in June and August 2000. Pacific met the benchmark in the remaining five months with data, including September.

F. **Reject/Failed Inquiries:** Pacific failed to meet the benchmark for DataGate in the last three months, July through September 2000. Previously, Pacific had met the benchmark for six consecutive months. For Verigate, Pacific met the benchmark for all seven months with available data.

4.4.4.3 PERFORMANCE MEASUREMENT 2

Performance Measure 2 reports the average interval to return FOCs. This measure is reported on a statewide basis. The interval begins when a valid service request is received by Pacific, and stops when Pacific has completed the transmission of the FOC to the CLEC. This measure is

disaggregated by the method of transmission and handling as well as service group type. For each disaggregation, the benchmark is as follows: (1) 20 minutes for orders electronically received and electronically handled, (2) 6 hours for orders electronically received and manually handled, and (3) 12 hours for orders manually received and manually handled.

4.4.4.3.1 PSEUDO-CLEC VERSUS PACIFIC

A. **Electronically Received/Electronically Handled:** Pacific met the benchmark for Resale Residential POTS, 5.5 dB Analog Assured UNE loops, ISDN capable UNE loops, 4-wire Digital 1.544 Mbps capable (HDSL) UNE loops, and PNP in every month for the period December 1999 through September 2000 where data was available. Pacific met the benchmark for xDSL capable UNE loops in four of the five months considered, failing to meet the benchmark in April 2000.

B. **Electronically Received/Manually Handled:** Pacific met the benchmark for 8dB Analog Basic UNE loops, 5.5dB Analog Assured UNE Loops, ISDN capable UNE loops, xDSL capable UNE loops, UNE Platforms, and PNP in every month for which data was available. Pacific met the benchmark for 1.544 Mbps capable UNE loops in four out of five months with available data, including June through September, and missing in May.

C. **Manually Received/Manually Handled:** Pacific met the benchmark for PNP in April 2000, the only month for which data was available.

4.4.4.3.2 PSEUDO-CLEC VERSUS COMMERCIAL CLECS

A. Results of benchmark measures for this comparison are discussed in §4.4.4.1.

4.4.4.3.3 COMMERCIAL CLECS VERSUS PACIFIC

A. **Electronically Received/Electronically Handled:** Pacific met the benchmark for Resale Residential POTS, 5.5dB Analog Assured UNE loops, ISDN capable UNE loops, 4-wire Digital 1.544 Mbps capable (HDSL) UNE loops, and PNP in every month for the period December 1999 through September 2000 where data was available. Pacific met the benchmark for xDSL capable UNE loops in nine of the ten months considered, failing to meet the benchmark in August 2000. In August, Pacific provided competitors with an average FOC interval of just over 22 minutes as compared to the benchmark of 20 minutes. Pacific met the benchmark for UNE Platform orders in three of the five months with data available, January, April, and May 2000. In the two months Pacific failed to meet the benchmark, CLECs received FOC notification, on average, in over nine and a half hours in March 2000, and just over 24 minutes in February 2000.

B. **Electronically Received/Manually Handled:** Pacific met the benchmark for 8dB Analog Basic UNE loops, 5.5dB Analog Assured UNE Loops, ISDN capable UNE loops, xDSL capable UNE loops, 1.544 Mbps capable UNE loops, UNE Platforms, and PNP in every month for which data was available.

C. **Manually Received/Manually Handled:** Pacific met the benchmark for PNP in every month for which data was available.

4.4.4.4 PERFORMANCE MEASUREMENT 3

Performance Measure 3 reports the average interval to return a reject notice. This measure is reported on a statewide basis. The interval begins when a service order is received by Pacific,

and stops when Pacific completed transmission of a notice of rejection to the CLEC. This measure is disaggregated by method of transmission and adheres to the following benchmarks: 20 minutes for electronically received/handled orders; 5 hours for electronically received/manually handled orders; and 10 hours for manually received/handled orders.

4.4.4.4.1 PSEUDO-CLEC VERSUS PACIFIC

A. **Electronically Received/Electronically Handled:** Pacific met the benchmark for reject notices returned via both LEX and EDI in all months with available data.

B. **Electronically Received/Manually Handled:** Pacific met the benchmark for reject notices returned via both LEX and EDI in all months with available data.

4.4.4.4.2 PSEUDO-CLEC VERSUS COMMERCIAL CLECS

A. Results of benchmark measures for this comparison are discussed in §4.4.4.1.

4.4.4.4.3 CLECS VERSUS PACIFIC

A. **Electronically Received/Electronically Handled:** Pacific met the benchmark for reject notices returned via LEX for all months December 1999 through September 2000. Pacific met the benchmark in eight of ten months for rejects returned via EDI over the same time period, missing the benchmark in March and April 2000. In March and April, Pacific returned reject notices to CLECs in averages of just over 20 minutes and just over 22 minutes, respectively.

B. **Electronically Received/Manually Handled:** Pacific missed the benchmark for reject notices returned via LEX in December 1999 by just over 5 minutes. Pacific met the benchmark for the next nine months (January through September 2000). Pacific met the benchmark for the return of reject notices via EDI in every month, December 1999 through September 2000.

4.4.4.5 PERFORMANCE MEASUREMENT 7

Performance Measure 7 reports the average interval for service installation of new, move, and change orders. This measure excludes customer requested due dates greater than the standard interval and orders delayed for customer reasons. This measure is reported on a regional basis and adheres to the parity standard. The interval is calculated by the total business days from the receipt of a valid service request to the service completion date. This measure is disaggregated by service group type.

4.4.4.5.1 PSEUDO-CLEC VERSUS PACIFIC

A. **UNE Loop 8dB Weighted 2/4-Wire Analog Basic/Coin:** Pacific met the parity requirement in all regions and months where data was available.

B. **UNE Loop 5.5dB 2/4-Wire Analog Assured:** Pacific met the parity requirement in all regions and months where data was available.

C. **UNE Loop 2-Wire Digital ISDN Capable: In the Bay region:** Pacific met the parity requirement in each month where data was available, May through August 2000. In the South region, Pacific failed to achieve parity in May, after which, it made parity in three consecutive months June through August.

D. **UNE Loop 2-Wire Digital xDSL Capable:** Pacific met the parity requirement in all regions and months where data was available.

E. **UNE Loop 4-Wire Digital 1.544 Mbps capable/HDSL:** In the Bay and South regions, the only regions with data available, Pacific met the parity requirement in all months.

F. **UNE Basic Port/8dB Loop:** In the North region, Pacific failed to provide parity performance in February 2000. However, in all other regions, Pacific met parity in January and February, before the disaggregation on this measure by dispatch status. Beginning in March, Pacific met the parity requirement in all months and in all regions for loop with port orders regardless of dispatch status.

4.4.4.5.2 PSEUDO-CLEC VERSUS COMMERCIAL CLECS

A. **UNE Loop 8dB Weighted 2/4-Wire Analog Basic/Coin:** The Pseudo-CLECs and commercial CLECs received largely the same levels of service in all four regions. August 2000, in the South region was the only month for which the Pseudo-CLECs received significantly better service.

B. **UNE Loop 5.5dB 2/4-Wire Analog Assured:** Results for Pseudo and commercial CLECs were within parity in all four regions for months with data available in most cases. In the Bay region in April and the LA region in June, the Pseudo-CLECs received slightly better service levels than commercial CLECs. However, commercial CLECs received largely the same level of service in the remaining 12 months where data was available.

C. **UNE Loop 2-Wire Digital ISDN Capable:** Commercial and Pseudo-CLECs experienced similar installation intervals in all months where data was available.

D. **UNE Loop 2-Wire Digital xDSL Capable:** Commercial and Pseudo-CLECs experienced similar installation intervals in all months where data was available.

E. **UNE Loop 4-Wire Digital 1.544 Mbps capable/HDSL:** Commercial and Pseudo-CLECs experienced similar installation intervals in all months where data was available.

F. **UNE Basic Port/8dB Loop:** Commercial and Pseudo-CLECs experienced similar installation intervals for loop with port orders both requiring dispatch and no dispatch.

4.4.4.5.3 COMMERCIAL CLECS VERSUS PACIFIC

A. **UNE Loop 8dB Weighted 2/4-Wire Analog Basic/Coin:** In the Bay region, Pacific provided parity performance in seven of the nine months where data was available. Pacific failed to met the parity standard in May and June 2000. In the North region, Pacific provided parity performance in all nine months for which data was available. In the LA region, Pacific failed to meet the parity requirement in eight of the ten months for which data was available, meeting the parity standard in only July. In the South region, Pacific achieved parity in six of the nine months where data was available, failing in January, March, and September 2000.

B. **UNE Loop 5.5dB 2/4-Wire Analog Assured:** In the Bay region, Pacific met the parity requirement in five of the six months where data was available, failing to meet the standard in April 2000. In the North region, Pacific provided parity performance in May 2000, the only month with data available. Pacific failed to achieve parity in four of the

eight months where data was available (April, June, July, and August 2000). Pacific met parity in February, March, May, and September. In the South region, Pacific provided parity performance in six of the seven months where data was available. Pacific failed to meet parity in February 2000. There were no data available in May, July, and September 2000.

C. **UNE Loop 2-Wire Digital ISDN Capable:** In the Bay region, after meeting the parity requirement in December 1999, January 2000 and February 2000, Pacific failed to achieve parity in the next seven months. During the period March 2000 through September 2000, Pacific performance levels were well below parity. Similarly, in the South region, after providing parity performance in the first two months for which data was available (January and February 2000), Pacific failed to achieve parity over the last seven months, March through September 2000.

D. **UNE Loop 2-Wire Digital xDSL Capable:** In all four regions, Pacific provided parity performance in all months where data was available, January through May 2000.

E. **UNE Loop 4-Wire Digital 1.544 Mbps Capable/HDSL:** In both the Bay and South regions, the only regions with data available, Pacific achieved parity in all months where data was available (January through September 2000).

F. **UNE Basic Port/8dB Loop:** Beginning in March 2000, this measurement was disaggregated by fieldwork required and no fieldwork required. Prior to this, Pacific achieved parity in both months for which data was available, January and February 2000, in the North, LA, and South regions. In the Bay region, Pacific met parity in January and failed to meet parity in February. From March 2000 on, Pacific provided parity performance in all regions for all months where data was available for both fieldwork required and no fieldwork required disaggregation.

4.4.4.6 PERFORMANCE MEASUREMENT 8

Performance Measure 8 reports the percentage of orders completed within the standard interval. This measure excludes customer requested due dates greater than the standard interval, orders delayed for customer reasons, and services with flexible due dates like basic exchange services, i.e., basic loops. This measure is reported on a regional basis and adheres to the parity standard. Performance Measure 8 is disaggregated by service group type.

4.4.4.6.1 PSEUDO-CLEC VERSUS PACIFIC

A. **UNE Loop 5.5dB 2/4-Wire Analog Assured:** Pacific met parity in all regions and months where data was available.

B. **UNE Loop 2-Wire Digital ISDN Capable:** Pacific met parity in all regions and months where data was available.

C. **UNE Loop 2-Wire Digital xDSL Capable:** Pacific met parity in all regions and months where data was available.

D. **UNE Loop 4-Wire Digital 1.544 Mbps capable/HDSL:** In the Bay region, Pacific provided parity performance in four of four months with data available, May through August 2000. However, in the South region, Pacific failed to achieve parity in August, the only month with available data.

4.4.4.6.2 PSEUDO-CLEC VERSUS COMMERCIAL CLECS

A. **UNE Loop 5.5dB 2/4-Wire Analog Assured:** Results for Pseudo and commercial CLECs were nearly identical. Commercial CLECs experienced a drop off in service in September 2000, but on the whole, both parties received comparable service.

B. **UNE Loop 2-Wire Digital ISDN Capable:** Commercial and Pseudo-CLECs received similar performance levels in all months where data was available.

C. **UNE Loop 2-Wire Digital xDSL Capable:** Commercial and Pseudo-CLECs received similar performance levels in all months where data was available.

D. **UNE Loop 4-Wire Digital 1.544 Mbps Capable/HDSL:** In the Bay region, commercial and Pseudo-CLECs received similar performance levels in all months where data was available. In the South region, commercial CLECs received significantly better performance in August 2000, the only month with available data.

4.4.4.6.3 COMMERCIAL CLECS VERSUS PACIFIC

A. **UNE Loop 5.5dB 2/4-Wire Analog Assured:** In the Bay region, Pacific met parity in five of the six months with data available. Pacific failed to achieve parity in September 2000. In the North region, Pacific met parity in May 2000, the only region with data available. In the region, Pacific provided parity performance for the last seven consecutive months, the only months with data available. In the South region, after failing to meet parity in December 1999, Pacific has met parity in every month where data was available.

B. **UNE Loop 2-Wire Digital ISDN Capable:** Pacific has met the parity requirement in the months February through September 2000 in both the Bay and South regions. These are the only months and regions for which data was available.

C. **UNE Loop 2-Wire Digital xDSL Capable:** Pacific achieved parity in all regions for all months where data was available.

D. **UNE Loop 4-Wire Digital 1.544 Mbps Capable/HDSL:** In the Bay region, Pacific has met the parity requirement for the last eight consecutive months, February through September 2000, the only months with data available. In the South region, Pacific has failed to meet the parity requirement in the last three consecutive months, July through September 2000. Pacific achieved parity in all other months with data available, February through June 2000.

4.4.4.7 PERFORMANCE MEASUREMENT 9

Performance Measure 9 reports the percentage of coordinated conversions (hot cuts) completed within one hour of the committed order due time. This measure excludes CLEC caused misses and includes only orders where the CLEC requested coordination. This measure is reported on a statewide basis and adheres to the parity standard. Performance Measure 9 is disaggregated for residential, business, and PNP. There was Pseudo-CLEC activity for business conversions only.

4.4.4.7.1 PSEUDO-CLEC VERSUS PACIFIC

A. **Business:** Pacific met parity in all ten months where data was available.

4.4.4.7.2 PSEUDO-CLEC VERSUS COMMERCIAL CLECS

A. **Business:** Commercial and Pseudo-CLECs received similar service levels in all months where data was available.

4.4.4.7.3 COMMERCIAL CLECS VERSUS PACIFIC

A. **Business:** Pacific has provided performance levels well above parity levels for all months December 1999 through September 2000.

4.4.4.8 PERFORMANCE MEASUREMENT 10

Performance Measure 10 reports the percentage of PNP network provisioning failures. Although this measure was originally considered for inclusion in this analysis, there was no Pseudo-CLEC activity for this measure. Thus, this measure was not included in the statistical analysis.

4.4.4.9 PERFORMANCE MEASUREMENT 11

Performance Measure 11 reports the percentage of new, move, and change orders not completed by the due date. Customer cause missed due dates are excluded, however, in those cases, subsequent due dates are included if not missed due to customer reasons. This measure is reported on a regional basis and adheres to the parity standard. Performance Measure 11 is disaggregated by service group type and dispatch status (i.e., fieldwork/no fieldwork required). There was Pseudo-CLEC activity for the following disaggregation:

4.4.4.9.1 PSEUDO-CLEC VERSUS PACIFIC

A. **UNE Loop 8dB Weighted 2/4-Wire Analog Basic/Coin:** Pacific met parity in all regions and months where data was available.

B. **UNE Loop 5.5dB 2/4-Wire Analog Assured:** In the Bay, LA, and South regions, Pacific achieved parity in all months with available data. In the North region, Pacific met parity in four of five months with data, missing parity in July 2000.

C. **UNE Loop 2-Wire Digital ISDN Capable:** Pacific failed to achieve parity in June in the Bay region. Pacific met parity in the remaining three months with data available. In the South region, Pacific provided parity performance in four of four months with data.

D. **UNE Loop 2-Wire Digital xDSL Capable:** Pacific met parity in all regions and months where data was available.

E. **UNE Loop 4-Wire Digital 1.544 Mbps Capable/HDSL:** In the Bay region, Pacific failed to meet the parity requirement May 2000. Pacific met parity in the next three consecutive months, June through August, the only months with available data. Pacific failed to achieve parity in August for the South region, the only month with data.

F. **UNE Basic Port/8dB Loop:** For dispatched, non-dispatched, and combined disaggregation, Pacific met parity in all regions and months where data was available.

4.4.4.9.2 PSEUDO-CLEC VERSUS COMMERCIAL CLECS

A. **UNE Loop 8dB Weighted 2/4-Wire Analog Basic/Coin:** Commercial and Pseudo-CLECs received similar service levels in all months where data was available.

B. **UNE Loop 5.5dB 2/4-Wire Analog Assured:** Commercial and Pseudo-CLECs received similar, and in many cases identical, service levels in all months where data was available.

C. **UNE Loop 2-Wire Digital ISDN Capable:** Commercial and Pseudo-CLECs received similar service levels in all months where data was available.

D. **UNE Loop 2-Wire Digital xDSL Capable:** Commercial and Pseudo-CLECs received similar service levels in all months where data was available.

E. **UNE Loop 4-Wire Digital 1.544 Mbps Capable/HDSL:** In two of the five months with data available, commercial CLECs received significantly better service levels than the Pseudo-CLECs. In the remaining months, the two parties received similar performance levels.

F. **UNE Basic Port/8dB Loop:** The Pseudo-CLECs received significantly better performance than commercial CLECs in the Bay area in the months January and February 2000. For the same period in LA and South, the two parties experienced identical service levels. Upon disaggregation of this measure by dispatch status in March 2000, both parties received identical performance levels in all regions.

4.4.4.9.3 COMMERCIAL CLECS VERSUS PACIFIC

A. **UNE Loop 8dB Weighted 2/4-Wire Analog Basic/Coin:** Pacific achieved parity for all regions for the months February through September 2000, the only months with data available.

B. **UNE Loop 5.5dB 2/4-Wire Analog Assured:** In the Bay region, Pacific provided parity performance in eight of the nine months where data was available. Pacific failed to provide parity in July 2000. Pacific met the parity requirement in all four of the months where data was available, January, February, April and May 2000. In the LA region, Pacific failed to meet parity in January 2000 and met parity for the next eight consecutive months. Pacific met the parity requirement in all nine of the months where data was available in the South region.

C. **UNE Loop 2-Wire Digital ISDN Capable:** In the Bay region, Pacific failed to achieve parity in four of the nine months for which data was available (April, May, July and September 2000). By contrast, Pacific met the parity requirement in eight of the nine months in the South region, missing parity only in April 2000.

D. **UNE Loop 2-Wire Digital xDSL Capable:** In the Bay and North regions, Pacific met parity in all months with data available, January through May 2000. Similarly, in the LA and South regions, Pacific met parity in all months with available data, December 1999 through May 2000.

E. **UNE Loop 4-Wire Digital 1.544 Mbps Capable/HDSL:** In the Bay region, Pacific achieved parity in the last eight consecutive months, the only months where data was available. In the South region, Pacific met parity six of the eight months where data was available. However, the two months that parity was not met were the most recent, August and September 2000.

F. **UNE Basic Port/8dB Loop:** Prior to March 2000, this measure was not disaggregation by dispatch status. In the Bay region, Pacific met parity in January 2000 and failed to

meet parity in February 2000. Pacific met the parity requirement for both these months in the LA and South regions. There was no data for these months in the North region. Beginning in March 2000, for loop with port orders requiring no fieldwork, Pacific achieved parity in all four regions where data was available. For orders requiring fieldwork, Pacific provided parity performance in June, but failed to do so in July. In the South region, Pacific met parity in March, the only month with data available.

4.4.4.10 PERFORMANCE MEASUREMENT 18

Performance Measure 18 reports the average interval to notify CLECs of order completion. The interval begins when work on the order is completed, and stops when Pacific completes transmission of the completion notification to the CLEC. This measure is reported on a statewide basis and adheres to a benchmark standard. This measure is disaggregated by interface (e.g., LEX/EDI). There was Pseudo-CLEC for the following disaggregation:

4.4.4.10.1 PSEUDO-CLEC VERSUS PACIFIC

A. **LEX/EDI:** After meeting the benchmark in December 1999 and January 2000, Pacific failed to achieve parity in four consecutive months, February through May 2000. Pacific met parity in the last four months, June through September.

4.4.4.10.2 PSEUDO-CLEC VERSUS COMMERCIAL CLECS

A. Results for benchmark measures for this comparison are discussed in §4.4.4.1.

4.4.4.10.3 COMMERCIAL CLECS VERSUS PACIFIC

A. **LEX/EDI:** Pacific failed to achieve parity in any month, December 1999 through September 2000.

4.4.4.11 PERFORMANCE MEASUREMENT 20

Performance Measure 20 reports the percentage of customer troubles not repaired by the appointment time. This measure excludes all customer premise equipment (CPE) and CLEC caused troubles, CLEC caused missed appointments, and subsequent reports. This measure is reported on a statewide basis and adheres to the parity standard. Performance Measure 20 is disaggregated by service group type and dispatch status. For the Pseudo-CLEC, this measure includes induced and unplanned troubles as part of the test.

4.4.4.11.1 PSEUDO-CLEC VERSUS PACIFIC

A. **UNE Loop 8dB Weighted 2/4-Wire Analog Basic/Coin:** Pacific met parity in all months where data was available.

B. **UNE Loop 5.5dB 2/4-Wire Analog Assured:** Pacific failed to resolve trouble reports requiring dispatch in June 2000, the only month with available data. By contrast, Pacific met parity in both June and July for trouble reports requiring no dispatch, the only months with data.

C. **UNE Platform:** Pacific met parity in all months where data was available.

4.4.4.11.2 PSEUDO-CLEC VERSUS COMMERCIAL CLECS

A. In all disaggregation and months for this measure, commercial and Pseudo-CLECs received similar performance levels.

4.4.4.11.3 COMMERCIAL CLECS VERSUS PACIFIC

A. **UNE Loop 8dB Weighted 2/4-Wire Analog Basic/Coin:** Pacific provided parity performance for trouble reports requiring dispatch in five of the seven months with data available. Pacific failed to achieve parity in June and September 2000. For trouble reports requiring no dispatch, Pacific met parity in the last seven consecutive months, the only months with data available.

B. **UNE Loop 5.5dB 2/4-Wire Analog Assured:** Pacific achieved parity in eight of the nine months for trouble reports requiring dispatch, missing parity in February 2000. For trouble reports requiring no dispatch, Pacific failed to met parity in September 2000, but met parity in the previous five months, the only with data available.

C. **UNE Loop 2-Wire Digital xDSL Capable:** Pacific provided parity performance for trouble reports requiring both dispatch and no dispatch in all four months for which data was available, January, March, April, and May 2000.

D. **UNE Platform:** Pacific achieved parity for both dispatch and non-dispatch trouble reports in all months where data was available.

4.4.4.12 PERFORMANCE MEASUREMENT 21

Performance Measure 21 reports the average interval to clear customer trouble reports. This interval begins when Pacific receives a customer trouble report, and ends when the trouble is cleared. This measure excludes all customer premise equipment (CPE) and CLEC caused troubles and subsequent reports. This measure is reported on a statewide basis and adheres to the parity standard. Performance Measure 21 is disaggregated by service group type and dispatch status. For the Pseudo-CLEC, this measure includes planned and unplanned troubles as part of the test**.**

4.4.4.12.1 PSEUDO-CLEC VERSUS PACIFIC

A. **UNE Loop 8dB Weighted 2/4-Wire Analog Basic/Coin:** Pacific met parity in all months where data was available.

B. **UNE Loop 5.5dB 2/4-Wire Analog Assured:** Pacific met parity in all months where data was available.

C. **UNE Platform:** For trouble reports requiring dispatch, Pacific failed to meet the parity requirement in March 2000. Pacific met parity in April and June, the only other months with data. Pacific provided parity performance in all months with available data for trouble reports requiring no dispatch.

4.4.4.12.2 PSEUDO-CLEC VERSUS COMMERCIAL CLECS

A. In all disaggregation and months for this measure, commercial and Pseudo-CLECs received similar performance levels.

4.4.4.12.3 COMMERCIAL CLECS VERSUS PACIFIC

A. **UNE Loop 8dB Weighted 2/4-Wire Analog Basic/Coin:** Pacific failed to achieve parity three of the seven months where data was available including May, August, and September 2000 for trouble reports requiring dispatch. However, for trouble reports not requiring dispatch, Pacific met parity in all seven months where data was available.

B. **UNE Loop 5.5dB 2/4-Wire Analog Assured:** After failing to meet parity in January 2000 for trouble tickets requiring dispatch, Pacific achieved parity in each of the following eight months. For trouble tickets requiring no dispatch, Pacific met the parity requirement in six of the eight months for which data was available. Pacific failed to provide parity performance in April and September 2000.

C. **UNE Loop 2-Wire Digital xDSL Capable:** Pacific met parity in all three months for which data was available (March through May 2000) for both dispatch and non-dispatch trouble reports.

D. **UNE Platform:** For trouble reports requiring dispatch, Pacific met parity in March, April, and September 2000, but failed to do so in July. For trouble reports requiring no dispatch, Pacific failed to achieve parity in September 2000. Pacific met parity in March and July 2000.

4.4.4.13 PERFORMANCE MEASUREMENT 28

Performance Measure 28 reports the elapsed time between the recording of usage data generated by CLEC retail customers or access usage associated with CLEC customers and when the data is transmitted to the CLEC. This performance measure is reported on a statewide basis and adheres to the parity standard for the resale and UNE disaggregation and a 95% benchmark standard for switched assess disaggregation.

4.4.4.13.1 PSEUDO-CLEC VERSUS PACIFIC

A. **Unbundled:** Pacific met parity in all months with available data, March through September 2000.

B. **Meet Point:** Pacific met parity in May 2000, the only month with data.

4.4.4.13.2 PSEUDO-CLEC VERSUS COMMERCIAL CLECS

A. **Unbundled:** Commercial and Pseudo-CLECs received similar performance levels in all months where data was available.

B. **Meet Point:** Results for benchmark measures for this comparison are discussed in §4.4.4.1.

4.4.4.13.3 COMMERCIAL CLECS VERSUS PACIFIC

A. **Unbundled:** Pacific achieved parity for all seven months for which data was available, March through September 2000.

B. **Meet Point:** Pacific met the benchmark for this measure in every month, December 1999 through September 2000.

4.4.4.14 PERFORMANCE MEASUREMENT 30

Performance Measure 30 reports the percentage of bills transmitted within 10 days of the close of a bill cycle by Pacific's to the CLEC. This measure includes only mechanized bills and excludes all paper, magnetic, CD ROM or diskette bills. Performance Measure 30 is reported on a statewide basis and adheres to a 99% benchmark standard. This measure is disaggregated for Resale, UNE, and facilities/interconnection.

4.4.4.14.1 PSEUDO-CLEC VERSUS PACIFIC

A. Pacific met the benchmark for both the Unbundled and Facilities/Interconnection disaggregation in all months where data was available.

4.4.4.14.2 PSEUDO-CLEC VERSUS COMMERCIAL CLECS

A. Results for benchmark measures for this comparison are discussed in §4.4.4.1.

4.4.4.14.3 COMMERCIAL CLECS VERSUS PACIFIC

A. Pacific met the benchmark for both the Unbundled and Facilities/Interconnection disaggregation in all months where data was available.

4.4.4.15 PERFORMANCE MEASUREMENT 31

Performance Measure 31 reports the percentage of usage charges appearing on the correct bill. This measure considers the count of usage charges and not actual monies charged. Summarized charges are excluded from the measure. This measure is reported on a statewide basis and adheres to the parity standard for the Resale and UNE disaggregation and a benchmark standard for facilities/interconnection.

4.4.4.15.1 PSEUDO-CLEC VERSUS PACIFIC

A. **Unbundled:** Pacific met parity in five of seven months with available data. Pacific failed to achieve parity in May and June 2000.

4.4.4.15.2 PSEUDO-CLEC VERSUS COMMERCIAL CLECS

A. **Unbundled:** Pseudo-CLECs received consistently superior performance levels for this measures in all months with available data, March through September 2000.

4.4.4.15.3 COMMERCIAL CLECS VERSUS PACIFIC

A. **Unbundled:** Pacific failed to meet the parity requirement in each of the six months for which data was available, March through September 2000.

4.4.4.16 PERFORMANCE MEASUREMENT 32

Performance Measure 32 reports the percentage of fractional recurring charges that appear on the correct bill. This measure considers the count of recurring charges and not actual monies charged. This measure is reported on a statewide basis and adheres to the parity standard for the Resale and UNE POTS disaggregation and a 90% benchmark standard for facilities/interconnection and UNE Specials disaggregation.

4.4.4.16.1 PSEUDO-CLEC VERSUS PACIFIC

A. **UNE POTS:** Pacific met parity in all months where data was available, including May through September 2000.

B. **UNE Other:** Pacific met the benchmark in all months where data was available, including April through September 2000.

C. **Facilities/Interconnection:** Pacific met the benchmark in seven of eight months with available data. Pacific failed to meet the benchmark in June.

4.4.4.16.2 PSEUDO-CLEC VERSUS COMMERCIAL CLECS

A. **UNE POTS:** Pseudo-CLECs received consistently superior performance levels for this measures in all months with available data, May through September 2000.

4.4.4.16.3 COMMERCIAL CLECS VERSUS PACIFIC

A. **UNE POTS:** Pacific met the parity requirement in each of the last five months, May through September 2000, the only months in which data was available.

B. **UNE Other:** Pacific met the benchmark in seven of ten months. However, Pacific failed to meet the benchmark in three consecutive months, June, July, and August 2000. CLEC results for these months were 43%, 69%, and 82%, respectively.

C. **Facilities/Interconnection:** Pacific failed to meet the benchmark for eight of ten months. The only months in which Pacific provided parity performance were July and August 2000.

4.4.4.17 PERFORMANCE MEASUREMENT 33

Performance Measure 33 reports the percentage of non-recurring charges that appear on the correct bill. This measure considers the count of non-recurring charges and not actual monies charged. This measure is reported on a statewide basis and adheres to the parity standard for the Resale and UNE POTS disaggregation and a 90% benchmark standard for facilities/interconnection and UNE Specials disaggregation.

4.4.4.17.1 PSEUDO-CLEC VERSUS PACIFIC

A. **UNE POTS:** Pacific met parity in all months where data was available.

4.4.4.17.2 PSEUDO-CLEC VERSUS COMMERCIAL CLECS

A. **UNE POTS:** Commercial CLECs received similar or better performance levels in three of the six months where data was available, including June, July, and September 2000. However, Pseudo-CLECs received significantly better service in the remaining three months, April, May, and August.

4.4.4.17.3 COMMERCIAL CLECS VERSUS PACIFIC

A. **UNE POTS:** Pacific provided parity performance in each of the seven months for which data was available, March to September 2000.

B. **UNE Other:** Pacific met the benchmark in six of ten months. Pacific missed the benchmark in four consecutive months, January through April 2000, then made the benchmark for the last five months. CLEC results for the months January through April were 81%, 81%, 79%, and 76%, respectively.

C. **Facilities/Interconnection:** Pacific met the benchmark in seven of ten months. Pacific failed to meet the benchmark in December 1999 and January and June 2000. The CLEC results for these months were 50%, 54%, and 61%, respectively.

4.4.4.18 PERFORMANCE MEASUREMENT 34

Performance Measure 34 reports the percentage of the total bill amount that is not corrected. This measure is calculated by dividing the total monies billed without corrections by the total monies billed. This measure is reported on a statewide basis and adheres to the parity standard

for the Resale and UNE POTS disaggregation and a benchmark standard for facilities/interconnection and UNE Specials disaggregation. The measure is also disaggregated by recurring and non-recurring charges as well as usage.

4.4.4.18.1 PSEUDO-CLEC VERSUS PACIFIC

A. **UNE Other:** Pacific met the benchmark in all four months where data was available for both recurring and non-recurring charges.

B. **Facilities/Interconnection:** Pacific met the benchmark in all nine months where data was available for both recurring and non-recurring charges.

C. **UNE POTS:** Pacific met parity in all months where data was available for both usage and recurring charges. Pacific failed to meet parity in March for non-recurring charges. Pacific met parity in the next six consecutive months, April through September 2000.

4.4.4.18.2 PSEUDO-CLEC VERSUS COMMERCIAL CLECS

A. **UNE POTS:** Commercial and Pseudo-CLECs received identical performance levels for the usage disagreggation in five of seven months. However, in March and September 2000, usage bill accuracy for commercial CLECs dropped below 10% as compared to 100% for the Pseudo-CLECs. The two parties experienced identical results for recurring charges during the period March through September 2000. As compared to commercial CLECs, Pseudo-CLECs experienced lower performance levels in March and slightly better levels in April, followed by identical results for the months May through September.

4.4.4.18.3 COMMERCIAL CLECS VERSUS PACIFIC

A. **UNE Other:** Pacific met the benchmark for all ten months for both the recurring and non-recurring disaggregation.

B. **Facilities Interconnection:** Pacific met the benchmark for recurring changes in all ten months. For non-recurring charges, Pacific met the benchmark in eight of ten months. Pacific failed to make the benchmark in March and April 2000, with results of 88% and 92%.

C. **UNE POTS:** Pacific provided parity performance for recurring charges all seven months for which data was available, March through September 2000. Pacific met parity for non-recurring charges in six of the same seven months, failing to meet parity in April. For usage, Pacific failed to achieve parity in March and September 2000, while meeting parity in each of the intervening months, April through August.

4.4.4.19 PERFORMANCE MEASUREMENT 37

Performance Measure 37 reports the average time to update directory assistance/listings database. This measure is reported on a statewide basis and adheres to the parity standard for service order generated updates and a benchmark standard for direct gateway input. There was Pseudo-CLEC activity for service order generated updates only.

4.4.4.19.1 PSEUDO-CLEC VERSUS PACIFIC

A. **Service Order Generated Updates:** Pacific met the parity requirement for all ten months.

4.4.4.19.2 PSEUDO-CLEC VERSUS COMMERCIAL CLECS

A. **Service Order Generated Updates:** Commercial and Pseudo-CLECs received similar performance levels in all months where data was available.

4.4.4.19.3 COMMERCIAL CLECS VERSUS PACIFIC

A. **Service Order Generated Updates:** Pacific met the parity requirement for all ten months.

4.4.4.20 PERFORMANCE MEASUREMENT 38

Performance Measure 38 reports the percentage of 911 and directory assistance/listings database updates completed without error, customer caused errors excluded. This measure is reported on a statewide basis and adheres to the parity standard for all disaggregation. There was Pseudo-CLEC activity for both 911 and directory assistance/listings databases by service order generated updates.

4.4.4.20.1 PSEUDO-CLEC VERSUS PACIFIC

A. **Service Order Generated Updates:** Pacific failed to meet the parity requirement in September 2000. Previously, Pacific had achieved parity in all five months with available data.

4.4.4.20.2 PSEUDO-CLEC VERSUS COMMERCIAL CLECS

A. **Service Order Generated Updates:** Commercial and Pseudo-CLECs experienced identical performance levels for D/A listings updates in all months, December 1999 through September 2000. In addition, results for the two parties for E911 database updates were substantially similar in five of six months, with August 2000 slightly out of parity.

4.4.4.20.3 COMMERCIAL CLECS VERSUS PACIFIC

A. **Service Order Generated Updates:** Pacific achieved parity in seven of eight months where data was available. Pacific failed to meet parity in May 2000.

4.4.4.21 PERFORMANCE MEASUREMENT 39

Performance Measure 39 reports the percentage of E911/911 database updates completed within 48 hours. This measure is reported on a statewide basis and adheres to the parity standard for service order generated updates and a benchmark standard for direct gateway input updates. There was Pseudo-CLEC activity for both service order generated and direct gateway input updates.

4.4.4.21.1 PSEUDO-CLEC VERSUS PACIFIC

A. **Service Order Generated Updates:** Pacific met the parity requirement in all six months with available data.

B. **Direct Gateway Updates:** Pacific achieved parity in five consecutive months, December 1999 through April 2000, the only months with available data.

4.4.4.21.2 PSEUDO-CLEC VERSUS COMMERCIAL CLECS

A. **Service Order Generated Updates:** Commercial and Pseudo-CLECs experienced identical performance levels in five of six months where data was available.

4.4.4.21.3 COMMERCIAL CLECS VERSUS PACIFIC

A. **Service Order Generated Updates:** Pacific met parity in each of the seven months with data available.

B. **Direct Gateway Updates:** Pacific met the benchmark in all ten months.

4.4.5 Recommendations

The TAM was unable to perform many of the desired statistical tests and analyses due to insufficient data. The TAM would recommend that the analysis of Pacific performance data continue.

The TAM recommends the application of a statistical evaluation to measures with benchmarks. For reasons explained above, this is the only way to fairly evaluate Pacific's service provisioning performance.

4.5 Change Management (CM)

4.5.1 Overview

The CM Process is a critical part of any organization. If proper Change Management is not in place, control, maintenance, or coordination of OSS system changes and their effect on the CLEC users does not exist.

The Pacific CM Process was reviewed to determine if a valid process was in place, whether or not the process worked as advertised, and if it was useful to the customers. The effectiveness of the CM process in notifying the users and the clarity of its notifications was also considered.

4.5.2 Scope

The scope of the CM evaluation was the review of process functionality during a software release in October 1999. The reason for this determination was the original length of the Test Effort did not cover a time period when a software release was scheduled.

4.5.3 CM/CLEC Interaction

The interaction between the CM team and the CLEC included the documentation provided by Pacific in either hard/soft copy or through the Pacific web site, meetings, and through notifications.

4.5.3.1 CM DOCUMENATION

The CM Process document is maintained on the Pacific web site and is easy to locate. Once access is acquired into the Pacific web site, the CM Icon is selected. This will locate the user into the Pacific web site with the CM Procedure accessible for review. The document is divided into sections that address the various types of changes that can be made. At the time of the review, the only documentation available on the web site was the CM Process documentation for the state of California (Pacific territory).

The following was the documentation provided by Pacific or accessed from their web site:

A. Pacific Bell CLEC Interface Change Management Process, 4/28/99 version

B. SBC CLEC Interface Change Management Process (8 State), 10/11/99 version

C. SBC CLEC Interface Change Management Process (13 State) (Draft), 2/11/00 version

D. Local Competition 10/23 Release System Test Plan (Draft), prepared 8/11/99, updated 2/22/00

E. Pacific Bell, Nevada Bell, Southwestern Bell LSR EDI Joint Test Plan Template, prepared 4/2/98, updated 9/18/99

F. Contingency Plan – LASR

G. Contingency Plan – LEX

H. Contingency Plan – LASR GUI

4.5.3.2 CM MEETINGS

Regular meetings are held on a quarterly basis with notification sent to the CLECs through Accessible Letters. These meetings are designed to discuss impending changes to software, changes to the CM process, and problems encountered by Pacific and the CLEC community. The meetings are well attended by the CLEC community with a conference bridge provided for those who cannot attend in person. All voting matters require a quorum of the CLEC voting members.

4.5.3.3 CM NOTIFICATION

The predominant method of notification between Pacific and the CLEC community is a process called Accessible Letters. Each CLEC doing business with Pacific provides a point of contact (POC) for receipt of these letters. The letters provide on-going information about software releases, CM meetings, special meetings, Pacific changes that affect the CLEC process, and changes to the CM process. The Pacific CM team provided the documentation and access to their team managers. The TAM representative was added to the mailing list for the Accessible Letter process.

The letters are e-mailed to the CLEC POC and maintained on the Pacific web site. The letters are sent out in a timely manner and are accessible by the recipients. One problem encountered was access to the letters through the web site. This is a problem with Microsoft Word 97 and is discussed in detail in §4.5.5.

4.5.4 Change Management Process

An integral part of the CM Process is the software implementation, which is performed in St. Louis, Missouri and San Ramon, California. St. Louis being the location for the software development staff and Internal Test teams, and the CLEC Test Coordination team being located in San Ramon.

OSS changes occur due to modifications requested by CLECs, system upgrades, and regulatory changes. The following sections describe the process performed by Pacific for the software change implementation process.

4.5.4.1 REQUIREMENTS DEFINITION

When a change is required, a team is assigned to perform the requirement analysis. This team researches the changes and defines the business requirements. The Release Management Organization group performs the analysis of the requirements. This involves ensuring the requirements are clearly defined and achievable, the requirements are ordered into functions, the

time allotted is correct, and that the system will be available at the proposed time for the implementation.

Once the business requirements have been written, they are given to the Software Development and Internal Test teams, both of which are tasked to review the requirements. A walk-through of the requirements is performed for the two teams, providing these teams the ability to clarify requirements and ensure full understanding. Once the requirements have been defined, a time frame for completion is determined and a target date set for commencement of the task.

The initial requirements for a release are distributed to the CLECs approximately 152 days prior to implementation. A conference call is scheduled to review these requirements within 10 days of issuance. If there are changes to the initial requirements, they are made and another walk-through is performed three days prior to final requirements release.

The final requirements are issued to the CLECs through an Accessible Letter 120 days prior to the beginning of the software implementation. The CLECs have a defined time period to review the requirements and issue questions/issues to the Pacific CM team. These questions/issues are addressed by Pacific and sent to the CLECs. A release date is set and if no further questions or issues are raised, the requirements are turned over to the development staff.

At any time during the process, a CLEC can request an Outstanding Issue Solution (OIS), which is a request for a formal review of the change. The CLEC will raise their concerns about the changes (e.g., turn around time, affect of change on the CLEC system). The whole CLEC representation votes whether the change is halted, deferred or continued.

4.5.4.2 SOFTWARE DEVELOPMENT PROCESS

4.5.4.2.1 SOFTWARE DEVELOPMENT

A software development team is assigned to perform the development of the software. This involves making changes to existing software and/or development of new software. This development is performed in an environment that is separate from the production environment, which prevents problems occurring that could disrupt the day-to-day operations of the existing system. The development environment is maintained and controlled through defined configuration management procedures.

4.5.4.2.2 DEVELOPMENT TEST EFFORT

This provides the test team a time line of when testing is to commence. Also, it allows the test team to generate a timeline which identifies what is needed to accomplish the task and identifies when they need to be ready to begin testing and how much time will be required. This implementation test effort involves the program and module testing.

Individual developers are responsible for the testing of the programs as they are modified or developed. They also are responsible for developing the test cases and data for each program they are assigned. If programs are integrated to form a module, testing is performed to ensure the programs work together and pass any appropriate data correctly. This testing is performed against the code.

4.5.4.3 IMPLEMENTATION TEST EFFORT

Once the program testing is complete, it is the responsibility of the Implementation Test Team (ITT) to perform the system implementation testing. Test cases and data are prepared based on

the requirements developed. This team is independent from the development team, which allows for needed autonomy for testing and ensuring that the developed software works as intended.

The ITT is tasked with the responsibility of ensuring that the programs developed work as defined on an individual level and work together as needed. This involves code testing, quality testing, and interface testing.

The ITT follows pre-set procedures to track the testing performed as well as identification and resolution of problems encountered. The ITT team maintains a tracking database for the test cases and problems encountered. The results of the test cases are maintained in the database, which provides the information of success or failure for each case and the results of the tests. If regression testing is required, this database provides the needed results from previous tests for the results comparison.

Problems encountered during the test effort are noted and tracked. The individual responsible for the program(s) is notified. The analysis of the problem is performed and the required fix identified. Both the development team and the systems team to determine what the problem is perform the analysis of the problem. A "time to fix" is determined and agreed upon. Once the problem is fixed, it is turned over to ITT again for continued testing.

4.5.4.3.1 CLEC TEST EFFORT

The CM Process is the final testing performed by the CLEC community. This is the end-user testing. Again, it is done in a controlled atmosphere with planning and direction by Pacific. This effort begins when the Implementation testing is complete and a determination has been made that the software is ready for release. The CLEC test effort is a 30-day test period prior to implementation of the software.

An Accessible Letter is issued with the final requirements for a system change 120 days prior to the beginning of the software implementation. In this letter, a request is made for the CLECs to notify Pacific of their interest in being part of the CLEC test effort.

The Pacific CLEC Test Team, in collaboration with the test CLECs, generates the test cases and test data in preparation for the test effort. The test cases are generated against the system requirements to ensure that the developed software meets the approved design of the system. When the Integration Testing is complete the software is migrated to the CLEC Test environment. The CLECs, identified as the CLEC Test Team for the software release, execute the test cases in a controlled test environment. During the CLEC test effort, each CLEC is assigned a Pacific Test Manager who works with the CLEC test team and interfaces with the other Pacific Test Managers on a daily basis. This interfacing helps to ensure cohesiveness of the tests across all CLECs.

The results of the tests are tracked in the same manner as the tests in the Implementation Test Effort. Problems encountered are tracked and maintained. These problems are turned over to the development staff for resolution. Once the problem (application or system software) is corrected, the changed software is migrated to the CLEC Test environment and the testing continues.

If problems are encountered that will cause a delay in the implementation, the CLEC community is notified. During this process the CLECs may request an OIS.

When the software has been successfully tested, it is migrated to the production environment. Notification is made to the CLEC community that the implementation has been accomplished.

Pacific works closely with the CLECs to assist them, as needed, with testing and with changes required for the CLEC systems to integrate properly with the modified software.

4.5.5 Problems Encountered

4.5.5.1 ACCESSIBLE LETTER ACCESS

One problem encountered was the access of the Accessible Letters. These letters are the notification provided by Pacific to all CLECs. When accessing the letters through the Pacific Web Site, we encountered a problem with the ability to retrieve the letters. In researching the problem, it was learned that the Web Microsoft Word version was Word95 while our system uses Word97. This causes a compatibility problem. While this is a system problem not an application problem and is due to a quirk with Microsoft, it needs to be noted as it prevents total access to the Pacific CLEC notification system.

This problem is lessened somewhat due to the fact that the CLEC Point of Contact (POC) for the Accessible Letters is e-mailed a copy of each newly issued Accessible Letter and those were accessible through both Word95 and Word97. However, there still remains the problem of being able to access older letters through the web page.

4.5.5.2 CHANGE MANAGEMENT FUTURE

The merger of numerous Bell companies and other telecommunications companies into one telecommunications company, SBC Communications, Inc., had spawned an effort to create one Change Management process that will cover all the companies within SBC.

The CM review performed by the TAM was limited to the October 1999 release of software. The CM process in place at that time was the SBC 8-State process that had evolved from the Pacific CM process.

At the end of 1999, SBC acquired the five Ameritech telecommunication companies (Illinois, Indiana, Michigan, Ohio, and Wisconsin). The SBC CM management tasked a team to put together a 13-State CM Process. The basis for the new process was the SBC 8-State CM process and was made up of members from SBC and the CLEC community.

When the draft was complete it was sent to all the participating CLECs for review. Meetings were held to provide the newly incorporated CLEC members of the SBC 13-State alliance to review the 13-State draft and a forum for the existing 8-State CLEC members to review and give feedback on the new process. The review process raised a number of issues and concerns that required additional research and updates to the draft. These items were assigned to the team to complete. A tentative date for the next meeting was set.

Several challenges of implementing the CM process across all the companies were noted that needed to be address by the SBC CM team. These included the existence of multiple platforms among the companies and setting up a test bed in the Ameritech companies. It was the 8-State CM policy to move software to a test platform where the CLECs had one month to test the changes. The software was then implemented on the production system after it had been tested. The Ameritech policy had been to make the changes and do the CLEC testing after it has been implemented on the production platform. The CM management was aware of these conditions and was working on the resolution.

Subsequent meetings after the initial 13-State CM process review were not attended by the TAM member as it was determined that this was out of scope of the original CPUC review. There appeared to be minimal changes between the 8-State and 13-State CM process, however the final outcome of the review meetings and issuance of the 13-State CM process was not reviewed by the TAM. It is recommended that a thorough analysis of the 13-State CM process should be performed to ensure that there are no major differences and how any differences will affect the CLECs in all the states.

During the CPUC Test Effort and the CM evaluation, concerns have risen that affect the CLECs in this process. According to one or some CLECs, the March release of software did not work as advertised in the requirements definition Accessible Letter. The appearance being that the system was not coded to the design specs. This was compounded when the problem was not discovered during the Pacific Implementation test effort. This problem was observed by CLECs during their test period. Concern was raised on the part of CLECs on two points: (1) was the software coded to the requirements, and (2) did the Implementation Test Team test to the code or the requirements.

Although the Pacific CM process worked well as analyzed, these types of concerns, if not communicated through proper CM, could and might cause problems for the CLECs in the future. Unless the process is maintained to a high standard, which Pacific has defined, the potential for a breakdown of the CM process is dangerously real. Without proper CM, control of systems changes, organization of the development and test effort, communication and good working relationships with the CLECs could be lost.

4.5.5.3 PACIFIC DOCUMENTATION

The various CM teams appear to have a smooth flowing operation both within a team and between teams. The one concern, however, is that not all teams have documented procedures to follow, which can cause a problem as new employees are brought on board. If a new employee is instructed in how things work, and something is not mentioned, a situation could arise and cause a problem in the actual testing. Formal test procedures need to be generated to ensure the continuity and quality of testing they are striving for.

With the merging of multiple ILECs through SBC, it is imperative that the documentation be created and maintained to ensure that it is always ‘up to date’. A missed procedure within the originator (Pacific) can be caught and corrected quickly but within another organization it may be a lost procedure that is not discovered on time and causes additional problems in the future.

4.5.6 Results

The results of the CM evaluation were:

A. The process is very solid and works well as defined for Pacific.

B. An evaluation of the 13-state process being used by SBC which affects Pacific in an on-going basis needs to be performed.

C. The internal documentation for the CM teams who perform the software changes needs to be developed and maintained.

D. The access to the Accessible Letters on the web via Microsoft Word95 only needs to be addressed.

4.6 Training

4.6.1 Overview

Proper training of personnel, either ILEC or CLEC, is essential to an efficient, well-honed process. Employees must receive training to provide them with a complete understanding of how the product works for the ILEC, what problems can occur and how to handle them, and an in-depth knowledge so that they can perform their day-to-day assignment in the most efficient manner.

The TG staff attended the majority of the training taken for the Test Effort. Their assessment of the training they attended is included in their final report. This review of the training will cover the training attended by the Bill Validation Team and the Capacity Test Team

4.6.2 Bill training

The Bill Validation team attended the CLEC Workshop Billing course in Oakland, CA on January 25, 2000. The training was attended by the two members of the TAM Bill Validation team. Pacific described the training as "an instructor-led workshop designed to help CLEC customers read and interpret the bills received from Pacific and Nevada Bell Telephone companies for resold services, UNE, interconnection and inter-company compensation. CRIS, CABS and inter-company compensation billing will be discussed. This workshop also covers interpreting end-user customer service records". Our expectations were to receive some direction for performing the bill validation, including learning the correlation between the USOC codes and the tariff tables, and how to determine whether the end-user daily usage files are captured correctly on the bills.

The course was introduced as a train-the-trainer program[12]. During the expectation setting portion, we mentioned our two needs of learning the correlation between the USOCs and the tariff tables and how to validating the daily usage files to the bill. Neither of these issues was addressed in the training session.

The purpose of the course was to review the paper bill and provide an explanation of each section. There was no in-depth detail as to where the information came from or how the CLEC could validate that it was correct.

The training session was a section by section walk-through. It was kept high level with minimal explanation of how the data was associated to the CABS files. There was no explanation of the selection criteria within the process or the rules for determining how the CABS file records got selected. When this was questioned, it was noted that this training did not cover this subject and we should talk to the account manager. In researching the concern, it was discovered that Pacific does not offer a course on bill validation.

The course was too generalized. Most of the information presented in the class was already learned through trial and error. Course materials were provided for the attendees to take with them. Each student received a hardcopy of the student guide and each CLEC received both a hardcopy and softcopy of the instructor guide and student guide. These materials consist of the documentation to be used by the students when teaching this course to others.

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[12] According to the Customer Education portion of the CLEC Handbook, "All workshops and classes are "train-the-trainer" format.

When questioned about the format of the CABS files and how they correlated to the paper bills, Pacific indicated that the answer would be located in Telcordia's documentation on the CABS formats. It is a concern that the ILEC requires their customers (CLECs) to purchase documentation that the ILEC should provide as part of the billing service. The standard policy in the computer industry is to provide documentation with a purchased product.

This course was not a train-the-trainer type of program. The level of effort required to train an individual and equip them with the knowledge to take the training to the masses should be in-depth. A person cannot do a valid job of training if they do not know the product in-depth.

4.6.3 Toolbar Training

The Toolbar Training session was attended in Torrance, California in November 1999. The course was a four-hour overview of Toolbar. The expectation of the course was to get training in how to use Toolbar on the Pacific facilities.

The class size was excellent, as there was only one attendee and two instructors to teach the course. The student received uninterrupted attention and instruction. The computer interface functioned and the classroom was very conducive for learning. Both instructors were very knowledgeable of the industry and knew the course materials.

The course was described as a train-the-trainer program. This course was a four-hour overview of the product and did not provide enough depth and information for the attendee to be able to properly fill the role of a trainer to others.

The course materials were generated to cover the Toolbar product used by Southwestern Bell Corporation (SBC), Pacific Bell, and Nevada Bell. The sections were written to cover all three platforms causing the student to have to discern which part of the book related to the product being used. Both a hardcopy and softcopy of the course materials were provided to the student.

4.6.4 Problems Encountered

4.6.4.1 COURSE DESCRIPTION

The description of the CLEC Workshop Billing course, which is located on the Pacific web site, was not consistent with what was taught. The course content and description need to be aligned.

4.6.4.2 DOCUMENATION

4.6.4.2.1 BILL VALIDATION

The Instructors handbook provides instructions of how to present the training and what handouts to use but does not go into detail of what knowledge to impart. In many cases, the course attendees are not going to go back and start teaching the course the very next week at their home site. The instructor handbook becomes minimally useful after a short period of time as it depends on the attendee to have taken copious notes in class or have a perfect memory of what was taught. The Instructors handbook needs to be a complete detail of the information required to teach others.

Another concern is that the training included review of the CLEC Handbook located on the Pacific web site. A problem was encountered when accessing the Pacific web site, due to a conflict between the word processing software used by Pacific and the TAM. Pacific uses Microsoft Word95, while Microsoft Word97 is used by the TAM. A Word95 document cannot be opened on a machine that has Word97 loaded. It is a Microsoft compatibility problem but

needs to be addressed by Pacific in order to service all of the CLEC customers. Finally, the remaining documentation required to understand the formats for the data that is input to the Bill Generation process must be bought by the CLEC. In January 2000, the cost of purchasing these documents through Telcordia was over $3,000 for four of the six volumes of the basic set. These four volumes are the minimum needed to understand the input files to the billing process. Since January 2000, Telcordia has lowered the cost of these documents to approximately $1000. While it is understandable that multiple copies cannot be supplied to each customer, the industry standard in the computer vendor business is to provide a minimum of one copy of the documentation with the product and then require the customer to either buy a licensing agreement to make copies or purchase the additional copies as needed.

4.6.4.2.2 TOOLBAR TRAINING

One manual was provided that contains all the material to teach the course to others. Both a hardcopy and softcopy of the manual were provided.

4.6.4.2.3 TRAIN-THE-TRAINER PROGRAM

As noted above these programs are not the train-the-trainer programs advertised. A train-the-trainer program must be in-depth and provide the attendee with the complete knowledge of the product to go out and train others. An in-depth training provides the individual with a complete understanding of the product, how it works, what the nuances of the product are, what problems can be encountered and how to handle them. The attendee needs this information to assist their future students in doing their job properly and thoroughly.

4.6.5 Results

The training attended by the TAM Bill Validation Team and Capacity Test Team resulted in the recommendation that the Pacific training program be reviewed in the following areas:

A. The courses should be revamped to be in depth train-the-trainer programs as advertised or the descriptions should be changed.

B. The course descriptions need to be revised to provide a more detailed explanation of the course contents. In addition, the descriptions should be more accurate as to what is taught. If the course describes teaching bill validation then it should teach how to validate a bill not what sections are contained on the bill.

4.7 Supporting Processes

4.7.1 Master Test Plan Baseline

4.7.1.1 PURPOSE

The MTP utilized for the Test Effort was originally created by Pacific, and went through several versions prior to reaching the point of baselining. The MTP reached a comprehensive state after Telcordia was brought in to alter the MTP upon conclusion of extensive workshops in which Pacific and all interested CLECs participated. Final alterations and baselining were accomplished by the TAM. Table 4.7.1-1 details the chronological history of the document through its maturation to a comprehensive guideline for the Test Effort.

Table 4.7.1–1 MTP Chronological Updates

Update Version	Updated by	Date	Description of Updates
1.0	Pacific	Early 1999	Initial document
2.0	Pacific	6/2/99	Re-write of initial document
2.03	Telcordia	6/12/99	Changes made during OSS Test workshop, June 7 through 15, 1999
3.00	Telcordia	6/28/99	1. Reflects Commission decision on open issues. 2. Reflects industry comments on test scenarios.
3.01	CPUC	8/20/99	Incorporated changes mandated by ACR
4.0	TAM	3/31/00	Baselined changes

4.7.1.2 SCOPE

The TAM was charged with reviewing all sections of the MTP, and modifying if appropriate. In addition, the Assigned Commissioner's Ruling (ACR) dated August 20, 1999 detailed several sections of the MTP containing remaining items left to the discretion of the TAM as the test was formulated. These sections included:

A. Draft MTP Issues Addressed in the ACR:

a) §5 - Determine a reasonable set of test transactions to examine the E911 gateway.

b) §6 - Determine whether duplications or discrepancies exist in Test Case Scenarios.

c) §8 - Determine how and when the Daily Logs will be used.

d) §11 - Monitor the CLECs readiness to participate in this test with volunteered facilities.

B. Additional Concerns Raised in the Comments:

a) §2 - Determine the appropriate number of pre-orders and local service requests that should constitute an optimal load in the OSS Capacity Test.

b) §4 - Make any necessary modifications and clarifications to this MTP after staff has approved such changes.

While some of these changes were incorporated into the baselined MTP, detailed documentation of volume loads, test case scenario/transaction amounts and number of CLEC facilities required are documented in the Test Specification Document developed by the TAM and utilized as a supplement to the MTP.

4.7.1.3 VARIANCES

During the test analysis, the TAM determined that sufficient statistical data was not available for evaluating the following measures for functionality:

g) Performance Measurement 5

h) Performance Measurement 6

i) Performance Measurement 15

j) Performance Measurement 16

k) Performance Measurement 19

l) Performance Measurement 22

Table 4.4.4-1 in the Project Statistics/Metrics Observation section, §4.4.4.1 detail the actual evaluations performed.

4.7.1.4 ACTIVITIES

Table 4.7.1-2 details the MTP modifications made to baseline the document. This figure is included in the MTP in the form of a change log detailing all modifications made.

Table 4.7.1-2 MTP Baseline Changes

Page Number	Section	Author/ Modifier	Reason
I	Cover	TAM	Revised Version number to 4.0 and date to March 31, 2000
iv-v	Updates	TAM	Added Table of Baselines Updates for MTP 4.0
1	1	TAM	Revised document updates to reflect 3.01 and 4.0 statistics
1	1.1	TAM	Added reference to 3/31/00 baseline changes
1	1.2	TAM	Added reference to table of changes in this final baseline issue
3	2	TAM	Identified Test End Users as employees of Test Administrator
8	3.3	TAM	Added reference to 3/31/00 baseline of this document
15	4.2.5	TAM	Altered to include paper output of billing
15	4.2.5	TAM	Altered to include NDM as mechanized transmission vehicle
17	4.2.6	TAM	Modified for Friendlies rather than End Users
18	4.2.7	TAM	Removed ICG and Northpoint from participating CLECs
20	4.3.3.1	TAM	Added Friendlies to Functionality Test
21	4.3.4.2	TAM	Modified Capacity Test extended due date to 12/31/00
26	5.2.4	TAM	Added Friendlies, removed percentages
28	5.2.6	TAM	Removed ICG and Northpoint from participating CLECs
28	5.2.7	TAM	Added Technical Advisor to TAB membership
39	6.3.1	TAM	Added 1/12/00 Commission decision to Table 6-1 reference
40	Table 6-1	TAM	Altered per Commission decision 1/12/00
41	6.3.2	TAM	Added fax orders to scenarios
42	6.3.2	TAM	Altered daily usage tape to weekly submission by TG to

Page Number	Section	Author/ Modifier	Reason
			TAM in §5
52	6.4	TAM	Modified Capacity Test extended due date to 12/31/00
53	6.4.2	TAM	Removed Standalone Directory Listings from Capacity Test
55	Table 6-3	TAM	Corrected Bus. % on UNE Loop with Port
55	Table 6-3	TAM	Altered UNE Loop with Port % of Orders
55	Table 6-3	TAM	Removed Standalone Directory Listings from table
61	Table 6-4	TAM	Altered to evaluate Performance Measurement 23
63	6.5.3.2	TAM	Added frequency of Performance Measurement delivery for Functionality Test
64	6.5.3.2	TAM	Added frequency of Performance Measurement delivery for Capacity Test
64	6.5.3.3	TAM	Added Performance Measurement archiving information in §3
65	6.5.3.4	TAM	Altered aggregation to represent Commission decision for regional test
66-67	6.5.5	TAM	Added Friendlies to test accounts
78	7.1.2.1	TAM	Changed End Users to Friendlies
80	7.1.3	TAM	Added comment on test start without all Exit Criteria in place
82	7.3.2	TAM	Added Friendlies in §§7 and 12
83	7.3.2.1	TAM	Added reference to Purge and Environment Cleanup Processes
86	7.3.2.2.3	TAM	Added Friendlies
86	7.3.2.2.4	TAM	Added requirements for participating CLECs
87	7.3.3	TAM	Added Friendlies
88	7.3.6.2	TAM	Documented TAB meetings are bi-weekly in §3
89	7.3.6.4	TAM	Removed due to redundancy

4.7.1.5 RESULTS

A modified, baselined MTP was submitted to the CPUC for placement on their web site on March 31, 2000. This baselined MTP 4.0 was released via the CPUC web site in early April. No updates were formally made to MTP 4.0 during the Test Effort, and as a result, MTP 4.0 was the document utilized to conduct the Test Effort. Consequent alterations to the MTP during testing are listed as variances in each Final Report section and summarized in §3.9.

4.7.2 CLEC Participation

Pacific's OSS test required testing of LSRs for five modes of CLEC entry: UNE Loop with Port combination, stand-alone LNP, UNE 2-wire loops with and without number portability, and UNE DS1 Loops without number portability. The TG, serving as a Pseudo-CLEC and having no facilities, issued the test LSRs. As a result, the LSRs for UNE services required the 'loan' of

physical switch facilities and/or collocation facilities of a facilities-based CLEC to allow complete processing through Pacific's OSS and workgroups.

4.7.2.1 SCOPE

During the MTP workshop between Pacific and the participating California CLECs, AT&T, COX Communications, ICG Communications, Northpoint Communications, XO, and COVAD Communications volunteered to collectively provide local switch, collocation cage and DSLAM facilities to support Loop and LNP testing. According to §5.2.6 of the MTP, the participation of these CLECs was under the administration of the TAM and the TAB served as the forum for their participation.

4.7.2.2 VARIANCE

4.7.2.2.1 ACTIVELY PARTICIPATING CLECS

During the TAM's identification of service addresses to support new UNE loops, the participating CLECs were also requested to provide collocation facilities across all four Pacific operating regions to support these loops. During the same period, Pacific established additional retail lines at their building locations that were served by the central offices of the offered collocations. When the expected quantity and regional distribution of collocation facilities that would support a statistically valid sample size was not achieved, the participation of additional members of the California CLEC community was solicited through the Cox TAB representative. At the time, Cox was the point of contact for information dissemination to the non-participating CLECs. Several CLECs responded to this request. Table 4.7.2-1 depicts the final status of all participating CLECs.

Table 4.7.2-1 Final Status of Participating CLECs

CLEC	Participation Status
AT&T	2 wire and 4 wire UNE loops in offered collocations, LNP in all areas
Cox	Stand alone LNP, in San Diego and Orange County only
ICG	No reply to TAM request of 1/24/2000 for facility details or process review
Northpoint	11/15/99 notified the TAM that they would not participate.
XO	2 wire and 4 wire UNE loops in offered collocations
Sprint	1/3/2000 notified TAB via Yvonne Gamble of Cox that they will not participate
Covad	DSL only, all regions
Allegiance	1/3/2000 notified TAB via Yvonne Gamble of Cox that they will not participate
WorldCom	2/11/2000 notified TAM that they could not provide facilities

4.7.2.2.2 CLEC INFORMAL MEETING

In order to protect blindness to Pacific Bell concerning the processing of test orders, an informal bi-weekly meeting was established on 12/16/99 between the TAM, TG and the CLECs. These sessions facilitated the exchange of collocation information, resolution of procedural questions and airing of CLEC issues for consideration in the test cases. When warranted, this meeting was held weekly. It was conducted both in person on regular TAB meeting days and via conference

call. This meeting was in addition to the TAB forum prescribed by the MTP. The CPUC staff also regularly attended the meeting to provide regulatory guidance. The meetings continued through 9/21/00.

4.7.2.3 APPROACH

4.7.2.3.1 CLEC REQUIREMENTS

Due to the relationship described in §4.7.2.1 above, the participating CLECs and the TG were required to function as one facilities-based CLEC during LSR generation and testing on UNE loops. In other words, the participating CLEC acted as the 'pseudo-provisioning group' for the Pseudo-CLEC that issued the LSR.

Collectively, the CLECs participation included:

A. 'Pre-provisioning' the loaned facilities for the appropriate UNE service.

B. Providing SMEs to assist in the development of an interface process between their contacts and the TG.

C. Providing resources to test UNE loops and activate LNP requests as requested by the TG.

4.7.2.3.2 BASIC ELEMENTS

The CLECs identified collocations in which they had available capacity to dedicate facilities to test orders for the duration of the test. The TAM requested the CLECs to reserve a block of ten CFA in each collocation. This block served as the Pseudo-CLEC's facility inventory and was assigned on test LSRs by the TAM. As the participating CLECs were not creating and routing an internal order, the process to 'pre-provision' the facilities was established to eliminate the need for coordination of order flow between the TG and the CLECs at the time the LSR was issued to Pacific. This process also avoided impact to the Pacific provisioning cycle due to any unforeseen CLEC caused delays for resources and impact to the CLECs' daily order flow for their own customers.

Discussion was started 12/16/99 on a 'CLEC/Test Generator Interface Process'. See Appendix P for the complete process. These discussions were facilitated and the process was documented by the TAM. The purpose of the process was to provide a guideline for CLEC and TG personnel to follow during order processing. These guidelines were similar to a CLEC's operating procedures and required the same ongoing revisions while taking into account the requirements of the OSS test. On 4/20/00, the CLECs and TG agreed to follow the communication process established at that point with the option to make adjustments as a need was identified. Further revisions were done to update contact lists, refine the process for a busy CFA and re-use of a CFA, exclusion of Saturday due dates. The final version, V1.3, of the process was distributed on 8/9/00.

When requested by the TG, the participating CLECs performed loop testing on new, two wire UNE loops and reported the results to the TG. At the TG request the CLEC also activated any ported numbers on the order, if applicable. Due to the absence of active end users at the service addresses, this testing aided in assessing if the service ordered was installed on the due date based on the tested loop length to the service address. The availability of testing support by the CLEC who owned the collocation facilities was dependent upon the Business As Usual (BAU) processes the CLEC had in place. In order to supplement testing where a CLEC could not do loop testing, the TAM placed a testing SME at the Pacific LOC to request and monitor a loop test and/or ANI test through a LOC employee dedicated to this function. The test results were

recorded to validate whether service was delivered on time. This approach to premise testing was approved, while reserving the right to comment, by the TAB members on 5/25/00 after the previous investigation of several options by the TAB. The TAB agreed that this approach was the most viable given the conditions of the test.

4.7.2.4 DATA VALIDATION AND COMPILATION

The participating CLECs provided lists of their Pacific collocations where facilities had been reserved for the OSS test. Each list included the ACTL (CLLI code with collocation cage name), CO address, and the CFA that were reserved. Initially, the collocations were not pre-matched to service addresses. When the match rate was found to be lower than expected to support UNE loops, two steps were taken: 1) Pacific was requested to build additional retail lines which matched the collocations offered and 2) the CLECs were given a list of unmatched service address CLLIs to investigate for additional collocation facilities.

This data was combined to develop test cases that would make the most efficient use of the facilities and service addresses. The assignments of loop type to CFA were sent to the CLECs for pre-provisioning of a dial tone on the CFA. After the CLEC completed the pre-provisioning, test cases using the assignments were sent to the TG.

4.7.2.5 OBSERVATIONS

A. The TAM recognizes the cooperation and support of the participating CLECs to loan collocation facilities and to develop a unique procedure for interacting with the Pseudo-CLECs.

While the use of actual collocation facilities, as described in the Network section of the MTP, (§4.2.7) was required to complete the provisioning of UNE loops, the absence of pre-defined limits of a Pseudo-CLEC operation in a real network added considerable effort for issue resolution to the third party test. This element should have been more clearly defined in the MTP to include California CLEC concerns in relation to Pacific's business rules and operating procedures.

4.7.3 Communication

4.7.3.1 PURPOSE

As required by §5.3.1 of the MTP (Communications Management), the TAM is responsible for overall communications management within the testing interval. This section describes the forms of communication employed.

4.7.3.2 SCOPE

The test communications included formal meetings, impromptu meetings, conference calls, contact lists and regular reports of the test progress.

4.7.3.3 ACTIVITIES

4.7.3.3.1 TG CONTACT

A weekly conference call was held every Friday at 7 a.m. Pacific Time between the TAM, TG, TA and the CPUC staff. During this call planning and execution issues were discussed. An Issues Log was maintained by the TAM and it is included in the supporting documentation.

4.7.3.3.2 CONVENE THE TAB

The TAM convened the TAB on 10/8/99. The membership was defined as the CPUC, TAM, TA, Pacific and five CLECs (AT&T, WorldCom, Cox, XO and Covad). The TAB met biweekly through 11/ 28/00. The TAB served as the forum for information sharing, test updates, issue resolution, and jeopardy escalations. The TAB Meeting minutes were distributed to and approved by TAB members. They are also included in the supporting documentation.

4.7.3.3.3 ELECTRONIC CONTACT LIST

The TAM maintained an electronic Project Contact list of major test participants and a Pacific OSS Test Contact List. Both lists included SMEs, areas of responsibility and escalation contacts. These lists are supplied as part of the supporting documentation.

A TAB member list was also maintained which included al TAB members. This list was distributed to all TAB members and is included in supporting documentation.

4.7.3.3.4 TEST MANAGEMENT JEOPARDIES

Test jeopardies were submitted to the TAM after failure to resolve a raised issue. The TAM distributed the jeopardy to the TAB where its resolution was discussed.

4.7.3.3.5 DAILY TESTING REPORT

A daily Testing Report was issued from the TAM tracking for the previous day's activities and was distributed to the CPUC. These reports included daily activity and system status and are in the supporting documentation.

4.7.3.3.6 WEEKLY REPORTS

A weekly summary and a weekly activity report was generated by the TAM and distributed to the CPUC. The reports included test progress updates and system status and are included with the supporting documentation.

4.7.3.4 VARIANCES

4.7.3.4.1 TAM/TG MEETINGS

During functionality test execution, a weekly meeting was held between the TAM monitoring team and the TG order entry team to facilitate test planning and the resolution of interface questions. No minutes of these meetings were published.

4.7.3.4.2 PACIFIC ACTION ITEM CALL

A weekly call hosted by Pacific was held each Tuesday at 9 a.m. Pacific Time between the TAM and Pacific. The CPUC monitored the call. The purpose of the call was to air questions regarding any requirements of Pacific to support the OSS test as well as for Pacific to share pertinent information about their business processes with the CLEC community. The calls continued until 10/3/00, when there were no new questions or actions from either the TAM or Pacific. Pacific's log of the actions discussed on these calls is a part of the supporting documentation.

4.7.3.4.3 INFORMAL CLEC MEETING/CALL

In order to protect blindness to Pacific concerning the processing of test orders, an informal bi-weekly meeting was established on 12/16/00 between the TAM, TG and the CLECs. These

sessions facilitated the exchange of collocation information, resolution of procedural questions and airing of CLEC issues for consideration in the test cases. When warranted, this meeting was held weekly. It was conducted both in person on regular TAB meeting days and via conference call. This meeting was in addition to the TAB forum prescribed by the MTP. The CPUC staff also regularly attended the meeting to provide regulatory guidance. The meetings continued through 9/21/00. No minutes of these calls were published.

4.7.3.4.4 SUPPORTING DOCUMENTATION MEETINGS

In order to accurately review all documentation for appropriate redaction of information that is deemed proprietary to CLECs or Pacific, periodic supporting documentation meetings were held to review samples of all documentation listed in the Supporting Documentation Inventory. See Appendix Q, Supporting Documentation Inventory. A cumulative listing was kept of decisions from these meetings (Supporting Documentation Log), and is incorporated in the Supporting Documentation of this report.

4.7.3.4.5 STATISTICAL DISCUSSION CALLS

In order to allow all interested entities to be aware of questions and/or requests of Pacific from the TAM statistical resources, conference calls were established when requested by the TAM Statistical Team. These calls originated on October 31, 2000, and continued periodically through December 1, 2000. A cumulative listing was kept of questions asked and requests made during these calls (Statistical Discussion Log), and is incorporated in the supporting documentation of this report.

4.7.4 Documentation

The documentation for the Test Effort was two-fold, the documentation prepared by the TAM and the documentation produced in support of the overall project. The documentation produced by the TAM during the Test Effort is referenced throughout the Final Report in the sections applicable to where it was produced.

The supporting documentation provided for the overall project was produced by the various entities that assisted in the project. This includes the TAM, TG, Pacific, and CLECs. The documentation covered all aspects of the project and includes the documents that were part of the project start up (e.g., Master Test Plan).

A list of these documents is located in Appendix Q. These documents will be delivered under separate cover to the Final Report. The TAB members reviewed these documents to ensure that no confidential information was disclosed with redaction performed to remove the confidential information were necessary.

4.7.5 Administration Processes

4.7.5.1 DAILY LOGS & REPORTS PROCESS

Daily logs were sent to the TAM from the TG, Pacific and the TAM test team from various test sites. These logs consisted of the previous business day's information.

The TAM used the logs to ensure that each entity's information was accurate. For instance, if the TG log states a system was unavailable during a given time period, the log from Pacific should state the same information. Likewise, the TAM log would indicate how many orders

were handed off to the TG for processing and the TG log would state how many were actually entered in.

The following is a list of the information provided from each log that was input to the Daily Report:

A. Pacific:
   a) System availability for the systems used in the Test Effort.
   b) System and communications problems/issues that may affect availability.
   c) Software issues (e.g., problems discovered during testing or production).

B. TG:
   a) Status orders processed.
   b) Provide system availability for the systems used in the Test Effort.
   c) System and communications problems/issues that may affect availability.
   d) Software issues (e.g., problems discovered during testing or production).
   e) Any trouble issues.

C. TAM:
   a) Issues and action items discovered while testing.
   b) Test metrics – (e.g., test cases handed off, number executed, and troubles).
   c) Schedule review of test cases handed off to the TG.

The TAM used these logs to generate daily reports, which encompassed the information from three sources into one document. The Daily Report provided a review of the current progress of testing and gave an indication of potential areas of concern and technical issues. These daily reports were located on a TAM server and provided supporting documentation to this report.

In addition, the TG logs contained information from the processed orders. This was done via an activity and status spreadsheet within each log. The information in these spreadsheets were copied into spreadsheets that the TAM had created, which in turn were imported into a TAM database. The TAM database was used to run the daily report every business day. The daily report took the recent order information, supplied by the TG, and ran queries to obtain the FOC and SOC counts for that particular day. This information was used to track each order by stating the date when the FOC or SOC was obtained.

The reports also generated weekly activity and summary information, which was automatically sent via e-mail to the project manager for the TAM. This was done each Monday to reflect the activities of the previous week. These were in turn sent to the CPUC staff for their review. This enabled the CPUC to track the number of orders that have been processed and completed.

4.7.5.2 ISSUE/JEOPARDY MANAGEMENT PROCESS

The issue log was a document generated by the TAM and used as a tracking system for all issues that arose throughout the project, Submissions could be made by the TAM, TG, CPUC or TA.

The Issue Management Process was designed to define a consistent method for identifying, capturing and resolving day-to-day issues throughout the delivery process. This process allowed an efficient manner to prevent serious impacts to the project. The process was as follows:

1) Issue Submission – Any client or project member could raise an issue to management's attention by completing an Inquiry/Issue Form, (see Figure 4.7.5-1) which was submitted to the TAM project manager, or through an established weekly conference call held each Friday morning between the TAM, TG, TA and the CPUC. An issue was defined as an unplanned item that impeded the planned process of the project.
2) A point of contact (POC) within the TAM reviewed all submitted issues and entered them into the Issue Management Log Database, assigning each a number and owner. This database included the title, date opened, date resolved, originator, and weekly status of the issue. Each week, following the status call, the TAM POC entered the updates and resolutions into the database. The TAM POC then ran a report of all issues and saved this document as a spreadsheet and sent it to all parties for the weekly status call.
3) Once a recommendation was made to the participants on the status call, the project manager needed to approve the recommendation. If the recommendation was approved it was documented and implemented. If no recommendation was reached and/or the time frame was jeopardizing the project process, the issue was raised to a jeopardy and followed the escalation process, (see §4.6.5.3). The issue log was a result of the Issue Management Process (see Figure 4.7.5-2).

California Public Utilities Commission

Inquiry/Issue Form

Issue Number:	Project Office Use	**Open Date:**
Client Name:		**Inquiry:** ☐ **Issue:** ☐
Subject:		**Severity:** Critical ☐ Moderate ☐ Low ☐

Issue Category:	CGT: ☐	PACBell: ☐	CPUC: ☐	GEIS: ☐

Submitted By:	**Date Submitted:**
Assigned To:	
Description of Issue (Attach additional documentation if necessary)	
Impact Summary and Recommendation: (Note impact to schedule, resources, and cost)	
Issue Resolution and Participants:	
Estimated Resolution Date:	**Estimated Hours:**
Actual Resolution Date:	**Actual Hours:**
Approved by Project Manager:	**Date:**

Figure 4.7.5-1. Inquiry/Issue Form

Issue/Jeopardy Management Process

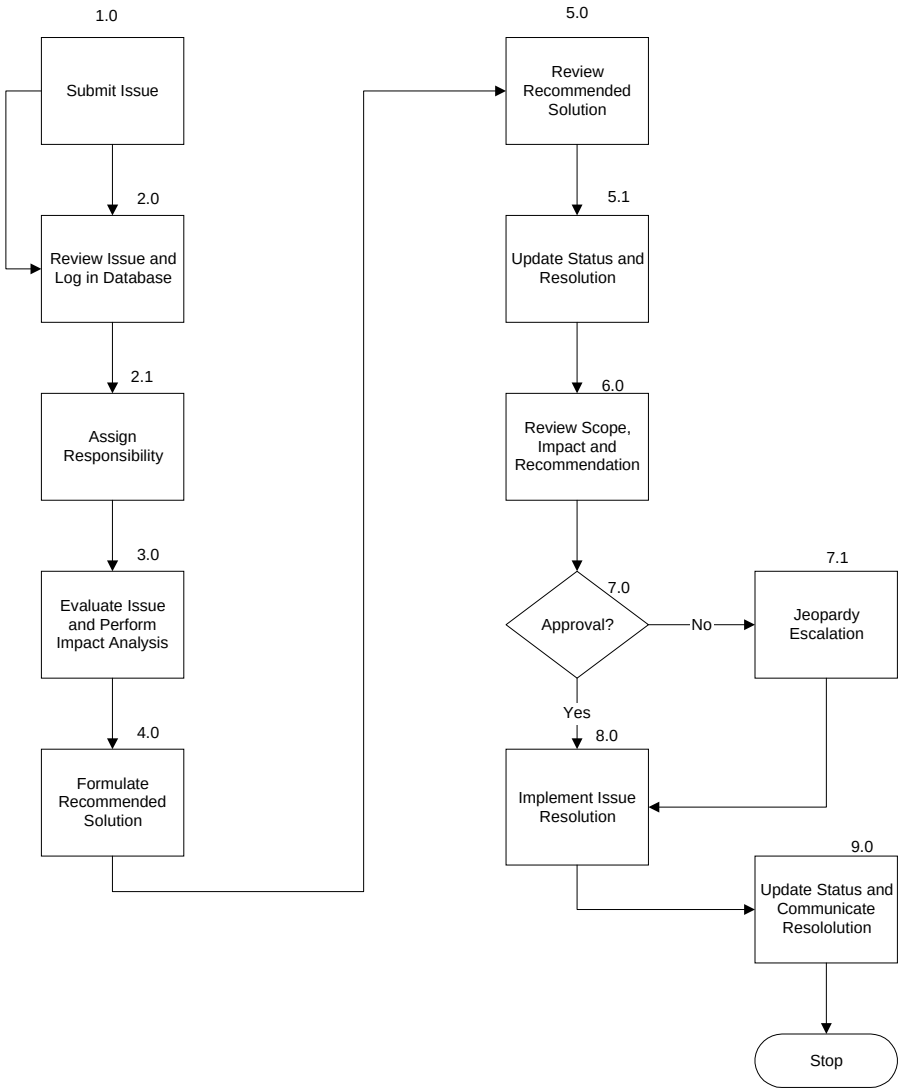

Figure 4.7.5-2 – Issue/Jeopardy Management Process

There were three levels of issues. The first level was labeled as Low severity, which included issues that required resolution within eight days following the identification of the issue. The second level was labeled Moderate severity, which included issues that required resolution within five business days following the identification of the issue. The third level was labeled Critical severity, which included issues that required resolution within three business days following the identification of the issue.

A jeopardy was defined as any issue that:

A. Could not be resolved through the use of the resources available to CLECs in the normal course of business.

B. Exceeded the normal course of business.

C. Exceeded the allowable time frames for resolutions.

The total number of issues during the Test Effort was 87. Not all of these issues were shared with the TAB. However, all issues that developed into jeopardies were shared with the TAB members. This issues log is included as Appendix B of this final report.

4.7.5.3 ESCALATION PROCESS

The escalation process was designed as a path for resolving problems that could not be resolved by normal resources available to CLECs. This process was used to resolve problems that exceeded their allowable time frames for resolution as well as problems that jeopardized the project schedule.

The benefits of using this process were:

A. Problems were defined and documented.

B. Timeframes were set for resolution.

C. Schedule impacts were identified and tracked.

D. Resolution of problems in a timely manner.

The process steps diagramed in Figures 4.7.5-3 and 4.7.5-4 are defined below:

1. The TG defined a problem that required resolution and escalation due to time or schedule impact.
2. The TG analyzed the problem to determine if it was within the scope of normal CLEC activity. If it was, the problem was escalated internally. If not, the problem was escalated directly to the TA.
3. The internal escalation resource was notified of the problem and provided any/all supporting documentation that would assist in resolving the problem. This resource performed further analysis to determine if any schedule impact was present.
4. The internal escalation resource reviewed the problem, with the originator, and gathered input from other individuals when necessary to prepare impact analysis. This analysis addressed the potential impact to the project schedule, resources and cost. If the problem threatened the scheduled milestones, the problem was escalated to the TAM.
5. The internal escalation resource took all steps necessary to expedite resolution to the problem. However, when a resolution was not achieved within a maximum of eight business days, it was escalated to the TAM. The CPUC could make an exception for the allotted time period of resolution, which allowed testing to continue while the problem was being worked.
6. All supporting documentation was forwarded to the TAM for review. At that time, the TAM accepted responsibility for problem resolution.

7. The TAM assigned a resource to review the problem documentation received and conduct further analysis of the problem.
8. The TAM reviewed all problem documentation and determined if resolution required an amendment to an OSS interface or business practice. If this was the case, the members of the TAB were notified. The TAB members were informed of the problem escalation, potential resolution and associated target implementation dates.
9. The TAM took all steps necessary to expedite resolution of the problem. However, when resolution was not achieved within a maximum of four business days, it was escalated to the CPUC. The CPUC could make an exception for the allotted time period of resolution, which allowed testing to continue while the problem was being worked.
10. All supporting documentation was forwarded to the CPUC for review. At that time, the CPUC accepted responsibility for problem resolution.
11. The CPUC then confirmed receipt of the escalated issue within eight business hours and supplied an estimated timeframe for resolution within three business days.
12. The TA assisted the CPUC in the resolution of the problem, with the intent of obtaining a quick, reasonable resolution that did not affect the test schedule or compromise the test results.
13. The CPUC was the final step in the escalation process. If a problem was escalated to the CPUC, they took the appropriate steps to facilitate the resolution.

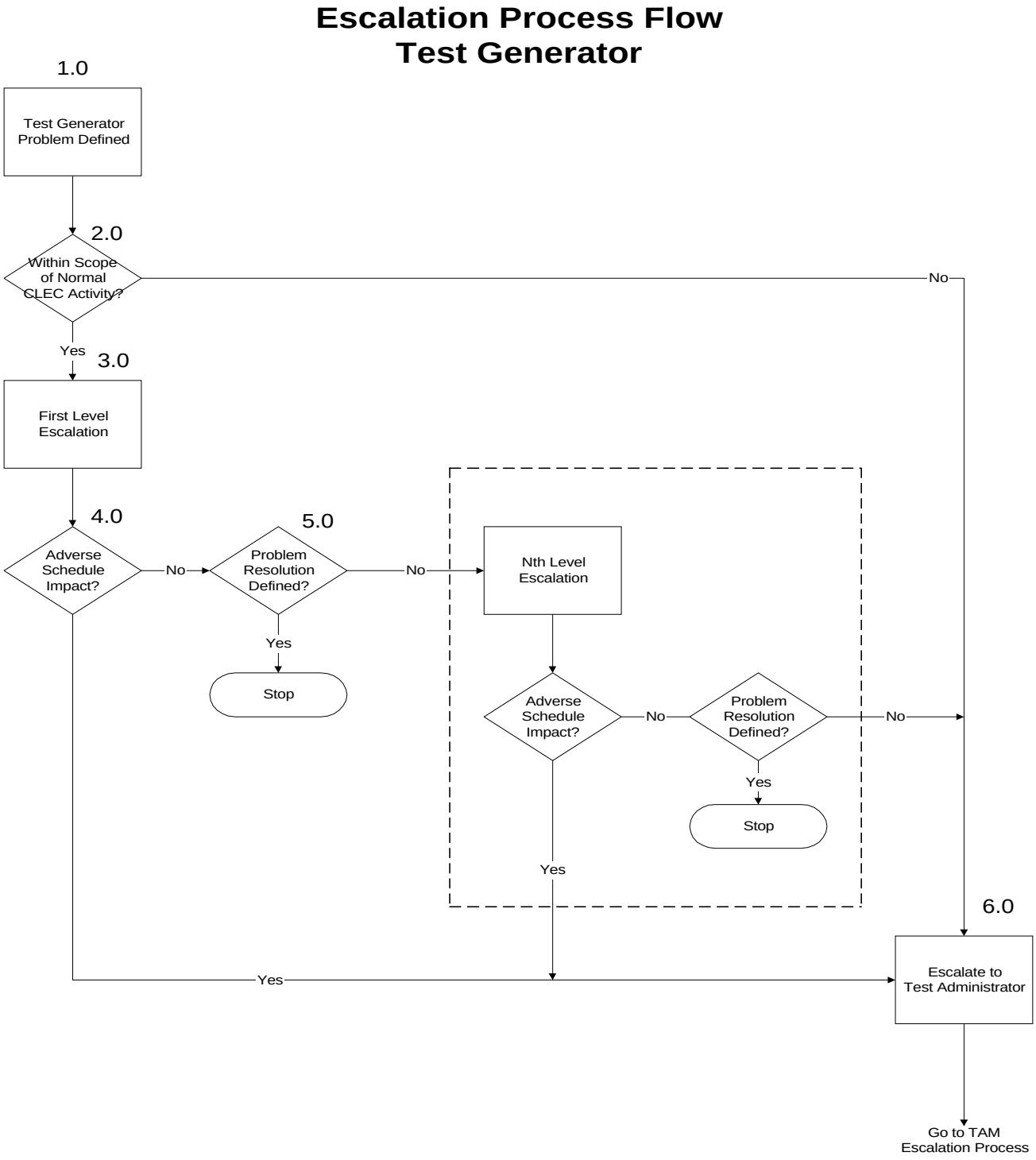

Figure 4.7.5-3 TG Escalation Process

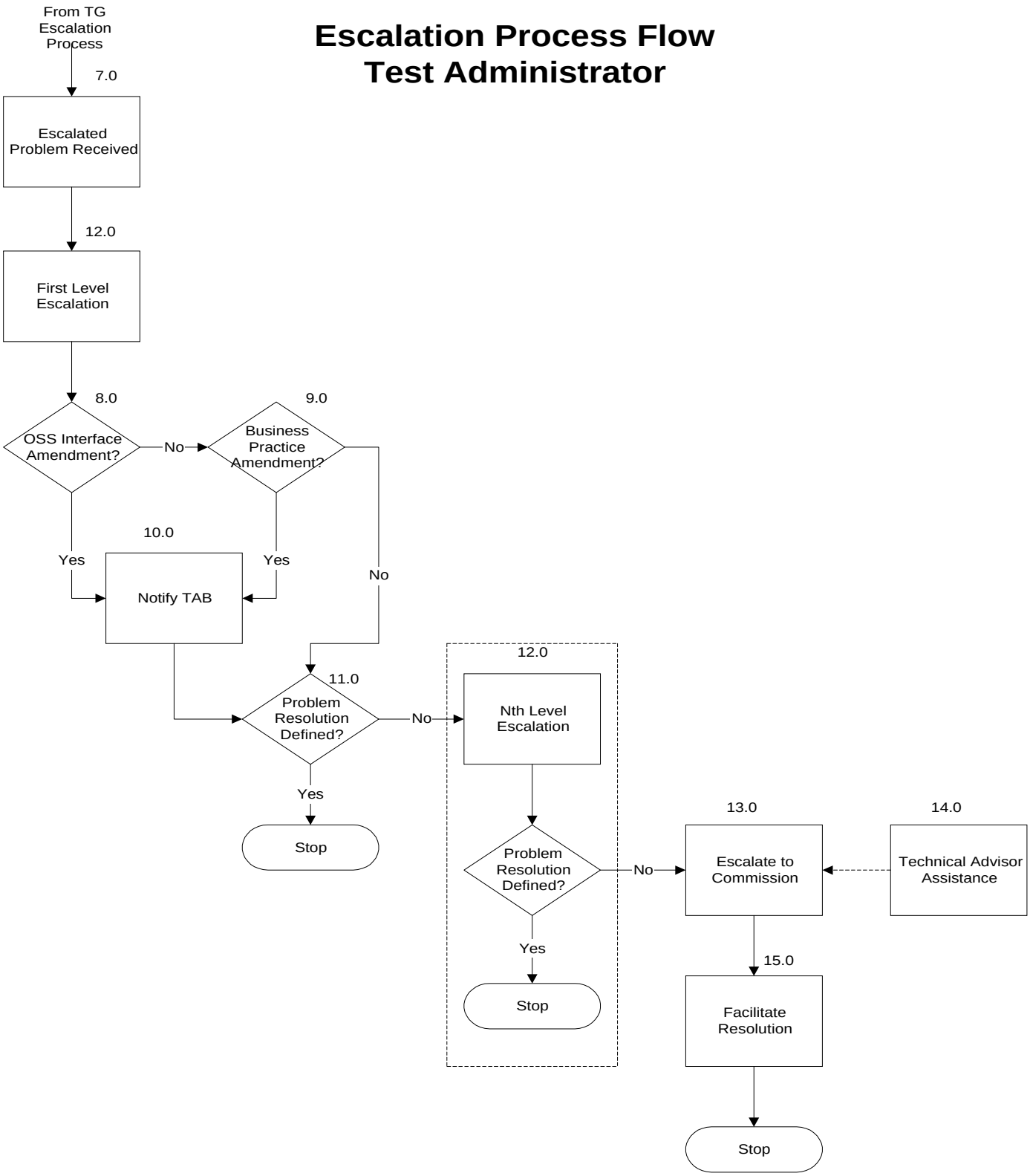

Figure 4.7.5-4. TAM Escalation Process

4.7.5.4 RISK MANAGEMENT PROCESS

A full risk assessment was produced by the TAM and sent to the CPUC on a monthly basis. A risk was defined as anything that had potential impact to the schedule or cost of the Test Effort. The assessment included the risk title, level of importance, (high, medium or low,) the potential schedule impact, potential cost impact and a mitigation plan to minimize or eliminate the risk in question.

On May 23, 2000, the CPUC, TAM, TA and TG began holding weekly risk meetings. All parties involved in the call received the risk assessment, which was compiled and distributed on a weekly basis. This risk assessment is included in the supporting documentation, delivered under separate cover from the Final Report.

4.7.5.5 EXPEDITED CHANGE MANAGEMENT PROCESS

The expedited change management process was designed as a method for notifying the CLEC community of changes affecting the OSS interfaces or business processes during the execution phase of the Test Effort. Changes to interfaces not included in the test, introduction of new interfaces and retirement of interfaces did not utilize this process. This process pertained to all ordering, pre-ordering, provisioning and maintenance electronic interfaces included in the test, as reflected in the MTP.

The process, diagramed in Figure 4.7.5-5, is defined below:

1. Prior to making any changes, Pacific issued written change notices to the TAB detailing any proposed changes, as well as the proposed implementation dates for the change.
2. The TAM convened the TAB within one business day to discuss the proposed change.
3. The TAB CLEC representatives had two business days, following the TAB meeting, to poll CLECs for additional feedback.
4. The TAB CLEC members then notified the TAM and Pacific, via written response, of any questions and issues. If there were no objections, Pacific proceeded with the implementation as long as no outstanding issues were raised. TAB consensus on resolution was reached and the CPUC approved the change.
5. If there were questions or objections, the TAM held a special session of the TAB within one business day of the written response. During this session, TAB members worked in good faith to discuss and reach a consensus on resolution to this issue.
6. If the TAM was unable to resolve the dispute, all documentation, including the written response, was brought to the CPUC for a decision.
7. An unfavorable decision by the CPUC disallowed the change implementation.

Expedited Change Management Process

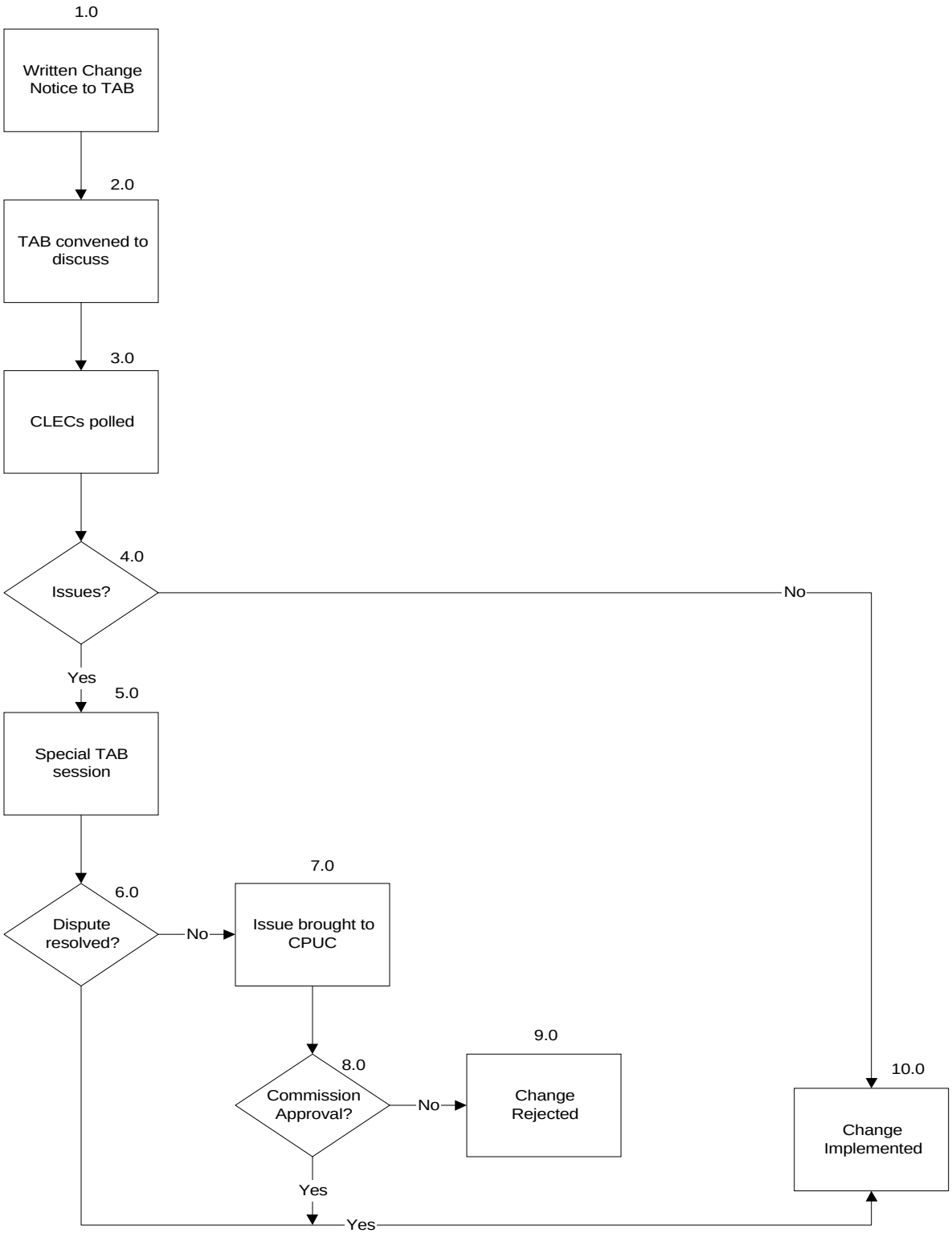

Figure 4.7.5-5. Expedited Change Management Process

4.7.5.6 DATA PURGE PROCESS

The purpose of the Data Purge process, (see Figure 4.7.5-6) was to define a consistent method for insuring that the data generated for the Test Effort was cleaned out and Pacific's system was returned to pre-test status. This process was used for data created for the Functionality and Capacity testing of the OSS system.

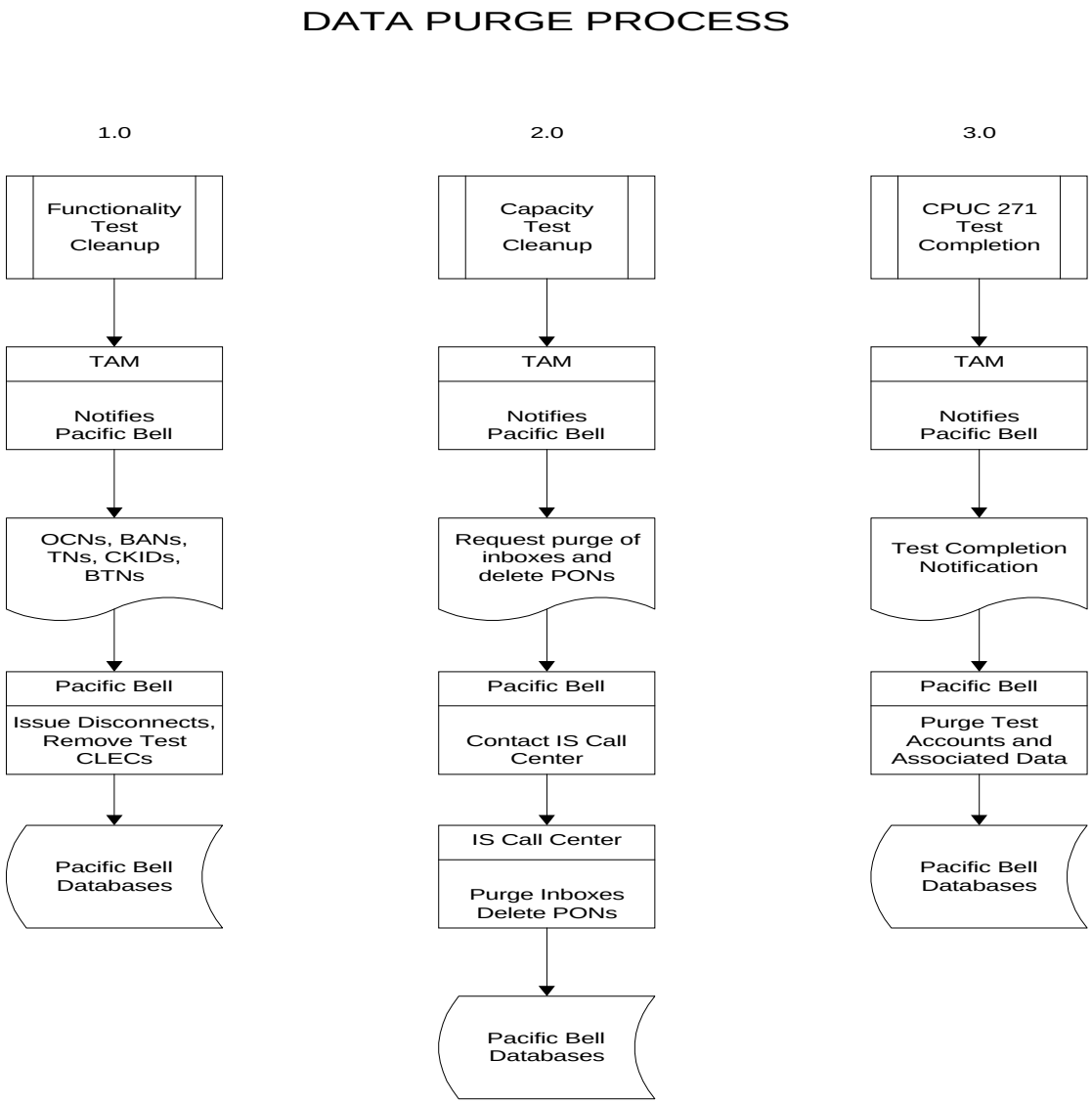

Figure 4.7.5-6. Data Purge Process

For the Functionality test, the data cleanup was performed by the TAM by providing Pacific with a list of Operating Company Numbers (OCNs), Billing Account Numbers (BANs), TNs, and Circuit Identifications (CKIDs) used in the Test Effort. In addition, the BTNs and associated information that were not converted to UNE were provided to Pacific by the TAM. Pacific then issued disconnects for those OCNs, BTNs, CKIDs and BANs, which purged the systems of all data created for those numbers established during the Test Effort. Pacific also removed the test CLECs from Pacific's EB/WORLDCOM database.

At the completion of any Capacity Test effort, the TAM requested Pacific to contact the IS Call Center and ask them to purge inboxes and delete PONs. Pacific issued cancellation orders to remove the orders from SORD and any downstream provisioning systems within 3-5 days following the Capacity Test. Once Pacific had been officially notified by the TAM that the Capacity Test effort was completed, Pacific issued disconnect orders for all associated Capacity Test accounts.

At the completion of the Test Effort the TAM provided Pacific with written notification that the testing is complete. At that point all accounts created during the test period were purged and any associated data removed from Pacific's OSS system.

4.7.5.7 ENVIRONMENT CLEANUP PROCESS

The purpose of the Environmental Cleanup Process was to identify all items that must be closed, purged or reset after the completion of the Test Effort. This process identified the exit criteria for all test participants.

The environmental cleanup process was used for creating and executing the Environment Checklist, which was delivered under separate cover. This process was finalized and approved by TAB and submitted to the CPUC. The Environment Check List, which was a living document, was put together as a reference to insure that all clean up items were identified and performed at the completion of the Test Effort. As additional items were identified, they were added to the list.

This process pertained to all accounts, data and connections that were set up to perform the OSS testing. The checklist identified all tasks pertaining to this process, the group/individuals responsible for the cleanup and identified who would verify the completion of each task.

The first task was to identify the parties involved in the cleanup activities. This involved identifying which groups needed to be involved in the identification of tasks, (i.e., TAM, TAB, Pacific and TG). Once this was determined, the POC from each group was identified as members of the Environment Team.

Following the identification of the parties involved, the TAM Environment Lead met with each of the POCs to determine the tasks that needed to be performed at the completion of the Test Effort. After meeting with each of these individuals, a draft of the checklist was created.

The TAM Environment Lead sent a copy of the checklist to each POC for review. The parties involved held a meeting, facilitated by the TAM POC, to review and agree upon what should be included on the list. Once this was completed, a final draft of the Environment Cleanup Process and Checklist was presented to the CPUC for approval.

At test completion, the TAM Environment Lead oversaw the validation of the Cleanup Checklist to insure all items were addressed. Once all items were validated, the TAM Environment Lead sent notification to the TAB and CPUC that the Test Effort was completed.

4.7.5.8 TAB MEETINGS & INFORMATION DISSEMINATION PROCESS

The purpose for the TAB Information Dissemination Process, (see Figure 4.7.5-7) was to define a method for notifying the non-participating CLEC community of information brought before the TAB of the Pacific Attestation process, and to solicit feedback from those non-participating CLECs. This process was used to encourage all CLECs to keep pace with every stage of the testing process and to raise concerns/questions/issues accordingly.

This process pertained to all documentation the TAB received from the TAM, including approved processes, TAB meeting minutes and escalations/jeopardies.

A TAB liaison was designated to act as the POC for communication with the non-participating CLECs. The list of CLECs was obtained by using the Pacific's Change Management process distribution list. All CLECs on the distribution list, that were not members of the TAB, received test documentation unless they requested that their name be removed. All communication within this process was done via e-mail.

The TAB liaison compiled all documentation provided by the TAM and forwarded it to the non-participating CLECs on the distribution list. After reviewing the documents, the non-participating CLECs had the opportunity to raise questions and concerns to the TAB by documenting them on an Inquiry/Issue Form, which is contained in the Issue/jeopardy Management process, (§4.7.5.2,) and forwarded, via e-mail, to the TAB liaison. No verbal/phone questions or issues were entertained.

If any questions were received, the TAB liaison then reviewed these and immediately forwarded them to the TAM. If an issue required immediate TAB discussion, the TAB liaison notified the TAM on behalf of the CLEC that submitted the issue. If the TAM believed immediate response was required, the TAM convened a special session of the TAB to discuss the issue. If no immediate response was required, the item was included in the agenda for discussion at the next scheduled TAB meeting.

TAB Information Dissemination Process

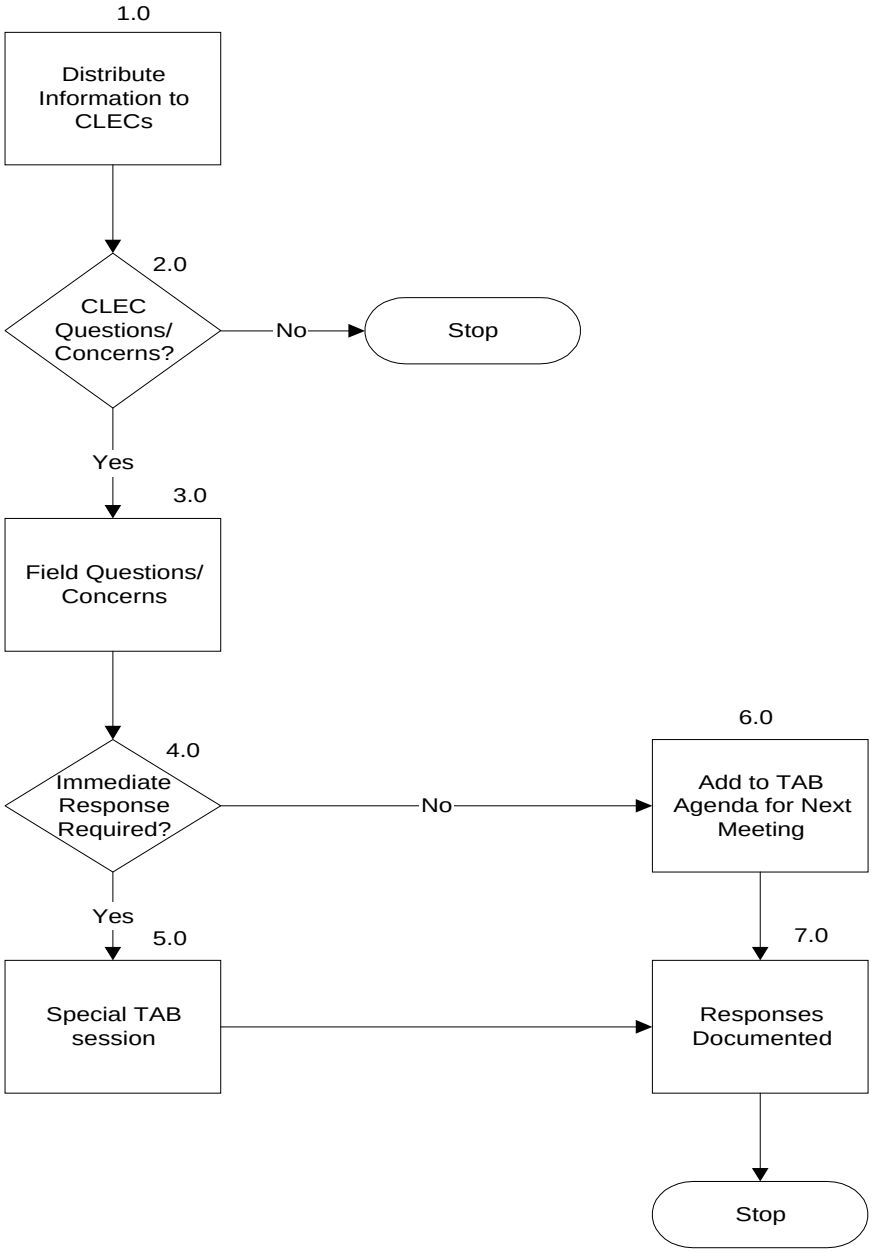

Figure 4.7.5-7. TAB Information Dissemination Process

4.7.5.9 PROJECT PLAN

At the beginning of the TAM test effort, an initial project plan was created for all TAM associated activities. The TG efforts were then incorporated from the TG project plan to create a comprehensive master project plan of all required activities, which was baselined for tracking. The master project plan was maintained by the TAM and updated weekly for work accomplished based on input from all TAM and TG participants. Upon approval of the CPUC, the master project plan was rebaselined several times when delays in testing were encountered or additional scope effort was defined. The master project plan (Project Plan) in included in the supporting documentation.

4.8 Issues

Throughout the Test Effort, various action items/issues/jeopardies arose that needed to be tracked and resolved. This process is described, in detail, in §4.7.5. To efficiently monitor the resolution of each item, the TAM developed an issue log, (see Appendix B). The issue log contains the item number, origination, date opened, owner, description, the date resolved and all updates from the weekly status call with the TAM, TG, CPUC and TA.

There were a total of 87 items that were tracked during the Test Effort. Of these items, 38 were action items, 43 were issues and 6 were raised to jeopardy status. The issues log was not shared with the TAB members, however the 6 jeopardy items were. Table 4.8-1 lists the jeopardies that were documented during the Test Effort, as well as the impact and action plan for each:

Table 4.8-1 Project Jeopardies

Issue	Title	Project Impact	Action Plan	Closed
7	SPID Ids to be used for 4 fictitious CLECs, collocation facilities required.	Potential showstopper to account setup and testing schedule. Approximately 3 weeks required by PB to set up tables and have information available for test continuation.	SPID for COX received and provided to PB. Working toward obtaining CLEC collocation facilities	03/03/00
12	How to generate accounts and input Account data (supplied by CGT, Pac Bell, a mix of the two). Will the data be pre-entered or added through test cases.	End users with associated profiles are required ASAP to not impact test schedule.	CGT and PB will provide compensation for Friendlies participating in the test. Will solicit through PB community partners for additional Friendlies	03/03/00

21	Potential schedule slippage if additional info not received from PB: 1) Example of billing data for billing interface development. 2) Complete EDI Specs for interface development to PB Systems. 3) DataGate programming libraries.	Schedule slippage day to day until information is received.	TAM member will conduct thorough investigation to determine if the information supplied by Pacific Bell to GEIS is adequate for CLEC operation	10/14/99
35	T1 line install.	Potential testing delay due to not having the T1 line installed. If line installed 12/27, pre-testing will take approximately 2-3 weeks, which moves EDI testing out.	Try to find alternatives to the pre-test time frame (i.e. begin pre-test through existing line, then follow-up with actual line capability test when installation has occurred).	01/31/00
36	Completing Orders.	Inability to finalize Interface Process is impacting to ability to issue loop orders, thus negatively impacting completion date of test execution.	Work with CLECs and TG to complete and finalize development of process specifics, and come to agreement to allow loop orders to be processed.	05/25/00
64	Managed Introduction.	Longer than anticipated time to complete Managed Introduction for UNE loops may critically impact testing schedule.	Investigate potential to expedite MI period with PB, obtain CLEC/TG commitment to interface process, obtain CLEC pre-provisioning, conclude TAM test case assignment, and obtain CLEC contact information.	05/11/00

INDEX - MTP/FINAL REPORT CROSS REFERENCE MATRIX

MTP/FINAL REPORT CROSS REFERENCE MATRIX

MTP SECTION/NAME	FINAL REPORT SECTION/NAME
4.1 **ARCHITECTURAL BLUEPRINT**	
4.1.1 ACCOUNT ENVIRONMENT	4.1.1 Pre-Order/Order/Provisioning
4.2**OPERATIONS SUPPORT SYSTEMS (OSS)**	
4.2.1 PRE-ORDERING	4.1.1. Pre-Order/Order/Provisioning
4.2.2 ORDERING	4.1.1. Pre-Order/Order/Provisioning
4.2.3 PROVISIONING – BACKEND SYSTEMS	4.1.1. Pre-Order/Order/Provisioning
4.2.4 MAINTENANCE AND REPAIR	4.1.2 Maintenance & Repair
4.2.5 BILLING AND USAGE – BACKEND SYSTEMS	4.1.4 Bill Validation
4.2.6 END USERS	4.1.3 End User Test
4.2.7 NETOWRK	4.3.3 CLEC Participation
4.3 **TEST ENVIRONMENT MANAGEMENT**	
4.3.2 ENVIRONMENTAL CHANGE MANAGEMENT	4.5 Change Management
4.3.3 ENVIRONMENT NEEDS	4.1 Functionality Test
4.3.4 ENVIRONMENT CLEANUP	1.2.4 Test Administrator/Manager
5.1 **TIMELINE**	4.7.5.9 Project Plan
5.2 **ROLES AND RESPONSIBILITIES**	
5.2.1 COMMISSION	1.2.2 California Public Utilities Commission
5.2.2 PACIFIC BELL	1.2.1 Pacific Bell 2.1.2 ILEC responsibility 2.1.4 Pacific's OSS Test Effort
5.2.3 TECHNICAL ADVISOR TO COMMISSION STAFF	1.2.3 Test Advisor 2.2.1 TA Support
5.2.4 TEST ADMINISTRATOR/MANAGER	1.2.4 Test Administrator/Manager 2.2.2 TAM Support
5.2.5 TEST GENERATOR	1.2.5 Test Generator 2.2.3 TG Support
5.2.6 CLEC NETWORK ELEMENT PROVIDERS	1.2.6 WorldCom 1.2.7 Competitive Local Exchange

	Carriers 4.3.3 CLEC Participation
5.2.7 THE TECHNICAL ADVISORY BOARD (TAB)	1.2.8 Technical Advisory Board
5.2.8 THE END USERS	1.2.4 Test Administrator/Manager
5.3 **MANAGEMENT OF TESTS**	
5.3.1 THE TEST ADMINISTRATION/MANAGER	1.2.4 Test Administrator/Manager 4.3.5 Communication
5.3.2 DAILY REPORT	1.2.4 Test Administrator/Manager 4.1.1 Pre-Order/Order/Provisioning 4.7.5.1 Daily Logs & Report Process
5.3.3 TEST METRICS	4.7.5.1 Daily Logs & Report Process
5.3.4 PROBLEM REPORTING PROCESS	4.1.1 Pre-Order/Order/Provisioning 4.7.5.2 Issue/Jeopardy Management Process 4.8 Issues
5.3.5 ESCALATION PROCESS	4.1.1 Pre-Order/Order/Provisioning 4.7.5.2 Issue/Jeopardy Management Process
5.3.6 TEST MANAGMEENT JEOPARDY PROCESS	4.7.5.2 Issue/Jeopardy Management Process 4.8 Issues
5.3.7 CHANGE CONTROL PROCESS	4.7.5.4 Expedited Change Management Process
5.3.8 RISK MANAGEMENT	4.7.5.3 Risk Management
6.1 **INTERFACE DEVELOPMENT REQUIRMENTS**	
6.2 **LSC/LOC SCALABILITY REQUIRMENTS**	4.2.2 Scalability
6.3 **FUNCTIONALITY TEST REQUIREMENTS**	
6.3.1 TEST SCENARIO LSR COVERAGE PROCESS REVIEW	4.1.1 Pre-Order/Order/Provisioning
6.3.2 SCENARIOS	4.1.1 Pre-Order/Order/Provisioning
6.3.3 TYPES OF ORDERS	4.1.1 Pre-Order/Order/Provisioning
6.3.4 FEATURES, TEATURE COMPATABILITY'S AND DIRECTORY LISTINGS	4.1.1 Pre-Order/Order/Provisioning
6.3.5 PROCESS	4.1.1 Pre-Order/Order/Provisioning 4.1.2 Maintenance & Repair

	4.1.3 End-User Test 4.1.4 Bill Validation
6.4 **CAPACITY TESTING REQUIREMENTS**	
6.4.1 CAPACITY TEST FOR PRE-ORDERING	4.1.4.4.1.1 Capacity test for Pre-Order 4.1.4.4.3.1 Pre-Order Capacity Test 4.1.4.5.2.1 Pre-Order Test
6.4.2 CAPACITY TEST FOR ORDERING	4.1.4.4.1.2 Capacity Test for Ordering 4.1.4.4.3.2 Order Capacity Test 4.1.4.5.2.2 Order Test
6.4.3 CAPACITY TEST VOLUME	4.1.4.5.1 Capacity Test Mix and Volumes
6.4.4 CAPACITY TEST MIX	4.1.4.5.1 Capacity Test Mix and Volumes
6.4.5 THE SCALABILITY ANALYSIS	4.1.5 Scalability Analysis
6.5 **TEST EVALUATION REQUIREMENTS**	
6.5.1 TEST DOCUMENATION REQUIREMENTS	4.1 Functionality Test, 4.3 Performance Measurement 4.4 Project Statistics
6.5.2 SUCCESS CRITERIA	4.1 Functionality Test
6.5.3 TEST POPULATIONS AND PERFORMANCE MEASURE COMPUTATION	4.3 Performance Measurement
6.5.4 TEST DATA COLLECTION AND MANAGEMENT ISSUES	4.1 Functionality Test
6.5.5 TEST ACCOUNT/END-USER DATA	4.1.1 Pre-Order/Order/Provisioning 4.1.3 End-User Test
6.5.6 TEST CENTERS	4.1.1 Pre-Order/Order/Provisioning 4.1.3 End-User Test
6.6 **ASSUMPTIONS**	
6.6.1 GENERAL	4.1.1 Pre-Order/Order/Provisioning 4.1.3 End-User Test 4.2.1 Capacity Test
6.6.2 ENVIRONMENT	4.1.1 Pre-Order/Order/Provisioning 4.2.1 Capacity Test
6.6.3 STAFFING	4.1 Functionality Test
6.6.4 FUNCTIOANLITY TESTING	4.1.1 Pre-Order/Order/Provisioning

	4.1.2 Maintenance & Repair 4.1.3 End-User Test 4.1.4 Bill Validation
6.6.5 CAPACITY TEST	4.2.1 Volume/Stress Test
7.1 **ORGANIZATION OF FUNCTIONALITY TEST**	
7.1.1 GOALS OF THE FUNCTIONALITY TEST	3.1.1 Functionality Test
7.1.2 ROLES AND RESPONSIBILITIES	2.2.2 TAM Support 4.1.1 Pre-Order/Order/Provisioning
7.1.3 FUNCTIONALITY TEST OVERALL PROCESS	4.1.1 Pre-Order/Order/Provisioning
7.2 **ENTRANCE CRITERIAN TO FUNCTIONALITY TEST PLANNING AND PREPARATION PHASE**	
7.3 **FUNCTIONALITY TEST PLANNING AND PREPARATION PHASE**	
7.3.1 FUNCTIONAL TEST PLANNING AND PREPARATION ENTRACE CRITERIA	4.1.1 Pre-Order/Order/Provisioning 4.1.2 Maintenance & Repair 4.1.3 End-User Test 4.1.4 Bill Validation
7.3.2 FUNCTIONAL TEST PLANNING AND PREPARATION ACTIVITIES	4.1.1 Pre-Order/Order/Provisioning 4.1.2 Maintenance & Repair 4.1.3 End-User Test 4.1.4 Bill Validation
7.3.3 FUNCTIONAL TESTING PLANNING AND PREPREPARATION EXIT CRITERIA	4.1.1 Pre-Order/Order/Provisioning 4.1.2 Maintenance & Repair 4.1.3 End-User Test 4.1.4 Bill Validation
7.3.4 FUNCTIONALITY TEST EXECUTION PHASE	4.1.1 Pre-Order/Order/Provisioning 4.1.2 Maintenance & Repair 4.1.3 End-User Test 4.1.4 Bill Validation
7.3.5 FUNCTIONAL TESTING EXECUTION ENTRANCE CRITERIA	4.1.1 Pre-Order/Order/Provisioning 4.1.2 Maintenance & Repair 4.1.3 End-User Test 4.1.4 Bill Validation
7.3.6 FUNCTIONAL TESTING EXECUTION	4.1.1 Pre-Order/Order/Provisioning

ACTIVITIES	4.1.2 Maintenance & Repair 4.1.3 End-User Test 4.1.4 Bill Validation
7.3.7 FUNCTIOANL TEST EXECUTION EXIT CRITERIA	4.1.1 Pre-Order/Order/Provisioning 4.1.2 Maintenance & Repair 4.1.3 End-User Test 4.1.4 Bill Validation
7.4 **FUNCTIONAL TEST REPORT PHASE**	
7.4.1 FUNCTIONAL TEST REPORT ENTRANCE CRITERIA	4.1 Functionality Test
7.4.2 FUNCTIONAL TEST REPORT ACTIVITIES	4.1 Functionality Test
8.1 **ORGANIZATION OF CAPACITY TEST**	
8.1.1 GOALS OF THE CAPACITY TEST	4.2.1.1 Purpose 4.2.1.2 Scope
8.1.2 ROLES AND RESPONSIBILTIES	4.2.1.4.2.1.1 Planning and Preparation
8.1.3 CAPACITY TEST OVERALL PROCESS	4.2.1.4.1.5 Capacity Test Overall Process
8.2 **CAPACITY TEST PLANNING AND PREPARATION PHASE**	
8.2.1 CAPACITY TEST PLANNING AND PREPARATION ENTRANCE CRITERIA	4.2.1.4.2.1.1 Planning and Preparation
8.2.2 CAPACITY TEST PLANNING AND PREPARATION PHASE ACTIVITIES	4.2.1.4.2.1.2 Planning and Preparation Activities
8.2.3 CAPACITY TESTING PLANNING AND PREPARATION ACTIVITIES BY ROLE AND RESPONSIBILITY	4.2.1.4.2.1.1 Planning and Preparation
8.2.4 CAPACITY TESTING PLANNING AND PREPARATION PHASE EXIT CRITERIA	4.2.1.4.2.1.3 Planning and Preparation Exit Criteria
8.3 **CAPACITY TEST EXECUTION PHASE**	
8.3.1 CAPACITY TESTING EXECUTION ENTRANCE CRITERIA	4.2.1.4.3 Activities
8.3.2 CAPACITY TESTING EXECUTION ACTIVITIES	4.2.1.4.3.1 Pre-Order Capacity test 4.2.1.4.3.2 Order Capacity test 4.2.1.4.3.3 Combined Pre-order/Order Volume Stress Test
8.3.3 CAPACITY TESTING EXECUTION EXIT CRITERIA	4.2.1.4.3.1 Pre-Order Capacity test 4.2.1.4.3.2 Order Capacity test 4.2.1.4.3.3 Combined Pre-order/Order Volume Stress Test

8.4 **CAPACITY TEST REPORT PHASE**	
8.4.1 CAPACITY TESTING REPORT ENTRANCE CRITERIA	4.2.1.4.2.2.1 Capacity Test Report Entrance Criteria
8.4.2 CAPACITY TESTING REPORT ACTIVITIES	4.2.1.4.2.2.2 Capacity Test Report Activities 4.2.1.5.1 Capacity Test Mix and Volumes 4.2.1.5.2 Test Results and Validation 4.2.1.6 Observations 4.2.1.7 Results
8.4.3 CAPACITY TEST REPORT EXIT CRITERIA	4.2.1.4.2.2.3 Capacity Test Report Exit Criteria

Appendix A – Glossary

This Attachment lists terminology and acronyms used in this document.

Acronym	Ref	Term	Definition
ACTL	Y	Access Terminal Locations	Collocation cage
ANSI		American National Standards Institute	The standards set up and regulated to ensure continuity within software disciplines
AOG eligible		Automatic Order Generator eligible	LSRs that are identified by LASR as having the potential for mechanized service order generation
App-To-App		Application-To-Application	Interfacing of software within a business process (application)
ANI	Y	Automatic Number Identification	Provides for transmission through the network of the BN, versus the TN, of the originating party. ANI information is sent through the network from the originating CO, through all intermediate tandem offices, to the terminating CO.
		Arrival Rate	Incoming number of transactions over a defined time period (typically an hour)
ATIS		Alliance for Telecommunications Industry Solutions	A trade group based in Washington, D.C. involved in standards issues including interconnection and interoperability issues.
ASG		Access Service Group	
ASSL	Y	Assured Loop	2-wire analog offered as standard conditioning for ground starts and reverse battery.
ATM		Asynchronous Transfer Mode	Fast cell-switched technology divided into a series of cells and routed across an ATM network consisting of links connected by ATM switches.
BAN		Billing Account Number	Used by telephone companies to designate a customer or customer location that will be billed.
		Baseline	To identify a “base” from which subsequent work can proceed.

			Approved by the Commission
		Basic Loop	A transmission path that connects an end-user's premises to a Pacific Central Office
BDT		Billing Data Tape	The tape on which the electronic CABS bills are created
BASL	Y	Basic Loop	Supports voice frequency voice ban services with loop start.
BTN	Y	Billing Telephone Number	Primary telephone number used for billing regardless of the number of lines associated with that number
CABS		Carrier Access Billing System	Pacific system that provides for CLEC billing
CBO	Y	Community Based Organizations	California community organizations solicited for participation as friendlies in the Test Effort.
CFA	Y	Connecting Facility Agreement	Identifies the leased facility service provider carrier system name channel number for activation of a new line/service.
CHC	Y	Coordinated Hot Cut	Transfer of customer from one carrier to another with minimal service disruption.
CIC		Carrier Identification Code	Four-digit numbers used by end-user customers to reach the services of interexchange carrier through equal access arrangements.
CLEC	Y	Competitive Local Exchange Carrier	A communications company which sells/resells communications services in direct competition with the Incumbent Local Exchange Carrier (ILEC)
CLLI	Y	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.
CM	Y	Change Management	The process used by Pacific to ensure that system changes are developed and testing in an orderly manner and that the proper testing is performed prior to system cut over.

CO	Y	Central Office	The local exchange company's switch location that serves a local community.
		Collocation	ILEC federal requirement to provide another telecommunications provider space within their central office/switch building (physical collocation) or in a location near that center.
CPE		Customer Premises Equipment	Customer-owned equipment.
CPUC	Y	California Public Utilities Commission	The governing body that has ruling for the Pacific 271 test effort.
CSR	Y	Customer Service Record	A record of customer specific information such as name, address, telephone number, telecommunication services subscribed to and certain other data related to the services provided.
CT		Capacity Test	Test ability of new mechanized systems to support the Testing Load. A pre-ordering and ordering test will be performed for purposes of this test.
		DataGate	Pacific Pre-Ordering App-to-App Interface
DS1L	Y	Digital Service 1 Loop	Digital transmission list with a total signaling speed of 1.544 MBPs, also known as T1 span.
DSL	Y	Digital Subscriber Line Access Multiplexer	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.
DSR		Directory Service Request	
EB	Y	Electronic Bonding	A term for the exchange of information between carrier's Operations Support Systems. The specific technique used is generally EDI or TMN

ECCKT		Exchange Carrier Circuit ID	A circuit ID for a trunk line. Such item is often used between telephone companies to identify lines that one is leasing to the other.
EDI	Y	Electronic Data Interchange	Interface protocol that provides for mechanized order processing. Both the CLECs and Pacific will have systems (EDI Interface) to support the EDI functionality
EMI		Exchange Message Interchange	Bellcore standard format of messages used for the interchange of telecommunications message information among telephone companies.
End User			A user established account having actual service from the ILEC via the Pseudo-CLEC.
EO		End Office	A telecommunications switch location that serves an end-user community. It also may be referred to as the Central Office (CO). Each end office will subtend one tandem switch.
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.
		Fatal Errors	Errors that have been returned to LEX or EDI from Pacific's OSSs. They can either be corrected (fatal) with a supplemental request or with a new request (super fatal).
FCC	Y	Federal Communications Commission	Branch of the US Government responsible for covering interstate telecommunications, radio, and television in the USA
FDT	Y	Frame Due Time	Time the order is due to be cut by the frame.
FOC		Firm Order Confirmation	Response from the service order processor that acknowledges successful receipt of a CLEC order

			(i.e., provides notification SORD edits have passed).
Friendlies			ILEC customers solicited to support Test Effort. Service was connected only to their Network Interface Device (NID).
		Functionality Test	A documented set of instructions designed to test and/or validate specific functions of a process or system.
GXS	Y	Global eXchange Services	The Test Generator for the CPUC project
GUI	Y	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.
ILEC	Y	Incumbent Local Exchange Carrier	The local telephone companies, which can be either the Bell Operating Company (BOC) or an independent (e.g., GTE) which traditionally had the exclusive, franchised right and responsibility to provide local transmission and switching services.
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 interLATA carriers for voice, video and data traffic.
		Jeopardy (relative to Master Test Plan process)	A notice that is issued whenever a key-project milestone and/or commitment is at risk according to the Master Test Plan.
JIA		Joint Implementation Agreement	
JPSA	Y	Joint Partial Settlement Agreement	Agreement on Performance Measures standards between Pacific and CLECs. Filed in R.97-10-16/I.97-10-017.
LASR		Local Access Service Request	Pacific data system which receives

			Local Service Requests
LATA	Y	Local Access and Transport Area	One of the telecommunication local geographical areas in the US
LD		Long Distance	Long distance call services between LATAs, currently provided by non-Pacific company
LEX	Y	Local Service Request Exchange	Ordering interface
LIDB		Line Information Data Base	Database used primarily for residential customers.
LNP	Y	Local Number Portability	Interim ability of an end user to retain their TN when they change their service provider or location within specified geographic boundaries until Number Portability issues are resolved.
LNPL	Y	Loop with Number Portability	UNE basic loop with number portability. Requires CLLI and cable and pair.
LNPO	Y	LNP Only	Loop with number portability to the central office only.
LOA	Y	Letter of Authorization	Agreement letter signed by Friendlies authorizing use of their facilities.
LOC	Y	Local Operations Center	Pacific Point of contact for repair needs for resold services
LPIC	Y	Local Primary Interexchange Carrier	Local primary interexchange carrier selected by end-user.
LPWP	Y	Loop with Port	Loop for conversion from Pacific facilities to CLEC facilities.
	Y	Loop	A transmission path that connects an end user's premise to a Pacific Central Office
LSC	Y	Local Service Center	Pacific facility that processed all CLEC Service Order Requests.

LSOR		Local Service Ordering Requirements	Document that defines the service order detailed requirements that aid the CLEC in requesting Resale and UNE services from Pacific. This document is based on the OBF Local Service Ordering Guidelines and Pacific usage definitions and rules of application.
LSPOR		Local Service Pre-Ordering Requirements	
LSR	Y	Local Service Request	A form prepared by the CLEC to request Pacific 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		Maintenance and Repair	Ability to provide for requests, status and resolution of potential troubles
WORLDCOM			Participating CLEC in Test Effort
		Mechanized orders	LSRs that can flow-through Pacific's electronic ordering system without manual intervention
MFJ		Modification of Final Judgement	Federal Court ruling that set up the rules and regulations concerning deregulation and divestiture of AT&T and the Bell Systems.
		Migration	Refers to "conversion as is" or "conversion as specified."
MLT	Y	Mechanized Loop Test	A mechanized test used to determine loop situations
MR	Y	Modification Request	A request for a system modification based on Functionality test results.
MTP	Y	Master Test Plan	A document that provides the plan to

			validate/access Pacific's readiness and capability to provide pre-ordering, ordering, provisioning, maintenance and repair and billing OSS functionality to CLECs.
MTU		Maintenance Test Unit	Provides ringer equivalency resistor code.
NP	Y	Number Portability	Same as LNP
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	The Other Charges and Credits section of the CABS Bill.
OCN		Operating Company Number	A four-digit number assigned to uniquely identify CLECs.
OIS		Outstanding Issue Solution	CM process through which the CLECs raise an issue that requires consideration of postponement of a software release.
OSMOP		Operator Services Marketing Order Process	Provides LIDB access.
OSS	Y	Operations Support Systems	For purposes of this test OSS refers to systems that are included for testing within this MTP.
PACIFIC	Y	Pacific Bell	ILEC for California 271 Test Effort
PBSM		Pacific Bell Service Manager	A Pacific developed character based stand-alone system that provides access to Pacific's maintenance and repair functionality.
PBX		Private Branch eXchange	A private branch exchange is a small version of the telephone company's larger central switching office.
PIC	Y	Primary Inter-exchange Carrier	Primary interexchange carrier selected by end-user.
PM		Performance Measures	As defined in JPSA.
PON		Purchase Order Number	Manually or automatically generated number assigned to the purchase order.

POP		Pre-order/Order/Provisioning	
		Port	Unbundled switching Option A only.
POTS		Plain Old Telephone Service	Basic service supplying standard single line telephones, telephone lines and access to the public switched network.
Pseudo-CLEC			A company established as a pretend CLEC for the Test Effort. It performs the activities of a real CLEC without real customers or profit,
PWC		Price Waterhouse Coopers	Company who perform validation of Performance Measurement criteria
RBOC		Regional Bell Operating Companies	A holding company formed the divestiture of 22 original Bell companies.
		Resale	Service that allows a CLEC to purchase Pacific retail services in order to resell these services to their own end-user.
RFP	Y	Request For Proposal	A document created for distribution to contractors to request a proposal for solicited work.
RM		Risk Management	Balancing costs of risk avoidance and the consequences of the risk
SDIR	Y	Stand-Alone Directory Listings	Change made to customer's directory listing short explanation
SMDS		Switched Multi-megabit Data Service	A connectionless high-speed data transmission service intended for application in a Metropolitan Area Network environment.
SME		Subject Matter Expert	Expert in defined area
SNI		Subscriber Network Interface	SMDS term describing generic access to a SMDS network over a dedicated circuit that can be DS-0, DS1 or DS3.
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).

SORD		Service Order Retrieval and Distribution	Pacific system used to create, store and distribute service orders to various work groups to establish service.
SUPP		Supplemental	Subsequent order correction or revision.
TA	Y	Technical Advisor	Assists the CPUC Staff for the California 271 Test Effort
TAB	Y	Technical Advisory Board	A board convened consisting of members of the CPUC, TA, TAM, TG, Pacific, and participating CLECs. This board meets to review the process of the testing and resolve issues that arise.
TAM	Y	Test Administrator/Manager	Oversees the execution and assesses the processes and test execution
TCIF		Telecommunications Interface Forum	Voluntary special interest group under ATIS that addresses areas such as electronic commerce, bar coding on EDI.
		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 3rd Party Testing.
TG	Y	Test Generator	Performs the execution of the tests for the California 271 Test Effort
		Test Scenario	A specifically defined request and activity as it relates to UNE 3rd Party Testing.
		Test Specification	Document defining test case scenarios, purpose, method, expected results required for various test phases
TMN		Telecommunication Management Network	A network management model intended to form a standard basis for management of advanced networks such as Synchronous Digital Hierarchy for fiber optics in the lines and Global System for Mobile Communications in the cellular world.
TN	Y	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
		Toolbar	Pacific Pre-Ordering GUI Interface to LEX
UNE	Y	Unbundled Network Elements	Established under the telecommunications Act of 1996. Term used to describe local exchange network components purchased at a wholesale rate from the ILEC.
		UNE Loop	A transmission path that connects an end user's premise to a Pacific Central Office
USOC		Universal Service Order Codes	An old Bell System term identifying a particular service or equipment offered under tariff.

Appendix B – Issue Log

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
1	CPUC	9/15/1999	Admin	TAM resource	TG to provide the ability to auto test EDI for Pre-Ordering functionality (addr, TN, features, due date)?	9/28/1999

9/15 - Pending e-mail from Pacific resource.

9/21 - CPUC to issue ruling in next 1-2 days.

9/24 - No ruling yet - check with CPUC staff on 9/27.

9/28 - Will not test EDI for Pre-Ordering. This issue can be closed

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
2	CPUC	9/14/1999	Admin	TAM resource	Include test for billing reconciliation to validate requested vs. billed on LSOR (electronic billing validation)?	11/12/1999

9/15 - Pending

9/22 - CGE&Y resource will perform analysis.

10/01 – TAM resource working issue - has format, in process

10/08 - Still in process, TAM resource will check

10/15 – TAM resource still performing analysis. TAM resource will check status. Question: Is this needed prior to GUI testing start? TAM resource will participate in resolution from a billing standpoint.

10/29 – TAM resource will check with TAM resource for status update. TA resource stated that he believes Excel format needs to be used for reconciliation. We would receive daily usage on a weekly basis and 'true up' numbers at the end of the month.

11/5 – TG resource has overnighted current paper copies of bills to TAM resource for review. A TG resource has the tapes to mount and analyze in Texas. TG has received reference material from Telcordia. These media will be analyzed, a conference call will me set up for Wednesday p.m. (11/10) to discuss. Participating on the call: TAM resources, TG resources and TA resource.

11/12 - Conference call on 11/11 with TG resource and CGE&Y billing folks. An e-mail will be coming from TG resource documenting the process agreed on by all. TG resource will put a tracer on overnighted paper bills since they did not arrive in Texas. Meanwhile, TG resource will fax copies to TAM resource. First of 4 tapes was received by TG, mounted on their mainframe, and the billing data file has been sent to TAM resource and TA resources. This issue can be closed.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
3	PACB	9/15/1999	Admin	TAM resource	Setup training on Pac Bell systems for 6-8 people	11/5/1999

9/15 – TAM resource to coordinate with Pacific resource

10/08 – TAM resource to resolve by 10/12.

10/15- Majority of training will be performed internally with training documentation supplied by Pacific. TAM resource will attend physical Pacific training to allow evaluation to be performed.

11/5/00 - Forms faxed – This issue can be closed.

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
4	PACB	9/15/1999	Admin	TAM resource	Obtain access to Pac Bell site.	10/15/1999

9/15 – Pacific Account Manager will talk to Pacific resource.

10/01 – TAM resource will call Pacific resource.

10/08 – TAM resource will obtain required login and password by 10/12.

10/15 - Login and password obtained. This issue can be closed.

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
5	CGE&Y	9/17/1999	Admin	TAM resource	Will CGE&Y be responsible to write all test cases? This effort was removed from original RFP response	9/24/1999

9/20 – CGE&Y will need to write test cases. Additional effort issue still needs to be determined.

9/24 – CGE&Y will utilize sample test cases provided in MTP. Further test cases will be written to insure all test scenarios are accounted for. Issue can be closed.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
6	GXS	9/21/1999	GXS	TG resource	Need actual number of on-site observers and time length of Tampa	11/5/1999

9/24 - TG will have dedicated area for 3 resources - more if needed. TAM will advise exact numbers when schedule is determined.

10/01 - Schedule determination in process by TAM resources.

10/08 - TG will have space ready for 3 monitors on 10/25/99. Kick off meeting to be set up for that week.

10/15 – TG resource will coordinate the meeting(s) at Tampa for monitors and team leads.

10/29 - Presented on 10/26 - TG ok with info.

11/5 – This issue can be closed.

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
7	PACB	9/21/1999	CPUC	TAM resource	SPID Ids to be used for 4 fictitious CLECs, collocation facilities required.	3/3/2000

9/24 – TA resource will talk with CPUC staff on 9/27. 9/28 - Will use existing CLEC SPID Ids.

10/01 - Which existing CLEC SPID Ids will be used? Need TG critical date for receipt of info.

10/08 - Must be resolved by 10/15. TAM resource will talk with Pacific resource and TG resource to facilitate resolution. Use CLEC with collocation facilities.

10/15 - SPID information will be required by 10/19.

10/29 – TAM resource has had conversations with CLECs and asked for physical locations for collocation facilities. Early next week should determine collocations to use, then will make relation of OCN to SPID.

11/5 - Collocation determination not made last week. Will set up conference call with CLECs who volunteered next week. Will send document to CLEC volunteers stating requirements for participation.

11/12 - In progress - setting up another call with CLECs

11/19 - Responding CLECs not a 1 to 1 relationship with PB regions. May need to alter test case distribution. We could stagger product tests as PB establishes lines.

12/02 - Informal CLEC meeting - received SPID for CLEC 3 (only applies to LNP orders). CLEC 3 will do all LNP orders. Other ACTL/ACNA information will be provided in next week when facilities are determined for each participating CLEC.

12/10 - Still working through relationships with CLECs. More information due this week.

12/17 – CLEC 3 will do LNP only, SPID given to PB. Good session 12/16 with CLECs - process of CLEC/Pseudo-CLEC relationship close to finalization. Received info from CLEC 1, CLEC 7, CLEC 2.

California Public Utilities Commission Project

Issues by Number

12/28 – CLEC 7 & CLEC 1 will also provide LNP - SPIDs will be sent to PB for these 2 CLECs by 1/3/00. No negative feedback on updated CLEC/Pseudo-CLEC process. CLEC 2 has not provided facilities yet - waiting for NDA. Call scheduled today to review – TAM resource to notify CPUC if no resolution to NDA by end of today, CPUC staff member would then contact CLEC 2 to request facilities in good faith prior to NDA signing

1/7/00 - SPIDs were sent to PacBell for CLEC 1 (Blackhawk) and CLEC 3 (Discovery). Received NDA last Wednesday. CLEC 2 provided facilities list. CLEC 7's SPID not received yet – TAM resource will contact.

1/14/00 – TG resource sent ACTL information to PB Account Management. CLEC 1 assignment information received, CLEC 7 in process. CLEC 2 has offered many locations for DSL. TAM resource will inform them how many assignments we need per location to assist CLEC 2 in reserving only assignments required. TAM resource will send a list of CLLI codes and contacts to TG upon receipt. Contact information has been received from CLEC 1 and CLEC 2, CLEC 7 information expected today (1/14).

1/28/00 – TAM resource sent collocations to TG resource and TG has forwarded them on to PB account manager. If CLEC 4 and CLEC 6 participate we will need their ACTL for submission to PB. We are putting together a contact number list and will forward it to TG resource by 1/31/00. CPUC staff member asked if CLEC 1 responded with additional facilities. TAM resource has not received info from CLEC 1. CLECs require approximately 2 weeks to pre-provision.

2/4/00 - Have sent out 2 more ACTL from CLEC 1 to TG. Still in process of putting together contact number list and will have it complete and to TG resource, TAM and CLECs by 2/7/00. TAM resource will facilitate a call with CLECs, TAM and PB on Monday 2/7/00 to try to match and expand currently offered facilities. 2/11 is final date to receive any additional collocations from the CLEC.

2/11/00 - CLEC 6 not contributing any collocations. CLEC 1 has no additional collocations to offer. CLEC 7 has a discretion issue on their collocations which could impact how we use their facilities. TAM resource will have a complete tally Monday 2/14 of collocations and friendlies, will e-mail results to CPUC. Will follow-up to CPUC with a phone call. TAM will be able to ID what supplement will be needed for test: (1) Phantom accounts (2) real CLEC orders.

2/11 – CLEC 7 and CLEC 1 have provided additional facilities. TAM resource will incorporate into the 'matching' spreadsheet in preparation for a meeting Monday to discuss colo status in regard to PB facilities and friendlies. Meeting to be held at 1pm CST, 11am PST.

2/18/00 - Process highlighting supplement options to be considered will be delivered to TAB on 2/25/00. Call scheduled for 8am 2/29 (PST) to discuss options in preparation for resolution at 3/2 TAB meeting. Also investigating a 'hybrid' test incorporating statewide testing for the North region with insufficient facilities matches.

2/25/00 - Still on target for supplemental options document to go out today at COB. Discussion call scheduled for 8am PST on 2/29 with TAB members.

3/3/00 - Collocation facilities received and in place – This issue can be closed.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
8	PACB	9/22/1999	Advisor	CGE&Y resource	Need to setup a face to face meeting end of October.	10/1/1999

9/22 – CGE&Y resource to coordinate.

10/1 - Determined to not be reported on issue log. This issue can be closed.

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
9	CPUC	9/22/1999	Pacific	TA resource	Need CPCN numbers from CPUC.	10/8/1999

9/28 – TA resource will process written request for CPCN numbers.

10/01 - Request make 9/30 – CPUC staff member will work and supply info.

10/08 - CPCN numbers received from CPUC staff member. This issue can be closed.

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
10	CPUC	9/22/1999	Pacific	TA resource	Need to make sure 4 fictitious CLECs are included on CPUCs web page 'CLEC' list.	11/5/1999

9/24 – TA resource will talk with CPUC staff on 9/27.

10/01 - Request made 9/30 - need to address potential of customers calls to 800 numbers listed.

10/08 – CPUC staff member will go through CPUC channels and webmaster today to have the web site updated early to incorporate these CLECs. Do not foresee any potential problems with customers calling the 800 numbers listed – TG resource will be receiver of these calls (or a recording if he/she is not present).

10/15 – CPUC staff member will verify today if web site was updated. The database has already been updated.

10/29 - Verified CLECs are on web site.

11/5 – This issue can be closed.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
11	CPUC	9/23/1999	Admin	TAM resource	Time Frames for testing (nights, weekend)	10/8/1999

9/24 - Need response from Pacific - TAM / TA feel would be beneficial especially for Maintenance & Repair tests.

10/01 - Pacific involvement not required - will schedule night and weekend testing in detailed testing plan.

10/08 - Test schedules will incorporate night and weekend testing. This issue can be closed.

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
12	PACB	9/23/1999	Admin	TAM resource	How to generate accounts and input account data (supplied by TAM, Pac Bell, a mix of the two). Will the data be pre-entered or added through testing	3/3/2000

9/24 - Pacific will enter info into their database - 'New' customers will be added through testing process.

10/01 - Need to determine mix of end user accounts supplied by Pacific and TAM.

10/08 - 20% of end users must be obtained by the TAM. TAM resource will work with TG resource to obtain any potentials TG end users. TAM resource also requested assistance from existing CLECs to fill the end user test base.

10/15 - 2 locations will be set up with 5 lines each: one TG location in SF, CA, one TAM location in Irvine, CA. A total of 120 end user volunteers needed by 10/18. Want to steer away from using CLEC employees and facilities for end user testing if possible. TAM resource will write volunteer solicitation request for distribution to CGE&Y, and will e-mail it to TG resource for distribution to TG employees.

11/04 - Request for participation letters went out 11/2.

11/05 - Currently have 10-12 participants. TG, TAM and TA resources are working on this.

11/12 - Still need more friendlies. Currently we have enough locations for new order scenarios, and will try to mix test to utilize these locations we have.

11/19 - Requested more friendlies – still only have about 10.

12/03 - Monday, TAM resources to come up with backup plan on how to put orders through. May need several locations to provide end user testing. CLECs and PB have offered friendlies, but we shy away due to vested interest on each of those groups. Discuss resolution by 12/10. Per CPUC staff member can solicit within their agency for volunteers. TAM resource will forward request to CPUC staff member.

12/10 - Expect minimum number of friendlies required is 160 (2 orders against each). Alternative is to do conversions rather than new orders. Currently have 9 residential and 4 business friendlies.

12/17 – TAM resources will look at info to determine what office friendlies should be located in.

12/23 - TAM and PB will provide compensation to friendlies needed for the test. Another push to obtain volunteers is proceeding with a new letter being generated, which details compensation details.

California Public Utilities Commission Project

Issues by Number

12/28 - Addressing PB community partners, TG and CGE&Y employees. New letter draft will be sent out today for review to TA and TAM resources.

12/29 - Minor changes made to new friendly request letter. Letter sent to PB and other contacts.

1/7/00 – Pre-qualifying letter to be sent to friendlies. Still trying for 400 friendlies - would still require 2 orders per friendly. CPUC would require approval from their legal department to participate as friendlies. SNI must be assessable out side of home to qualify. Will require follow-up call to volunteers to obtain SNI location as part of eligibility investigation. TAM to send notification letter to friendlies if they qualify. Fallback plan if low response: Additional orders per address, different types of orders.

1/14/00 - Received approximately 25 responses from friendlies letters. In process of doing follow up phone calls to groups to further solicit participation. CBO group letters were sent out 1/12/00. Another CBO list coming from PB next week.

1/28/00 - Have currently 130 plus friendly responses. Have received a lot of interest form CBOs. Need to match collocations with friendly CLLIs. Will have preliminary results this afternoon. TAM will contact CPUC on Monday with status of the CLEC facility collocations match up to Pacific CLLIs.

2/4/00 -- 192 friendlies have been deemed eligible. Have a potential of 300 -400 business friendlies form a northern community development organization. Will be verifying collocation and Pacific CLLIs. Clarification letter to explain procedures for friendlies to follow during installation sent to PB for review.

2/11/00 - Currently have 320 eligible friendlies as of COB Wed. 2/10/00. Team has called all customers that have been issued an order and explained what was going on due to an emergency call from PB concerning calls received from customers. Tampa team will be contacting friendlies as new orders are issued to explain who we are and what is expected of them. CLEC 1 and PB employees have been issued the request letter via e-mail for use of their addresses. CLEC 7 not sure yet if will participate. LOA will be sent out if we need to use them.

2/18/00 - Received approximately 100 additional friendlies on 2/10. Held discussions with PB and CLECs on 2/7 and 2/9 to discuss friendlies matching and backup plan for utilizing PB and CLEC employees as friendlies. Current friendly status of 350 solicited friendlies. Also have 250 from PB and 75 from CLECs to use as backups. CLECs have also provided 150 building addresses. Friendlies continue to come in and will be added to the order mix as their eligibility is confirmed.

2/25/00 - There are approximately 400 friendlies, 275 PB and 75 CLEC. Also about 65 which are out of the PB area - no collocations are available. Possible to use these for move orders.

3/3/00 - Friendly addresses received and in place. – This issue can be closed.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
13	PACB	9/23/1999	Admin	TAM resource	What are Pac Bell billing cutoffs and billing cycles?	10/8/1999

9/24 - Per TG resource, billing cycle cutoffs are 12th and 26th of each month - need to verify with Pacific.

10/01 – TAM resource will verify.

10/08 - Pacific billing cutoffs are 14th and 26th of each month. Camino and Napa will have 14th billing cutoff, Blackhawk and Discovery will have 26th billing cutoff. This issue can be closed

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
14	PACB	9/23/1999	Admin	TAM resource	How will test data be purged at end of testing?	1/7/1999

9/24 - Need to establish full purging process in conjunction with Pacific.

10/08 - A draft purge process will be produced and discussed at the 10/20 Pacific meeting.

10/15 – TAM resource will create a draft purge process for discussion with PB.

10/29 – TAM resource will draft another purge process - per PB process will be much easier than originally thought.

11/5 – TAM resource will check with creator for status of document creation.

11/19 - Process completed and included in Test Spec Document.

11/23 - Additional work needs to be done to incorporate clean up from capacity test. PB can only purge info from SORD out, won't empty inboxes that don't have SOC (can't get PONs out). Two alternatives: 1) go to IS Call Center and ask them to purge inboxes and delete PONs after test completion, 2) TG can issue 8400+ LSRs to cancel orders. We will exercise alternative 1, and modify the purge process to include this.

12/03 - Purge process will be updated by TAM resource to reflect this change. Expect update by 12/10.

12/07 - PB stated additional detailed information will be coming that should to be incorporated into the process. Process update will be delayed until this information is received.

12/10 - No information from PB yet.

12/17 - Received additional information from PB for inclusion in the purge process. TAM resource has updated process for distribution to PB.

12/21 - In addition to purge process, a formal environment cleanup process is required to insure all environments are reset to pre-test status.

12/28 - Purge process sent to PB for review/acceptance. Environment cleanup checklist is addressed in action item #42.

1/7/00 - Revised process and sent to Pacific. Should receive answer today form Pacific.

1/7/00 - Received approval from Pacific on data purge process. This issue can be closed.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
15	CGE&Y	9/23/1999	GXS	TAM resource	Is it necessary to have an EDI resource on the Test Administrator Team?	9/24/1999

9/24 - TAM will have several EDI knowledgeable resources on the team. This issue can be closed.

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
16	GXS	9/23/1999	GXS	TAM resource	Is any non-disclosure needed between TG and TAM?	11/5/1999

9/24 - Non-disclosure agreement is good idea and should be prepared prior to exchange of test plans.

10/01 – TAM resource will supply CGE&Y legal contact info to GXS.

10/08 - A draft non-disclosure agreement was submitted, by TG, to TAM resource. TAM resource forwarded.

10/15 - TG non-disclosure agreement has been forwarded to TAM legal. TAM also needs to draft a non-disclosure agreement for submission to TG.

11/05 - NDA has been faxed and received by TG. All are in agreement with finalized NDA. This issue can be closed.

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
17	CGE&Y	9/23/1999	Admin	TAM resource	Does CPUC have defined requirements for all reports, or will TAM determine content?	9/24/1999

9/24 - TAM will determine content and format of reports and solicit review from CPUC. This issue can be closed.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
18	CPUC	9/24/1999	CPUC	TA resource	Determine naming of 4 fictitious	10/1/1999

9/24 – TA resource will talk with CPUC staff on Monday.

10/1- Names have been identified. Pseudo-CLECs will be Napa, Blackhawk, Camino and Discovery. This issue can be closed.

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
19	CPUC	9/28/1999	Advisor	TA resource	Need to obtain list of CLECs for creation of TAB.	10/8/1999

9/28 – CPUC staff member will supply list to TA resource.

10/01 – CPUC staff will put together brief info on each CLEC. We will allow preliminary CLEC self-selection for TAB participation.

10/08 - Info received from CPUC staff member. This issue can be closed.

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
20	CGE&Y	9/30/1999	Admin	TAM resource	TG to report % complete on plan tasks to TAM.	10/1/1999

10/1 - TG tasks to be incorporated into TAM project plan and % completed reported weekly. This issue can be closed.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
21	PACB	10/1/1999	GXS	TAM resource	Potential schedule slippage if additional info not received from Pacific: 1) Example of billing data for billing interface development. 2) Complete EDI Specs for interface development to Pacific Systems 3) DataGate programming libraries.	10/14/1999

10/1 - Issue escalated to TA as Jeopardy Incident level. TA will interface with Pacific resource to facilitate information delivery.

10/6 - Pacific resource will facilitate delivery by 10/8/99.

10/12 – TG resource stated part 3 still not resolved.

10/12 – Pacific resource stated info provided to TG is all info sent to CLECs.

10/12 – TAM resource investigating application requirements for CLEC interaction.

10/13 - TAM resource talked with TG resources regarding obtaining historical information on this issue and what is still outstanding.

10/13 – TAM resource has left Pacific resource messages to discuss - will continue investigation.

10/14 – TAM resource talked with Pacific resource.

10/14 - All issues satisfied by PB and TG per Pacific and TG resources. This issue can be closed.

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
22	PACB	10/14/1999	GXS	TAM resource	911 issue - port out and unbundled loops with or without number	10/21/1999

10/14 – Test Generator requested direction on whether or not E911 will need to be included on our test orders. TAM felt this was the case, but will confirm by checking MTP and conferring with CPUC – will provide findings next week.

10/21 – Per MTP and CPUC, E911 will be included on our test orders. This issue can be closed.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
23	PACB	10/14/1999	Admin	TAM resource	Need daily log reports from PB for inclusion in daily report.	12/10/1999

10/15 – PB informed of information required for this daily log report.

10/22 – PB will furnish information when testing starts.

10/29 - Will leave issue open until data begins to flow in to TAM to verify data is correct and received ok.

11/05 – Still open until daily log info starts coming in.

11/12 – Still open until daily log info starts coming in.

11/19 - Still open until daily log info starts coming in.

12/03 - Still open until actual daily log info comes in.

12/10 - Data coming in from PB. This issue can be closed.

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
24	GXS	10/14/1999	Admin	TAM resource	Daily log reports from TG for inclusion in daily report - need structure of information to be received.	12/10/1999

10/15 – TG informed of information required for this daily log report.

10/22 – TG will furnish information when testing starts.

10/29 - Will leave issue open until data flows in from TG to verify data is correct and received ok.

11/05 – Still open until daily log info starts coming in.

11/12 – Still open until daily log info starts coming in.

11/19 - Still open until daily log info starts coming in.

12/03 - Still open until actual daily log info comes in.

12/10 - Data coming in from TG. This issue can be closed.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
25	CE&Y	10/14/1999	GXS	TAM resource	Need sample of data which TAM will be sending to TG for testing.	12/10/1999

10/11 – TAM resource will provide week of 10/11.

10/15 – Still working on sample - TAM resource hopes to provide sample data by 10/19.

10/29 - Data sample provided 10/26.

11/05 - The revised format to send orders to TG will be like the sample provided by TG resource, utilizing 1 sheet for each test case.

11/12 – No update.

11/19 - Sample of TAM data to be sent to TG. Have had extensive Tracking Number discussion. Will add hot cut script and send.

12/03 - Discussion with TG required on hot cut portion of this issue. (see issue #36 for hot cut issue).

12/10 - Orders being processed. This issue can be closed.

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
26	GXS	10/15/1999	GXS	TG resource	Expected delay in app to app testing due to TS infrastructure development level of efforts being more involved that originally estimated. Current estimated delay is 1 month.	12/3/1999

10/15 – TG resource will submit revised detailed estimate of effort by 10/18 at the latest.

10/26 - Updated project plan received.

10/29 – TG resource will come to TAM and meet with TAM resource to discuss plan changes.

11/05 – TG resource to supply updated project plan containing Test Tracking Database and other changes. Testing has been delayed 1 week.

11/12 - Updated project plan delivered to TAM today. Revisions required and new plan re-delivered 11/12 p.m..

11/19 - Leveled TG Plan will be sent to CPUC and TAM today. Plan received by TAM.

12/03 - Revised TG and TAM plans merged and re-baselined on 11/24. This issue can be closed.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
27	PACB	11/5/1999	Admin	TAM resource	Concerning performance measurement information - PB has requested we provide orders entered for obtaining perf. meas. info.	11/12/1999

10/29 - No, we will not provide orders entered. PB should pull by OCN for the 4 CLECs on a daily basis. If cumulative, TAM will parse data to obtain required info.

11/05 - It was mentioned that Pacific will provide data weekly for the 4 CLECs. In the Tuesday, 11/9 call with Pacific we will insure they are aware that no PONS or TNs will be supplied to them, they will drive information off OCN.

11/12 – Pacific will supply PM data based on OCN for pseudo-CLECs, and provide All Measure information for all CLECs. This issue can be closed.

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
28	GXS	10/29/1999	GXS	TG resource	Flat File Request Form may assist TAM in obtaining PB data on a daily basis. TG to provide to TAM resource.	11/12/1999

10/29 – TG resource will send request form to TAM resource.

11/05 – TG resource didn't send, but will send to TAM resource today.

11/12 – Received per TAM resource. This issue can be closed.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
29	GXS	11/5/1999	GXS	TG resource	Fax orders (certain platforms). ADSL orders require RUG forms as they can only be delivered by fax. TG needs RUG class if required to process. K1023 forms are expected by PB, and PB thinks these are the only fax orders coming in the test.	11/12/1999

10/29 - TG representatives should take RUG class along with some additional class(es) to insure blindness of PB.

11/05 - Per Pacific account manager, PB doesn't need RUG forms (only used for ADSL for resale). Can use LEX or EDI for our orders. We need to look into further, because we could have test cases going from retail to resale. TG resource stated that a TG employee has some knowledge of RUG forms, which should alleviate the requirement of attending the class.

11/12 – Will use LEX and EDI only for all DSL orders. Issue can be closed.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
30	CGE&Y	11/12/1999	Admin	TAM resource	Using CLEC 6's EB interface for M&R trouble tickets. Working a solution with CLEC 6 and looking at possible alternatives incase we need to resort to plan B. Another call with CLEC 6 is scheduled. (phase 1)	1/28/2000

11/19 – TAM resource stated CLEC 6 has rescheduled the call to Monday 11/22.

11/30 – CLEC 6 has reviewed test plan for EBI created by the TAM. Some minor changes requested. A call is scheduled for 12/2 to finalize test plan.

12/03 - Hope to close on Monday, 12/6. Changes implemented per CLEC 6 request.

12/10 - Test plan has been approved by CLEC 6. Test case scenarios and schedules are completed. Tentative schedule for visit to CLEC site. NDA discussion still open. Call scheduled with CLEC 6 today to discuss further.

12/17 - NDA signed and sent. Scheduled EBI testing start date changed from 12/20/99 to 1/18/00. This change should not impact validation and successful testing of M&R phase of the test.

12/28 - Call scheduled for 1pm today with CLEC 6 to finalize setup of test schedule. We are on schedule to start testing EBI support of trouble/maintenance and repair on 1/18/00. TAM resources have been assigned to coordinate test cases and schedules. Awaiting response from CLEC 6 resource as to site location to schedule travel.

1/7/00 - Schedule to start EBI - Phase 1 at CLEC site on the 18th, 19th, 20th - schedule is on target. Total of 3 phases, 2&3 to be spread out through Feb.

1/14/00 - Phase 1 of testing EBI from CLEC 6 to Pacific will be conducted on the 18th - 20th. Initial testing will consist of Mechanized Loop Test of migrated NAPA telephone accounts. These accounts have over 30 days of being migrated. Scheduled with the Pacific Project Manager inducement of trouble to these lines in order to receive the expected results when invoking line status via the EBI system.

1/28/00 - Testing with CLEC 6 was conducted on the 18th. 18 mechanized loop tests were sent and 7 trouble tickets were induced and successfully worked. CLEC 6 will provide a print out of all activities. TAM resource will send an e-mail of the CLEC website concerning the JIA requirements to TG resources. Based on TAM resource's findings, TG resource will contact Pacific account manager. TAM resource will work with TG resource to formalize questions for Pacific account manager concerning JIA process. Reference ICA section 12.

1/28/00 - Separated EB testing issues into phases. Close phase 1.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
31	GXS	12/2/1999	Admin	TG resource	Need to setup audit trail for billing information received from Pacific.	2/6/2000

12/03 - Nothing from PB yet. TG verified that they are getting all resale bills. Still open - need PB to verify info sent so TG can check off receipt on an on-going basis.

12/10 - Nothing from PB yet. TG resource needs to know what was sent and when it was sent. He will follow up with Pacific account manager today.

12/17 - No update on this item.

12/28 - E-mail sent to Pacific account manager 12/13 asking best way to obtain info on 1) what was sent; 2) when it was sent; 3) frequency of info being sent; 4) format info sent in. TG resource will follow-up with Pacific account manager on 12/29.

1/7/00 - No information back from Pacific account manager. Need to talk with TAM resource about setting up a spreadsheet for incoming data from TG.

1/14/00 – TG resource to develop matrix for incoming data to TG. Initial round of daily usage tapes should start now (triggered by calls). TG will receive weekly usage tape with daily info from Pacific account manager - first target date 1/21/00 . TG resource will follow up via e-mail to TAM resource.

1/28/00 – Pacific account manager is looking into whether the data being sent matches the usage on the bill. TG is sending the usage as an ASCII text file to TAM resource via e-mail. It was determined that tracking paper bill on resale is not part of this test. TG resource is checking the data structure of the bill tape - due Feb 1.

2/6/00 - Spreadsheet format is ok. This issue can be closed.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
32	CGE&Y	12/2/1999	Admin	TA resource	Pacific Architecture concern. Pac Bell Utilizes the same system to run applications that are utilized during the testing. An example is Verigate and Lex. This may cause some limitations during the testing process due to lack of capabilities.	12/17/1999

12/03 – TA resource feels there is a need for combining pre-order and order capacity testing, which brings up other issues. Pacific stated they separated pre-order and order only because it was discussed this way. No agreement reached yet. TAM proposed value in doing the pre-order and order capacity test combined. TG would try to scale.

12/10 - Meeting scheduled January 12-13 to discuss how capacity testing will be performed. Additional 2 days anticipated to conduct combined pre-order and order capacity testing. Architecture discussion will also be conducted 1/12-13.

12/17 - A TG architect is reviewing an e-mail from TA resource and will respond today. Item closed and will be addressed if needed as capacity test issue.

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
33	PACB	12/3/1999	GXS	TG resource	BAN problems	12/10/1999

12/03 - TG not able to receive FOC - BAN problems, not set up correctly in PB system. Pacific account manager verified BANs are correct per list given to TG. IS call center ticket opened and being tracked. No response from IS call center yet.

12/10 - Issue resolved by PB late 12/08. FOCs have been received. This issue can be closed.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
34	GXS	12/3/1999	GXS	TG resource	Blindness concern with IS call center	1/7/2000

12/03 - Not many folks answering phones at IS call center. Voice recognition becoming a blindness concern. TG trying to align different people to represent each Pseudo-CLEC. TG will install additional phone lines to have 1 resource per Pseudo-CLEC. TG will answer any question stating they represent several companies. Also, TG is willing to add additional phone lines to allow separate numbers for each Pseudo-CLEC.

12/10 - Additional phone lines waiting for install date. TG currently assigning separate resource for each Pseudo-CLEC.

12/17 - Phone lines not installed yet.

12/28 - New phone lines due to be installed by end of Dec.

1/7/00 - Phone lines have been installed. The TG request to state that they are engineers working for several CLECs was dropped. Pacific account manager wants TG to appear as 1 specific CLEC when talking with the IS call center. TG will proceed in this fashion. This issue can be closed.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
35	PACB	12/3/1999	GXS	TG resource	T1 line install	1/28/2000

12/03 - Static routing not a viable solution due to a contractual issue with CLEC 5 on redundancy. A conference call has been set up for 12/3 to try to resolve. TG has a proposed resolution, but it is not the normal process for CLECs with Pacific technical people. Pacific may be willing to accommodate. This recommendation is to implement Network Translation changes on CICSO router to direct to the correct IP address. Test impact if not resolved by 12/08. There is currently no fallback plan. Issue warrants immediate escalation if no agreement is received today - this brings up other potential blindness issues if escalated.

12/06 - Pacific will not perform Network Translation changes. TG will secure an additional router to facilitate this T1 line. Issue continues to be timing - Pacific has Y2K cutoff 12/10.

12/10 - Pacific cannot accept ISDN out of router to their system. TG pursuing other areas for resolution. Current estimate to install tail circuit in Ohio is approximately 30 days. TG resource will escalate accordingly. Potential risks are to delay schedule of app to app test and NDM for billing until the line is installed and operational. Pacific has notified the TAM that they plan on filing a jeopardy on this issue 12/14.

12/14 - Jeopardy raised by Pacific.

12/17 – TA resource approached use of alternative (pre-test on current line). Pacific did not like this alternative. TG resource pursuing using the existing circuit for test with people who own the circuit. Ameritech technician confirmed circuit installation for 12/27.

12/28 - T1 installed 12/27. TG bringing up line this week into network. Call scheduled with Pacific 12/29 to set up pre-test of EDI. TG still needs data from Pacific to build and populate UDF. Questions asked by TA: Is T1 fractional or full? What is circuit capacity? Probable delay in app-to-app testing awaiting completion of joint cooperative testing with TG/Pacific.

1/7/00 - Pacific provided data to TG for UDF. All pieces are installed - doing last configuration of router. TG will contact Pacific to commence connectivity test via transmission of a test NDM file today. EDI to Pacific and testing in DataGate test bed should occur by Monday. T1 is currently fractional, request to increase capacity (bandwidth) has been made, and should occur in 2 weeks.

1/11/00 - Successful connectivity testing has been performed (TG and Pacific routers can communicate). TG and Pacific engineers monitored transmission of a test file which failed - file never left Pacific environment.. Appears something not set up on the Pacific firewall side to allow file transmission. Pacific investigating.

1/17/00 - 2-way communication has been established. EDI pre-test to start 1/18/00.

1/28/00 - Will open new items for EDI and DataGate pre-testing. This issue can be closed.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
36	GXS	12/6/1999	Admin	TAM resource	Completing Orders	5/19/2000

12/06 - Discussion needs to occur on how to complete orders where colo facility involved. TAM resource to engage dialog with TG and CLECs to funnel questions and establish processes. Conference call early next week with TG/TAM to discuss.

12/10 – TAM resource has had a preliminary discussion with TG resources concerning this issue. No process is currently in place, nor has been commenced by the TG. TAM will step in to facilitate a meeting to develop a strawman for process discussion. A meeting will be set up for 12/14 with CLEC community to discuss: 1) coordination of orders with CLEC who owns facility, 2) coordination of testing lines after FOC received, 3) NPAC orders on LNP orders.

12/17 - Discussed process with CLECs on 12/16 - made good progress toward finalizing process.

12/28 - CLECs will pre-provision allowing less back and forth communication requirements.

1/7/00 - CLECs are reviewing process - responses due by the 14th.

1/14/00 - Received reply from CLEC 1 only.

1/21/00 – No update – awaiting responses from other CLECs.

1/28/00 - TAM resource is adding DS1 process information to the CLEC/TG process and sending it to the CLECs and TG. All CLECs currently accepting of process. We need formal approval from TG and the CLECs on 2/3 at the TAB meeting.

2/4/00 - Still in process of adding addition information from the DSL and DS1 calls to the CLEC/TG process. Should be available for approval on Monday 2/7/00. TAM resource will set up a call with TG resources to insure we are all on the same page.

2/11/00 - Still in process of updating. TAM resource will e-mail the updated CLEC process to TG resource on Monday 2/14/00. Conference call will be set up for Wed. 2/16 3pm EST with TG and TAM to do a walkthrough, and make any additional changes to the process. TAM resource will e-mail final process to CLECs, with a follow-up call for review and re-approval.

2/18/00 - A call was held on 2/16 with TG and TAM to discuss the interface process, especially coordinated hot cuts. TG resource is concerned about what is to be published after the 2/16 call, and feels another call is required to discuss how to track. Another discussion is planned for Wednesday 2/23 concerning front-end coordination and sharing the processes with CLECs.

2/25/00 - No discussion on 2/23 - need to get status form TAM resource this weekend.

3/3/00 - Updated contact lists received. Revised process expected to be sent to the CLECs this weekend. TAM resource will be in Tampa next week to oversee this. Call scheduled for 3/8 to discuss with CLECs.

3/10/00 - There is a call scheduled for 3/13/00 to finalize the process. 1) DS1 lines do not have switch provisioning, only continuity on these lines. 2) 2-wires need a technician visit to a customer premise. CLEC 1 believes the friendlies need to be involved and TAM states they do not as there is no inside equipment at these addresses, and this would also be more than what we originally asked them to do. CLEC 1 uses Pacific techs and then follows up with their customer. There is no way for us to contact the customer as there is no availability to speak with someone on the other end. CLEC 6 wanted to have techs sent out for this. We will use CLEC 7 techs, (and Pacific techs for CLEC 1). 3) We are waiting to hear from CLEC 2 resource to get more information on what the Harris test will cover for DSL. If we do any IDSL we'll need techs and CLEC 2 volunteered for this. There are about 20 addresses that qualify for IDSL.

3/20/00 - Call with the CLECs today at 12 Noon CST to go over the step by step information. All of us feel comfortable with the additional steps. Another call is scheduled immediately following the CLEC call with TG group to go over the process, which will encompass TG effort beyond the CLEC interfacing.. This detailed process will be an appendix to the final report. TG resource will distribute the detailed process to their team.

3/24/00 - A call was held with the CLECs on Monday 3/20. The interface process is closer, but not finalized - this should be done by 3/30. When discussing DS1, CLEC 1 resource needed to leave the call, but left items for discussion with CLEC 7 resource.

California Public Utilities Commission Project

Issues by Number

TAM resource has these issues and will be addressing them in another call.

3/31/00 – TAM resource stated the process is not finalized as the CLECs are pushing for a truly complete test. The CLECs stated they would not consider the test complete unless end to end testing is done and every order was verified that it went to the correct address. CLEC 7 and CLEC 2 have techs available to do this, but CLEC 1 does not (see issue number 60). Updates on contacting supporting CLEC rep and building rep prior to order installation was addresses on 3/30 as well. TAM resource anticipates finalizing the process, with the exception of the end to end test, very soon. TG resource asks if this will cause a delay as the TG needs to insure they have the appropriate resources available. TAM resource states orders may still go through that are not UNE loops. We are almost done with the LPWP orders that need to go through for this test. We can begin with some change orders and outside moves. TAM resource also believes we can do conversions of UNE loops, but will check with the CLECs to insure this would be okay. TAM resource has some hesitation on splitting order types with the consent of the CLECs because this would tell them what is being done. Therefore, we should continue with only LPWP orders at this time. TA resource states that if we do not break at some point, there may be a need to retest some orders. We will have a better answer as to how to proceed following the meeting with the CPUC today.

4/7/00 - 95% of final process will be sent to CLECs at request of the CPUC. Get agreement for process without end user premise test. Meet with the CPUC on Tuesday to decide the end user premise test. Checked handbook to insure everything is according to standards. Move forward to not impact managed introduction next week for TG. A copy will be sent to all on this call. The preferred option for end user premise testing would be to use the CLEC techs that are

available, then use PM 15 (trouble reports before service order completion to identify trouble) to supplement. This would only pertain to new orders, not conversions.

4/14/00 - This was raised to a jeopardy on 4/12 and communicated to the TAB on Thursday`4/13. There was also a lengthy call with the CLECs in the afternoon and together we have come to the realization that we will not be able to test everything. CLEC 2 SMEs will look at the process to see exactly how to test for DSL. For ADSL and SDSL, CLEC 2 will do the test while the Pacific technicians on site, as long as they can be reached during the 10 minute time period. If this is not done in 10 minutes, CLEC 2 will need to send techs. Still unknown about IDSL. CLEC 2 wants this process open and we have stated that this is open. We have put forth an option to have a weekly CLEC meeting, via teleconference every other Thursday, and they like the idea. All but DSL is ready to begin. TG has meetings on Mondays and will be happy to provide a report on Tuesdays with any problems so they may be addressed early.

04/20/00 – TAM thought this was complete with the understanding that some changes would need to be made as we went along with the test. TG supports this, but the CLECs do not. We have a call with the CPUC and the CLECs to discuss this further. TAM resource sent an e-mail to CPUC with 3 options (1) keep going as is until the process is finalized, (2) CPUC determine process is sufficient and (3) not test loop process and focus on test plan to test OSS process. CPUC believes #3 is preferred but we will still need the CLECs for collos and building locations and this is a very aggressive schedule. CPUC also believes #2 is sufficient as long as the CLECs would still be able to offer comments on the final report. TA resources and the CPUC staff feel #2 is best, with #3 as a backup. TAM resources feel #3 is the real world.

4/28/00 - Had call with the CLECs and CPUC on Thursday, and all agreed on the document with the agreement to disagree later. Still working on the document and will have slight changes in the updated document. This could produce a slight impact with the TG. The CLEC contacts are not always on sight, but we will record information if they are able to obtain info regarding the install. TAM resource states Pacific can get to the MPOE as they should know where the terminal is.

5/5/00 - Contacts for CLEC buildings need to be informed of their responsibility. An e-mail has been sent to Pacific for standard process for disconnects on DS1. If it is just removing a jumper, the CLECs could try a loop back and insure the disconnect has been done.

5/15/00 - Discussion on Thursday concerning CLEC 6 building contacts and their responsibility. There are no confirmations on disconnects, however, the CLEC 6 contacts will verify that the circuit is tagged. CLEC 1 and CLEC 7 contacts are not technical and will not be able to do this. TA resource states anyone should be able to verify this information. CLEC 1 will provide a recording to verify the circuit is working, but not sure which orders this will affect.

5/19/00 - Reviewing test requests as they go in and getting things in line. Final tweaking in application of process. Close this issue and continue with the process in new issue called TG/CLEC Process Application.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
37	PACB	12/10/1999	Admin	TG resource	Napa is the only Pseudo-CLEC currently used for order entry. When will other 3 CLECs be able to have orders submitted.	1/28/2000

12/10 - TG is waiting for approval from Pacific account manager to turn up the other 3 Pseudo-CLECs. Pacific account manager is waiting for orders to go through with little to no problems, then they will turn them up. Napa is the icebreaker test. TG resource will talk to Pacific account manager today to obtain the criteria they are using before turning up remaining Pseudo-CLECs.

12/17 - Last planned day for managed intro for GUI is 12/17. Need to get enough clean orders through Napa before other 3 pseudo-CLECs can be used. Need update from Pacific account manager.

12/28 - Blackhawk authorized for order entry. Currently having TN reservation problems. TG resource will call Pacific account manager 12/29 for assessment of progress on test. Discovery and Camino will take another 2 weeks before they are authorized. TAM resource is adjusting the test schedule accordingly.

1/7/00 - Blackhawk is active. TG resource to check with Pacific account manager today on authorization for Discovery and Camino GUI orders. Schedule has been adjusted accordingly.

1/14/00 - Blackhawk and Napa are both active. Still waiting for authorization from Pacific account manager on Camino and Discovery. Pacific account manager concerned about % of errors reaching supervisory level. TG resource asked Pacific account manager to provide qualification of managed introduction process at Pacific. TG asked when the TAM will run out of orders for the TG on currently active Pseudo-CLEC order types - impact to test needs to be identified.

1/28/00 - Fax orders being processed for Camino and Discovery now. All order types for Napa and Blackhawk approved – Discovery and Camino can start up since all order types have been validated. This issue can be closed.

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
38	GXS	12/10/1999	Admin	TG resource	Ability to print pre-order forms.	1/3/2000

12/10 - TG will make a list of those screens that won't print. It appears these are mostly message boxes. Upon receipt of this list, TAM will determine if an issue continues.

12/17 - List compiled by TG. Screens that don't print have no print capability from Pacific. TAM resource is analyzing. TA resource suggested a cut & paste of the screen into Word.

12/20 - Screens not printing are: Reserve TN, CLLI, Due Date, PIC/LPIC. TAM resource analyzed the cut & paste option into Word for these screens. It was determined this was not reliable since it could create a time issue between cut & paste time and actual response time. TG is presently recording the input screen time in the daily report - it is suggested to record the time of actual pre-order process functionality screen instead of the sub-screens that reside within the main pre-order function.

1/3 – Using the TG entry of information into daily report. This issue can be closed.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
39	PACB	12/10/1999	GXS	TG resource	Due date on orders is November 1998.	12/20/1999

12/10 – TG resource has notified the IS call center. They are working the issue. TG resource will continue to monitor the tracking # associated with this issue.

12/17 - No update at this time.

12/20 – TG resource reported that no trouble ticket was issued for the due date problem. As this happened early in the test, and upon retry a correct due date was returned, the problem was not pursued. If encountered in the future, a trouble ticket will be entered. Issue can be closed.

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
40	CGE&Y	12/28/1999	Advisor	TAM resource	Capacity test - need for combining pre-order and order capacity testing.	1/28/2000

12/28 - Combination of pre-order and order test will be included in addition to individual tests for pre-order and order. This activity will require an additional 2 days for capacity testing (1 day test and 1 day test result analysis).

1/7/00 - Combined test pre-order and order distribution is being put together now. Will use different pre-order and order volumes than in the individual test to insure combined test volumes will be comparable to individual volumes. TG will formalize the activity and process for capacity testing for discussion and walk-through 1/12-13 with TAM. Presenting information on capacity test to CPUC in San Francisco on 1/17.

1/14/00 - Functional walkthrough performed 1/12-13 with TG and TAM. Data was queried, sent and timing captured. Looking good. Schedule has been updated to reflect Day 1 as Pre-Order, Day 2 as Order, Day 3-5 as Analysis, Day 8 as Combined test. New schedule will be presented to CPUC on 1/17/00. Verigate should be up for 1/17 demo to CPUC.

1/28/00 - CPUC happy with plan. Issue closed. Will open new issue for app to app capacity readiness.

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
41	PACB	12/28/1999	Admin	TAM resource	Zip code issue - not presented by PB. Need to get a master list of customers and obtain zip codes for inclusion.	12/28/2000

12/28 - Identified where zip code is found in customer service record. This issue can be closed.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
42	CGE&Y	12/28/1999	Admin	TAM resource	Environment cleanup checklist	3/20/2000

12/28 - Need checklist created to insure environment cleanup at conclusion of test. Environment must be re-instated to pre-test status. Pacific, TAM, TG and CLECs will have input to this checklist. TAM resource to coordinate input from all sources.

1/7/00 - Development of process in progress.

1/14/00 - First draft has been written up and a checklist created. TAM resource will set up meetings with Pacific OSS test team, TAM, TG, Pacific Account Management team for input.

1/28/00 – TAM resource will update on Friday 2/4/00.

2/4/00 - Received updates from Pacific. TAM resource met with Pacific account manager, and is expecting feedback by the end of today (2/4). TAM resource will send copy of latest checklist to TA resources and TG resource since they were omitted from the initial mailing. TAM resource has requested feedback from everyone by Tuesday 2/8/00. Hope to finalize checklist during a conference call with team members on Friday 2/11/00.

2/11/00 – TAM resource sent checklist to all parties involved. In process of making some minor adjustments. Has scheduled a 2pm CST conference call today with all parties involved to review and make any additional changes. Should be ready for sign off on 2/25/00. TAM resource will be including a process along with the checklist.

2/18/00 – TA resource suggested a friendlies disconnect letter be included in the checklist. TAM resource will discuss further with TA resource. Suggestion was to include a letter of thanks along with the check to participants. CPUC staff member suggested the letter be sent before the check is cut if the timing would be more advantageous to promote closure of the participation. Individuals who participated as a group member should receive an individual letter of thanks for participation.

2/25/00 – TAM resource will add friendly 'close' letter to Environmental Cleanup Checklist. TAM resource will re-send process to TAB.

3/3/00 - The process has been updated with the comments from CLEC 6. TAM resource will send this out today and will review with the TAB on 3/16. Also incorporated the closure of friendlies, while leaving it open for TAM to determine how to notify the friendlies of the close of the test. Will also send to the members on this call for comments and suggestions. There is a process change - the delivery of the document is final, but the checklist is a 'living' document. We will be able to close this issue when approval of the checklist is achieved.

3/10/00 – TAM resource will send this out with the agenda for the TAB meeting on 3/16. TAM resource will walk through this with the TAB and ask for approval.

3/20/00 – This process was approved by the TAB at the 3/16 meeting and the checklist will continue to be a living document. This issue can be closed.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
43	CGE&Y	1/07/2000	Admin	TAM resource	Additional daily tracking data required from TG	4/28/2000

01/07/00 - TAM requests four additional data elements on the daily tracking report (BTN, Circuit ID on UNE loops without LNP, Desired due date, Due date).

This data can be added to the TAM's existing test case database to suffice for a customer database for this test. This customer information is required for: 1) subsequent order activity planning on existing accounts 2) usage line installation status 3) maintenance and repair test case scheduling 4) order activity record for billing analysis by account and 5) generation of remaining accounts list for Pacific to purge at the end of the test.

1/14/00 – TG resources will add info to tracking database. TAM resource will put in TAM database and generate reports.

1/28/00 – TG resources verified the TN, circuit ID, due date and desired date are now being captured for GUI. Developers are looking at the information to insure the same data will be captured for App to App - currently awaiting estimate. TAM resource will work on putting this information into the TAM tracking database.

2/4/00 –TG resource will be working on App to App captured data in Tampa next week

2/14/00 - Still in process - no reply on estimate yet. TG development manager should be able to provide estimate by 2/25.

2/18/00 – TG resource wants to talk with TAM resource off-line concerning the driver requiring these additional fields in order to get additional information required for the estimate.

2/25/00 – Estimate given to TG management resource who will speak with other TG resources later today and formally convey estimate to the people on this call. TAM resource still waiting for 4 additional fields to be incorporated.

3/3/00 – TG resource stated this will be a 3-week effort to get into production. This can be done manually until then. Have not submitted the formal change request to CPUC as of yet, (however it is only a formality.) TAM resource will be able to get this information in a new format automatically after the 3-weeks. Until then, TG resource will track this manually and place into the daily report.

3/10/00 - The developers are still working on this and will be sending the due date to TAM. TAM resource ran this yesterday and no information was in the status field, next to due date. TAM monitor resource will forward the TG report to other TAM resources who will discuss to ensure this is in the TAM report.

3/20/00 - We need to talk to TAM resource to have this information entered into the database. EDI information should also be part of this, (the 4 fields.) TG resource states that the changes are being incorporated, but has not spoken to the developers on the status. No formal request has been done.

3/24/00 – TAM resources spoke, and have exchanged e-mails. The data is now coming across and TAM resource will need to find out why the fields are coming up blank when the report is run. TG will incorporate additional information for EDI into daily reports.

3/31/00 - Received an e-mail from TAM resource stating the data was coming from TG, but wasn't going through to the database. This has been resolved and we can verify this on Monday. TG resource states they are moving forward on incorporating electronic fields.

4/7/00 - TG is still working on this.

4/14/00 - TG is working on this as we speak. The developers had another situation that needed immediate attention and expect this to be done in one week. TG resource will continue to do this manually until completed.

04/20/00 - Still in progress. ECCKT column is placed before the WTNs in the status sheet of the EDI report. Developers are working on this.

4/28/00 – Electronic inclusion complete. This can be closed.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
44	PACB	1/07/2000	Admin	TAM resource	Maintenance & Repair for PBSM	6/23/2000

01/07/00 - Need to coordinate inducement with PB resource for trouble processing through PBSM. CGE&Y is ready, GXS will be ready 1/10. Hope for resolution to inducement by 1/13 to facilitate 1/14 start for trouble processing through PBSM for Napa.

1/14/00 - A meeting is scheduled with the Test Generator to discuss approach to test PBSM trouble reporting system. Anticipated start 1/19 with mechanized loop test. PB resource has been notified of TNs with 30 day old accounts to produce inducement. 5 business day notice required for inducement. On target for test start 1/19 in Tampa.

1/18/00 Request given to CPUC to allow test of accounts less than 7 days old. Separate LOC and staff is used to facilitate these troubles. CPUC will present to commission management on 1/20, with decision expected early week of 1/24.

1/28/00 - On 1/27 PBSM M&R trouble reporting was generated. Total of 8 trouble tickets were induced, responses being reviewed. Additional schedule for trouble inducements for next week has been sent to PB.

2/4/00 - On schedule. Inducement schedules allowing 5 business day intervals are being e-mailed to PB resource. PB has committed to 2 business day turnaround for any inducements required to go to the provisioning LOC. 20 inducements are planned for next week.

2/14/00 - Per PB, the maintenance LOC and provisioning LOC process troubles exactly the same. We will still test both LOCs through induced troubles and called in troubles. TAM resources to further analyze the exact mix of troubles through each LOC. CPUC staff member requested the TAM verify with CLECs if differences found through utilizing both LOCs. TAM resource will check which CLECs are using EB or PBSM. May need to push back on PB to obtain documentation detailing the functions of each of the LOCs.

2/18/00 – TAM resources will be finalizing the mix between LOCs the week on 2/21.

2/25/00 - Team will coordinate phone-in troubles through PB menu to document which LOC responds based on type of trouble ticket. TAM resource will coordinate with TG next week.

3/3/00 – TAM resource scheduled a meeting with PB on Monday 3/6 to begin phone-in trouble tickets. TAM resource will also be there to assist in the coordination.

3/10/00 - A few orders are being called in to see which center they are directed to. PB resource has been delayed on inducing troubles. 10 troubles have been scheduled for Monday.

3/20/00 - An e-mail was received from TAM resource regarding calling the LOC as if it were a customer making the call. The LOC is directed to inform the customer to contact their CLEC. TG will be calling in 10 troubles, rather than submitting them through PBSM, to see of the correct LOC handles the call. This should happen sometime this week.

3/24/00 – TAM resource states the results have been received and added to the test. Also included the pseudo-CLECs calling into the LOC to ensure the LOC is proceeding with resolving the troubles. There are sufficient trouble tickets to go through this test and the schedule is defined as to when the tickets will be run through PBSM. TG resource confirmed they are aware of what is coming on a particular day, but not for the future. TAM resource will provide the schedule to TG resource. We will leave this issue open until TG has a chance to review the schedule.

3/31/00 - Schedule and documentation sent out last night, including the responses required from the LOC. Sent to TAM resource for final review. Should be out for final approval on Monday. TAM resource would like TAM project manager to check this document as soon as possible.

4/7/00 – TG resource states this looks good. The only outstanding issue is the additional MLTs after order completion requested by CLEC 6.

4/14/00 - Continue to create MLTs to get ready for responses in the system. Will continue after managed introduction with other order types.

California Public Utilities Commission Project

Issues by Number

04/20/00 - Will generate troubles after managed introduction. Working with PB to get troubles induced.

4/28/00 - Contact with TAM resource and has already assigned the next file, which will be sent to PB resource for inducement. The order has to be processed to SOC for PB to continue. We have an additional 30-32 trouble tickets ready to go through PBSM.

5/5/00 - Waiting for FOCs on new products to request inducements from PB. PB resource needs about 5 days following the e-mail from TAM resource to get these set up. This should be complete within 7-8 business days.

5/15/00 - Working on setting aside test cases to certain facilities for M & R, and not planning on re-using these facilities. TAM resource is analyzing which facilities should be held for this and will hold them from other activity.

5/19/00 – TAM resource is collecting new products to run through PBSM. Preparing file for PB resource to induce troubles. Scheduled for 6/5 - 6/9.

5/26/00 - On schedule for 6/5. Sent inducements to PB resource on 5/25 and should receive response on 5/30.

6/2/00 - Everything is done for inducements and all is set to go on Monday.

6/9/00 - On schedule - entering troubles. Doing order validation after SOC to test timeframe for order processing as requested by WorldCom. Worked 5 trouble tickets this week will continue next week to complete. TAM resources will talk to confirm the schedule. TG resource will work late shift to coincide with TAM resource's schedule, (12-8PM.)

6/16/00 - On 6/5-6/9, conducted test, but it is not complete. This should be done by Monday or Tuesday. We need to determine which cases to use. The no dial tone troubles are tracked as unplanned and we should have the status on these this afternoon.

6/23/00 - Up to date on PBSM - reached goal of 5%. PBSM is complete and we can still support the CA team. This issue can be closed.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
45	PACB	1/28/2000	GXS	TG resource	EDI pre-test	4/28/2000

1/28/00 - In process - 1st test case success on 1/27. Order had exception due to new rate structure, didn't flow through. Test cases #10 & #11 sent today. Checking for any additional errors on these orders. Ramp up scheduled for next week (may go into week after). CPUC concerned about making the 2/14 bill cutoff. TG trying to finish pre-test by 2/4 to allow 2/7 app to app test start.

2/4/00 – TG resource has not sent any additional EDI test orders since Wednesday due to a connectivity problem with the T1 line. Will keep everyone posted as to when EDI pre-testing can re-commence. TG is relatively sure we will not meet the 2/14 bill cycle cutoff due to these problems. TG resource feels very confident that the 2/26 bill cycle cutoff will be obtained.

2/14/00 - Pre-test complete for Napa - only one correction going through today. Blackhawk pre-test to start 2/15, containing only order types not previously tested through Napa. Should make cutoff for 2/26 bill cycle. PB account manager is checking if proper info contained in test bed test accounts to test number portability on 2-wire conversions. These orders require real ACTLs for processing.

2/18/00 - Finished with Napa. Pulling together Blackhawk and will start sending today or early next week. The errors encountered with Napa were resolved.

2/25/00 - Complete for Napa. First Napa orders are ready to go for EDI - on hold waiting for DataGate. For Blackhawk - working through application issues with new order types. Not all required screens coming up on EDI. Edited UDF received by TG.

3/3/00 - Blackhawk had system problem on PB side - PB unable to process test cases sent. TG resource called for a status update and none was received. Not able to process EDI yet. EDI is received in St. Louis and is forwarded to backend system. Unable to process to backend system and are not sure where the problem lies. Other orders on first cases went okay, 4 more to do.

3/10/00 - Down to the last 3 orders for Blackhawk and they should be done today. Working on generating supps and those should be done by early next week.

3/20/00 – TG resource states that Blackhawk still has 4 test cases to do. These were ready on Friday, but there was a network problem. This problem has been solved and these should be sent to PB this morning. Still have outstanding issues on supps, but these should be resolved this week. Camino is coming up and there was a kickoff meeting with PB on Friday. Should be sending through DSL orders this week. Camino should complete the service types. PB account manager needs to know when these orders are coming through to alert their side. We need to get orders through EDI. TG always had the intention to run all service types through GUI first to find problems. TAM resource believes this is fine as long as we do not exceed the 65-35% EDI to GUI ratio. TG will discuss the possibility of pre-testing Discovery with PB account manager.

3/24/00 - Blackhawk is done with the exception of 1 supp remaining - we are ready for production orders. Camino will begin pre-testing on Monday 3/27. Discovery will also need to go through EDI test due to not having many remaining GUI orders to process. PB account manager stated we need to wait until one CLEC is finished prior to starting another to preserve blindness. CPUC staff, or representative, will be on calls during the account manager meetings on a weekly basis. TG resource will send TA resource the phone number and passcode for these calls. CPUC is discussing sending information, contact logs, to the CLECs as they are privy to less information than PB.

3/31/00 - Done with Napa and BH. On 3/29 Camino began and should be complete mid next week. TG was to receive an ADSL order to send through. TAM resource sent an e-mail to verify that retail ADSL accounts run as conversions and need to see if they need to be pre-provisioned prior to running the order. Not sure if this will provide data requirements. TAM resource sent pre-provisioning to CLEC 2 as these may be new ADSL orders. Does TG resource care if they are new or conversions? TG resource knows we can do new, but needs to test if we can do change or conversions. Need UNE DSL established to do conversions, however we could do a conversion of a new order if there was a match. TG resource states the new order that went through has been cancelled due to it being a fictitious order - so we will need to have another pre-provisioned order to work with. TAM resources will talk and should have an answer to TG resource by Monday. How do the CLECs test a disconnect without a customer? Do they test the account? Need actual facility assignments with pre-provisioning to do this. We could possibly get the

California Public Utilities Commission Project

Issues by Number

assignment from the CLEC. TG resource has provided the phone number and passcode for the account manager meetings, as well as how to maintain the blindness, so the CPUC will know how to announce themselves when they join a call.

4/7/00 - Camino is approved for new orders only, no disconnect tested, but we are able to start doing new orders. BH, Napa and Camino, (new) are in managed introduction. Also, conversions can be done. Discovery will start on 4/12. Disconnect will be tested when an account is available for disconnect. Hope to have managed introduction done by 4/17. PB will need to see if there is a mixture of activity types.

4/14/00 - Started with Discovery and have 3 pre-test orders that should be in early next week. Still waiting for ADSL for Camino to test a disconnect. TAM resource suggests issuing LSR and stop after receiving SOC and do the disconnect at that time. TA resource states this goes against what we talked about yesterday. TAM resource states this is a test order and we have the assignments so we would not need to notify CLEC 2. TAM resources will get together with TG resource to work this out. The TG will also talk with PB account manager to see if this would cause problems and see if the due date can be moved up. TAM resource will send this if we are able to get the install done today. TAM resource at TG site will be updated.

04/20/00 - Received a SOC for the ADSL order, however, PB would like to wait one week to protect the blindness of the test (should be done next Thursday). Discovery should wrap up tomorrow.

4/28/00 - EDI pre-test complete for all 4 CLECs. Had raised managed introduction as a jeopardy yesterday and suggest closing this issue and raising separate issue for managed introduction. This issue can be closed.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
46	PACB	1/28/2000	GXS	TG resource	DataGate pre-testing	3/24/2000

1/28/00 - IP address conflict for DataGate testing. TG can not connect to host in California. Can't test DataGate until resolved. TG resource in contact with PB and should hear from them today with workable solution. Vantive ticket opened for problem. TG resource will e-mail everyone today by close of business with update. Jeopardy will be raised if no resolution by noon PST Monday, 1/31. Additional: Data received and being process (TN reservation). TA resource will work with TG resource regarding data retrieval usage (parsing). The flow of info from CSR to EDI is do-able without additional parsing routines.

2/4/00 - DataGate pre-testing has not officially started since resolution has not been obtained on IP address conflict. Expect to commence by Monday, 2/7. Current concern from CPUC is pre-population of EDI order data.

2/11/00 - Looking good on translations. Will finish pre-test by 2/18. IS Call Center involved in checking the CIC transaction request response which repeats 8 times

2/18/00 - All queries are being sent through command line. Next step is the integration process with TG applications, which will begin today or Monday. Hope to have PB pre-test complete 2/18 or 2/21.

2/25/00 – TG resource has been trying since Wednesday to coordinate a call between PB and GXS - finally talked Friday. Problem is in the test bed data - step by step review of test cases in Developer's Reference Guide. Decision: significant difference between Guide and database. PB made commitment to update documentation in the Guide. Have not been able to get through all testing successfully. CPUC will inform commissioner's office regarding this issue. May put some orders through Verigate, but need 2 months billing through all interfaces. TG resource will furnish another update Monday night.

3/3/00 - Completed all testing and received transactions. Moved into production on 3/2. Currently experiencing a problem with address verification using zip codes. Error with providing SAGA information - documentation states zip code is sufficient. Open Vantive ticket with IS Call Center for this issue. TG resource will call to see if there is an alternate means of processing.

3/10/00 - Resolved all issues except SAGA that needs to be tested in production. Have a ticket open on this, but no call back yet. SAGA is the first thing we go to for orders and we can't get past this. There is a ticket open for production also.

3/20/00 - Raised SAGA Vantive ticket as a jeopardy at the TAB meeting. TG resource states this ticket is closed as of Friday afternoon. The menus we receive back from DataGate are cross-referenced with Verigate. There are no tickets open at this time. The clock has started with integration, which should take a few days. TG resource will let us know when DataGate is ready.

3/24/00 - SAGA ticket is closed and only the dispatch ticket remains, which is covered in issue 58. Closing this issue.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
47	CGE&Y	1/28/2000	Admin	TAM resource	Readiness for app to app capacity	6/9/2000

1/28/00 - GXS and CGE&Y will work together for script creation and walkthrough. Seed cases from Blackhawk will be used in test (34 total). Will modify PONs prior to re-use. Need to be good orders that won't exception. TG needs these seed orders ASAP - Req Type M for GUI will be required on 2/7, others will be after that.

2/4/00 - Concern raised regarding re-using TNs during capacity testing. Per PB if more than 10 pending orders with same TN, cancellation must be done manually in reverse order (LIFO) otherwise switch database locks up. This concern is being addressed by TAM resource to insure we don't process more than 10 repeated TNs. PB will build more lines if necessary to avoid this problem. With the proposed 8400 orders, we will require 840 TNs to insure no issue.

2/14/00 - Currently have 764 TNs for test. Need approximately 80 more requested from PB to avoid issue of purging. 3-5 business days required to remove capacity test accounts after test completion - must wait this time before performing combined capacity test. Prep time increased to insure all 840 required TNs are ready if we are held to the 10 repeat TN. Per TG resource, PB account manager says PB may have some flexibility on the 10 limit for purge of capacity orders with same TN. TG will push back on PB, and escalate to TAM if necessary. TG resource asked if there is any way to perform capacity test without going through the purge problem? TAM resource will check with Pacific Bell.

2/18/00 - Have tried to work around the 10x problem, but not possible. This would require a new release from Telcordia. This needs to be put in front of the TAB as a large risk. TG and TAM will develop a LOE estimate for scrubbing and processing 840 orders rather than the originally planned 34 seed orders. This estimate will be from a schedule impact point. Questions arose concerning blindness of the capacity test with all orders coming through Blackhawk only. TG resource stated that errors introduced in ordering will also need to be introduced in pre-order. The TAM will introduce some errors, but at a very low rate. TG resource questioned what systems will be checked for the errors - DataGate or some backend system. TA resource will send TG resource a chart of PB backend systems for analysis.

2/25/00 – TG resource received chart of PB backend systems from TA resource. TG resource concerned about level of expectation on pre-order error responses to be received. Will limit to errors as called for by the MTP - NOT problems, and don't want to skew results. TAM resource and TG resource will analyze level of effort for processing 840 orders on Monday and distribute to CPUC staff on Tuesday. Add to agenda for TAB meeting on 3/2. Discussed configuration of test in Texas concerning FID to disallow progress of orders. TA resource stated he has asked more than once if PB can change their system to allow FID to be added. Response has always been no.

3/3/00 – TG resource stated orders will flow through using 34 seed orders, changing every 11th one, if they are good TNs. Only interested in the FOC and will test to see if the change of TN will work. TAM resource suggested running 2 TNs with 10 orders each to see if there are any other limitations down the road. This would eliminate the need to 'cleanse' 840 orders. TAM resource and TG resource will coordinate a pre-test of approx. 20 orders.

3/10/00 - Continue to do pre-test. Sent TG resource some more orders to use, which were received on 3/9. TAM resource will run this by PB team to ensure there are no problems. TG resource will be able to do the 2 number, with 10 changes, by 3/17.

3/20/00 - Ran test, but it did not work. Next step is to try and analyze what to do next. TAM resource and TG resources will talk to discuss the process and will include PB account manager on the discussion. One problem was that a due date of Saturday was selected. There is a call on Tuesday at 11 EST, which TG resource will initiate after talking with PB account manager today.

3/24/00 - TG ran a series of 5 tests this week, and all passed…therefore the approach is fine. Capacity testing will need to go through 5/26 bill date and it takes one month to get the performance measure data. TA resource wants to know if we can get this information earlier. TAM resource will check with PB. If we can't get this information earlier, we will need to finish by end of May and the capacity test will take approximately 2 weeks. TG resource wonders if we can use the raw data that is captured since there are only 4 measures that are included and they are only response times. This can not be done. TAM resource believes we should run a report to get information for only these 4 measurements. TAM resource will ask PB if they will be able to produce a report on request. If we finish functionality testing on the 12th, we will be okay with the conversion. If it finished on the 19th, we will have the conversion in the middle of testing. We need to have all orders for capacity in the same version. To ensure we meet

the 5/26 bill date, all orders need to be in by 5/24. If PB can generate a report for capacity measurement data on an as needed basis, there should be no problem with the month long delay receiving information - the only remaining issue would then be the conversion.

3/31/00 - Took all 674 orders provided and looked up CLLIs for them for matching to use the change number strategy. Found 16 within one CLLI, 10-16 matches for 12 examples, 70 with a unique CLLI and 60+ with 2 matches. There are 218 distinct CLLIs for the numbers given so we won't have to create more than this. We looked up 202 addresses without zip codes in the USPS and found that 12 are not valid addresses. We are still gathering data to get a handle on where we stand. If we determine that we need 218 cleansed seed orders, we will need impact on this documented, including schedule and effort impacts. Have we asked PB for numbers that match the CLLIs that we have, or have they spread them out for the test? May need TG resource to assist us in this. TG does not have a resource available to assist.

4/7/00 – TAM resource had a call with the PB SMEs to analyze and see limitations on swapping TNs, etc. Can use higher % of TNs provided than originally thought. Need to cleanse about 674 accounts, but won't need as many seed cases as thought. Need to find out if the EDI LSR requires population of additional fields not required in GUI. Will need GXS resource to run small file through EDI as a pre-test to actual cap test. Per TG resource, resources are tight, will need to analyze amount of effort required. Need (1) file format for EDI to set up this pre-test, (2) logic of EDI for supp issue and (3) GXS work contact for pre-test and error resolution. Pre-test can be done anytime due to using only capacity scenarios for pre-test. CPUC staff member believes it is a good idea to have a TG resource dedicated for capacity pre-test. Need to call PB to request post-test purge. May be more preferable to cancel pre-test orders, via supps, to avoid blindness issues with PB. CPUC staff member states issues seem to be more on the order side of capacity, what about pre-order. TAM resource feels uncomfortable about the pre-order side of EDI, and it is a major part of the capacity test.

4/14/00 - Process is more involved than expected. This should have been done by noon Thursday 4/13, but estimate now to be complete Tuesday 4/18. This also includes need for TG resource and process flow.

04/20/00 - Process is revised and sent in a PowerPoint presentation. Continue to get data together for pre-orders and orders. Need to work with GTG to get started. Need to have a TG resource available – TG resource will need to look at the document to decide what needs to be done on their end to obtain the resource for this. TAM resource will send the process to TG resources.

4/28/00 - In process of sending this to TG, and it should go out today, which will prepare them for the capacity test. TAM resource will also send this to TA resources. This document also includes the responsibility of the TG resource.

5/5/00- Sent out process and supporting info for pre-orders. TG is analyzing the pre-order portion. TAM resource would like comments as he is working on the order data, which should be out next week. He will send the process to TA resource also. CPUC staff member is concerned that NY had to increase their capacity 5 fold. TAM resource mentioned we will be adding 8400 orders to their highest volume day.

5/15/00 - Received an update on the numbers that will be used for testing. Preparing orders test. There will now be close to 134 orders, rather than 34. TAM resource is trying to get the best matches for the orders and this is what is being done now.

5/19/00 - Incorporated new TNs into capacity order database. Ready to generate orders and need TG resource ASAP. TG resource mentioned to development team that the capacity test is the primary topic. They will insure they are ready for capacity test. TAM needs to send pre-test next week and TG resource will check on resources available at TG site. Capacity test will be run during PB business hours to insure data is captured in Performance Measures.

5/26/00 - Sent out batches of orders for pre-test to TG on 5/24 and 5/25. TG resource passed them onto the developers. The orders sent were seed orders and we should be ready when capacity starts. TAM resources plan on being in Tampa prior to the start of capacity.

6/2/00 - Sent over 100 orders to TG for pre-test. Today will send out for 'new's. Check CSRs. TAM resources will be in Tampa this week and would like to meet with the new TG resource. TG resource believes they will not be ready to start capacity on the 26th. Each order will need to be tested with each TN to be used. Should know the status of when they will be ready by next Friday. The orders being sent in may appear as x-coded and will most likely appear on PB resource's report.

6/9/00 - This record is too lengthy for the database. See continuation on issue 76. This issue closed – refer to #76.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
48	CGE&Y	1/28/2000	Admin	TAM resource	M & R data collection	2/14/2000

1/28/00 - Need process for TG to collect data and respond to TAM database (M&R tracking # collected by TG then sent to TAM database at completion). Tracking order form now going to PBSM resource - needs to go to TG resource for data collection. TAM and TG resources will get together and create a process for tracking and send it via e-mail to everyone.

2/4/00 – TAM and TG resources have briefly discussed, and will continue with the current process unless further analysis proves advantageous to change. TAM resource is getting the data he needs.

2/14/00 - Per TAM resource, the analysis is complete, and the process will not be changed. Issue will be closed.

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
49	GXS	1/28/2000	Admin	TG resource	Daily Tracking info for app to app test	2/25/2000

1/28/00 - Sample format and structure needed from TG of daily tracking information that is being captured from App to App for the Cap Gemini tracking database. TG resource will get required information to TAM resource.

2/4/00 – TG resource will get sample format and structure of tracking info to TAM resource by 2/7/00.

2/14/00 - Sample format and structure has not been delivered to TAM resource yet. TG resources will talk to determine if format delivery should wait until issue #43 inclusions have been estimated.

2/18/00 – TG resource will send the format and structure today to TAM resource.

2/25/00 – TAM resource received format, which looks identical to TG resource's information. Some fields are lacking. TG resource has incorporated some into their report, (the GUI,) however, 4 additional fields will be sent. There is no need to back fill data – This issue can be closed.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
50	CGE&Y	1/28/2000	GXS	TAM resource	Loop with port customer accounts with same names.	2/4/2000

1/28/00 - TG did not receive all information on test accounts at same time. TAM resource will follow-up with PB resources to correct names on accounts. Need insurance that no duplicate names exist for all order types. TAM will check remaining BTN lists.

2/4/00 - PB created record changes to correct repeated names on accounts. 2 other lists were found with repeated names. A conference call with PB was held to address - resolved. This issue can be closed.

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
51	GXS	1/28/2000	Admin	TAM resource	Communication of problem orders	2/18/2000

1/28/00 - Determined that responsibility to perform high level investigation of reported problems belongs to TG. Follow-up with LSC, etc. is responsibility of TG. TAM resource and TG resource will work on communication process to facilitate problem orders.

2/4/00 - Issue mistakenly missed during weekly status call. Will address at next meeting.

2/11/00 – TAM resource and TG resource have worked this. TAM resource will provide a daily update to TG resource.

2/18/00 - A weekly meeting will be held to define the issues and resolutions. Issue will be closed.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
52	CGE&Y	2/4/2000	Admin	TAM resource	Data Usage Tape format	3/24/2000

2/4/00 - Problems deciphering the OBF format of the usage file CGE&Y is receiving. TAM resource is currently researching the data format, and will interface with TG resource, TAM resource and PB account manager to decipher information received. Usage should be by CLEC and one file for each. TAM resources will review data files to identify any additional problems.

2/11/00 - Additional usage on detail bills is NOT test usage. PB resource wants the info sent to them for analysis. Approximately 1000 records seem to be in error. TG resource will send usage data file from the PB tape to PB resource. Napa file had Blackhawk calls included. The NDM CABS bills mixes Blackhawk and Discovery info. Conference call with PB account manager and PB SMEs being set up to discuss. We need PB to send Pseudo-CLEC bills separately. Per TG resource. CABS bills via NDM starting 2/14.

2/18/00 – TG resource will contact PB account manager to request usage via NDM. The TAM needs to change their process for validation if NDM for usage can be provided during this test.

2/25/00 – PB account manager has been requested to get NDM usage set up. No final answer on time frame yet - may need to expedite if time frame is 2 months. Daily usage currently coming in 4 separate tapes/files. Must inform TAB if we go through exception process to get NDM faster than normal. TAM resources have call scheduled on Monday with PB regarding billing questions. The interaction in this meeting will be noted.

3/3/00 – TG resource stated NDM for usage will not be done until mid-April. This must be done during a PB off-off release. TG resource will request information on when we can expect to receive the first feed and ensure we will get it in the form we want, (weekly.) TAM resource still does want it weekly. TG resource will request that it be separated per CLEC. TAM resources had a call with PB resource on 3/2 and it is not possible to take usage and find out how it is rolled in the bill as it is raw data. TAM resource asked if we can compare usage with DataGate. TAM resource mentioned we are charged for all calls whether answered or not. TAM resource mentioned the 1000 includes loop with port, most of them are resale/retail.

3/10/00 - Is the date of 4/15 the date to receive the first NDM, or the date it was entered? TG resource was promised information from PB, but has not received it yet. TG resource has been getting extra tapes and PB account manager states these are end of month only. The daily usage tapes are truly raw data. TAM resource believes these may include some calls which were missed earlier, but they should only be updates of the previous tapes. TAM resources will check on this early Monday or Tuesday.

3/20/00 - No information received on when NDM will be ready. TG resource will send weekly tickler.

3/24/00 - Will get NDM on 4/14 per TG resource. TAM resources talked and the NDM should not impact the format of the records. – This issue can be closed.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
53	GXS	2/4/2000	GXS	TG resource	Customer Ids for App to App database	2/18/2000

2/4/00 – TG resource needs a list of names and addresses for any accounts with activity, or planned activity, to assign unique, specific TG customer IDs for database pre-population. TAM resources will talk about getting this information for friendlies – TAM has not received names for the embedded resale/retail accounts PB built. TG resource will e-mail his request to the TAM resources.

2/14/00 - Have names for all – TAM resource will provide to TG resource 2/14.

2/18/00 – TG resource received requested information. TAM resource will continue sending info for new friendlies as they are received. Issue can be closed.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
54	CGE&Y	2/14/2000	Admin	TAM resource	Usage calls	5/26/2000

2/14/00 - Test end user usage calls are getting intercepted by AT&T operator. This is affecting our usage calls scheduled for week of 2/14. TAM resource will check, and fire off a trouble ticket if verified that AT&T long distance was included in original order setup. Need to check PB process to update AT&T on notifying new TN. TAM resource will give TG resource a list of all test end user TNs to check for long distance carrier.

2/18/00 - The correct PIC is being utilized on LSRs. TAM resource is sending a note to TG resource requesting they inquire if CLECs are required to notify long distance carriers to update their database for recognition. TG resource will work with their account management to resolve, or else we will talk with CLEC 1 resource for assistance. CPUC staff member suggested we may want to escalate this issue to PB for assistance as well.

2/25/00 – PB account manager requested more information. TAM resource sent on 2/22. If no resolution by 2/29 or 3/1, will be brought up to TAB. TG resource will inform TAM project manager by Tuesday if resolution has bees established. TAM resource and end user team will perform usage calls next week. TAM resource will verify if CLEC 1 operator interrupt is still happening.

3/3/00 – PB account manager stated the likely problem is that CLEC 1 is a nationwide provider and the OCN which is used is a real CLEC in Montana. Suggests using another LD carrier. This OCN is real and the only assurance was that it was not used in PB area. TG resource will forward these comments to the TAM, TA and CPUC staff. CLEC 1 resource, suggested that we either go on an individual basis and request service per line, or have the pseudo-CLEC establish an agreement with CLEC 1. CLEC 1 resource has volunteered to take all phone numbers and set them up for LD. All he will need is the address, TN, CLEC and billing address and will PIC all to CLEC 1. We are not testing the LD carrier, so it should not matter which carrier is used. TG resource will send the address of Blackhawk to TAM resources. Currently Blackhawk is using CLEC 1 and Napa is using CLEC 6. We will PIC all to CLEC 1.

3/10/00 – TAM resource e-mailed CLEC 1 resource information on lines and has not received confirmation if LD is reconnected. Have sent out PICs for other lines to CLEC 1. Half were sent to the Tampa address and half were sent to the Atlanta address. These will be held and combined with the bills, which are sent to PB. TAM resource had LD disconnected for 1 day and TAM resource has not had a chance to check her line yet. TAM resource sent additional e-mail to CLEC 1 resource and has had no response.

3/20/00 – TAM resource sent an e-mail to CLEC 1 resource to validate the TN's that were PICed for CLEC 1. Received an e-mail from TAM resource that she was able to make LD calls on one of the lines. Have not received confirmation from CLEC 1 resource on the status of the line PIC to CLEC 1. TAM resource will send another e-mail to CLEC 1 resource to request information.

3/24/00 – TAM resource is still not able to make LD calls. No response from CLEC 1 resource. TAM resource will call CLEC 1 resource.

3/31/00 – TAM resource called CLEC 1 resource on Wed. and received a response on e-mail. One line still does not have working long distance. CLEC 1 resource will verify all information on all numbers. He was tied up most of the day on Thursday so TAM resource will send another e-mail if she receives no response today. TAM resource will give another update on Monday if the line still is not working.

4/7/00 – TAM resource left a voice mail for CLEC 1 resource, no response on Monday or Wednesday. CPUC staff member will send CLEC 1 resource an e-mail asking for the status. TAM resources have submitted a trouble ticket through PB, and there is no trouble there.

4/14/00 – CLEC 1 resource states the internal process was more complicated than originally thought. We called the 800# ourselves and the 2 remaining lines should be done by Monday or Tuesday of next week.

04/20/00 - All lines have LD again. One installed on Monday and the other still needs to be installed as it was scheduled on

California Public Utilities Commission Project

Issues by Number

Tuesday and they came Monday night when no one was there. LD will be placed on these two remaining lines.

4/28/00 - One line has not been installed in San Francisco at the TG facility. This will be done on 5/8 and TAM resource will remain on site until it is installed. LD is on all other lines.

5/5/00 - Same as 4/28 – TAM resource will be on site for the install on 5/8.

5/15/00 - Two lines in El Segundo have lost LD for the 3rd time. TAM resource will check to see if she still has LD on other lines. There will be a disconnect sent for all NAPA test sites and Blackhawk should be done on 5/24. TG resource will check to see if there was a notice from CLEC 1 regarding the loss of long distance service on these lines.

5/19/00 - Disconnect orders submitted for Napa. Will wait to hear from TAM resource if the disconnect was successful. Will also wait for word on disconnect for Blackhawk.

5/26/00 - Issued orders for disconnect of BH which should be completed today. TG resource will keep sending the data usage for NDM until further notice. Close this issue

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
55	CGE&Y	2/18/2000	Admin	TAM resource	Due Date Intervals	3/24/2000

2/18/00 - Per PB, orders outside the standard due date interval will be excluded from performance measurement for due date interval met. Customer specified due dates cause problems. Need to ensure that TG/TAM are not requesting due dates. Post mortem on previous orders should be done to analyze if some orders were excluded from this performance measurement.

2/25/00 - Per TAM resource, TG resource verified the TG process for scheduling due date - schedule based on Verigate schedule which is automatically set up. TG needs to continue to print captured data from Verigate LSR and track info. Need to ask PB if any report can be generated which lists orders excluded from PMs due to customer specified due dates.

3/3/00 - Per TG resource, TG is only handling standard due dates. TAM resource will request information on test cases that may have been excluded due to non-standard due date through PB. TAM resource wonders if there is a report that can be generated that will list the orders with no SOC transmitted to us. We need to verify if the FOC date corresponds with the SOC date. TG resource is not sure a 'real' CLEC would be able to obtain this information, however he will investigate through PB account manager. CPUC staff member asked if 2/18 was the first time we had heard of this PM missing - all answered yes.

3/10/00 – TAM resource had a call with PB yesterday. 50% of Blackhawk orders were excluded from measurements. With new orders, every order is counted regardless of the due date the CLEC requested, (standard is 3 days,) unless the request is earlier than the standard due date. We're okay with new orders. With disconnect or change orders, if the change is done prior to 7pm, the due date is today. If a request is any other date, it is excluded. Probably getting off due to Verigate check prior to placing the order through LEX. Approximately 325 orders excluded so far. Need to see which of these orders need to be replaced since we have put in more than expected. TAM resource will verify with PB to ensure the information is accurate.

3/20/00 - Received the due date information from the handbook. We need to use standard due dates from PB. Do not need to redo conversion orders, perhaps only change orders, but TAM resource will inform today if this is correct. There should only be about 30-50 orders that will need to be re-done. PB resource has offered to look for any exclusions that may go through SORD to ensure we don't miss anything. If she is willing to do the work we will welcome this information.

3/24/00 – PB resource has reviewed the data and there have been no other exclusions. Do we want her to continue to do this? TAM resources will do the analysis next week and report to CPUC staff member. TAM project manager will also ask PB resource to continue reporting any exclusions. This issue is closed.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
56	CGE&Y	3/3/2000	Admin	TAM resource	Supplemental Options	3/20/2000

3/3/00 – TAM's document went out on 2/25 and a discussion was held on 2/29 with a continuation on 3/1. The CPUC suggested using a re-use of addresses option. TAM resource will analyze this with her team and will determine the criteria for making up a certain percentage per service group type, which is low. We need to be careful not to send the same order types to the service center and need to determine which addresses to re-use. TAM project manager states this will determine how many supplemental CLEC production orders will be needed, if any. The max amount of re-use addresses should be no more than 50%. At this time there are about 25% for two-wire, 50% for four-wire and 50% for DSL. TAM resource states there are really no change orders in four-wire, they are all disconnects and new orders, which makes our shortfall a little larger than expected. TAM resource will investigate what percentage of order data could be missed and still reach the regional performance measures without lowering the standard for measurements.

3/10/00 - Ruled out phantom addresses. Realized CLEC production orders would not be desired and chose to investigate re-use of addresses. Only need approximately 25-30%. This would be done by disconnecting and run install with new service. May run into facility issues, but this should be slim. We have total control over this and do not need to depend on anyone else. CLEC 6 resource wants to discuss this at the TAB meeting and TAM project manager agrees to formalize this at the TAB on 3/16.

3/20/00 - This was presented to the TAB on 3/16 and the best solution is to re-use the addresses. PB ensures that as long as a SOC is obtained there will be billing information on the TN. This means we do not need to hold it for the 2-3 weeks as we originally thought. TAM resource is working on different orders for each address and matching them to CLLIs. We are not currently investigating any other options. This issue can be closed.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
57	CGE&Y	3/3/2000	CPUC	TAM resource	Test Impact Due to PB System	5/19/2000

3/3/00 - A PB system upgrade for LEX will require programming changes at TG if the capacity test is moved out past that time. Also, a DataGate change for supplemental addresses is scheduled which needs to be analyzed for potential impact to functionality scheduling. For functionality (DataGate) the change is anticipated to occur on 3/18 and for capacity (LEX) the change is anticipated 4/29. What response will TG have with the system change and how will this impact the test schedule?

3/10/00 - Verigate change is now scheduled for end of May. In the accessible letter it states July 22. TG resource received a message from PB account manager, who sent the calendar, and wants to know if they would like a walk through. TG resource will be requesting this. There is a 37 day process for changes: 37 days prior to the change, the CLEC needs to be notified, 30 days to do the testing and 7 days for PB to convert. TAM resource suggested contacting PB account manager about conflicting information on dates. TG resource believes there will be minimal change after looking at the accessible letter. DataGate would have more of an impact on the test.

3/20/00 – TAM resource contacted the LSC and the 4/29 change will now take place on 5/29. A letter was sent confirming the 5/29 date. Should be little to no impact for TG, but possibly a schedule impact. TG resource states that any changes in the fields on LEX screens could impact the schedule and we will not know this until we receive the information. TG did a walk through last week and there should be no functional changes for DataGate, purely mechanical.

3/24/00 - Any negative impact from 3/18 conversion? TAM resource stated Monday there were minor interruptions, but no major concerns. 5/29 is coming, but should be no great impact on TG. Wait to determine that the LEX screens have no great impact.

3/31/00 - No change to this. Don't know about the 5/29 change and we will not know until we see the LEX screens. Leave this issue open until we can see the screens.

4/14/00 - The install will be on 5/27 and we should be able to get more information on this at that time. The accessible letter was sent and the only major change is line sharing which we are not testing. There should be little impact on the test. TG resource will keep TAM resource up on this as she is involved in the change management portion. Hope to have functionality done by this change.

4/20/00 - Same progress - need to wait for the 5/27 install.

4/28/00 - Same progress.

5/5/00 - The 7/22 release will cause TG to re-do interfaces. The development team is looking at release 10 and what it would take to switch. This may be just compiling and adjusting the server. Should be minimal impact on the schedule and should know more about this next week. CPUC staff member will need schedule impact as well as cost, etc. TG will respond by Tuesday 5/9/00. There are minimal changes between releases 8, 9 and 10.

5/15/00 - TG has put in a couple of orders through the test system and have received no results as of yet.

5/19/00 - Orders successful through test – Close this issue.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
58	GXS	3/10/2000	GXS	TG resource	Dispatch Problem in DataGate	4/28/2000

3/10/00 - Dispatch is used with a new residential customer to find if facilities are available. Estimate 1 week to build and test. Similar to other additional validation queries. Request has been issued to PB to find how these differ from other fields for address validation. Looking for answer in approximately 2 weeks.

3/20/00 – TG resource will put in a Vantive ticket on this as no information was received from PB. They feel it would be wise to have this documented.

3/24/00 - On 3/10 there was an original request. On 3/20 there was a conversation with PB account manager and TG opened a Vantive ticket which is still open. Will push the issue on Monday.

3/31/00 - Still waiting for PB to test data to verify this. Haven't heard back from them. We need to know when to escalate to the PB OSS team. TG resource will provide an update on Monday.

4/7/00 - Still on the PB side. TAM project manager will check with TG resource concerning escalation.

4/14/00 - Have tested latest information on dispatch and have closed the Vantive ticket. We will leave this open until the transaction is entered into the database and tested.

04/20/00 - No official sign off on the testing portion. Developers are finished - currently in test.

4/28/00 - Finished testing and this issue can be closed.

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
59	CGE&Y	3/10/2000	Admin	TAM resource	Bill Validation	4/7/2000

3/10/00 - Discussion with PB and many calls that appear on the bill are terminated calls, which can't be validated since we did not answer the call. We can only validate our usage on calls that we generate and we need to take PB's word for all terminated calls. TAM resource is going to a class on 3/20 and may determine how other CLECs do validation, but with initial conversations there seems to be a large hole in CABS billing.

3/20/00 – TAM resource is not available today and we should get more information on this during the regularly scheduled call on Friday.

3/24/00 – TAM resource attended class earlier this week and CLECs check validation by checking their own switches. TAM resource's team will validate all calls they make and will question any calls made after midnight or so. The problem is there may be calls made to the people who previously had that number. Still waiting for mileage files, (V&H table) and FID information, (English translation) which was requested from PB resource. We will be able to validate usage rates, but can't validate total usage. This will be included in the final report.

3/31/00 – PB resource is working on getting the English translation for the FIDs and the V&H table is available for $600.00. TAM project manager had a meeting with PB on Tuesday and PB is looking at this as being out of the scope of the test. The PB VP states if we want this information she will ensure it is received and the $600 will be expensed back to PB.

4/7/00 - Received FID definitions, also received e-mail from PB verifying only 1 V&H table, so don't need to verify mileage and do not need the tables. Issue can be closed.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
60	CGE&Y	3/31/2000	Admin	TAM resource	End to End Testing that validates accuracy of installation (to the correct NID)	5/19/2000

3/31/00 – TAM resource stated the CLECs require end to end testing and have offered some suggestions in the informal CLEC meeting on 3/30. The following suggestions were made: (1) CLEC techs do the validation, (2) the project hires contract techs to do the validation, (3) use the CLEC 7 and CLEC 2 techs to validate and for CLEC 1 we would analyze production data as they do not have techs, (4) re-address the role of the friendlies to have them check the lines - which would require inside wiring and add equipment. The CPUC also feels this option is out of scope as the friendlies may require more money for the extra time it would take, (5) have the TAM go into the LOC to make sure every order was tested by sending out a technician to the site. Not sure if the technician would actually go to the address to ensure it is at the correct NID. These options will be discussed today to determine which would be the best option at this point. TG resource suggests calling TAM resource to see how valid testing a smaller portion of the sample of orders would effect the results. If we were to capture what CLEC 1 wants, we would need to talk with a customer at the other end. The CLECs stated if we do not test end to end 100%, they would consider this test invalid. The MTP states end to end is to the PB site. PB will not send out a technician if they show the order is complete on their end. This needs to be established prior to testing.

4/7/00 – TAM resource will be discussing this with the CPUC on Tuesday. For more information on this, see issue #36.

4/14/00 – TAM resource is forwarding the document we discussed with the CLECs yesterday which includes the 5 options. We shared our recommendation for #3 to use the techs available and analyze PM15. CLEC 1 has requested reconciliation and has offered to reconcile 3 months of data if PB will cooperate. The other CLECs agreed that CLEC 1 data would be sufficient and be a representative sample of the CLECs. We will discuss this with the CPUC staff later this morning. The TAM would have a representative present during the reconciliation.

04/20/00 - In progress - see issue 36 for more information. CPUC staff member is concerned about not doing end to end testing because it would be out of the scope of the MTP. Need to test at least to the central office.

4/28/00 - Expect some resolution on Tuesday per the CPUC. Need to see how to make up for not having a technician on site. CPUC staff member is researching the possibilities.

5/5/00 - More detailed description on PM 15 and 16 data is required because of the inability to test every premise. CPUC direction is to continue with as many as possible. The CLEC 1 request for reconciliation was refused by PB.

5/15/00 - This was brought to the TAB on Thursday due to the jeopardy. CLECs are not interested in looking at PM 15 & 16 to validate testing, but would feel comfortable to have PB test with a TAM representative present at the LOC. We will be able to determine a dial tone, however, this only applies to two-wire and not a truly accurate test for end to end premise testing. TAM resources will work with PB to determine the specifics of this and another discussion with the TAB is scheduled for Thursday 5/18.

5/19/00 - An emergency TAB meeting was held on 5/18 to review option 5 of the process that TAM resource created. Can't test at user premise, which will only effect CLEC 1 two-wire as CLEC 7 and CLEC 2 will use their techs. Can move forward and close this issue. The best viable option is to have monitored testing by PB. Option 2 is preferred, but not viable at this stage in the test. PB will provide their position on the overall process. CPUC Commissioner's advisor has concern that CLECs will disown any acceptance of using this option at final report time. Need to put stake in the ground and proceed as best we can at this time.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
61	GXS	4/7/2000	Admin	TG resource	Accuracy of TG daily logs	4/14/2000

4/7/00 - The word 'none' cannot appear in the DDD or DD fields. TG will correct this on Monday's report. The EDI activity log dates need to be entered in a date format. The developers are working on this. There is a meeting today at noon to discuss. TG will give us a date of completion for this.

4/14/00 – TG has corrected information formats on their logs. This issue can be closed.

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
62	CGE&Y	4/14/2000	Admin	TAM resource	Bill Validation/Rate Change	6/16/2000

4/14/00 - PB had a rate change in November and had until March to make changes. Some have not been done yet. CPUC staff member will check with the CPUC, and TAM resource will check with PB regarding whether or not there is a certain timeframe that the back charges need to be corrected.

04/20/00 - No resolution yet. The table doesn't match the rate on the interconnection agreement. Talking with PB resource to discuss this further. The bills prior to March can not be resolved as they are not on the interconnection agreement. An e-mail from PB resource on directory listing rates will be coming. TG resource will forward the CABS bills.

4/28/00 - Received information from PB resource and still trying to get additional information that she was sending. Still using some old rates on March and April bills. TAM resource is tracking this information. TG resource would like to know if the NDM information is identical to the tape information. TAM resource will check this.

5/5/00 - Received information from PB resource and still evaluating the info. Hope to know the results next week.

5/15/00 - There are still some questions regarding the information received from PB resource. One question is regarding the USOC having a TBD next to an item, which is something currently available, (such as caller ID and call waiting.) Another question relates to the rate change that has shown only being adjusted on some of the bills.

5/19/00 - Call with PB resource on Monday and are not satisfied with her answer. Another e-mail was sent on Wednesday afternoon with more questions. Original interconnection agreement never revised with previous OANAD rates. Rounding rules have been satisfactorily answered. CPUC staff member suggests asking CLECs if they have ordered TBD pre-OANAD rates before and how much charged, then compare with PB response to eliminate any special activity for the Pseudo-CLECs. PB states CLECs should not order if the rates are not in ICA.

5/26/00 - We will need to get the status from TAM resource next week.

6/2/00 - The questions sent to PB resource were answered. TG resource will send the information to TAM resource regarding the 25% discount for Camino. The number of discounted DSLs will be sent to PB to replace their pool for discounts. This should be added to the environmental checklist.

6/9/00 - Rate info received from PB. Item added to environment checklist to cover discounted DSL announced to PB.

6/16/00 - The checklist was sent to TAM project manager, who will distribute to the TAB today. This issue can be closed.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
63	GXS	4/14/2000	GXS	TG resource	Tracking Numbers	4/20/2000

4/14/00 - These need to be in a certain format for EDI and the current numbers do not comply with those rules. Need to have conversations with TAM resource to see how to proceed so they are consistent with the numbers for the TAM. Need to look at cross cases with each CLEC to insure it is the same type. TG resource states this would be the same within each CLEC. Will meet on Monday morning to continue the discussion.

04/20/00 - Database is cleaned out and in agreement with the tracking numbers per TAM resources. This issue can be closed.

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
64	GXS	4/28/2000	GXS	TG resource	Managed Introduction	5/15/2000

4/28/00 – TG resource documented information and sent the document out to the TAM, CPUC and TA. PB account manager corrected to say that it is okay to introduce product types per CLEC in both GUI and EDI simultaneously. Instead of 9 types to go through, there are now only 5. PB stated they would contact management team to combine product types where possible. TG resource will follow up for more details next week.

5/5/00 - Completed Managed Introduction for 8 CLEC product type combos. Still in progress on 7 combos. Need to start ASSL for Discovery and it is looking promising for DSL. We need 1 ASSL for Discovery, all flavors of DSL and more DS1 from the TAM. TAM resource will check on the ASSL for Discovery and the DS1 orders. TG resource mentioned there should be a full blessing from PB on managed introduction by Monday 5/8. TG resource is requesting documentation from PB on managed introduction and sent the e-mail out this morning. The first time managed introduction was mentioned was 12/5/99. CPUC staff member stated the lack of criteria needs to be reflected in the final report.

5/15/00 - This was closed on Thursday, however…TAM project manager will need to update the document to reflect all involved items and deliver to the TAB. This issue can be closed.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
65	CGE&Y	2/4/2000	Admin	TAM resource	EB Testing (phase 2)	6/9/2000

2/4/00 – TAM resource checked the PB CLEC Website and sent requirements for Electronic Bonding to TG resources. Currently don't see any issue with not having JIA for our processes. We can receive a clear from PB, and CLEC 6 will send a close.

2/11/00 – TAM resource met with CLEC 6 resources to review experiences that they have encountered. Requested 24 trouble tickets for second phase of testing scheduled for 2/21. TAM will set up an additional phone line in the Richardson office for trouble ticket call backs from PB to insure blindness.

2/18/00 - A line will be wired to a designated cubicle in the CGE&Y Richardson office for callback purposes. The 2nd phase of EB testing has been moved to 2/28. TAM resource scheduling another call with CLEC 6 to discuss.

2/25/00 - Don't have POTS in Richardson office - will utilize team member's numbers for call backs. Need to have another call with CLEC 6 to discuss JIA issue - should push back during informal CLEC session next Thursday.

3/3/00 - In CLEC meeting on 3/2, a discussion was held regarding a verification step to be activated prior to the 2nd phase of testing to disallow the average time to clear to be artificially lowered. How can we do this accurately if we are inducing the trouble? Could we possibly enter a verification stage without a JIA? TAM resource suggests that TG resource speak with PB account manager regarding entering in a verification process. CPUC staff member wonders if it is too late to enter in a verification stage. CLEC 6 resource wants the scenarios for EB testing and does not want to proceed without it. TAM resource states this information has been sent to CLEC 6 in the Test Plan. CPUC staff member suggests having a conference call next week with CLEC 6 to discuss this. TAM resource will set up a call with CLEC 6 for Thursday 3/9 and will also set up a call with the CPUC on 3/8 to prepare for the 3/9 call.

3/10/00 – TAM project manager mentioned the receipt of a formal issue from CLEC 6 on 3/6. There was a call with CLEC 6 on 3/9 concerning the exclusion of critical processes in the test. EB does not provide a process for POTS in LMOS. We are inducing trouble so this is not 'real world'. CGE&Y suggested using Measurement 23 as an option to EB and are investigating to see if this would be applicable. It may be a good idea to see if the verify step makes a difference by evaluating CLEC 6 and other CLEC responses to troubles. CLEC 6 also feels if we induce trouble it will not produce accurate results. CLEC 6 is making a proposal to the TAB for possible verification steps. There is a concern about blindness in EB as CLEC 6 is the only CLEC using this. TA resource will investigate whether or not there is a difference between backend processing of EB and PBSM troubles and should have an answer by 3/14/00. UNE-P description, per PB resource, is the same as loop with port and port with loop. In the JIA it also includes transport, which is PB term for customer calls. There is no concern as we are testing loop with port. TAM resource suggests informing PB to update handbook. This will be done and it will also be reflected in the final report. TA resource will also be speaking with the PB SMEs on Monday morning. There is no problem with TAM resource's team if we use PBSM for all troubles, TG mentioned that the minimal number of about 50 troubles should not cause a problem for them either. Action item: TAM resource will contact PB regarding the update to the handbook due to the definition of UNE-P.

3/20/00 - There was a call on Friday and we were to receive an e-mail from TA resource, who has provided the response. Need to answer CLEC 6 resource's proposal and there is a call scheduled for Wed at Noon CST. TAM resources will be producing the response today and will send it to TAM project manager for review. TAM project manager will then send the response to CLEC 6 and TAM resource will take the call on Wed. Anything we propose should be something that we can adequately do.

3/24/00 - We received a proposal from CLEC 6 and TAM did prepare a response. A call was held on Wed., which produced two action items: (1) CLEC 6 would let us know if they still planned on continuing with the EB testing. They have stated they would like to continue, however they will be documenting their concern about the blindness and the non-POTs trouble tickets issue. They would also like to know the amount of time before the trouble ticket can be automatically entered in. They have information that PB can enter in trouble tickets for their customers within 24 hours of an SOC. How long after a SOC will it be before ability to do a MLT? TAM resource will look into these questions. Following TAM resource's investigation, they will submit their findings to the Commission for a decision on incorporating this activity. (2) TAM has the action item to update the EB test plan. TAM resource will start on the revisions on Monday, which will include the CLEC 6 proposal and decision, creating trouble tickets and the MLT issue. TAM resource will also start thinking about doing the MLT after SOC and determining the timeframe for this activity. TAM project manager would not like any information incorporated until we have approval from the Commission. This should have little to no impact for the Test Generator regarding PBSM.

California Public Utilities Commission Project

Issues by Number

3/31/00 – TAM resources produced a proposal, including allocation of resources, and submitted to TAM project manager to send to the CPUC. We still need to get more information on PB timeframe for interval troubles and MLT within 24 hours. Sent an e-mail to TAM project manager to request information on posting troubles after SOC. TAM project manager states CLEC 6's concern is that PB can enter trouble within 24 hours for their customers. TAM resource sent an e-mail that proposes a 4-hour increment check for MLT capability, and TAM project manager believes CLEC 6 resource had wanted a larger spread - she suggested an 8-12 hour increment. TAM resource wants to ensure the timeframe is accurate enough for the final report. TA resource believes the bigger problem is that PB doesn't always issue a SOC on the completion date. TAM resource understands that the order must be posted first. TAM resource wants to ensure that when a call comes in a PB employee can't manually dispatch a technician to resolve the trouble and also wants to ensure that CLEC 6 can't enter in trouble until a SOC is posted where PB can. TAM project manager wants to ensure the amount of time to enter in electronic trouble ticket after posting and will look through TAM resource's e-mail further. The updated EB test plan should be final this afternoon and handed to TAM project manager for approval. Once this is approved, a call can be established with CLEC 6. TAM project manager would like all involved in this call to be informed of the date and time of that call.

4/7/00 - Finalize test plan by 4/14. TAM resources will discuss updated plan.

4/14/00 - Sent proposal to TAM project manager who will review and get back to TAM resource with comments, following which she will send to the CPUC for approval. A call will then be scheduled with CLEC 6, followed by a trip to Sugarland. TAM resources will meet with the CPUC staff later this morning and hope to have this proposal to them at that time. The proposal included time from order completion to trouble tickets being entered, as well as MLT.

04/20/00 - Finalized EB test plan and it will be e-mailed to CLEC 6 by COB today. A call will be set up to discuss this early next week.

4/28/00 - A call with CLEC 6 and they changed some wording in the document. These changes will be updated and sent to them by COB Thursday. Availability for additional testing is now scheduled for 6/19. The CPUC doesn't want this to be a critical path item and CLEC 6 should be able to free up people to do this in May. Will discuss this more with the CPUC today.

5/5/00 - An e-mail was sent to CLEC 6 on 5/4 with the proposal of 3 potential weeks for EB testing. (5/22 - 5/26; 5/29 - 6/1 and 6/5 - 6/9.) TAM expects a response no later than 5/9 from CLEC 6 resource. CPUC staff member is ready to move on without EB if there is no commitment from CLEC 6 on this date.

5/15/00 – CLEC 6 resource still has not responded to TAM resource regarding the 3 week options. TAM resource will send another e-mail today to request response by COB today (5/15/00).

5/19/00 - Confirmed 6/5 - 6/9 with CLEC 6. Identifying products for M&R test. Preparing inducement list for PB resource. Conference call with CLEC 6 1 week prior to visit.

5/26/00 - File with orders for trouble inducement were sent to PB resource - response expected 5/30. Conference call with CLEC 6 on 5/31 to discuss the week of 6/5. TAM resources will be in Sugarland that week and would like TA resource present.

6/2/00 - Will be in Sugarland 6/5 - 6/9. A conference call was held with CLEC 6 on Wednesday and another one is scheduled for today. Should be no schedule impact. Would like the CPUC decision to move forward with this. CPUC will send TAM resource this in writing and if CPUC Commissioner's advisor has any problems we will address them at that time.

6/9/00 - The phase 2 portion is closed. Please refer to phase 3 on issue 77.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
66	CGE&Y	5/15/2000	Admin	TAM resource	Pacific Bell test beds/limbo orders	9/29/2000

5/15/00 - There are changes in the test beds for both capacity and functionality. For functionality, there are over 1000 numbers that need to be looked at every time there is a change. We need to firm up these lists and keep them static. TAM resource will talk with PB resource and will follow up with us next week.

5/19/00 – TAM resources will talk with PB resources regarding this issue. Sub address changes in question. PB has changed test bed for accounts which haven't been converted yet. Checking with IS call center as well. Check with PB resource on rules PB used to build accounts.

5/26/00 - Retail-resale accounts need to add sub locations to 49. Can get LSR issued. TAM resource expects last batch (of 6) today. Rest of test bed has remained fairly stable. PB has a ticket opened with the IS call center.

6/2/00 – TAM resource received the last batch from PB resource and there have been no other changes to the test bed.

6/9/00 - No change in last week. Will continue to monitor for capacity test sub location addresses.

6/16/00 - Stable - PB add retail lines at the CLEC buildings, (25.) These should be issued on Tuesday or Wednesday. We will leave this open for the capacity test.

6/23/00 - Received 26 of 29 retail accounts for Assured conversions. No other changes. We will leave this issue open for Capacity test.

6/30/00 - The last 3 retail accounts were received. This will remain open until capacity testing.

7/7/00 - Continue to monitor.

7/14/00 - Continue to monitor.

7/21/00 - Continue to monitor.

7/28/00 - Will look to see if PB needs to add more retail lines. Some retail lines that were being provisioned by CLEC 1 already had orders against them. LSR shows no pending activity. Approximately 50 more that would be needed.

8/4/00 - TAM resource still working on limbo order analysis. Need reports to determine if all SOCs are in and to see about potentially requesting additional retail lines. Will have the count by Monday. CPUC staff member wants report on limbo orders during the risk call on Tuesday.

8/11/00 – TAM resources working on limbo orders. Loop with port is #1 priority, about 25% are completed orders. Should have update on Monday. These should be in TG resource's report as well. Test had a shift as some friendlies are not available for the orders we are trying to send in , (i.e.: retail on line sharing.)

8/18/00 - No change - continue to monitor. TAM resource will be looking at the remaining limbo orders today (about 20). These are orders we show an issue date, but no send date. We are looking to see if the pending are past their due date.

8/25/00 - Update on limbo orders was completed on Tues. 8/22. Able to pull pending orders past SOC date. This list was given to TG resource. There was some discrepancy between the TAM and TG files, (1 1/2 day delay on most of the orders and the other orders were ones that should have been cancelled.

9/1/00 – TG resource has a lot of the limbo orders unmatched. TAM resources will follow up for an update. TAM resources will review discrepancies for final standing. (TG resource's SOC report and TAM database records.) TAM resource will check if any limbo orders are the billing records she is looking for. EDI test bed SOCs should be removed from the list. TG resource will send the list of PONs to TAM resource.

9/8/00 – TG resource is working with TAM resource and this is going to be a priority today. TAM resource will get limbo list to TAM resource. TAM resource also needs the list of PONs. TG resource was to send this to TAM resource last week - he will do today. Would like an update by next Friday on what TAM resource and TG resource have found.

California Public Utilities Commission Project

Issues by Number

9/15/00 – TAM resource is through reviewing all limbo orders, but there are 3 that do not have TG folders for them. We need to

update the files between the TAM and TG. We are 10 short on SDIR. CPUC staff member states this should be included on the TAM report, but not on the TG report. There are still some outstanding DS1 per TG resource.

9/22/00 - No information on the 3 limbo orders for which the folders are missing. We need to account for all orders placed, therefore, TAM resource will send the tracking numbers and PONs for these orders to TAM resource, who will check the bills for any activity, and TAM resource, who will check the raw data for any PMs these orders may have hit. TG resource will continue to search for these folders at the TG site in Tampa and will also investigate with PB to see if they can verify what happened to the orders. This information will be documented.

9/29/00 - GUI/Fax orders are complete. The 3 missing folders have been accounted for and TG resource verified they were SOCed. This has been documented and put into the folders. This issue can be closed.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
67	CGE&Y	5/15/2000	Admin	TAM resource	Notification to Friendlies	6/2/2000

5/15/00 - Should the friendlies be notified like the CLEC building contacts? The friendlies are confused as to what is being done and their responsibility. Many orders have been returned due to the friendlies opposing. This will be discussed between the TAM and TG this afternoon.

5/19/00 - Discussing with TAM team at TG site. Process created with script to notify friendlies after FOC. Revising with monitoring team. TG has process in place to let TAM monitors know when the FOC comes in. TAM resource is working with TG resource to finalize the process.

5/26/00 - Will advise the friendly of the due date once we receive FOC. TAM resource wrote the script and is ready for implementation. Need to monitor closely with the TG concerning these orders. This process is complete and documented and should be finalized next week. In the CLEC building addresses, the contact needs to be notified, just as the friendlies are. Also need to notify the CLEC TAB member at the same time. TAM resource will send a copy of this process out today. We can discuss this next week if there are any questions. No further discussion is planned on this process.

6/2/00 - This process is already working and friendlies are already receiving calls. TAM resource has been leaving messages for the people and has not been receiving any negative feedback. This issue can be closed.

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
68	CGE&Y	5/15/2000		TAM resource	Time of entering orders	6/16/2000

5/15/00 - Need to verify if orders placed outside of the PB operating time are omitted from the performance measurements. TAM project manager will check with PB on this because it may also affect the standard due dates. The TG states it will definitely affect GUI as this is not available until 10 AM ET. This will also be brought up at the CPUC meeting on Tuesday and we will need to check on the number of orders that have been sent already which may be out of the timeframe so we may inform CPUC Commissioner's advisor.

5/19/00 – Timing can cause orders to be converted to x-coded orders. Entering before or after 3 PM PT affects standard order intervals. TG confirming with account manager the availability of interval information to CLECs. TG resource meeting with other TG people to verify timing of order submission. Using standard interval could still have issue with any orders that have exception for manual handling. TG scheduled to send all orders prior to 3 PM PT. TAM will review hour by hour information to determine if we need to expand order entry to later than 3 PM.

5/26/00 – TG resource states they implemented a window on the TG system to only enter orders between the hours of 8 AM and 5 PM PT. We'll track this for a while to insure the x coded orders decrease. The bulk of those orders were not due to the EDI window.

6/2/00 - Went from 26 x-coded orders down to 4 last week. TG resource states there are external factors that can be the cause.

6/9/00 - Only 2 x coded orders for disconnects. Will continue to monitor.

6/16/00 - Only 1 x coded order - which could be data entry related. No problems- this issue can be closed.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
69	CGE&Y	5/19/2000	Admin	TAM resource	Co-Mingling	10/6/2000

5/19/00 - Can not use CLEC 1 DS3 for their DS1 facilities. Confirm with PB the status of that policy. We will ask for exception for this test. Risk would be how can PB re-instate if exception is granted? Requires ASR to process these special access DS1, which is out of scope of test. Only using CLEC 7 facilities for DS1 may not give us statistically valid sample size. This will be added to the formal TAB agenda.

5/26/00 - Brought up to the TAB yesterday. TG submitted DS1 orders with CLEC 1 facilities and all were special access. The LSC looked at these and rejected them stating that PB policy would not allow. PB account manager implied that some CLECs have been able to do this, but their contract has expired. CLEC 1 has no other facilities, but CLEC 2 should work. CLEC 1 was asked possibility of putting in UNE DS3 and PB offered to assist in the cost. TG resource states a CLEC 7 facility was returned also and there are 6 more ready for today. (These are all copper.) TAM resource requests the return be sent to CLEC 7 resources right away. We will work with the CPUC on how to move forward. 1 Napa and 5 BH DS1s passed to FOC in Managed Introduction. TAM resource will pull these and verify if CLEC 1 or CLEC 7 facilities were used. This will be documented for the report.

6/2/00 - Discussed in the TAB meeting yesterday. TAM will do analysis to see if using CLEC 7 statewide will statistically be okay. CLEC 1 is also investigating the timeframe for entering new DS3, they would like to go through MI. PB changing the policy is not a likely outcome. Other CLEC 7 orders should be sent in today. We have 20 CLEC buildings that match CLEC 7 facilities. We need to determine if the CLEC 7 facilities are also special access. We need to discuss this during the risk call on Tuesday and also need to determine how to handle this if we can not test DS1 during the test.

6/9/00 - Emergency TAB meeting today to discuss CLEC 1 proposal to install special access DS3 for test. Per CPUC staff member, PB has counter proposal to discuss. CLEC 1 proposal may not work due to PB stop putting clause in ICA last Dec. PB wants UNE DS3s installed instead. May be restricted still due to address. PB could push through install in 2 weeks. Regional DS1 = 220, state DS1 = 52/53. Could be timely to do state level.

6/16/00 – CPUC Commissioner's advisor requested TA to send e-mail to TAB requesting position papers on the 3 options for DS1. (1) CLEC 1 install UNE DS3, (2) Re-use CLEC 7 facilities for statewide aggregation, (3) Use CLEC 7 facilities we have and also include PB production data. These positions will be due to the CPUC by 5 PM Wed. 6/21. CPUC will try to have decision by end of next week. CLEC 1 and PB will continue with their efforts for UNE DS3 installation. CPUC staff member is concerned about using PB production data, as it is not coming through EDI. CLEC 1 will provide status on UNE DS3 by 11 AM Fri. 6/16.

6/23/00 - CLEC and PB submitted position papers and CPUC Commissioner's advisor is still striving for a decision on Friday. TG resource queried PB account manager re: re-use of addresses and there is a backend system delay (5 extra days following the 7 for the new order SOC.) There are a large number of rejects due to the facilities being in use. Therefore, there would be a total of 5 weeks to re-use addresses for the test. TG resource will e-mail this documentation to CPUC staff member for information. PB position is to not use production data for the OSS test as this will be used for the 271 filing.

6/30/00 - CPUC issued a decision on 6/23 to use PB production data and any CLEC 7 orders we have. This was brought to the TAB and PB needs to know the information that will be requested so they will be prepared. We will need to talk with the statisticians on this.

7/7/00 - Proceeding with issuing as many CLEC 7 orders as possible. Will try to work with commercial data. There have been many e-mails from CLEC 7, but none on how they are going to fix the notification problem. TAM resource will follow up with CLEC 7 resource this week regarding the completion of testing notification to PB so orders can be SOCed.

7/14/00 – CLEC 7 not on the call yesterday, so will set up call on Monday afternoon. Need definition of Bay area for them to see if it is the same as ours. Will investigate if PB data will support our test data as the only EDI orders are test orders.

7/21/00 - A call was held with CLEC 7 on Wednesday and it was productive. The DS1 orders will be completed and found there was a format problem in one of the offices. Of those that were not completed, only 4 remain.

7/28/00 – CLEC 7 not available yesterday, so TAM resource e-mailed them regarding the interface process, (some orders not SOC due to incorrect contact person.) CPUC staff member will respond to all regarding the status.

California Public Utilities Commission Project

Issues by Number

8/4/00 – TAM resource not too successful in getting help with the CLEC 7 contacts. TG also having problems with this. TAM resource sent e-mail and CPUC staff member forwarded to CLEC 7 resource. She stated she would get CLEC 7 resources more involved. Need separate call with CLEC 7 SMEs and TG. CPUC staff member will address CLEC 7 again.

8/11/00 - Proposal on table on how to handle pending orders at completion of test. We discussed briefly yesterday at the TAB and will have a conference call on Thursday 8/17. TAM resource will have a straw man document ready to use for the discussion.

8/18/00 – TAM resource drafted a proposal on how to handle pending orders at completion of test. This was done by product type, especially designed for the DS1 when there is no CLEC contact and an acceptance test is required. If an order is not tested by 5 PM PT, a second test request is sent stating the order will SOC. All seem satisfied with this process.

8/25/00 - Call with CLEC 7 to discuss further. Orders appeared to have been tested, but no notification e-mail was returned. Volumes have decreased so they are trying to stick to the response time requested in the process.

9/1/00 – CLEC 7 working on testing. Not always sending completion notifications. TG resource will provide status next week.

9/8/00 – TG resource believes only open DS1s are disconnects that are scheduled for today. TAM resource needs the tracking numbers for the 8 ASSL and 2 BASL to find out why they are still pending. TAM resource and TG resource will be working on these types of things this week. No outstanding DS1 needing to SOC.

9/15/00 - Need to put table together on how many orders were issued, (FOC, SOC, cancelled, etc.)

9/22/00 - All DS1 disconnects FOCed yesterday, (7-8 of them.) The TG expects these to SOC on 9/29. These were re-issued yesterday due to the errors on them and the need to wait until capacity testing was complete.

9/29/00 - DS1 disconnects have all SOCed, with the exception of 2. The TG expects these by noon today. TG resource will send an e-mail once they are received. The 1 BASL and 1 ASSL are now accounted for and TG resource is putting these on her report. We should have an update on both of these next Friday, and perhaps close this issue.

10/6/00 - The 2 remaining disconnects have SOCed. This issue can be closed.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
70	CGE&Y	5/19/2000	Admin	TAM resource	TG/CLEC Process Application	9/22/2000

5/19/00 - Test request form returned from CLECs for not following process. Examples: wrong CLEC, wrong contact, incomplete request form and removal of jumpers. TG will act on any feedback from CLECs

5/26/00 - Several responses from CLEC 7 and CLEC 1 regarding the wrong CLEC. Need to keep this in place and move forward.

6/2/00 - TAM/TG discussed this process on Wednesday morning. Prepared to move forward with this process. No contact at CLEC 7 can help. TAM resource will talk to CLEC 7 about this. CLEC 1 is straightened out and we will continue to monitor this weekly.

6/9/00 – CLEC 7 contact not educated - told to go to second person on contact list. Process on busy CFA not working as expected. CLECs have asked for request in writing - 1-10 day lag in getting info. Propose to ask PB what TN or EKKT available will give new order rather than wait for status. Request 48-hour confirmation from CLEC on busy CFA. CPUC offered assistance to push CLECs to agree to revised process and will request commitment to follow this. Revision will be sent to CLECs when TAM and TG agree.

6/16/00 – CLEC 7 contact is confirmed. TG resource will check to insure it is working now. The process changed slightly, re: busy CFA's, and the CLECs have agreed to verify them. Will ask for response regarding these CFA's w/in 48 hours. Still will track the occurrence of problems and the responsible party. Updated process was sent out on Wed and discussed at the informal CLEC meeting on Thurs. Process is moving smoothly at this time.

6/23/00 - Change process which deals with busy CFA. Will adjust the contacts as the TAB member only wants to be copied on the contact information. Still not seeing great cooperation with the CLECs - receiving no feedback message via e-mail. TAM resource will write up this information and send to CPUC staff member for distribution. No negative comments from CLECs regarding the escalated contacts.

6/30/00 - Sent revision this week regarding the busy CFAs and who should be contacted. Will send an e-mail to CPUC staff member stating the importance of the 48 hour time limit for checking these CFAs. TG resource will have the team send a test request form to the TAM as well as the representing CLEC TAB member. DS1 needs a test to SOC. Sometimes assured loops do not test and will still SOC. There are some problems with CLEC 7.

7/7/00 - Continue to tweak the process. Some discussion with the CLECs yesterday. They feel they can not find out why the facility is busy either, so the TG will pass along information for them to assist in their investigation. CLEC 6 resource mentioned that CLEC 6 sees the same problem with their circuits. Perhaps we can discuss this further at the informal CLEC meeting on Thursday. TG resource will request the process from PB account manager. Coordinated cut contacts from CLEC 1 need to be contacted. Need to do at least 8 per day and there appears to be a limit of 4. Is this per day or 4 at a time? It seems TAM resource could put a specific time on the orders so TG resource can check them. TAM resource states this will occur and the TG will see a stated time for the cuts.

7/14/00 - Talked about activating LNPs yesterday. CLEC 1 generally does in the daytime, where the test default is usually 10PM. Not sure if this is special agreement. Problem with LNP only is that there has been an e-mail problem with CLEC 1 as they have not received test requests. CLEC 1 show only 6 have completed and we show 89. We will now be using receipt confirmation e-mails to insure CLEC 1 receives the information.

7/21/00 - Expanded the hot cut process to include when no dial tone, we will supp the order for 5 day and CLEC 1 will check on the like. If the supp order also fails, we will issue a trouble ticket and arrange for a meet at the collo with CLEC 1 and PB. AT&T resource had 20 LNP only scheduled for Saturday, but they do not work on Saturday. CLEC 1 has given us the window for these to be 8-3:30 MT M-F. TG resource will re-schedule these orders and if done within the window, we will not lose PM information. Need to discuss with the CPUC staff regarding CLEC 1 resource's request for the daily completion reports from the TG. TG resource does not want to supply this information to the CLECs. With busy CFAs, there are times when we can receive info on the order, and other times we can't. TG resource will forward the e-mail from PB concerning this.

7/28/00 - Gave CLECs the red lined process document with the updates from the previous meetings. They requested more time to review, so TAM resource asked for comments to be received by COB Monday.

California Public Utilities Commission Project

Issues by Number

8/4/00 - More tweaks to the process from the CLECs. Busy CFA was major topic for discussion. If we can not clear, we obtain the status, record and move to another CFA. Another red lined version will go out today. Not getting proper intercept recording on test calls. CLEC 1 verified they are having problems with the new NXX - they will get back with TAM resource today. TG resource will send TG resource the effected TNs.

8/11/00 - No further changes at this time. CLECs have requested SOC info. TG resource will send this info to TAM project manager so it can go through the proper channels of dissemination. He will start with information from the beginning of the test and we will use TG resource's report with the TAM querying it against the test case database for the appropriate information. Once this is up to date, the CLECs can use the test request form for the information. TG resource will make this report comma delimited. Only the ASSL and BASL need to be split.

8/18/00 - No change since last week. Lengthy call with CLECs yesterday. The intercept is dropped when disconnected. This means when we try to install a new, there is no dial tone. We will check on previous orders as well.

8/25/00 – CLEC 1 needs to be notified when planning on re-using CFA. Had a few orders that had to be cancelled due to using the incorrect order type. TG resource will check on the test requests sent to CLEC 2. Apparently CLEC 2 is not receiving test requests, but rather phone calls only. TG sent e-mails, but are only receiving phone calls in return.

9/1/00 - Currently sending notification when CFAs are re-used. CLEC 1 still receiving calls on intercept numbers. TAM resource explained to them and CLEC 1 will request where the caller got the TN they originally dialed, (to get intercept message.) TG resource to reconcile test request e-mails sent to CLEC 2.

9/8/00 – TG resource and CLEC 2 resource have resolved the issue on test requests to the best of our knowledge. CLEC 1 states they have had LNP orders they were not called to activate. CLEC 1 resource requests updates to the SOC report. Still some activity between CLEC and P-CLEC yesterday. TG resource will create SOC report through 8/31 and will send to TAM project manager.

9/15/00 - Received SOC report from TG resource and TAM resource will be sending to the separate CLECs. TG resource and CLEC 1 resource have been exchanging e-mails on questions & answers. Need to have CPUC and TAM get together to discuss CLEC questions on the report.

9/22/00 - The SOC reports are going out to the CLECs today. This issue can be closed.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
71	CGE&Y	5/19/2000	Admin	TAM resource	LNPO Pre-provisioning	6/9/2000

5/19/00 - Need to confirm with CLEC 1 on intercept recording. Receiving 8 different responses on provisioned loops and need to confirm with CLEC 1 what recording should be used. TAM resource will talk with CLEC 1 resource to insure accurate recording on pre-provisioned CFAs. TAM resource will send examples to CLEC 1.

5/26/00 - Have not sent responses from the team - will do this today. On 5/25, CLEC 1 resource offered to check if the ANI code can be released to assist in the LOC monitoring.

6/2/00 - The same recording should be on all. In TAB meeting yesterday, ANI was approved as part of the LOC monitoring. TAM resource suggested auto dialer to make the calls and record the responses. Have to set up the calls at proper times to be sure they are done at the scheduled times.

6/9/00 – CLEC 1 provided ANI code - passed on to CA contact. Process in place to test. This issue can be closed.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
72	CGE&Y	5/19/2000	Admin	TAM resource	Test Execution Exit Criteria	7/21/2000

5/19/00 - How to handle PWC audit? CPUC staff member wants something in writing that states how TAM will be satisfying this section. This can be referenced in section 7.3.7 of the MTP. Are we comfortable in utilizing this audit as confirmation of acceptable exit criteria? CPUC staff member suggests having an experienced auditor from CGE&Y review the PWC audit.

5/26/00 - Discussed in the TAB meeting and focused on the PWC audit. PB and CLECs will provide position papers to the CPUC by 6/6 on when the audit should be considered complete, upon report or following a comment period.

6/2/00 – Audit needs to be formally submitted for the TAM to use as satisfied exit criteria. CPUC staff member is concerned if we go with the PWC report as submitted and then there are comments included for the 271 filing. They would then be separate reports. TAM project manager states we would then need to change that portion of the final report. TA resource states the report satisfies the exit criteria, but feels we can not use it for the final report until it is filed.

6/9/00 - CPUC staff researching and analyzing to make recommendation to management. No determined date decision will be made.

6/16/00 - CPUC has position papers and they are reviewing them. CPUC Commissioner's advisor stated at the TAB to take this to ALJ to determine if this is the correct forum. CPUC believes it needs to be formally submitted with an appropriate comment period. CPUC staff member believes we should use the audit for validation and make modifications to the final report later if necessary. This way the final report will not be delayed.

6/23/00 - CPUC proposal is for the TAM to validate information once the audit is submitted, and when comments are complete re-evaluate the information and update the final report as needed.

6/30/00 - In the TAB meeting, CPUC staff member stated the CPUC is putting forth a recommendation to the Assigned Commissioner's office for review.

7/7/00 – CPUC staff member stated the CPUC staff recommendation is in , but no determination has been made. CPUC staff member should talk with CPUC Commissioner's advisor today. The Commissioner's advisor briefly brought up that he is comfortable with what the staff is proposing. He believes the OSS test is not the proper venue to discuss this and it should be handled in the PM proceedings. TAM resource stated this will be more imperative if we are using commercial data. The Commissioner's advisor believes we do not need an ACR to determine this and the attorneys at the CPUC are looking at the way the Commissioner is handling the process of this test. CPUC staff member mentioned that it may be time for an attorney to enter into this process as this is too much of a deviation from the MTP.

7/14/00 - Commission decision has been made. CPUC staff member will e-mail to TAM project manager for distribution to the TAB.

7/21/00 – CPUC staff member e-mailed the Commission decision on this and it was distributed to the TAB on 7/14. This issue can now be closed.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
74	CGE&Y	5/19/2000	Advisor	TAM resource	Coordinated Hot Cuts, FDT testing	6/2/2000

5/19/00 – TA resource suggested the following for conversion testing: 1 hour before TBCC or FDT test for clear open on PB TN, then 1 hour after TBCC or FTD test as normal to verify the loop was not cut early or late. TG will investigate if this is possible and TAM resource will update the TG/CLEC process to reflect the conversion testing. Add one step to do MLT.

5/26/00 - This is stated in LOC process. TA resource thought MLT could be done in Tampa. TG needs to call the LOC to set a cut time. TAM resource will coordinate the MLT while the coordination of the cut is going on by the Pseudo-CLEC and LOC. Will be rehearsing this next week. FDT is AM/PM on the LSR. Will test orders with and without special times.

6/2/00 – TAM resource will send documentation to TG resource. This states the MLT test and times of the test. CLECs believe this is the best viable option. This issue can be closed.

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
75	CGE&Y	5/26/2000	GXS	TAM resource	Bill Payments	6/2/2000

5/26/00 - What is the process for payments of the bills received by TG. TG has a letter in the interconnection agreement stating no payment is required, but this only pertains to the PB related bills. TG received a CLEC 1 bill and needs to know how to get this paid. Do they pay it and send in an invoice to PB? TAM project manager will check on this and let TG resource know what the process is.

6/2/00 - TG will pay the bills and invoice PB. TAM project manager will send this e-mail to TG resource. This issue can be closed.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
76	CGE&Y	6/9/2000	Admin	TAM resource	App-App Capacity - Phase 2	9/22/2000

6/9/00 - Met TG resource in Tampa. Insuring TG has proper scripts for test, phone lines, PCs and licenses. More orders will be sent to TG for pre-test. Impact from functionality test is potential delay. May have to delay capacity test for couple of weeks. TG resource states number of orders to check is now at 580. Additional work in cleansing. Matching phone numbers given to orders increased numbers of seed cases required. Only 200 distinct addresses, but each order still needs to be tested.

6/16/00 - Continue sending orders for pre-test. Ran into problem with CFA assignments, they were adjusted and okay now. Need to cleanse about 100-150 orders still. Would like to have the TG capacity resource remain working on capacity even if the order loads for functionality increases. TG resource states this will happen.

6/23/00 - Few more orders to get to TG. Push of functionality has taken cycle away from capacity. There are less than 90 orders to cleanse. TG resource states not as much work on capacity since functionality is so strong. About 1/2 way complete on pre-test orders. Version 10 needs to be updated by 7/10 so all orders are done in same version. Would like to process orders on Monday and pre-test on Tuesday due to purging data. There is too much work to include DSl (1 week additional). TAM resource will put this into an e-mail and send to CPUC staff member. No work should be done on this until directed by CPUC.

6/30/00 - Should receive the rest of the orders today. Most scripts are done and should be ready next week. The 17th is the best bet for the start of capacity. Would like to have the 40,000 orders compressed since system degradation is what the CLECs read in the MTP. TG resource states that doing the queries stated in the MTP should not be a problem. Sending 40,000 orders in 2 hours is not reasonable, but perhaps doing a transmission with 500 orders in it would work. PB will pull the plug on large order transmissions. TAM resource thinks there is a cut off for packet sizes. We could do a large number of packets with minimal orders in them.

7/7/00 - There are 2 points - in contrast to issue 40, we will try to finish ASAP and may not do the combo test. If time allows, we are prepared to do it. TA resources agree we are bypassing a great portion of the test if we neglect to do the combo test. The TAM agrees, but this was brought up that it could be dropped due to time restrictions. The best day for start of capacity is 8/7/00, with the directive to cease functionality testing at end of July. TAM resource states it would be interesting to see when the PB system degrades. Perhaps we can share the high percentage of the test loads so the CLECs can see that we are at the level we should be for capacity. This question was raised in the TAB and we can not share the numbers in this venue. CPUC staff member would like to have this entered into the risk assessment for next week.

7/14/00 - The start of the test was scheduled to be 8/7-8/8. 8/14 will be the combo test. Need to discuss w/CPUC about pumping rate of orders through. Only plan on squeezing orders for the combo test. Potential to finish functionality mid-August. TG resource states there would be a 1-week lag for capacity so would not begin until August 21. Could do pre-order, however, the intention was to do the order first. Could do pre-order on the 10th, order on the 14th and combo on the 21st. TAM resource will look into the potential increase in the number of orders, but is concerned about adding in DSL. We'll make sure the algorithm can defend the numbers we are using. CPUC staff member would like us to look at including DSL.

7/21/00 - More detail on the plan of scheduled orders. Need to tweak the numbers as there is a variation in the plan. Concerned about the info from TG resource not taking us to the LSR level. TG resource will handle this part of it. Can we sup the new basic loop with number portability (4% of the seed orders) with DSL? We will discuss this with CPUC staff member on Wednesday. TAM resources will need to check with the Tampa team for active friendly addresses we can use for this. They must be friendly addresses if they are new orders, (only use PB addresses on conversions.)

7/28/00 – TAM resource worked on scalability write up and errors for seed orders. TG resource states they are working on the errors and majority is cleaned up. Found where DataGate breaks while testing, it is entry into network. Think overloaded, but unsure. A ticket has been opened. Same problem with EDI, but that resets itself. DataGate had to be reset. Can handle about 2000 queries per hour.

8/4/00 - Completed DSL loop seed orders for the test, (4%,) and completed forced errors, (5%.) These were sent to the TG. Only need 2 seed orders for remaining DS1. (GUI and EDI) PB states they can replicate more than 10 times. Need basic loops for disconnects, (23 BASL and 23 LNPL). This will be coordinated with TAM resource. TG resource states pre-order is done and 95% done scrubbing orders. Minor changes with 8/12 LEX update. On EDI, about 85% are scrubbed and 75% ready to go. Issue with TN reservation on DataGate, will talk today with PB.

California Public Utilities Commission Project

Issues by Number

8/11/00 - DS1 sent earlier this week. Rest of the disconnects are sent. Sent out the updated list with the 469 seed orders. TG resource states there are only about 6 with errors. Issue with TN reservation is covered now. Passwords need to be re-activated. Release 12 is coming out soon and this is also being addressed so there will be no problems. TAM resources will be in Tampa one week prior to testing,

8/18/00 – TAM resource in Tampa next week and will come out the week prior to capacity. TAM resource and TG resource will get in touch with EDI person at PB to see why orders are not flowing through. Need to insure process for cleaning up the orders works. Passwords are okay now. Sending orders faster than 10 seconds errors out. A Vantive ticket is opened for this. Changed schedule for capacity was 8/28-29 and 9/11 for combo. TG resource states this is not realistic as they are still trouble shooting. CPUC staff member is fine with testing the week of Labor day, (we have not heard any questions or problems from PB regarding this matter.)

8/25/00 - 1x test will be done on Wednesday 8/30 at 11 AM EDT. All orders will be sent and verified if the FOC response was within 20 minutes. This is a pilot test and PB knows the process for cleaning out the orders. Will have to verify on those longer than 20 minutes that they were flow through orders. A call is set up for Wed, after the order run, with PB to discuss. A CPUC or TA representative must be on all calls between the TG and PB. TG resource will send this call information to them. We will receive status on the 1x test during the status call next Friday.

9/1/00 – 1x test will be on 9/7/00, due to different process of ordering for capacity test. Also want all functionality orders to be complete so they remain separate. This test will take 5 days to clear. The capacity tests will be run on 9/18 and 9/25 for combo. This will delay the capacity portion of the final report, but will not be a critical path for final report.

9/8/00 – 1x test ran yesterday. Problems include: (1) GUI test not able to run - will do this today and (2) errors pulling LSRs - PB is watching carefully to insure it will run smoothly. Will run follow-up 1x test next Wednesday. PB is aware of this. PB wanted us to cancel EDI orders and we understood this was an item for them to do. TAM resource will check this information out today. Out of 550 orders, 97 hit exception, (BASL disconnects did not include ACTLs.) Need to clean this up as we did not have this happen in functionality. Out of 452 orders, the average FOC time was >20 minutes. We are counting on a 20 minute FOC time for the GUI test. We will record all findings, but believe this will not cause a problem in running the test. Perhaps we should run a 2x test for the follow-up - good idea! On 9/23 there will be a software release and capacity is not to be run within 7 days of a release. This will push out the combo test to 10/2. There may need to be some time to change the seed orders. The TG will investigate the time needed.

9/15/00 – 2x test went fine and errors from previous week were cleaned up. There were some problems on the PB side as the ECCKTs were not returned from the Cesar system. There were 32 orders during the 2x test that did not FOC. PB not sure why the system failed. The majority of the orders did not FOC within 20 minutes. PB resource stated there was a hardware system fault, but we will find out more today during the call at 1:00 PM ET. Monday we will run pre-order and on Tuesday we will run order. The TG will work this weekend to copy PONs once PB cleans out the 3000+ orders still on the LEX server. Usually the CLECs do this, but PB resource stated he would check to see if this can be done at PB.

9/22/00 - Pre-test and preparation is complete. Please find information on actual capacity testing in issue 85. This issue can be closed

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
77	CGE&Y	6/9/2000	Admin	TAM resource	EB Testing Phase 3	9/1/2000

6/9/00 - Started 6/5, received error on attempt to generate trouble on a circuit. CLEC 6 investigated and nothing definite. 6/6 still couldn't generate troubles - same error. CLEC 6 wouldn't call IS call center, wanted it escalated to PB. Called PB who analyzed. 6/8 answer - DataGate problem in PB system. CLEC 6 does not process tickets via EKKT, only TN. Couldn't have Pseudo-CLEC report error due to blindness. PB will fix to add circuit functionality. Need to reschedule time to complete EB test. PB and TAM need to document this change for future EB usage since no accessible letter will be generated by PB.

6/16/00 - The problem was that the PB system looks in WFA first and then goes to LMOS. The connection between WFA and LMOS was broken and since it is not used by CLEC 6 often, it was not detected until now. Will wait for response from PB to insure it is fixed. There is a conference call set up for this afternoon to discuss this. TA resource will also be on this call. Phase 3 will need to be completed by 7/14.

6/23/00 - Had CLEC 6 resource try to submit trouble ticket on Monday. Ran into backend system problem with getting a response from PB. Contacted PB resource and there was a problem on the PB side. Tried to re-run and ran into another problem at PB sending the response back to CLEC 6. PB is working on changing configuration of the system, but will wait until today when CLEC 6 resource is back in the office. CLEC 6 resource states he can get a resource out to Sugarland on 7/17, unless can get someone there sooner. CPUC staff member needs to know on Monday if this can not be completed by 6/30 and a statement should be sent to him.

6/30/00 - On the 26th, talked with CLEC 6 resource and PB to test that the fix was working. It was done properly. CLEC 6 resource requested the scope of phase 3 and TAM resource provided this to her. We are now waiting for the response from PB. Asked for induced troubles for EB. When EB failed, we used these troubles for PBSM. Still waiting for CLEC 6 resource and expect one to be available on July 17th. Need to determine next week if we are proceeding with further EB testing.

7/7/00 - Coordinating activities with EB testing to proceed on the 17th. Still need trouble inducements and SOCs. Keeping CLEC 6 resource informed. Still need about 57 EB troubles.

7/14/00 - Sent the list of circuits for trouble inducement to PB resource yesterday. E-mailed CLEC 6 resource for a call on Monday regarding the schedule of the Sugarland visit the week of the 25th. Including more loop with port numbers would increase the cost so we understood that we could only do UNE two-wire. CPUC staff member will check on Monday.

7/21/00 - Third round of EB testing will be 7/24 - 7/28. Troubles are being induced and the scripts are being set up. Also performing MLT to test when a trouble ticket can be entered in electronically after the SOC.

7/28/00 -Went to Sugarland and CLEC 6 had system problems with EB gateway on Wed - Thurs. Could not generate any trouble tickets or MLTs. Need to verify if PB had any system problems as well. Table 6 requirements have been met through PBSM, but not EB. (We are short about 5.) Can we check status of outstanding EB trouble tickets through PBSM? Would it warrant another trip to Sugarland if it was CLEC 6's system failure? Need to check on how many more EB orders need to be completed.

8/4/00 - Could not check EB trouble tickets through PBSM. Still have a total of 7, (5%,) M&R to do and 17 post SOC for CLEC 6 special request. If need 50/50 split with EB and PBSM, we still need 24 EBI and 24 post SOC. Need to send e-mail to CLEC 6 asking the status of EB due to jeopardy of test ending in August. TAM resources will draft a proposal with M&R options for the CPUC staff. Current options are (1) schedule another EB phase, (2) complete M&R through PBSM.

8/11/00 - Work with the CPUC on a document for EB testing. CPUC staff members will look at this today. If there will be a phase 4, we need to get in touch with CLEC 6 resource immediately to schedule resource.

8/18/00 - TAM sent CPUC response to 2 options; (1) do phase 4, or (2) complete the rest of M&R through PBSM. CPUC recommended the second option due to needing 29 more orders, which would need to be taken out of functionality. Another reason is obtaining a CLEC 6 resource next week. This would not meet the CPUC criteria of resource usage and not extending the test. We still have 25% through EB. TAM resource sent e-mail to PB for inducements (14) and also sent e-mail to TG resources as a heads up.

8/25/00 - CPUC is not questioning the TAM analysis. All remaining M&R will be done through PBSM. Inducements were received from PB on Wed 8/23. They have been handed to the TG and tickets have been generated. Post SOC tests will be done

through the end of the test on all SOCs received. We want to insure there are more than enough trouble tickets sent in. Next Tuesday, all M&R should be complete, however, post SOC will continue.

9/1/00 - Inducements complete: did 11 and scheduled to do 6 more. Post SOC test - have 13 complete and expect 2 more today and 2 more Tuesday. Should finalize M&R on Tuesday 9/5. This issue can be closed.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
78	CGE&Y	6/16/2000	GXS	TAM resource	PB DataGate release on 7/22	7/28/2000

6/16/00 - The release is a 7 state release, so there would need to be an overwhelming CLEC response to extend the release. Need to determine when to authorize TG to update the software version. CLEC 6 resource and CLEC 7 resource stated not to believe an extension would not pass. TG needs a decision as it is at least a 2 week effort to update software. TG should send in a jeopardy and insure it is on their risk assessment. CPUC believe we should upgrade for insurance purposes. TG resource will discuss additional effort on upgrading to version 10 or 11. Is version 11 even functional at this time?

6/23/00 - DataGate upgrade was okayed to begin. Developers are working on this. We will be upgrading to version 10.

6/30/00 - Currently in process to update to version 10. Should have this complete by next week. A question was raised if there would be any fall out by updating the version. The earliest capacity would be ready is 7/17. An accessible letter will come out today stating the order piece for version 11 will not be available until 8/12.

7/7/00 - TG is moving into production and should be ready to go soon, (early next week.)

7/14/00 - Updated version 10 is in use. DataGate is not available so a Vantive ticket was opened for that this week. Are we impacted on the 8/12 release? TG resource believes this is on the GUI side. It is the remainder of the release in July.

7/21/00 - DataGate was back up on Tuesday and then went down again on Wednesday. It is now up again. Apparently the application is turned off and needs to be turned back on. This is happening with both version 8 and version 10, but more frequent lately. Need to talk with the TAB CLECs to see if they are experiencing the same problem. TAM resource will do this following the e-mail from TG resource stating when the down time occurred.

7/28/00 - Everything going good. Will continue to monitor. This can be closed.

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
79	GXS	6/23/00	CLEC 6	TAM resource	Root cause analysis on Vantive tickets	7/28/00

6/23/00 – CLEC 6 requested a confirmation of the Vantive tickets and whether they required PB to make a software or documentation change. TG resource will ask PB account manager for this information.

6/30/00 – Waiting for response from PB.

7/7/00 – Waiting for response from PB.

7/14/00 – Waiting for response from PB.

7/21/00 – Waiting for response from PB.

7/28/00 – TG resource received the response from PB account manager and all Vantive tickets in question have been documented. No incidents, that we are aware of, caused PB to make a software or documentation change. This issue can be closed.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
80	CGE&Y	6/23/2000	GSX	TAM resource	Validate service type and rates on bills	7/28/2000

6/23/00 - There may be services billed at an inappropriate rate. TG resource will send the list to TAM resource for validation. The information to be supplied are BAN, TN, SOC and when the disconnection occurred. This information will also be sent to TAM resource. Once the information is received, more information may be required.

6/30/00 – Didn't previously find anything, but at least 1 popped up on the 6/14 Napa bill. We will need to wait for the 6/26 BH bills to see if they appear on those. Will talk to PB once analysis has been done on these. TG resource should talk to PB account manager rather than TAM resource talking with PB team as this is the appropriate path.

7/7/00 – TG resource sent e-mail to TAM resource for clarification and will be happy to assist with anything she needs. TAM resource stated this is the path that should take place once the analysis is done with the bills on this issue, as this is the normal process of a CLEC.

7/14/00 - Looked up in electronic bills for Blackhawk and there are 5 items. We will need to look in the hard copies to see what was done for them. TAM resource found 1 for Napa in the 6/14 bill cycle. Will look at the bills from 7/14 as there should be 3 for Camino.

7/21/00 - Validated all BANs on TG resource's list and only found one of them on the Napa bill. TAM resources were tracking this and TAM resource sent an e-mail stating the BAN, PON and date of issue. TAM resources went back to the bills and found that the one for Napa was the only one that appeared. TAM resource will supply a more detailed report next week. Should there still be nothing found, this issue will be closed.

7/28/00 - Received reports from TAM resource and checked the PONs supplied by TG. Able to find all PONs and they appear on the bill. The original order appeared and it does not match the BAN on the order. TAM resource will send this information to TG resources. For billing purposes, this issue can be closed.

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
81	GXS	7/7/2000	GXS	TG resource	T1 Line Problems	7/21/2000

7/7/00 – TG resource states the T1 went down 7/5 in the afternoon and it came back up at 2:30 on 7/6. This is a TG problem, not a PB problem, as it occurred during a software change. Special care will need to be given to the standard due dates depending on the timing of the transmission. TG resource requested confirmation that T1 is full. CPUC staff member would like this included on the risk assessment.

7/14/00 - Should have full T1 bandwidth on Monday.

7/21/00 - This was at full bandwidth on Tuesday and we are ready to go. This issue can now be closed.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
82	CGE&Y	8/11/2000	Advisor	TAM resource	New Performance Measure for Hot Cuts	9/1/2000

8/11/00 - This now includes FDT. If we have data elements, should we be updating this? CPUC staff member suggests we go to PB to see if they can pull the data. TA resource states we could use the data we have. CPUC staff member thinks this should be discussed further.

8/18/00 - Concerned about the amount of historical data there is to be provided, so it may be a mute point. CPUC staff member would like to have further investigation, even though it may not be feasible.

8/25/00 - Not able to incorporate this into the test. TA resource and TAM resource looked at this information. PB would not even have the data for 30-90 days so we will evaluate based on the information stated in the MTP. TA resource will talk to PB to see if any of this information has been implemented by August.

9/1/00 – TA resource talked to PB and they are not going to do anything until they hear from the CPUC. This issue can be closed.

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
83	CGE&Y	8/17/00	CLEC 6	TAM resource	UNE-P orders in Scalability Analysis	8/18/00

8/18/00 – CLEC 6 initiated this issue to insure evaluation of flow-through UNE-P orders would be included in the final report/scalability analysis. The Scalability Analysis includes manual processes. The MTP discusses manual handling of non-flow-through orders. For the Scalability Analysis, manual handling includes non-flow-through orders, the manual portions of flow-through orders and those orders which exception out for one reason or another. The report will discuss the scalability of manual handling processes with increased order volumes. The Scalability Analysis is concerned with the scalability of Pacific's systems (manual and otherwise). It is not an investigation of the effectiveness of any process or prescription for improving any process. This issue can be closed.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
84	CGE&Y	9/8/2000	Admin	TAM resource	Stand Alone Directory	10/27/2000

9/8/00 - Some outstanding SDIR orders that should have SOCed in July and August. 2 SOCs for yesterday and expecting some today also. PB account manager helped TG resource get through a syntax error in LEX. The error was putting in 2 main lines instead of 1 main and a caption line. There will be some that will not SOC due to error after the FOC was received. PB states there is no way to manually trigger a SOC in LEX. PB changed their internal policy and now if there is a post FOC error on a SDIR, they are to notify the CLEC and suggest a supp order. This was put into effect yesterday morning. A suggestion was made to put in an order to see if a call is made. TG will re-submit the req type J orders when they receive them from the TAM. Maybe TAM resource and TG resource can look at these and see if they can duplicate these orders, perhaps on Monday. TAM project manager will contact PB regarding the policy change. These are not recorded in PMs, but we can check the accuracy. Believe PB resource is the directory person at PB and TAM resource will contact him to see if we need to/how to go about verifying the listings. Two of the completed SDIR orders were incorrect as they had inappropriate information, (bakery, muffins and scones - calling cards, pagers.) This breaks a policy with the caption group at PB and could jeopardize blindness. We can delete the line, change the caption, or do a straight line listing. TAM resource will check PONs and TG database to see what is requested. TAM resources believe straight line listing would be sufficient, but will check.

9/15/00 - Problem with SDIRs not receiving FOC is due to simple caption errors. This states the data entered in by the TG team was information entered in line of information field rather than the caption field of the Directory Service Request. Having CAPS in this field, as well as in the customer name field, hung the orders and they apparently did not receive a manual reject from PB. These orders were re-submitted with a request that the line of information had a change in the data to be inputted. This RTF file was sent to the TG on the evening of the 8th. TAM resource will investigate this issue. 3 additional orders were generated to determine if the call is made to the CLECs, from PB, regarding the errors. These orders have not been processed as the TG machines are all being used for capacity.

9/22/00 - Completed 6-7 req type J, (post FOC errors,) and put in new orders to test the new PB internal process. These FOCed yesterday and should be receiving a SOC today. We will then need to wait 24-48 hours to clear the gateway and then the in portion can be done. This should be happening on Tuesday. PB stated we have CLEC Website Ids and need to reset the passwords to check the listings. TG will check to make sure the SDIR listings are accurate, (all 121 of them.) There should be a print out of what the listing says and this should be put into the folder for that order.

9/29/00 - Received SOC on all orders, but we did not receive a call for the post FOC errors. Perhaps this is because no contact number is listed on the orders. TG will send in a couple more to test the post FOC error call, and will include a contact number on them. The listings were verified. TAM resource will call TG resource to check on what post FOC errors have been on the orders to duplicate a couple more to run.

10/6/00 - More orders were issued to test the PB post FOC error process, however they were entered without errors. 3 more will go in to day and the captions were verified that they will produce an error. We should have notification within 24 hours. This process should be included in the CLEC handbook and it will be a recommendation in the final report.

10/13/00 – TAM resource received e-mails from TG resource stating all the process testing orders SOCed and no calls were made. These were listings PB account manager stated would cause post FOC errors. Not sure if PB corrected them, so TG resource will contact PB stating she realized information was entered that, after reading in the CLEC handbook, would cause an error and she was wondering what could be done. TG resource will send an e-mail on the outcome.

10/20/00 – TG resource is waiting for a call from PB specialist to see if any post FOC errors were on 2 remaining orders. TG resource will be back on Monday to update us. We will have the update next Friday on the call.

10/27/00 – Last round of the 3 orders went through, (the first 2 without errors and the last one had a post FOC error.) PB corrected and SOCed this order without calling the CLEC. This information will be indicated in the final report. We have tested this twice and no further orders will be sent. This issue can be closed.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
85	CGE&Y	9/22/2000	CGE&Y	TAM resource	Capacity testing - phase 3	11/3/2000

9/22/00 -The NDM orders have taken some time as NDM waits until the file is received. TG resource will try to get a sample of the NDM file log to check the sequence. We could not run the full load of orders so the percentages are lower than stated in the MTP. Because the test was truncated, we were not able to receive a random sampling, as an entire group could not be sent. The real test should be measuring the FOC response time. We can still do the percentage listed, but will need to discount the DS1 and DSL orders. TAM resource will send out this spreadsheet which indicates the percentages obtained. This will also be documented in the final report. We can not random sample, as the scripts will not allow for this. We need to have the team in St. Louis monitor the capacity testing closely for a break in the system. TG resource will forward the information on the GUI test. TAM resource will work with PB resource on reconciling the exceptions; (same as those we experienced in the 2x test.) This must be a problem in the PB system. We will look to see if we top out at 700 for the NDM again. FOCs appear to be averaging 20 minutes response time. Need to compare this time with the FOC time for functionality test. The combo test will be done on 10/3. We will have a call on Wed 9/27, at 12:00 PM PDT, to insure the clean up of capacity orders has been done. We can then plan on an emergency TAB meeting following the combo test, so we can determine what steps to take next if this doesn't run properly. TA resource will investigate the 700 max for NDM and why this is not even throughout the day. TAM resource will talk with PB resource and request an e-mail when the clean up is complete; (this should be a 1-2 day process as stated by PB.)

9/29/00 – CPUC staff member believes we can go ahead with the test on Tuesday without Verigate. Will run DataGate at max on Tuesday, (3 hours) LEX clean up should be done on Monday, and we will need to verify this has been done prior to Tuesday test. Able to reconcile all the orders that were processed.

10/6/00 - Able to get through all orders and reached 100% daily order volume. The average FOC time was 2 hours so there was degradation of the system, which also effected real CLEC business. PB has to pay penalties for poor service, so this information could be pulled out for data purposes (all of 10/3/00.) CPUC staff member will inform the Commission of this situation. PB had over 21K orders go through that day. PB account manager requested a heads up if we do this again. TAM resource called PB resource at the start of the test, which should be sufficient. We hope to not have to repeat the test. During the combo test, we maxed out at 800 orders, not 750 as in the previous test. PB may have done some tweaking, and PB resource will check on this.

10/13/00 - Analyzing capacity results and working on the report. TAM resource asked if PB had done anything to allow an increase in the amount of orders that could be entered and has received no answer. PB is aware of some system errors and they are investigating. If it is determined there is a problem, they will document it and send to us. They will need to address the problem, The security servers were down for unknown reasons. They received calls regarding this and restarted the servers. This is something they should have realized without receiving phone calls. PB is checking the counts as the pre-order and combo numbers were off. We will need to investigate further as we checked one file that appeared accurate. CPUC staff member would like to concentrate on getting these resolved rather than worry about keeping on time for the report. We will need to inform the CPUC immediately if there will be an impact to the final report. We need to get the volumes of data, (UNE orders,) for the past 5 months as Cesar will be eliminated. This will cause an increase in the amount of EDI orders that are submitted. TAM resources will obtain this from PB.

10/20/00 - Received response on the Cesar volume, but not broken down into internal customers and CLEC. TAM resource will check with PB resource regarding this today. PB is supposed to respond to the count s for Verigate and DataGate. All issues with them should be resolved today with the exception of the modem issue and the logs, of which each will have follow up next week. TAM resources are analyzing the spreadsheet and found that PB ran up to 1223 orders, which means they are probably good capacity wise for up to 12 months. We will need to see how the Cesar volumes could effect this.

10/27/00 – PB indicated they missed some data with queries and now only 24 that have not reconciled with the TG and PB. The problem with PB was receiving the data from one system to another. We asked for this data specifically so we do not know if this information would or would not have been captured. TAM resource is waiting for the order breakdown for Cesar from PB resource. All other questions have been answered.

11/3/00 – TAM received the breakdown of Cesar orders. This issue can be closed.

California Public Utilities Commission Project

Issues by Number

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
86	CGE&Y	9/22/2000	CGE&Y	TAM resource	Final report documentation	10/13/2000

9/22/00 – The TA will be the final review process for the supporting documentation samples prior to the CPUC sending to the TAB. There will be about 1400 documents to look through. All parties will need to sign NDAs for the information that should have been redacted, but were missed in the process. We will be having meetings to discuss these items next Wed. and Thurs.

9/29/00 - Meeting with TAB last Wednesday and unanimously agreed on the 32 samples that were discussed. There are 70+ more samples as well as some additions from CLECs and PB, which TAM project manager and CPUC staff member will be discussing prior to updating the list. Still in progress for detailing fields for the documents. PB signed off on the PIR for this redaction process and we will begin on Monday.

10/6/00 - Meeting scheduled for 10/11 and we are awaiting signed NDAs from all parties. These NDAs, by CLEC 6 resource, were sent out for signature. We need to have these complete in order to release more sample documentation.

10/13/00 - The meeting scheduled for this week was cancelled. Samples will be sent out by the 20th and a meeting has been scheduled for 10/25 to go through them. NDAs have been signed by each entity for information that may slip through the initial redaction period. This issue can be closed.

Status ***Resolved***

Issue No.	Category	Date Entered.	Origin	Owner	Description	Date Closed
87	CGE&Y	9/22/2000	Admin	TAM resource	Environment Clean Up	9/29/2000

9/22/00 - TG needs to know when to decommission server and remove the T1 line. Nothing should be done until direction is given from the TAM.

9/29/00 - We decided at the TAB to leave the environment open at least until the release of the final report. This would be when the CPUC releases it, not when the TAM hands over to the CPUC. Could we shut off the 24/7 monitoring of the equipment? TG resource does not see this as feasible. We can close this issue as it has now been addressed in the TAB and they will decide on the length of time. All TAB members agreed to the change in the checklist. They were also informed that this is a living document. This issue can be closed.

Appendix C – Performance Measurement Criteria

Process	Perf Meas #	Performance Measurement	Track	Evaluate	Track	Evaluate
Pre-Ordering	1	Average Response Time (to OSS Pre-Order Queries)	Y	Y	Y	Y
Ordering	2	Average FOC/Local Service Confirmation Notice Interval	Y	Y	Y	Y
Ordering	3	Average Reject Notice Interval	Y	Y	Y	Y
Ordering	4	Percentage of Flow-Through Orders	Y	N	Y	N
Provisioning	5	Percentage of Orders Jeopardized	Y	N	N	N
Provisioning	6	Average Jeopardy Notice Interval	Y	N	N	N
Provisioning	7	Average Completed Interval	Y	Y	N	N
Provisioning	8	Percent Completed Within Standard Interval	Y	Y	N	N
Provisioning	9	Coordinated Customer Conversion as a Percentage On-Time	Y	Y	N	N
Provisioning	10	PNP Network Provisioning	Y	Y	N	N
Provisioning	11	Percent of Due Dates Missed	Y	Y	N	N
Provisioning	12	Percent of Due Dates Missed Due to Lack of Facilities	Y	N	N	N
Provisioning	13	Delay Order Interval to Completion Date (For Lack of Facilities)	N	N	N	N
Provisioning	14	Held Order Interval	N	N	N	N
Provisioning	15	Provisioning Trouble Reports (Prior to Service Order Completion)	Y	N	N	N
Provisioning	16	Percentage Troubles in 30 Days for New Orders	Y	N	N	N
Provisioning	17	Percentage Troubles in 7 Days for New Orders	N	N	N	N
Provisioning	18	Average Completion Notice Interval	Y	Y	N	N
Maintenance	19	Customer Trouble Report Rate	Y	N	N	N
Maintenance	20	Percentage of Customer Trouble Not Resolved Within Estimated Time	Y	Y	N	N
Maintenance	21	Average Time to Restore	Y	Y	N	N
Maintenance	22	POTS Out of Service Less Than 24 Hours	Y	N	N	N
Maintenance	23	Frequency of Repeat Troubles in 30 Day Period	Y	Y	N	N
Net. Performance	24	Percent Blocking on Common Trunks	N	N	N	N
Net. Performance	25	Percent Blocking on Interconnection Trunks	N	N	N	N
Net. Performance	26	NXX Loaded by LERG Effective Date	N	N	N	N
Net. Performance	27	Network Outage Notification	N	N	N	N
Billing	28	Usage Timeliness	Y	Y	N	N
Billing	29	Accuracy of Usage Feed	N	N	N	N
Billing	30	Wholesale Bill Timeliness	Y	Y	N	N
Billing	31	Usage Completeness	Y	Y	N	N
Billing	32	Recurring Charge Completeness	Y	Y	N	N
Billing	33	Non-Recurring Charge Completeness	Y	Y	N	N
Billing	34	Bill Accuracy	Y	Y	N	N
Billing	35	Duplicate Billing (Disconnect Bill Accuracy)	N	N	N	N
Billing	36	Accuracy of Mechanized Bill Feed	N	N	N	N

Process	Perf Meas #	Performance Measurement				
			Track	Evaluate	Track	Evaluate
Database Update	37	Average Database Update Interval	Y	Y	N	N
Database Update	38	Percent Database Accuracy	Y	Y	N	N
Database Update	39	E911/911 MS Database Update Average	Y	Y	N	N
Collocation	40	Average Time to Respond to a Collocation Request	N	N	N	N
Collocation	41	Average Time to Provide a Collocation Arrangement	N	N	N	N
Interfaces	42	Percentage of Time Interface is Available	**	**	N	N
Interfaces	43	Average Notification of Interface Outages	**	**	N	N
Interfaces	44	Center Responsiveness	**	**	N	N

Key for Appendix C

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
*	Inclusion of this metric is inter-dependent on open issues pending CPUC decision.
**	These cannot be isolated to Test Case input. Results of overall production environment reported during the test period will be considered by Test Administrator/Manager in preparing final report

Appendix D – Letters of Authorization

Please complete the following information and sign the Letter of Authorization below to participate in the Pacific Bell service analysis.

Name _____

Address_____City_____State__ _____Zip____

Main telephone number at this address_____

Additional numbers working at this address_____

Contact number other than above_____

Current number of working lines at this address _____

Organization Name: _____

Contact name_____

Address where donation is to be sent_____

Repeat above details on a separate sheet for each additional address available for use.

Letter of Authorization

By signing below, I am authorizing Cap Gemini America to use my address for Pacific Bell service order analysis until April 1, 2000. This activity will in no way jeopardize my current telephone system, or billing.

I understand that the activities surrounding the installation of any lines to my outside network demarcation point is private and confidential.

I understand that I will have no use of any lines so installed.

I certify that I have read and understood this Letter of Agreement. I further certify that I am at least 18 years of age and that I am authorized to allow telephone installations for service to the address listed above.

Signed_____

Date_____

Appendix E – Order Entry Form

ORDER ENTRY FORM
NAPA Communications
Tracking #: LPWP018001

Issue Date:

Media Type:

BTN:

WTN:

Customer Name:

Service Address:

Contact Name:

Activity Request:

Line Type:

Customer Type:

Number of Lines:

Hunt Type:

Features:

FIDS:

Directory Scenario:

Directory Information:

ORDER ENTRY FORM

BLACKHAWK Communications

Tracking #: ASSL312021

ISSUE DATE:	8/1/00
Media Type:	GUI
BTN:	redacted
WTN:	
Customer Name:	redacted
Service Address:	redacted
Contact Name:	redacted
Activity Request:	Disco
Line Type:	Assured
Customer Type:	Res
Number of Lines:	1
Hunt Type:	
CFA:	redacted
CHC:	
Features:	
FIDS:	
Directory Scenario:	
Directory Information:	
DFDT:	
Predecessor	P-ASSL296021
REF:	
Comment:	Supp to cxl and reissue on 8/1 as ASSL736021
Testing:	N
CLEC Name:	redacted
ECCKT:	redacted

The Order Entry Form consists of the following items:

- Name of CLEC (i.e.; Blackhawk, Napa, Camino, or Discovery)
- Tracking # (ten digit tracking number from test case database)
- Issue date (the date to issue the order)
- Media Type (method to transmit LSR –GUI, EDI, FAX)
- BTN (Billing or Main TN on account)
- WTN (Working TN – Subsequent lines on account, if any)
- Customer Name (Customer name on account)
- Service Address (Physical service address of end user, City, State, Zip)
- Customer Contact Name/Telephone Number
- Activity Request (Conversion, New, Change ,Move , Suspend, Restore, Directory, Disco)
- Line type (Line Service type ordered – LNP with Loop, loop with Port, Basic Loop, Assured Loop, LNP only, DSL loop, DS1 Loop)
- Customer Type (Line Service type ordered – Residence [RES] or Business [BUS]
- Number of Lines (number of lines on the account after completion)
- Hunt type (If multiple line hunt this field would be Series Completion or Circular)
- CFA (cable ,pair, CLLI, cage)
- CHC (yes or no)
- Directory Scenario (description of the directory listing change on this orders Valid only for LNP or LPWP)
- Directory Information (Actual directory name or number
- DFDT (desired frame due time)
- Predecessor (tracking number that worked before this order)
- REF: (next order to be worked)
- Comment (any extra information needed to work this order. (i.e.: SUPP to cancel)
- Testing (Yes or No determines whether this order will be tested at the LOC)
- CLEC name (XO, AT&T, WORLDCOM, COVAD)
- ECCKT: (CKT Number assigned by Pacific)
- FIDS: (applicable date to support certain features – e.g. call forwarding –FID = call forwarding number
- FEATURES: (Port orders – features from ILEC switch)

Appendix F – Test Bed Accounts Spreadsheet

Product	Address Legend	Num Lines	Region	Comments	2nd TN	Addtn'l Lines	Customer Name (fictitious names)	SUPPL ADDR INFO	DATE POSTED
RETAIL	48		North				BOUIE'S SALON	RM 108	5/22/00
RETAIL	48		North				FREEMAN'S AUTO SERVICE	RM 108	5/22/00
RETAIL	48		North				M & M CARPET CLEANING	RM 108	5/22/00
RETAIL	48		North				KEVIN'S CAR WASH	RM 108	5/22/00
RETAIL	48		North				FRANKLIN NUTS & CHEWS	RM 108	5/22/00
RETAIL	134		North					NIF	
RETAIL	134		North					NIF	
RETAIL	134		North					NIF	
RETAIL	134		North					NONE	
RETAIL	134		North					NONE	
RETAIL	125		North					NIF	
RETAIL	41	4	North		Redacted	Redacted		FLR 1	
RETAIL	41		North					NIF	
RETAIL	41		North					NIF	
RETAIL	41		North					NIF	
RETAIL	41	4	North		Redacted	Redacted		RM 103	5/22/00
RETAIL	41		North					RM 103	5/22/00
RETAIL	41		North					NIF	
RETAIL	41		North					NIF	
RETAIL	41		North					NIF	
RETAIL	41	4	North		Redacted	Redacted		RM 103	
RETAIL	39		Bay					RM 100	
RETAIL	39		Bay					RM 100	
RETAIL	39		Bay					RM 100	
RETAIL			Bay	Friendlies			Glen Lokke	NIF	
RETAIL	58		North	Collocation			Gourmet Chili	RM 100	
RETAIL	58		North	Collocation			Endless Candles	NIF	
RETAIL	58		North	Collocation			Second Time Around	RM 100	
RETAIL	57		North	Collocation			Game Zone	NIF	
RETAIL	57		North	Collocation			Glad Rags	NONE	
RETAIL	57		North	Collocation			Hair Depot	NONE	
RETAIL			Bay	Friendlies				Friendlies	
RETAIL			Bay	Friendlies				Friendlies	
RETAIL	123		Bay					NIF	

RETAIL	121	3	Bay		Redacted	Redacted				FLR 1	5/25/00
RETAIL	122		Bay							FLR 1	
RETAIL	121		Bay							NIF	
RETAIL	122		Bay							NIF	
RETAIL	120		Bay							NIF	
RETAIL	122		Bay							NIF	
RETAIL	121		Bay							NIF	
RETAIL	121		Bay							NIF	
RETAIL	122	4 HTG	Bay		Redacted	Redacted				FLR 1	5/25/00
RETAIL	150		North	Collocation			Coffee Tree			RM 107	
RETAIL	150		North	Collocation			Custom Fabricators			RM 107	
RETAIL	150		North	Collocation			Daisy's Flowers			RM 107	
RETAIL	150		North	Collocation			Dawn's Light			NIF	
RETAIL	60		North	Collocation	Disconnect		GREG'S BARBER SHOP				
RETAIL	60		North	Collocation	Disconnect		JAIMIE'S BEAUTY SALON				
RETAIL	60		North	Collocation	Disconnect		WILSON'S STUDIO ONE				
RETAIL	59		North	Collocation	Disconnect		PHYLLIS R CLARK			NIF	
RETAIL	59		North	Collocation	Disconnect		JOSEPHINE BAKER			NIF	
RETAIL	60		North	Collocation	Disconnect		KELLY'S BRAIDS & WEAVE				
RETAIL	60		North	Collocation	Disconnect	MIGRATED	C & G CABINETS			NIF	
RETAIL	59		North	Collocation	Disconnect	MIGRATED	EDNA L MADISON			NIF	
RETAIL	59		North	Collocation	Disconnect		JOSEPHINE BAKER			NIF	
RETAIL	59		North	Collocation			P'S AND Q'S BALLOONS			RM 1200	5/22/00
RETAIL	120		Bay				A B C DIAPERS			NIF	
RETAIL	120		Bay				ASHLEE TRIP TRAVEL				
RETAIL	120		Bay				KIDS COUNTRY			NONE	
RETAIL	120		Bay				NORMA'S BAKE SHOP				
RETAIL	120		Bay				RAY'S FLOWERS			NONE	
RETAIL	123		Bay				BRENDA'S AT&TIC			FLR 1	5/22/00
RETAIL	123		Bay				SHEPHARD ROOFING				
RETAIL	123		Bay				CHARLES TRUCKING				
RETAIL	123		Bay				RENEE'S KITCHEN			FLR 1	5/22/00
RETAIL	123		Bay				GROOVY SOUNDS			FLR 1	5/22/00
RETAIL	39		Bay				HARRY LIMOUSINE			NIF	
RETAIL	39		Bay				RICHARD'S CABINETS				
RETAIL	39		Bay				CANDY BY JACKIE			NIF	
RETAIL	39		Bay				JOE'S PET CARE			NIF	
RETAIL	39		Bay							RM 100	
RETAIL	39	3 HTG	Bay		Redacted	Redacted				RM 115B	5/22/00

RETAIL	39	3 HTG	Bay		Redacted	Redacted				RM 115B	5/22/00
RETAIL	39		Bay							RM 100	
RETAIL	122		Bay							NIF	
RETAIL	119		Bay							NIF	
RETAIL	119		Bay							NONE	
RETAIL	119		Bay							NONE	
RETAIL	38	3 HTG	Bay		Redacted	Redacted				RM 100	5/25/00
RETAIL	37		Bay							NIF	
RETAIL	36		Bay							NIF	
RETAIL	37		Bay							NIF	
RETAIL	38	3 HTG	Bay		Redacted	Redacted				RM 100	5/25/00
RETAIL	38	3 HTG	Bay		Redacted	Redacted				RM 100	
RETAIL	36		Bay							NIF	
RETAIL	38	3 HTG	Bay		Redacted	Redacted				RM 100	
RETAIL	37		Bay							NIF	
RETAIL	37		Bay							NIF	
RETAIL	37		Bay							NIF	
RETAIL	37		Bay							NIF	
RETAIL	37		Bay							NIF	
RETAIL	36		Bay							NIF	
RETAIL	37		Bay	Collocation			Party Favorites			NIF	
RETAIL	37		Bay	Collocation			Park N Shop Shoe Repair				
RETAIL	37		Bay	Collocation			Party's 4 You			NIF	
RETAIL	37		Bay	Collocation			Pet Food Express			RM 142D	
RETAIL	37		Bay	Collocation			Pixie Play School			RM 142D	
RETAIL	37		Bay	Collocation			Pinball Paradise			RM 142D	
RETAIL	38		Bay							FLR 1	
RETAIL	36	3	Bay		Redacted	Redacted				RM 102A	5/24/00
RETAIL	36	3	Bay		Redacted	Redacted				RM 102A	5/24/00
RETAIL	36	3	Bay		Redacted	Redacted				NIF	
RETAIL	36	3	Bay		Redacted	Redacted				RM 102A	5/25/00
RETAIL	34	3	Bay		Redacted	Redacted				RM 100	
RETAIL	34		Bay							NIF	
RETAIL	34	3	Bay		Redacted	Redacted				RM 100	
RETAIL	34	3	Bay		Redacted	Redacted				RM 3D	5/24/00
RETAIL	24		Bay	Collocation			Antique Radio Service			NIF	
RETAIL	24		Bay	Collocation			Alhambra Deli			RM 730B	
RETAIL	24		Bay	Collocation			All Auto Glass			NIF	
RETAIL	24		Bay	Collocation			All Sorts Of sports			RM 730B	

RETAIL	24		Bay	Collocation			Alpine Pastry shop			RM 730B	
RETAIL	24		Bay	Collocation			Antique Corner			RM 420A	
RETAIL	24		Bay	Collocation			Al's Donuts			RM 420A	
RETAIL	24		Bay	Collocation			Amadeus Books			RM 420A	
RETAIL	24		Bay	Collocation			Amber Imports			NIF	
RETAIL	24		Bay	Collocation			America Plumbing			RM 420A	
RETAIL			Bay	Friendlies						Friendlies	
RETAIL			Bay	Friendlies			Rich Overby			Friendlies	
RETAIL	114		Bay							FLR 1	5/24/00
RETAIL	114		Bay							NIF	
RETAIL	114		Bay				N & N HOUSE SERVICE			FLR 1	5/24/00
RETAIL	114		Bay				ANNIE'S DAY CARE			FLR 1	5/24/00
RETAIL	114		Bay				ALL ABOUT NAILS			FLR 1	5/24/00
RETAIL	114		Bay				CARLA'S DINER			FLR 1	5/24/00
RETAIL	114		Bay				EMEAL'S LAWN SVC			FLR 1	5/24/00
RETAIL	114		Bay							NIF	
RETAIL	118		Bay							NIF	
RETAIL	118		Bay							RM 8	5/24/00
RETAIL	118	3 HTG	Bay		Redacted	Redacted				RM 8	5/24/00
RETAIL	118	3 HTG	Bay		Redacted	Redacted				RM 8	5/24/00
RETAIL	135		Bay							NIF	
RETAIL	113		Bay				VIRATEEN PRAT&T			RM 103	5/24/00
RETAIL	113		Bay				CLAUDETTE TIMS			RM 103	5/24/00
RETAIL	113		Bay				CORA J SIMMONS			NIF	
RETAIL	113		Bay				SANDRA BERRY			NIF	
RETAIL	113		Bay				ODIE LINDSAY			NIF	
RETAIL	114		Bay				STEFAN STANLEY			FLR 1	5/24/00
RETAIL	114		Bay				GENE BROWN			FLR 1	5/24/00
RETAIL	114		Bay				ALEXIS CRANFORD			FLR 1	5/24/00
RETAIL	114		Bay				BENNIE SAPP			FLR 1	
RETAIL	118	3 HTG	Bay		Redacted	Redacted	V J GIBSON			RM 8	5/24/00
RETAIL	47		North				PAT'S HAIR & NAILS			NONE	
RETAIL	47		North				CREATIONZ SALON			NONE	
RETAIL	47		North				FASHION TOWN			NONE	
RETAIL	47		North				FATHER & SON TRUCKING				
RETAIL	47		North				COUNTRY KITCHEN			NONE	
RETAIL	118	3 HTG	Bay		Redacted	Redacted				RM 8	5/24/00
RETAIL	24		Bay							NIF	
RETAIL	24		Bay							NIF	
RETAIL	24		Bay							FLR 6	

RETAIL	24		Bay							NIF	
RETAIL	24		Bay							FLR 6	
RETAIL	126		Bay							NIF	
RETAIL	126		Bay							NIF	
RETAIL	126		Bay							NIF	
RETAIL	126		Bay							RM 201	
RETAIL	126		Bay							RM 201	
RETAIL	8		Bay							SUIT 200	
RETAIL	101		Bay							NONE	
RETAIL	113		Bay							NIF	
RETAIL	8		Bay							SUIT 200	
RETAIL	146		North				SONG'S BY ASHLEE			NIF	
RETAIL			Bay	Friendlies			E Cameron			Friendlies	
RETAIL	24		Bay							NIF	
RETAIL	8		Bay							RM 200	
RETAIL	8		Bay							NIF	
RETAIL	8		Bay							RM 200	
RETAIL	152		North	Collocation			TOP CUTS			NIF	
RETAIL	152		North	Collocation			WEB ONE			NIF	
RETAIL	152		North	Collocation			WHEELS TO GO			NIF	
RETAIL	155		North	Collocation			WATERFALL GAMES				
RETAIL	155		North	Collocation			VISUAL NET			NIF	
RETAIL	155		North	Collocation			VINTAGE LIQUORS			FLR 1	
RETAIL	24	4 HTG	Bay		Redacted	Redacted				RM 410A	5/24/00
RETAIL	118	3 HTG	Bay		Redacted	Redacted				NIF	
RETAIL	8		Bay							SUIT 200	
RETAIL	8		Bay							SUIT 200	
RETAIL	8		Bay							SUIT 200	
RETAIL	46		North							RM 100	5/24/00
RETAIL	46		North							RM 100	5/24/00
RETAIL	46		North							RM 100	5/24/00
RETAIL	46		North							RM 100	5/24/00
RETAIL	46		North							RM 100	5/24/00
RETAIL	46		North							RM 100	5/24/00
RETAIL	46		North							RM 100	5/24/00
RETAIL	46		North							RM 100	5/24/00
RETAIL	46		North							RM 100	5/24/00
RETAIL	46		North							RM 100	
RETAIL	19		North							NIF	
RETAIL	105		North				JACKIE JEFFERSON			RM T2	5/24/00

RETAIL	105		North				JACKIE BURNETT			RM T2	5/24/00
RETAIL	105		North				EMILY GENTRY			Rm T2	5/24/00
RETAIL	105		North				DEBRA CARR			RM T2	5/24/00
RETAIL	105		North				JO ANN JONES			Rm T2	5/24/00
RETAIL	105		North							NIF	
RETAIL	19		North							RM 326	
RETAIL	19		North							RM 326	
RETAIL	112		Bay							NIF	
RETAIL	112		Bay							NIF	
RETAIL	112		Bay							NIF	
RETAIL	112		Bay							NIF	
RETAIL	112		Bay							NIF	
RETAIL	112		Bay							NIF	
RETAIL	124	4	Bay		Redacted	Redacted				RM 102	5/25/00
RETAIL	124	4	Bay		Redacted	Redacted				NIF	
RETAIL	124	4	Bay		Redacted	Redacted				RM 102	5/25/00
RETAIL	124	4	Bay		Redacted	Redacted				RM 102	5/24/00
RETAIL	140	4 HTG	Bay		Redacted	Redacted				NIF	
RETAIL	149		North	Collocation			Wolff's Taxidermy			FLR 1	
RETAIL	149		North	Collocation			Accent Paintings			NIF	
RETAIL	149		North	Collocation			Turbo Spas			NIF	
RETAIL	149		North	Collocation			Zoom Travel			NIF	
RETAIL	153		North	Collocation			FULL BLOOM			NIF	
RETAIL	153		North	Collocation			FLEABUSTERS			NIF	
RETAIL	153		North	Collocation			VISUAL LINK			NIF	
RETAIL	61		Bay	Collocation			On The Spot			FLR 1	
RETAIL	61		Bay	Collocation			Paper Girls			FLR 1	
RETAIL	61		Bay	Collocation			Once Upon A Time			FLR 1	
RETAIL	61		Bay	Collocation			One Step Beyond			FLR 1	
RETAIL	61		North	Collocation			CARMEL HOUSE			NIF	
RETAIL	61		North	Collocation			CARD KING			FLR 1	
RETAIL	61		North	Collocation			BROKEN WING			NIF	
RETAIL	61		North	Collocation			COPPER POT			NIF	
RETAIL	61		North	Collocation			COLOR IMAGES			FLR 1	
RETAIL			North	Friendlies			Peggy	Cotlong		Friendlies	
RETAIL	124		Bay							NIF	
RETAIL	112		Bay							NIF	
RETAIL	42		North							NIF	
RETAIL	42		North							RM 201	

RETAIL	42		North							RM 201	
RETAIL	50		North	Collocation			BEEM STUDIO			NONE	
RETAIL	50		North	Collocation			ALLSTAR DONUTS			NONE	
RETAIL	50		North	Collocation			ALLEN DENTAL GROUP				
RETAIL	50		North	Collocation			AUTO PART SALES			NONE	
RETAIL	50		North	Collocation			ARROW TRAVEL			NONE	
RETAIL	50		North	Collocation			A;PHA LIGHTING			NONE	
RETAIL	50		North	Collocation			BELL ELECTRIC			NONE	
RETAIL	50		North	Collocation			AUTO CARE DETAIL			NONE	
RETAIL	50		North	Collocation			ART BY U			NONE	
RETAIL	50		North	Collocation			Roof Trusters			NONE	
RETAIL	50		North	Collocation			Rewards By Design			NONE	
RETAIL	50		North	Collocation			Riviera Pools			NONE	
RETAIL	50		North	Collocation			Roche Plumbing			NONE	
RETAIL	50		North	Collocation			Rock Transport			NONE	
RETAIL	50		North	Collocation			Repairs Unlimited			NONE	
RETAIL	50		North	Collocation			Ready Print			NONE	
RETAIL	50		North	Collocation			Red Hot Sales			NONE	
RETAIL	50		North	Collocation			Red Wing Shoes			NONE	
RETAIL			North	Friendlies			AARON CARR			Friendlies	
RETAIL	147		North	Collocation			Print Club			NONE	
RETAIL	147		North	Collocation			Rapid Photo			NONE	
RETAIL	147		North	Collocation			Quick Check			NONE	
RETAIL	147		North	Collocation			Rams Glass Company				
RETAIL	147		North	Collocation			Pro Color Lab			NONE	
RETAIL			North	Friendlies			JAY GUETTLER			Friendlies	
RETAIL	147		North	Collocation			ACTION VIDEO			NONE	
RETAIL	147		North	Collocation			AIR DESIGN INC			NONE	
RETAIL	49		North	Collocation			ALPHA WAVE			FLR 1	
RETAIL	49		North	Collocation			AIRBORNE EXPRESS				
RETAIL	49		North	Collocation			AIR TIME SERVICE			FLR 1	
RETAIL	49		North	Collocation			ALLIED GLASS			FLR 1	
RETAIL	49		North	Collocation			AIR SYSTEMS			FLR 1	
RETAIL	49		North	Collocation			Rubber Man			RM 210-G	
RETAIL	49		North	Collocation			Sage Room			RM 210-G	
RETAIL	49		North	Collocation			Salty Dogs			RM 210-G	
RETAIL	49		North	Collocation			Five Star Lumber Company				
RETAIL	49		North	Collocation			Sapphire Pool Service			RM 210-G	

ADSL	29		North				J T PRODUCE			RM 1S	5/24/00
RETAIL	32		North							NIF	
RETAIL	28		North							NIF	
RETAIL	28		North							NIF	
RETAIL	28		North							Rm 105	
RETAIL	28		North							Rm 105	
RETAIL	30		North							RM 4	
RETAIL	30		North							RM 4	
RETAIL	30		North							RM 4	
RETAIL	30		North							NIF	
ADSL	29		North				B W BUSINESS SOLUTIONS			RM 1S	5/24/00
RETAIL	31		North				HENRY FALK			RM 200	5/24/00
RETAIL	31		North				STEVEN FOURBY			RM 200	5/24/00
RETAIL	31		North				DONALD FOSTER			RM 200	5/24/00
RETAIL	31		North				STEVEN CLOVIS			RM 200	5/24/00
RETAIL	32	3	North		Redacted	Redacted				RM 100	5/24/00
ADSL	29		North				SHIRLEY CHATHAM			RM 1S	**5/30/00**
ADSL	29		North				A & P BOOTH RENTAL			RM 1S	5/24/00
ADSL	29		North				ERGO INSURANCE CO			RM 1S	5/24/00
RETAIL	32		North							RM 200	
RETAIL	50		North	Collocation			BELLECI REALTY			NONE	
RETAIL	147		North	Collocation			BRADLEY VIDEO			NONE	
RETAIL	147		North	Collocation			BURGESS PAINTING			NONE	
RETAIL	147		North	Collocation			BURNETT ROOFING			NONE	
RETAIL			North	Friendlies			MICH AEL	LUDES		Friendlies	
RETAIL	32	3	North		Redacted	Redacted				NIF	
RETAIL	31		North							RM 200	
RETAIL	31		North							RM 200	5/24/00
RETAIL	12		North							NIF	
RETAIL	143		North				CARLA CARR			RM 2	5/24/00
RETAIL	143		North				RAE WILLIAMS			RM 2	5/24/00
RETAIL	143		North				BEVERLY J CLAY			RM 2	5/24/00
RETAIL	143		North				JACKIE GARCIA			RM 2	
RETAIL	143		North				RUTH E LEWIS			RM 2	5/24/00
RETAIL	127		North							FLR 1	5/24/00
RETAIL	14		North							RM 520	
RETAIL	12		North							NIF	
RETAIL	11		North							NIF	

RETAIL	13		North							NIF	
RETAIL	103		North							NIF	
RETAIL	103		North							NIF	
RETAIL	102		North							NIF	
RETAIL	14		North							SUIT 600	
RETAIL	143		North							RM 2	5/24/00
ADSL	12		North				WALTER DUMAS			RM 102	5/24/00
ADSL	12		North				PHILLIP C BROWN			RM 102	5/24/00
RETAIL	14		North				KELLY COHUNE			RM 520	
RETAIL	14		North				VALERIE COHEN			RM 520	
RETAIL	14		North				DIANE COKER			RM 520	
RETAIL	14		North				J D COBLE			RM 520	
RETAIL	14		North				JOYCE COBIAN			RM 520	
ADSL	103		North				NORMAN'S CLAIM SERVICE				
RETAIL	127		North				JOHN COACH			FLR 1	5/22/00
RETAIL	127		North				RITA CLUTE			FLR 1	5/22/00
RETAIL	127		North				ZACHARY CLINTON			FLR 1	5/22/00
RETAIL	127		North				MARY L BROWN			FLR 1	5/22/00
RETAIL	127		North				DANTE CLIFFORD			FLR 1	5/22/00
RETAIL	127		North							FLR 1	
ADSL	143		North	Collocation			DUBLIN FISH & CHIP			RM 2	5/22/00
ADSL	143		North	Collocation			SHIP TWO SHORE			RM 2	5/22/00
ADSL	143		North	Collocation			NG THEATERS			RM 2	5/22/00
ADSL	143		North	Collocation			BRENDA'S FLORIST			RM 2	5/22/00
ADSL	12		North				AVON BEAUTY			RM 102	5/22/00
ADSL	12		North				JOE'S HOUSE OF BLUES			RM 102	5/22/00
RETAIL	13		North							RM 111	
RETAIL	15		North							FLR 1	5/22/00
RETAIL	16		North							NONE	

Appendix G – Functionality Account Spreadsheet

As Of January 7, 2000

NUM	Address	City	County	Wire Center	Address Legend
Redacted	Redacted	ALHAMBRA	LOS ANGELES	ALHBCA	1
Redacted	Redacted	ALHAMBRA	LOS ANGELES	ALHBCA	2
Redacted	Redacted	ALHAMBRA	LOS ANGELES	ALHBCA	3
Redacted	Redacted	ALHAMBRA	LOS ANGELES	ALHBCA	4
Redacted	Redacted	ANAHEIM	ORANGE	ANHMCA	5
Redacted	Redacted	ANAHEIM	ORANGE	ANHMCA	6
Redacted	Redacted	ANAHEIM	ORANGE	ANHMCA	7
Redacted	Redacted	BERKELEY	ALAMEDA	BKLYCA	8
Redacted	Redacted	SAN RAMON	CONTRA COSTA	BSRNCA	9
Redacted	Redacted	CULVER CITY	LOS ANGELES	CLCYCA	10
Redacted	Redacted	CONCORD	CONTRA COSTA	CNCRCA	11
Redacted	Redacted	CONCORD	CONTRA COSTA	CNCRCA	12
Redacted	Redacted	CONCORD	CONTRA COSTA	CNCRCA	13
Redacted	Redacted	CONCORD	CONTRA COSTA	CNCRCA	14
Redacted	Redacted	DUBLIN	ALAMEDA	SNRMCA	15
Redacted	Redacted	DUBLIN	ALAMEDA	SNRMCA	16
Redacted	Redacted	DUBLIN	ALAMEDA	SNRMCA	17
Redacted	Redacted	ESCONDIDO	SAN DIEGO	ESCNCA	18
Redacted	Redacted	FRESNO	FRESNO	FRSNCA	19
Redacted	Redacted	GLENDALE	LOS ANGELES	GLDLCA	20
Redacted	Redacted	LOS ANGELES	LOS ANGELES	LSANCA	21
Redacted	Redacted	LOS ANGELES	LOS ANGELES	LSANCA	22
Redacted	Redacted	LOS ANGELES	LOS ANGELES	LSANCA	23
Redacted	Redacted	OAKLAND	ALAMEDA	OKLDCA	24
Redacted	Redacted	PASADENA	LOS ANGELES	PSDNCA	25
Redacted	Redacted	PASADENA	LOS ANGELES	PSDNCA	26
Redacted	Redacted	PASADENA	LOS ANGELES	PSDNCA	27
Redacted	Redacted	SACRAMENTO	SACRAMENTO	SCRMCA	28
Redacted	Redacted	SACRAMENTO	SACRAMENTO	SCRMCA	29

NUM	Address	City	County	Wire Center	Address Legend
Redacted	Redacted	SACRAMENTO	SACRAMENTO	SCRMCA	30
Redacted	Redacted	SACRAMENTO	SACRAMENTO	SCRMCA	31
Redacted	Redacted	SACRAMENTO	SACRAMENTO	SCRMCA	32
Redacted	Redacted	SAN DIEGO	SAN DIEGO	SNDGCA	33
Redacted	Redacted	SAN FRANCISCO	SAN FRANCISCO	SNFCCA	34
Redacted	Redacted	SAN FRANCISCO	SAN FRANCISCO	SNFCCA	35
Redacted	Redacted	SAN FRANCISCO	SAN FRANCISCO	SNFCCA	36
Redacted	Redacted	SAN FRANCISCO	SAN FRANCISCO	SNFCCA	37
Redacted	Redacted	SAN FRANCISCO	SAN FRANCISCO	SNFCCA	38
Redacted	Redacted	SAN JOSE	SANTA CLARA	SNTCCA	39
Redacted	Redacted	TUSTIN	ORANGE	TUSTCA	40
Redacted	Redacted	STOCKTON	SAN JOAQUIN	SKTNCA	41
Redacted	Redacted	NAPA	NAPA	NAPACA	42
Redacted	Redacted	ORANGE	ORANGE	ORNGCA	43
Redacted	Redacted	SAN LEANDRO	ALAMEDA	OKLDCA	44
Redacted	Redacted	FRESNO	FRESNO	FRNSCA	45
Redacted	Redacted	CHICO	BUTTE	CHICCA	46
Redacted	Redacted	EMERYVILLE	ALAMEDA	OKLDCA	47
Redacted	Redacted	MODESTO	STANISLAUS	MDSTCA	48
Redacted	Redacted	SACRAMENTO	SACRAMENTO	SCRMCA	49
Redacted	Redacted	SACRAMENTO	SACRAMENTO	SCRMCA	50
Redacted	Redacted	IRVINE	ORANGE	IRVNCA	51
Redacted	Redacted	SAN DIEGO	SAN DIEGO	SNDGCA	52
Redacted	Redacted	SAN DIEGO	SAN DIEGO	SNDGCA	53
Redacted	Redacted	SAN DIEGO	SAN DIEGO	SNDGCA	54
Redacted	Redacted	SAN DIEGO	SAN DIEGO	SNDGCA	55
Redacted	Redacted	SAN DIEGO	SAN DIEGO	SNDGCA	56
Redacted	Redacted	San Jose	SANTA CLARA	SNJSCA	57
Redacted	Redacted	San Jose	SANTA CLARA	SNJSCA	58
Redacted	Redacted	SAN JOSE	SANTA CLARA	SNJSCA	59

NUM	Address	City	County	Wire Center	Address Legend
Redacted	Redacted	SAN JOSE	SANTA CLARA	SNJSCA	60
Redacted	Redacted	SAN BRUNO	SAN MATEO	SNBUCA	61
Redacted	Redacted	ANAHEIM	ORANGE	ANHMCA	100
Redacted	Redacted	BERKELEY	ALAMEDA	BKLYCA	101
Redacted	Redacted	CONCORD	CONTRA COSTA	CNCRCA	102
Redacted	Redacted	CONCORD	CONTRA COSTA	CNCRCA	103
Redacted	Redacted	COMMERCE	LOS ANGELES	LSANCA	104
Redacted	Redacted	FRESNO	FRESNO	FRSNCA	105
Redacted	Redacted	GLENDALE	LOS ANGELES	GLDLCA	106
Redacted	Redacted	GLENDALE	LOS ANGELES	GLDLCA	107
Redacted	Redacted	GARDENA	LOS ANGELES	GRDNCA	108
Redacted	Redacted	LOS ANGELES	LOS ANGELES	LSANCA	109
Redacted	Redacted	LOS ANGELES	LOS ANGELES	LSANCA	110
Redacted	Redacted	LOS ANGELES	LOS ANGELES	LSANCA	111
Redacted	Redacted	MOUNTAIN VIEW	SANTA CLARA	MTVWCA	112
Redacted	Redacted	OAKLAND	ALAMEDA	OKLDCA	113
Redacted	Redacted	OAKLAND	ALAMEDA	OKLDCA	114
Redacted	Redacted	PALMDALE	LOS ANGELES	PLDLCA	115
Redacted	Redacted	PASADENA	LOS ANGELES	PSDNCA	116
Redacted	Redacted	SHERMAN OAKS	LOS ANGELES	SHOKCA	117
Redacted	Redacted	SAN LEANDRO	ALAMEDA	SNLNCA	118
Redacted	Redacted	SAN RAFAEL	MARIN	SNRFCA	119
Redacted	Redacted	SANTA CLARA	SANTA CLARA	SNTCCA	120
Redacted	Redacted	SANTA CLARA	SANTA CLARA	SNTCCA	121
Redacted	Redacted	SANTA CLARA	SANTA CLARA	SNTCCA	122
Redacted	Redacted	SANTA CLARA	SANTA CLARA	SNTCCA	123
Redacted	Redacted	SUNNYVALE	SANTA CLARA	MTVWCA	124
Redacted	Redacted	TRACY	SAN JOAQUIN	TRACCA	125
Redacted	Redacted	OAKLAND	ALAMEDA	OKLDCA	126
Redacted	Redacted	DUBLIN	ALAMEDA	SNRMCA	127
Redacted	Redacted	LOS ANGELES	LOS ANGELES	LSANCA	128
Redacted	Redacted	INGLEWOOD	LOS ANGELES	LSANCA	129
Redacted	Redacted	VAN NUYS	VAN NUYS	VNNYCA	130

NUM	Address	City	County	Wire Center	Address Legend
Redacted	Redacted	BAKERFIELD	KERN	BKFDCA	131
Redacted	Redacted	EL CAJON	SAN DIEGO	ELCJCA	132
Redacted	Redacted	EL SEGUNDO	LOS ANGELES	ELSGCA	133
Redacted	Redacted	LOS BANOS	MERCED	LSBNCA	134
Redacted	Redacted	SAN LEANDRO	ALAMEDA	SNLNCA	135
Redacted	Redacted	SAN FRANCISCO	SAN FRANCISCO	SNFCCA	136
Redacted	Redacted	STOCKTON	SAN JOAQUIN	SKTNCA	137
Redacted	Redacted	MERCED	MERCED	MRCDCA	138
Redacted	Redacted	Los Angeles	Los Angeles	LSANCA	139
Redacted	Redacted	San Mateo	San Mateo	SNMTCA	140
Redacted	Redacted	Anaheim	Orange	ANHMCA	141
Redacted	Redacted	ANAHEIM	ORANGE	ANHMCA	142
Redacted	Redacted	CONCORD	CONTRA COSTA	CNCRCA	143
Redacted	Redacted	FAIRFIELD	SOLANO	FRFDCA	144
Redacted	Redacted	SAN DIEGO	SANDIEGO	SNDGCA	145
Redacted	Redacted	FREMONT	ALAMEDA	FRMTCA	146
Redacted	Redacted	SACRAMENTO	SACRAMENTO	SCRMCA	147
Redacted	Redacted	CANOGA PARK	LOS ANGELES	CNPKCA	148
Redacted	Redacted	Menlo Park	San Mateo	RDCYCA	149
Redacted	Redacted	San Jose	San Clara	SNJSCA	150
Redacted	Redacted	San Diego	San Diego	SNDGCA	151
Redacted	Redacted	CASTRO VALLEY	ALAMEDA	HYWRCA	152
Redacted	Redacted	SAN MATEO	SAN MATEO	SNMTCA	153
Redacted	Redacted	SAN DIEGO	SAN DIEGO	SNDGCA	154
Redacted	Redacted	HAYWARD	ALAMEDA	HYWRCA	155

Appendix H – OSS Test Bed for Collocation Cages Spreadsheet

Reg.	Collocation Cages	Avail Lines/ Page	Address Legend	PB/Friend Address	Prod	Type Service	Exist Lines	TB BTNs	Not Usd As of 5/4//oo	Colo Lines Req'd	# Lines Asgn'd	Lines Migrtd	RES	BUS	RESALE RES	RESALE BUS	Order Number	BTN	Issue Date
Bay	BRLNCA01																		
Bay	FRMTCA12	10	146	Redacted	RETAIL	BUS		Redacted	X	1	1	No		1					
										1	1		0	1	0	0			
Bay	HYWRCA01	10	152	Redacted	RETAIL	BUS		Redacted	X	1	1	No		1					
				(no more facilities)	RETAIL	BUS		Redacted	X	1	1	No		1					
					RETAIL	BUS		Redacted		1	1	No		1					
			155	Redacted	RETAIL	BUS		Redacted	X	1	1	No		1					
					RETAIL	BUS		Redacted	X	1	1	No		1					
					RETAIL	BUS		Redacted	X	1	1	No		1					
			Friendlies	Redacted	RETAIL	RES	1	New		0	0		0	0			Cancelled per Customer		
			Friendlies	Redacted	RETAIL	RES	1	New		0	0		0				Cancelled - no facilities		
			Friendlies	Redacted	RETAIL	RES	1	Redacted	X	1	1		1						
			Friendlies	Redacted	RETAIL	RES	1	Redacted	X	1	1		1						
										8	8		2	6	0	0			
Bay	MLPSCA11	10	Friendlies	Redacted	RETAIL	RES	1	Redacted		1	1		1						
			Friendlies	Redacted	RETAIL	RES	1	Redacted	X	1	1		1						
										2	2		2						
Bay	MTVWCA11	10	124	Redacted	RETAIL	BUS		Redacted	X X	4	4	No		4					

Reg.	Collocation Cages	Avail Lines/ Page	Address Legend	PB/Friend Address	Prod	Type Service	Exist Lines	TB BTNs	Not Usd As of 5/4//oo	Colo Lines Req'd	# Lines Asgn'd	Lines Migrtd	RES	BUS	RESALE RES	RESALE BUS	Order Number	BTN	Issue Date
									X										
					RETAIL	BUS		Redacted		4	4	No		4					
				(limited facilities)	RETAIL	BUS		Redacted	X X X	4	4	No		1					
					RETAIL	BUS		Redacted	X X X X	4	4	No							
					RETAIL	BUS		Redacted		0	NA	Yes							
			112	Redacted	RETAIL	BUS		Redacted		0	NA	Yes							
					RETAIL	BUS		Redacted	X	1	1	No		1					
				(no facilities for new lines)	RETAIL	BUS		Redacted		0	NA	Yes							
					RETAIL	BUS		Redacted		0	NA	Yes							
					RETAIL	BUS		Redacted		0	NA	Yes							
					RETAIL	BUS		Redacted		0	NA	Yes							
					LWP	RES		Redacted		0	NA	NA							
					LWP	RES		Redacted		0	NA	NA							
					LWP	RES		Redacted		0	NA	NA							
					LWP	RES		Redacted		0	NA	NA							

Reg.	Collocation Cages	Avail Lines/ Page	Address Legend	PB/Friend Address	Prod	Type Service	Exist Lines	TB BTNs	Not Usd As of 5/4//oo	Colo Lines Req'd	# Lines Asgn'd	Lines Migrtd	RES	BUS	RESALE RES	RESALE BUS	Order Number	BTN	Issue Date
					LWP	RES		Redacted		0	NA	NA							
					LWP	RES		Redacted		0	NA	NA							
					LWP	RES		Redacted		0	NA	NA							
					LWP	RES		Redacted		0	NA	NA							
					LWP	RES		Redacted		0	NA	NA							
					LWP	RES		Redacted		0	NA	NA							
					RETAIL	BUS		Redacted		0	NA	Yes							
										17	17		0	10	0	0			
Bay	OKLDCA03	20	24	Redacted	RETAIL	BUS		Redacted		0	NA	Yes							
					RETAIL	BUS		Redacted		0	NA	Yes							
					RETAIL	BUS		Redacted	X	1	1	No		1					
					RETAIL	BUS		Redacted	X	1	1	No		1					
					RETAIL	BUS		Redacted	X	1	1	No		1					
					RETAIL	RES		Redacted		0	NA	Yes							
					RETAIL	BUS		Redacted	X X X X	4	4	No (HTG)		4					
					RESALE	RES		Redacted	X	1	1	No			1				
					RESALE	RES		Redacted	X	1	1	No			1				
					RESAL	RES		Redacted		1	1	No			1				

Reg.	Collocation Cages	Avail Lines/ Page	Address Legend	PB/Friend Address	Prod	Type Service	Exist Lines	TB BTNs	Not Usd As of 5/4//oo	Colo Lines Req'd	# Lines Asgn'd	Lines Migrtd	RES	BUS	RESALE RES	RESALE BUS		Order Number	BTN	Issue Date
					E															
					RETAIL	BUS		Redacted		1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted		1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
										20	20		0	17	3	0				
Bay	OKLDCA03	8	113	Redacted	RETAIL	RES		Redacted	X	1	1	No	1							
					RETAIL	RES		Redacted	X	1	1	No	1							
				(no more facilities available)	RETAIL	RES		Redacted		1	1	No	1							
					RETAIL	RES		Redacted	X	1	1	No	1							
					RETAIL	RES		Redacted		0	NA	Yes								
			Friendlies	Redacted	RETAIL	RES	1	Redacted	X	1	1		1							
										5	5		5	0	0	0				
Bay	PLALCA02																			

Reg.	Collocation Cages	Avail Lines/ Page	Address Legend	PB/Friend Address	Prod	Type Service	Exist Lines	TB BTNs	Not Usd As of 5/4//oo	Colo Lines Req'd	# Lines Asgn'd	Lines Migrtd	RES	BUS	RESALE RES	RESALE BUS		Order Number	BTN	Issue Date
Bay	PLALCA12																			
Bay	RDCYCA01	10	149	Redacted	RETAIL	BUS		Redacted	X	1	1	No		1						
				(no more facilities)	RETAIL	BUS		Redacted		1	1	No		1						
					RETAIL	BUS		Redacted	X	1	1	No		1						
					RETAIL	BUS		Redacted		1	1	No		1						
										4	4		0	4	0	0				
Bay	SNBUCA02	10	61	Redacted	RETAIL	BUS		Redacted	X	1	1	No		1						
					RETAIL	BUS		Redacted		1	1	No		1						
					RETAIL	BUS		Redacted		1	1	No		1						
					RETAIL	BUS		Redacted	X	1	1	No		1						
					RETAIL	BUS		Redacted		1	1	No		1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
			Friendlies	Redacted	RETAIL	BUS		Redacted	X	1	1			1						
										10	10		0	10	0	0				
Bay	SNFCCA01		34	Redacted																
				(House Cable only)																
Bay	SNFCCA01																			

Reg.	Collocation Cages	Avail Lines/ Page	Address Legend	PB/Friend Address	Prod	Type Service	Exist Lines	TB BTNs	Not Usd As of 5/4//oo	Colo Lines Req'd	# Lines Asgn'd	Lines Migrtd	RES	BUS	RESALE RES	RESALE BUS	Order Number	BTN	Issue Date
Bay	SNFCCA21	20	36	Redacted	RETAIL	RES		Redacted		0	NA	Yes							
					RETAIL	RES		Redacted		0	NA	Yes							
					RETAIL	RES		Redacted		0	NA	Yes							
					RETAIL	BUS		Redacted	X X X	3	3	No		3					
					RETAIL	BUS		Redacted	X X X	3	3	No		3					
					RETAIL	BUS		Redacted		3	3	No		3					
					RETAIL	BUS		Redacted	X X X	3	3	No		3					
			37	Redacted	RETAIL	RES		Redacted		0	NA	Yes							
					RETAIL	BUS		Redacted		0	NA	Yes							
					RETAIL	BUS		Redacted		0	NA	Yes							
					RETAIL	BUS		Redacted		1	1	No		1					
					RETAIL	BUS		Redacted		0	NA	Yes							
					RETAIL	BUS		Redacted		0	NA	Yes							
					RETAIL	RES		Redacted		1	1	No	1						
					RETAIL	BUS		Redacted	X	1	1			1					
					RETAIL	BUS		Redacted	X	1	1			1					
					RETAIL	BUS		Redacted	X	1	1			1					

Reg.	Collocation Cages	Avail Lines/ Page	Address Legend	PB/Friend Address	Prod	Type Service	Exist Lines	TB BTNs	Not Usd As of 5/4//oo	Colo Lines Req'd	# Lines Asgn'd	Lines Migrtd	RES	BUS	RESALE RES	RESALE BUS		Order Number	BTN	Issue Date
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
										20	20		1	19	0	0				
Bay	SNFCCA21	10	38	Redacted	RETAIL	BUS		Redacted	X X	0 1 1	NA 1 1	Yes (HTG) No (HTG) No (HTG)		2						
					RETAIL	BUS		Redacted	X X	3	3	No (HTG)		3						
					RETAIL	BUS		Redacted	X X X	3	3	No (HTG)								
					RETAIL	BUS		Redacted	X X X	0 1 1	NA 1 1	Yes (HTG) No (HTG) No (HTG)		1						
					RETAIL	RES		Redacted	X	1	1	No	1							
			136	Redacted	RESALE	RES		Redacted		1	1	No			1					
				(limited facilities available)	RESALE	RES		Redacted		1	1	No			1					
					RESALE	RES		Redacted	X	1	1	No			1					
										14	14		1	6	3	0				

Reg.	Collocation Cages	Avail Lines/ Page	Address Legend	PB/Friend Address	Prod	Type Service	Exist Lines	TB BTNs	Not Usd As of 5/4//oo	Colo Lines Req'd	# Lines Asgn'd	Lines Migrtd	RES	BUS	RESALE RES	RESALE BUS	Order Number	BTN	Issue Date
Bay	SNJSCA02	10	~~58~~ 57	Redacted	RETAIL	BUS		Redacted	X	1	1			1			The addresses were reversed		
					RETAIL	BUS		Redacted	X	1	1			1					
					RETAIL	BUS		Redacted	X	1	1			1					
			~~57~~ 58	Redacted	RETAIL	BUS		Redacted	X	1	1			1			The addresses were reversed		
					RETAIL	BUS		Redacted		1	1			1					
					RETAIL	BUS		Redacted	X	1	1			1					
			150	Redacted	RETAIL	BUS		Redacted	X	1	1			1					
					RETAIL	BUS		Redacted	X	1	1			1					
					RETAIL	BUS		Redacted	X	1	1			1					
					RETAIL	BUS		Redacted		1	1			1					
			Friendlies	Redacted	RETAIL	RES	1	Redacted		1	1		1	0					
										11	11		1	10	0	0			
Bay	SNJSCA21	10	59	Redacted	RETAIL	RES		Redacted		0	0						These lines will be disconnected with the exception of the lines that have migrated already.		
					RETAIL	RES		Redacted		0	0								
				Served by a Remote Switch not applicable for Loop migrations	RETAIL	RES		Redacted		0	NA	Yes							
					RETAIL	RES		Redacted		0	0								

Reg.	Collocation Cages	Avail Lines/ Page	Address Legend	PB/Friend Address	Prod	Type Service	Exist Lines	TB BTNs	Not Usd As of 5/4//oo	Colo Lines Req'd	# Lines Asgn'd	Lines Migrtd	RES	BUS	RESALE RES	RESALE BUS	Order Number	BTN	Issue Date
					RETAIL	BUS		Redacted		0	NA	Yes							
			60	Redacted	RETAIL	BUS		Redacted		0	0								
					RETAIL	BUS		Redacted		0	0								
				Served by a Remote Switch not applicable for Loop migrations	RETAIL	BUS		Redacted		0	0								
					RETAIL	BUS		Redacted		0	NA	Yes							
					RETAIL	BUS		Redacted		0	0								
										0	0								
Bay	SNMTCA11	10	140	Redacted	RETAIL	BUS		Redacted	X X X X	4	4	No (HTG)		4					
										4	4		0	4	0	0			
Bay	SNMTCA11	10	153	Redacted	RETAIL	BUS		Redacted		1	1			1					
					RETAIL	BUS		Redacted		1	1			1					
				(limited facilities)	RETAIL	BUS		Redacted	X	1	1			1					
										3	3		0	3	0	0			
Bay	SNTCCA01	20	120	Redacted	LWP	RES		Redacted		0	NA	NA							

Reg.	Collocation Cages	Avail Lines/ Page	Address Legend	PB/Friend Address	Prod	Type Service	Exist Lines	TB BTNs	Not Usd As of 5/4//oo	Colo Lines Req'd	# Lines Asgn'd	Lines Migrtd	RES	BUS	RESALE RES	RESALE BUS	Order Number	BTN	Issue Date
					RESALE	BUS		Redacted		1	1	No				1			
					RESALE	BUS		Redacted	X	1	1	No				1			
					RESALE	BUS		Redacted	X	1	1	No				1			
					RESALE	BUS		Redacted	X	1	1	No				1			
					RETAIL	RES		Redacted	WRONG TELEPHONE NUMBER	0	NA	Yes							
					RETAIL	BUS		Redacted	X	1	1	No		1					
					RETAIL	BUS		Redacted		1	1	No		1					
					RETAIL	BUS		Redacted	X	1	1	No		1					
					RETAIL	BUS		Redacted	X	1	1	No		1					
					RETAIL	BUS		Redacted	X	1	1	No		1					
										9	9		0	5	0	4			
Bay	SNTCCA01	10	121	Redacted	RETAIL	RES		Redacted		0	NA	Yes							
					RETAIL	RES		Redacted		0	NA	Yes							
					RETAIL	RES		Redacted		0	NA	Yes							
			122	Redacted	RESALE	BUS		Redacted		0	NA	Yes (HTG)							
									X	1	1	No (HTG)							
									X	1	1	No (HTG)							
									X	1	1	No (HTG)							

Reg.	Collocation Cages	Avail Lines/ Page	Address Legend	PB/Friend Address	Prod	Type Service	Exist Lines	TB BTNs	Not Usd As of 5/4//oo	Colo Lines Req'd	# Lines Asgn'd	Lines Migrtd	RES	BUS	RESALE RES	RESALE BUS	Order Number	BTN	Issue Date
					RETAIL	RES		Redacted	X	1	1	No	1						
					RETAIL	RES		Redacted		0	NA	Yes							
					RETAIL	RES		Redacted		0	NA	Yes							
					RETAIL	RES		Redacted		0	NA	Yes (HTG)	3						
									X	1	1	No (HTG)							
									X	1	1	No (HTG)							
									X	1	1	No (HTG)							
					RETAIL	BUS		Redacted	X	1	1	No		1					
			123	Redacted	RETAIL	RES		Redacted		0	NA	Yes							
					LWP	RES		Redacted		0	NA	NA							
					LWP	RES		Redacted		0	NA	NA							
					LWP	RES		Redacted		0	NA	NA							
					LWP	RES		Redacted		0	NA	NA							
					LWP	RES		Redacted		0	NA	NA							
					LWP	RES		Redacted		0	NA	NA							
					LWP	RES		Redacted		0	NA	NA							
					LWP	RES		Redacted		0	NA	NA							
					LWP	RES		Redacted		0	NA	NA							
					LWP	RES		Redacted		0	NA	NA							
					RESALE	BUS		Redacted		0	4-NA	Yes							
					RESALE	BUS		Redacted		0	4-NA	Yes							
					RETAIL	BUS		Redacted	X	1	1	No		1					

Reg.	Collocation Cages	Avail Lines/ Page	Address Legend	PB/Friend Address	Prod	Type Service	Exist Lines	TB BTNs	Not Usd As of 5/4//oo	Colo Lines Req'd	# Lines Asgn'd	Lines Migrtd	RES	BUS	RESALE RES	RESALE BUS		Order Number	BTN	Issue Date
					RETAIL	BUS		Redacted		1	1	No		1						
					RETAIL	BUS		Redacted	X	1	1	No		1						
					RETAIL	BUS		Redacted	X	1	1	No		1						
					RETAIL	BUS		Redacted	X	1	1	No		1						
										14	10		4	6	0	0				
Bay	SNVACA01																			
Bay	SNVACA11																			
LA	BVHLCA01																			
LA	CMTNCA01	20	New	Redacted						0	0									
										0	0		0	0	0	0				
LA	CNPKCA01	20	148	Redacted	RETAIL	BUS		Redacted	X	1	1	No		1						
					RETAIL	BUS		Redacted	X	1	1	No		1						
					RETAIL	BUS		Redacted	X	1	1	No		1						
					RETAIL	BUS		Redacted	X	1	1	No		1						
					RETAIL	BUS		Redacted	X	1	1	No		1						
					RETAIL	BUS		Redacted	X	1	1	No		1						
					RETAIL	BUS		Redacted	X	1	1	No		1						
					RETAIL	BUS		Redacted	X	1	1	No		1						
					RETAIL	BUS		Redacted	X	1	1	No		1						

Reg.	Collocation Cages	Avail Lines/ Page	Address Legend	PB/Friend Address	Prod	Type Service	Exist Lines	TB BTNs	Not Usd As of 5/4//oo	Colo Lines Req'd	# Lines Asgn'd	Lines Migrtd	RES	BUS	RESALE RES	RESALE BUS		Order Number	BTN	Issue Date
					RETAIL	BUS		Redacted	X	1	1	No		1						
				(no more facilities available)	RETAIL	BUS		Redacted		1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
										17	17		0	17	0	0				
LA	ELSGCA12	20	133	Redacted	RESALE	RES		Redacted		2	2	No				2				
				(House Cable only)	RETAIL	BUS		Redacted		0	NA	Yes								
					LWP	RES		Redacted		0	NA	NA								
					LWP	RES		Redacted		0	NA	NA								
					LWP	BUS		Redacted		0	NA	NA								
					LWP	BUS		Redacted		0	NA	NA								
					LWP	BUS		Redacted		0	NA	NA								
					LWP	RES		Redacted		0	NA	NA								
					LWP	BUS		Redacted		0	NA	NA								
					LWP	BUS		Redacted		0	NA	NA								
					LWP	BUS		Redacted		0	NA	NA								

Reg.	Collocation Cages	Avail Lines/ Page	Address Legend	PB/Friend Address	Prod	Type Service	Exist Lines	TB BTNs	Not Usd As of 5/4//oo	Colo Lines Req'd	# Lines Asgn'd	Lines Migrtd	RES	BUS	RESALE RES	RESALE BUS		Order Number	BTN	Issue Date
					RESALE	RES		Redacted		2	2	No				2				
					RETAIL	RES		Redacted		2	2	No	2							
										6	6		2	0	0	4				
LA	GRDNCA01	20	108	Redacted	RESALE	RES		Redacted	X	2	2	No			2					
					RETAIL	RES		Redacted		1	1	No	1							
				(no more facilities)	RETAIL	RES		Redacted		1	1	No	1							
					RETAIL	BUS		Redacted		1	1	No		1						
					RETAIL	BUS		Redacted		0	NA	Yes								
					RETAIL	RES		Redacted		0	NA	Yes								
					RETAIL	RES		Redacted		1	1	No	1							
					RETAIL	RES		Redacted		1	1	No	1							
					RETAIL	RES		Redacted		0	NA	Yes								
					RETAIL	RES		Redacted		1	1	No								
					RETAIL	RES		Redacted		0	NA	Yes								
					RESALE	RES		Redacted	X	1	1	No			1					
					RESALE	RES		Redacted	X	1	1	No			1					
			62	Redacted	RETAIL	RES		Redacted	X	1	0		1							
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						

Reg.	Collocation Cages	Avail Lines/ Page	Address Legend	PB/Friend Address	Prod	Type Service	Exist Lines	TB BTNs	Not Usd As of 5/4//oo	Colo Lines Req'd	# Lines Asgn'd	Lines Migrtd	RES	BUS	RESALE RES	RESALE BUS		Order Number	BTN	Issue Date
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
			Friendlies	Redacted	RETAIL	RES	1	Redacted	X	1	0		1							
										21	19		6	10	4	0				
LA	HLWDCA01																			
LA	LSANCA01																			
LA	LSANCA08																			
L. A.	LSANCA35	10	104	Redacted	RETAIL	RES		Redacted	X	1			1							
					RETAIL	RES		Redacted	X	1			1							
					RETAIL	RES		Redacted	X	1			1							
					RETAIL	RES		Redacted	X	1			1							
					RETAIL	RES		Redacted	X	1			1							
					RETAIL	RES		Redacted	X	1			1							
					RETAIL	RES		Redacted	X	1			1							
					RETAIL	RES		Redacted	X	1			1							

Reg.	Collocation Cages	Avail Lines/ Page	Address Legend	PB/Friend Address	Prod	Type Service	Exist Lines	TB BTNs	Not Usd As of 5/4//oo	Colo Lines Req'd	# Lines Asgn'd	Lines Migrtd	RES	BUS	RESALE RES	RESALE BUS	Order Number	BTN	Issue Date
					RETAIL	RES		Redacted	X	1			1						
					RETAIL	RES		Redacted	X	1			1						
~~L. A.~~	~~LSANCA35~~		Friendlies	Redacted	RETAIL	RES	1	CANCELLED		0			0				Access Problems		
										10	0		10	0	0	0			
L. A	LSANCA07																		
LA	SHOKCA01	10	117	Redacted	LWP	RES		Redacted		0	NA	NA							
					LWP	RES		Redacted		0	NA	NA							
				(no more facilities available)	RETAIL	RES		Redacted		1	1	No	1						
					LWP	RES		Redacted		0	NA	NA							
					LWP	RES		Redacted		0	NA	NA							
					LWP	RES		Redacted		0	NA	NA							
					LWP	RES		Redacted		0	NA	NA							
					LWP	RES		Redacted		0	NA	NA							
					LWP	RES		Redacted		0	NA	NA							
					LWP	RES		Redacted		0	NA	NA							
					LWP	RES		Redacted		0	NA	NA							
					LWP	RES		Redacted		0	NA	NA							
										1	1		1	0	0	0			
LA	WLANCA01																		

Reg.	Collocation Cages	Avail Lines/ Page	Address Legend	PB/Friend Address	Prod	Type Service	Exist Lines	TB BTNs	Not Usd As of 5/4//oo	Colo Lines Req'd	# Lines Asgn'd	Lines Migrtd	RES	BUS	RESALE RES	RESALE BUS	Order Number	BTN	Issue Date
	TRNCCA11	10		Redacted	RETAIL	RES		CANCELLED		0	0		0						
				(House Cable - restricted facilities)	RETAIL	RES		CANCELLED		0	0		0						
					RETAIL	RES		CANCELLED		0	0		0						
					RETAIL	RES		CANCELLED		0	0		0						
			65	Redacted	RETAIL	RES		Redacted	X	1	0		1						
					RETAIL	RES		Redacted	X	1	0		1						
					RETAIL	RES		Redacted	X	1	0		1						
					RETAIL	RES		Redacted	X	1			1						
					RETAIL	RES		Redacted	X	1			1						
			64	Redacted	RETAIL	RES		Redacted	X	1	0		1						
					RETAIL	RES		Redacted	X	1	0		1						
					RETAIL	RES		Redacted	X	1	0		1						
					RETAIL	RES		Redacted	X	1			1						
					RETAIL	RES		Redacted	X	1			1						
										10			10						
North	SCRMCA01	10	50	Redacted	RETAIL	BUS		Redacted	X	1	1	No		1					
					RETAIL	BUS		Redacted		1	1	No		1					
					RETAIL	BUS		Redacted		1	1	No		1					
					RETAIL	BUS		Redacted	X	1	1	No		1					
					RETAIL	BUS		Redacted	X	1	1	No		1					
					RETAIL	BUS		Redacted	X	1	1	No		1					
					RETAIL	BUS		Redacted	X	1	1	No		1					

Reg.	Collocation Cages	Avail Lines/ Page	Address Legend	PB/Friend Address	Prod	Type Service	Exist Lines	TB BTNs	Not Usd As of 5/4//oo	Colo Lines Req'd	# Lines Asgn'd	Lines Migrtd	RES	BUS	RESALE RES	RESALE BUS		Order Number	BTN	Issue Date
					RETAIL	BUS		Redacted	X	1	1	No		1						
					RETAIL	BUS		Redacted	X	1	1	No		1						
					RETAIL	BUS		Redacted	X	1	1	No		1						
										10	10		0	10	0	0				
North	SCRMCA01	10	50	Redacted	RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
			Friendlies	Redacted	RETAIL	RES	1	Redacted	X	1	0	0	1	0						
										10	9	0	1	9						
North	SCRMCA02	10	28	Redacted	RETAIL	BUS		Redacted		0	NA	Yes								
					RETAIL	BUS		Redacted	X	1	1	No		1						
					RETAIL	BUS		Redacted	X	1	1	No		1						
					LWP	RES		Redacted		0	NA	NA								
					LWP	RES		Redacted		0	NA	NA								
					LWP	RES		Redacted		0	NA	NA								
					LWP	RES		Redacted		0	NA	NA								

Reg.	Collocation Cages	Avail Lines/ Page	Address Legend	PB/Friend Address	Prod	Type Service	Exist Lines	TB BTNs	Not Usd As of 5/4//oo	Colo Lines Req'd	# Lines Asgn'd	Lines Migrtd	RES	BUS	RESALE RES	RESALE BUS	Order Number	BTN	Issue Date
					LWP	RES		Redacted		0	NA	NA							
					LWP	RES		Redacted		0	NA	No							
					LWP	RES		Redacted		0	NA	NA							
					LWP	RES		Redacted		0	NA	NA							
			29	Redacted	LWP	RES		Redacted		0	NA	NA							
					LWP	RES		Redacted		0	NA	NA							
					LWP	RES		Redacted		0	NA	NA							
					LWP	RES		Redacted		0	NA	NA							
					LWP	RES		Redacted		0	NA	NA							
					LWP	RES		Redacted		0	NA	NA							
					LWP	RES		Redacted		0	NA	NA							
					LWP	RES		Redacted		0	NA	NA							
					LWP	RES		Redacted		0	NA	NA							
					LWP	RES		Redacted		0	NA	NA							
					LWP	RES		Redacted		0	NA	NA							
			30	Redacted	RETAIL	BUS		Redacted	X	1	1	No		1					
					RETAIL	BUS		Redacted	X	1	1	No		1					
					RETAIL	BUS		Redacted	X	1	1	No							
					RETAIL	BUS		Redacted		0	NA	Yes							
			32	Redacted	RETAIL	BUS		Redacted		0	NA	Yes							
					RETAIL	RES		Redacted	X X X	3	3	No		3					
					RETAIL	RES		Redacted	X	1	1	No							

Reg.	Collocation Cages	Avail Lines/ Page	Address Legend	PB/Friend Address	Prod	Type Service	Exist Lines	TB BTNs	Not Usd As of 5/4//oo	Colo Lines Req'd	# Lines Asgn'd	Lines Migrtd	RES	BUS	RESALE RES	RESALE BUS		Order Number	BTN	Issue Date
					RETAIL	BUS		Redacted	X X X	3	3	No		3						
			Friendlies	Redacted	RETAIL	RES	1	Cancelled		0	0		0							
			Friendlies	Redacted	RETAIL	RES	1	Redacted	X	1	0		1							
			Friendlies	Redacted	RETAIL	RES	1	Cancelled		0	0		0							
										13	12		1	10						
North	SCRMCA11	97	147	Redacted	RETAIL	BUS		Redacted	X	1	1	No		1						
					RETAIL	BUS		Redacted	X	1	1	No		1						
					RETAIL	BUS		Redacted		1	1	No		1						
					RETAIL	BUS		Redacted	X	1	1	No		1						
					RETAIL	BUS		Redacted	X	1	1	No		1						
					RESALE	BUS		Redacted	X	1	1					1				
					RESALE	BUS		Redacted	X	1	1					1				
					RESALE	BUS		Redacted	X	1	1					1				
					RESALE	BUS		Redacted	X	1	1					1				
					RESALE	BUS		Redacted	X	1	1					1				
			49	Redacted	RETAIL	BUS		Redacted	X	1	1	No		1						
					RETAIL	BUS		Redacted	X	1	1	No		1						
					RETAIL	BUS		Redacted	X	1	1	No		1						

Reg.	Collocation Cages	Avail Lines/ Page	Address Legend	PB/Friend Address	Prod	Type Service	Exist Lines	TB BTNs	Not Usd As of 5/4//oo	Colo Lines Req'd	# Lines Asgn'd	Lines Migrtd	RES	BUS	RESALE RES	RESALE BUS		Order Number	BTN	Issue Date
					RETAIL	BUS		Redacted	X	1	1	No		1						
					RETAIL	BUS		Redacted	X	1	1	No		1						
					RESALE	BUS		Redacted	X	1	1					1				
					RESALE	BUS		Redacted	X	1	1					1				
					RESALE	BUS		Redacted	X	1	1					1				
					RESALE	BUS		Redacted	X	1	1					1				
					RESALE	BUS		Redacted	X	1	1					1				
					RESALE	BUS		Redacted	X	1	1					1				
					RESALE	BUS		Redacted	X	1	1					1				
					RESALE	BUS		Redacted	X	1	1					1				
					RESALE	BUS		Redacted	X	1	1					1				
			Friendlies	Redacted	RETAIL	RES	1	Redacted	X	1	0		1	1						
										25	24		1	11	0	14				
North	SCRMCA11	10	147	Redacted	RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						

Reg.	Collocation Cages	Avail Lines/ Page	Address Legend	PB/Friend Address	Prod	Type Service	Exist Lines	TB BTNs	Not Usd As of 5/4//oo	Colo Lines Req'd	# Lines Asgn'd	Lines Migrtd	RES	BUS	RESALE RES	RESALE BUS		Order Number	BTN	Issue Date
					RETAIL	BUS		Redacted	X	1	1			1						
			49	Redacted	RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
										10	10			10						
South	IRVNCA11	10	51	Redacted	RETAIL	BUS		Redacted	X	1	1	No		1						
					RETAIL	BUS		Redacted	X	1	1	No		1						
					RETAIL	BUS		Redacted	X	1	1	No		1						
					RETAIL	BUS		Redacted	X	1	1	No		1						
					RETAIL	BUS		Redacted	X	1	1	No		1						
					RETAIL	BUS		Redacted	X	1	1	No		1						
					RETAIL	BUS		Redacted	X	1	1	No		1						
					RETAIL	BUS		Redacted	X	1	1	No		1						
					RETAIL	BUS		Redacted	X	1	1	No		1						
										10	10		0	10	0	0				
South	IRVNCA11	12	New	Redacted	~~RETAIL~~	~~BUS~~		~~New~~		0	0			0				Can't establish accounts at this address		
					~~RETAIL~~	~~BUS~~		~~New~~		0	0			0						

Reg.	Collocation Cages	Avail Lines/ Page	Address Legend	PB/Friend Address	Prod	Type Service	Exist Lines	TB BTNs	Not Usd As of 5/4//oo	Colo Lines Req'd	# Lines Asgn'd	Lines Migrtd	RES	BUS	RESALE RES	RESALE BUS	Order Number	BTN	Issue Date
				(Not able to use, integrated cable only)	~~RETAIL~~	~~BUS~~		~~New~~		0	0			0					
					~~RETAIL~~	~~BUS~~		~~New~~		0	0			0					
					~~RETAIL~~	~~BUS~~		~~New~~		0	0			0					
					~~RETAIL~~	~~BUS~~		~~New~~		0	0			0					
					~~RETAIL~~	~~BUS~~		~~New~~		0	0			0					
					~~RETAIL~~	~~BUS~~		~~New~~		0	0			0					
					~~RETAIL~~	~~BUS~~		~~New~~		0	0			0					
					~~RETAIL~~	~~BUS~~		~~New~~		0	0			0					
					~~RETAIL~~	~~BUS~~		~~New~~		0	0			0					
					~~RETAIL~~	~~BUS~~		~~New~~		0	0			0					
										0				0					
South	ANHMCA01	10	6	Redacted	RETAIL	BUS		Redacted		0	0	No		0			We will move these lines so they will be served out of the same switch. We will also change the product from Bus to Res to support the statistical balance.		
					RETAIL	BUS		Redacted		0	0	No		0					
					RETAIL	BUS		Redacted		0	0	No		0					
				Served by a Remote Switch not applicable	RETAIL	RES		Redacted		0	0	No		0					

Reg.	Collocation Cages	Avail Lines/ Page	Address Legend	PB/Friend Address	Prod	Type Service	Exist Lines	TB BTNs	Not Usd As of 5/4//oo	Colo Lines Req'd	# Lines Asgn'd	Lines Migrtd	RES	BUS	RESALE RES	RESALE BUS	Order Number	BTN	Issue Date
				for Loop migrations															
					RETAIL	RES		Redacted		0	0	No		0					
					RETAIL	RES		Redacted		0	0	No		0					
					RETAIL	RES		Redacted		0	0	No		0					
					RETAIL	RES		Redacted		0	0	No		0					
					RESALE	BUS		Redacted		0	0	No		0					
			100	Redacted	RETAIL	RES		Redacted	X	1	1	No	1	0					
					LWP	BUS		Redacted		0	NA	NA							
					LWP	BUS		Redacted		0	NA	NA							
					LWP	BUS		Redacted		0	NA	NA							
					LWP	BUS		Redacted		0	NA	NA							
					LWP	BUS		Redacted		0	NA	NA							
					LWP	BUS		Redacted		0	NA	NA							
					LWP	BUS		Redacted		0	NA	NA							
					LWP	BUS		Redacted		0	NA	NA							
					LWP	BUS		Redacted		0	NA	NA							
					LWP	BUS		Redacted		0	NA	NA							
					LWP	BUS		Redacted		0	NA	NA							
					LWP	BUS		Redacted		0	NA	NA							
					LWP	BUS		Redacted		0	NA	NA							
					RESALE	BUS		Redacted		1	1	No		1					
					RESAL	BUS		Redacted		1	1	No		1					

Reg.	Collocation Cages	Avail Lines/ Page	Address Legend	PB/Friend Address	Prod	Type Service	Exist Lines	TB BTNs	Not Usd As of 5/4//oo	Colo Lines Req'd	# Lines Asgn'd	Lines Migrtd	RES	BUS	RESALE RES	RESALE BUS	Order Number	BTN	Issue Date
					E														
					RESALE	BUS		Redacted	X	1	1	No				1	These were extra accounts but they should be used for this cage if they haven't migrated yet.		
					RESALE	BUS		Redacted	X	1	1	No				1			
					RETAIL	RES		Redacted	~~X~~	1	1	No					We can't add any additional lines at this location. Instead we will utilize the two extra lines (above) that we hadn't used, disconnect these lines, and establish accounts at a new location to replace these lines - this will keep them in Southern California.		
					RETAIL	RES		Redacted		1	1	No							
					RETAIL	RES		Redacted		1	1	No							
					RETAIL	RES		Redacted		1	1	No							
					RETAIL	RES		Redacted		~~1~~ 0	1	Yes							
					RETAIL	RES		Redacted		~~1~~ 0	1	Yes							
					RETAIL	RES		Redacted		1	1	No							
					RETAIL	RES		Redacted		1	1	No							
					RESALE	BUS		Redacted	X X X	4 0	4	Yes							

Reg.	Collocation Cages	Avail Lines/ Page	Address Legend	PB/Friend Address	Prod	Type Service	Exist Lines	TB BTNs	Not Usd As of 5/4//oo	Colo Lines Req'd	# Lines Asgn'd	Lines Migrtd	RES	BUS	RESALE RES	RESALE BUS	Order Number	BTN	Issue Date
									X										
			Friendlies	Redacted	RETAIL	RES	1	Redacted	X	1	0		1						
										12	17		2	2		2			
South	ORNGCA14	10	Friendlies	Redacted	RETAIL	RES	1	Redacted	X	1	1		1						
										1	1		1						
South	PCBHCA01	12	Friendlies	Redacted	RETAIL	RES	1	Redacted	X	1	1		1						
										1	1		1						
South	SNDGCA01	12	53	Redacted	RETAIL	BUS		Redacted	X	1	1	No		1					
					RETAIL	BUS		Redacted		1	1	No		1					
					RETAIL	BUS		Redacted		1	1	No		1					
					RETAIL	BUS		Redacted		1	1	No		1					
					RETAIL	BUS		Redacted	X	1	1	No		1					
					RETAIL	BUS		Redacted		1	1	No		1					
					RETAIL	BUS		Redacted	X	1	1	No		1					
					RETAIL	BUS		Redacted	X	1	1	No		1					
					RETAIL	BUS		Redacted	X	1	1	No		1					
					RETAIL	BUS		Redacted	X	1	1	No		1					
					RETAIL	BUS		Redacted	X	1	1	No		1					

Reg.	Collocation Cages	Avail Lines/ Page	Address Legend	PB/Friend Address	Prod	Type Service	Exist Lines	TB BTNs	Not Usd As of 5/4//oo	Colo Lines Req'd	# Lines Asgn'd	Lines Migrtd	RES	BUS	RESALE RES	RESALE BUS		Order Number	BTN	Issue Date
					RETAIL	BUS		Redacted	X	1	1	No		1						
					RETAIL	BUS		Redacted	X	1	1	No		1						
					RETAIL	BUS		Redacted	X	1	1	No		1						
					RETAIL	BUS		Redacted	X	1	1	No		1						
					RETAIL	BUS		Redacted	X	1	1	No		1						
					RETAIL	BUS		Redacted		1	1	No		1						
					RETAIL	BUS		Redacted		1	1	No		1						
					RETAIL	BUS		Redacted	X	1	1	No		1						
					RETAIL	BUS		Redacted	X	1	1	No		1						
										20	20		0	20	0	0				
South	SNDGCA02	20	33	Redacted	RETAIL	RES		Redacted		0	1	Yes								
					RETAIL	BUS		Redacted		2	2	No (HTG)		2						
					RETAIL	BUS		Redacted		2	2	No (HTG)		2						
					RETAIL	BUS		Redacted	X X	2	2	No (HTG)		2						
					RESALE	BUS		Redacted	X X X	4	4	No				4				
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						

Reg.	Collocation Cages	Avail Lines/ Page	Address Legend	PB/Friend Address	Prod	Type Service	Exist Lines	TB BTNs	Not Usd As of 5/4//oo	Colo Lines Req'd	# Lines Asgn'd	Lines Migrtd	RES	BUS	RESALE RES	RESALE BUS		Order Number	BTN	Issue Date
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
										20	16		0	16	0	4				
Sout h	SNDGCA02	12	54	Redacted	RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
			55	Redacted	RETAIL	BUS		Redacted		1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted		1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted		1	1			1						
										12	12		0	12	0	0				
Sout	SNDGCA03	40	56	Redacted	RETAIL	BUS		Redacted	X	1	1	No		1						

Reg.	Collocation Cages	Avail Lines/ Page	Address Legend	PB/Friend Address	Prod	Type Service	Exist Lines	TB BTNs	Not Usd As of 5/4//oo	Colo Lines Req'd	# Lines Asgn'd	Lines Migrtd	RES	BUS	RESALE RES	RESALE BUS	Order Number	BTN	Issue Date
h																			
					RETAIL	BUS		Redacted	X	1	1	No		1					
					RETAIL	BUS		Redacted	X	1	1	No		1					
					RETAIL	BUS		Redacted	X	1	1	No		1					
					RETAIL	BUS		Redacted		1	1	No		1					
			151	Redacted	RETAIL	BUS		Redacted		1	1	No		1					
					RETAIL	BUS		Redacted	X	1	1	No		1					
					RETAIL	BUS		Redacted	X	1	1	No		1					
					RETAIL	BUS		Redacted		1	1	No		1					
					RETAIL	BUS		Redacted	X	1	1	No		1					
					RETAIL	BUS		Redacted	X	1	1			1					
					RETAIL	BUS		Redacted	X	1	1			1					
					RETAIL	BUS		Redacted	X	1	1			1					
					RETAIL	BUS		Redacted		1	1			1					
					RETAIL	BUS		Redacted		1	1			1					
					RETAIL	BUS		Redacted	X	1	1			1					
					RETAIL	BUS		Redacted	X	1	1			1					
					RETAIL	BUS		Redacted	X	1	1			1					
					RETAIL	BUS		Redacted	X	1	1			1					
					RETAIL	BUS		Redacted		1	1			1					
					RETAIL	BUS		Redacted		1	1			1					
					RETAIL	BUS		Redacted	X	1	1			1					
					RETAIL	BUS		Redacted	X	1	1			1					
					RETAIL	BUS		Redacted		1	1			1					

Reg.	Collocation Cages	Avail Lines/ Page	Address Legend	PB/Friend Address	Prod	Type Service	Exist Lines	TB BTNs	Not Usd As of 5/4//oo	Colo Lines Req'd	# Lines Asgn'd	Lines Migrtd	RES	BUS	RESALE RES	RESALE BUS		Order Number	BTN	Issue Date
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted		1	1			1						
					RETAIL	BUS		Redacted		1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted		1	1			1						
					RETAIL	BUS		Redacted		1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
			Friendlies	Redacted	RETAIL	RES		Redacted	X	1	1		1							
			Friendlies	Redacted	RETAIL	RES		Redacted	X	1	1		1							
			Friendlies	Redacted	RETAIL	RES		Redacted	X	1	1		1							
										40	40		3	37	0	0				
South	SNDGCA03	12	156	Redacted	RETAIL	BUS		Redacted	X	1	1	No		1						
					RETAIL	BUS		Redacted	X	1	1	No		1						
					RETAIL	BUS		Redacted	X	1	1	No		1						
					RETAIL	BUS		Redacted	X	1	1	No		1						
					RETAIL	BUS		Redacted	X	1	1	No		1						

Reg.	Collocation Cages	Avail Lines/ Page	Address Legend	PB/Friend Address	Prod	Type Service	Exist Lines	TB BTNs	Not Usd As of 5/4//oo	Colo Lines Req'd	# Lines Asgn'd	Lines Migrtd	RES	BUS	RESALE RES	RESALE BUS		Order Number	BTN	Issue Date
					RETAIL	BUS		Redacted	X	1	1	No		1						
					RETAIL	BUS		Redacted	X	1	1	No		1						
					RETAIL	BUS		Redacted	X	1	1	No		1						
					RETAIL	BUS		Redacted	X	1	1			1						
					RETAIL	BUS		Redacted	X	1	1			1						
			157	Redacted	RETAIL	RES		Redacted	X	1	1	No	1	0						
				(limited facilities)	RETAIL	RES		Redacted	X	1	1		1	0						
										12	12		2	10	0	0				
South	SNDGCA06																			
South	SNDGCA15	10	154	Redacted	RETAIL	RES		Redacted	X	1	1		1							
					RETAIL	RES		Redacted	X	1	1		1							
					RETAIL	RES		Redacted		1	1		1							
					RETAIL	RES		Redacted		1	1		1							
					RETAIL	RES		Redacted	X	1	1		1							
					RETAIL	RES		Redacted		1	1		1							
					RETAIL	RES		Redacted		1	1		1							
					RETAIL	RES		Redacted	X	1	1		1							
					RETAIL	RES		Redacted		1	1		1							
					RETAIL	RES		Redacted	X	1	1		1							

Reg.	Collocation Cages	Avail Lines/ Page	Address Legend	PB/Friend Address	Prod	Type Service	Exist Lines	TB BTNs	Not Usd As of 5/4//oo	Colo Lines Req'd	# Lines Asgn'd	Lines Migrtd	RES	BUS	RESALE RES	RESALE BUS		Order Number	BTN	Issue Date
										10	10		10	0	0	0				
Sout h	SNDGCA16	20	145	Redacted	~~RETAIL~~	~~BUS~~		Redacted										These lines were disconnected		
					~~RETAIL~~	~~BUS~~		Redacted												
				Served by a Remote Switch not applicable for Loop migrations	~~RESALE~~	~~BUS~~		Redacted												
					~~RESALE~~	~~BUS~~		Redacted												
					~~RESALE~~	~~BUS~~		Redacted												
					~~RESALE~~	~~BUS~~		Redacted												
					~~RESALE~~	~~BUS~~		Redacted												
					~~RESALE~~	~~BUS~~		Redacted												
					~~RESALE~~	~~BUS~~		Redacted												
					~~RESALE~~	~~BUS~~		Redacted												
					~~RETAIL~~	~~BUS~~		Redacted												
					~~RETAIL~~	~~BUS~~		Redacted												
					~~RETAIL~~	~~BUS~~		Redacted												
					~~RETAIL~~	~~BUS~~		Redacted												

Reg.	Collocation Cages	Avail Lines/ Page	Address Legend	PB/Friend Address	Prod	Type Service	Exist Lines	TB BTNs	Not Usd As of 5/4//oo	Colo Lines Req'd	# Lines Asgn'd	Lines Migrtd	RES	BUS	RESALE RES	RESALE BUS	Order Number	BTN	Issue Date
					~~RETAIL~~	~~BUS~~		Redacted											
					~~RETAIL~~	~~BUS~~		Redacted											
					~~RETAIL~~	~~BUS~~		Redacted											
					~~RETAIL~~	~~BUS~~		Redacted											
					~~RETAIL~~	~~BUS~~		Redacted											
					~~RETAIL~~	~~BUS~~		Redacted											
Sout h	SNDGCA16	12	145	Redacted	~~RESALE~~	~~BUS~~		Redacted									These lines were disconnected		
					~~RESALE~~	~~BUS~~		Redacted											
				Served by a Remote Switch not applicable for Loop migrations	~~RESALE~~	~~BUS~~		Redacted											
					~~RESALE~~	~~BUS~~		Redacted											
					~~RESALE~~	~~BUS~~		Redacted											
					~~RESALE~~	~~BUS~~		Redacted											
					~~RESALE~~	~~BUS~~		Redacted											
					~~RESALE~~	~~BUS~~		Redacted											
					~~RESALE~~	~~BUS~~		Redacted											

Reg.	Collocation Cages	Avail Lines/ Page	Address Legend	PB/Friend Address	Prod	Type Service	Exist Lines	TB BTNs	Not Usd As of 5/4//oo	Colo Lines Req'd	# Lines Asgn'd	Lines Migrtd	RES	BUS	RESALE RES	RESALE BUS	Order Number	BTN	Issue Date
					~~E~~														
					~~RESALE~~	~~BUS~~		Redacted											
					~~RETAIL~~	~~BUS~~		Redacted											
					~~RETAIL~~	~~BUS~~		Redacted											
	Cages Available by CLEC	627																	
	Total Lines			412 = the lines that haven't been migrated plus the new lines (projection of available lines)						412	**385**								
				385 = the total lines given to Cap Gemini in these CLLI locations															
	Total Lines Migrated			35 = the total lines that have been migrated							41								
	Maximum Allowed			These numbers collectively represent the maximum lines allowed per cage at these company locations									67	**285**	10	**28**			
	Total Lines Required			These totals represent the regional numbers required for Loops									47	179	8	28			
								Total Lines given to Cap Gemini											
								Total lines to build for Collocation minus total lines given to Cap Gemini (negative = buffer)											
								Total new lines built as of 3/16/00 (meaning posted in billing)											

Appendix I – Functionality Test Daily Log

Functionality Test Daily Log

DATE: 12/8/1999

A. NAPA LSRs cannot be processed due to the Billing Account number (BAN) not updated in the Pacific system. This issue was escalated to Pacific's account manager. A ticket #2386934 was opened by the IS Call Center and also escalated to the Pacific account manager. Because of this problem the 9 LPWP orders could not be worked.

B. The TG indicated not having a process in place to do FAX orders.

C. The TG was unable to print the Verigate Pre-order screens.

DATE: 12/9/1999

A. The Ban issue was resolved by Pacific and the orders could be worked, 7 orders had been SOCed by close of business.

DATE: 12/10/1999

A. There was a problem pulling the Customer Service Record (CSR). We were able to verify the customer record, however when pulling up by TN or Address from Toolbar the system tells us that it is an invalid address or TN.

B. On Tuesday we pulled the CSRs for several orders and corrected the addresses, adding "LOB" in the address field of the test case. However, when the order was input on Friday, and CSR was pulled again by the TG, that part of the address information was no longer on the CSR.

DATE: 12/13/1999

A. Toolbar was down all day. No notification to Pseudo-CLECs regarding severity or duration of the problem. The operating system was not available. This was an unplanned down time and CLEC was not notified.

DATE: 12/14/1999

A. System would not come up. The IS Call Center was called by the TG and was told the system would be back up at 11:00 A.M. CST. The system was discovered to be up by the TG at 11:28 A.M. EST. There was no notification when toolbar was back on line. It was only when the TG tried it repeatedly they find out that it was up.

DATE: 12/20/1999

A. Multiple test-bed accounts were found to have the same customer name. Concern was that this would appear suspicious to Pacific. This was referred to Pacific's account manager.

B. Pacific LSC wanted to know why orders were faxed, since some orders were issued via GUI at the same time. This was an issue and TG and the TAM teams agreed to work on issuing FAX orders in a way that would imply a system failure to database access with the goal of trying to maintain blindness.

C. The TG was not able to access system as BLACKHAWK until 12:45 EST as IDs had expired.

DATE: 12/21/1999

A. The TG made 13 Attempts to enter an order and was unsuccessful even after suggestions from the help desk. The order was then cancelled and the TG will attempt it again on 12/22

B. There is a problem getting due dates in BLACKHAWK. A call was made to the IS Call Center to report this as 10:50 A.M. EST. The IS Call Center called back at 11:25 A.M. and since then there have been no problems with due dates.

DATE: 12/22/1999

A. Orders with errors still sitting in the tracker bin and not returned to the TAM. Were waiting on the tracking person.

B. TG is holding 6 "NEW" orders due to Pacific problem with telephone number reservation. BLACKHAWK ticket number 2462504 issued 11:44 on 12/21. A follow-up call was placed on 12/22 with no estimated completion time. Pacific needs to perform table updates.

DATE: 12/27/1999

A. Could not issue "NEW" orders with BLACKHAWK OCN until 14:45 EST. Pacific tables had not been updated to change from test to production. Pacific was notified of this problem on 12/20.

B. Eight of 20 orders not processed by end of the day. Eight more BLACKHAWK orders were issued but are not able to be worked because of the inability to reserve TNs.

DATE: 12/28/1999

A. CSR records can only be obtained prior to SOC of a conversion activity. Once a line has been migrated to the CLEC, Pacific no longer maintains the CSR. The TG believed that the lack of the CSR indicated a change or delete service had an invalid telephone number. A conference call was made with Pacific; the TAM explained the situation to the TG. This was a training issue with the TG.

B. The TG returned SUPP281001 to the TAM as an error, since the preceding conversion order was already SOC. But the SUPP was sitting in the error bin at the TG since 12/22 at 11:00 EST and was returned back to the TAM on 12/27. The TAM spoke to the tracking person about leaving orders sitting in error bins.

C. There were 5 orders due 12/28 not processed at the end of the day along with 2 not processed from 12/21 and 1 not processed from 12/20. There were also 12 FAX orders not entered.

DATE: 12/29/1999

A. The TG experienced a problem with a disconnect order. Originally it was thought that the issue was the inability to access a customer record on a CLEC customer in the OSS. The TG received an error message "Service information is

missing - could not issue LSR". After investigation, it was discovered that the TG had neglected to post the telephone number on the loop port page.

DATE: 12/30/1999

A. Received a conflict on an order that could not be resolved because the telephone number on the order did not match the telephone number in the OSS for that customer and address.

DATE: 1/3/2000

A. The TAM issued FAX orders to be worked but the FAX orders were not being issued to Pacific. There were 30 orders that were issued on 12/30/99 not yet processed by the TG. Additionally 12 more were issued on 1/3/2000.

B. The orders for hunt groups were being issued but the RTF file from the TAM did not reflect the WTN. The database was fixed so that the WTN would be populated on the order.

C. There were orders being put into Toolbar with different PONs for the same tracking number by the TG.

D. There were still 5 FAX orders not processed from previous days.

DATE: 1/5/2000

A. There was a backlog of orders that have been handed to the TG that have not been worked.

B. There were 7 orders not worked, 1 LPWP from other days and 6 FAX orders from previous days.

DATE: 1/7/2000

A. The FOC status has been returned within a minute of order issuance all day.

B. The TG is not processing orders received past noon PST.

DATE: 1/10/2000

A. All orders were processing quicker that usual.

B. There were 4 change orders waiting on a FOC at 2:44 PM PST and 1 change order waiting on a FOC due on 12/29/2000.

DATE: 1/11/2000

A. CAMINO and DISCOVERY orders were able to get TNs when testing unlike NAPA and BLACKHAWK where there was a problem because files were not updated.

B. E-911 issued, The TG had a concern with testing data during a session to update a record via the MS Gateway. Apparently the TG did not have available data.

DATE: 1/12/2000

A. TAM tested Verigate's Scheduled Due Date as part of a pre-ordering evaluation and the system responded with a Due Date of 11/26/1998. On the second attempt the date received was in the future for the current year.

DATE: 1/13/2000

A. The TG is not researching errors before returning to The TAM (i.e., the TG needs to call the LSC to see why a TN is invalid on a change order even though the order before SOCed with the same TN).

DATE: 1/14/2000

A. A problem with matched orders has been referred to GEIS. Related orders were worked out of sequence and the final order was referred back to TAM as an error, when in fact an earlier order worked out of sequence created the problem.

DATE: 1/19/2000

A. Pacific gave the TG the go ahead to start testing all other products for BLACKHAWK and NAPA.

DATE: 1/24/2000

A. The TG issued two SDIR orders that were issued as FAX orders but the TG worked as GUI. The TG did not notify the TAM of the change on the order.(SDIR262001 & SDIR263001)

B. There is an issue with the due date field after an order FOCed. After a due date is given to an order, and the order does not SOC on that due date, does the due date change when the order does SOC. This will have a great impact on us testing Pacific's time frames on response for orders.

C. The TG added a room number to an order and did not inform the TAM. Then another order was issued for the same customer and address and the TAM received a FATAL ERORR back because of no room number on the order.

D. TG getting errors back on orders as a fatal error stating that the customer doesn't have the features. In researching the original order the TG did give the customer the features but for some reason Pacific didn't do the updates.

DATE: 1/25/2000

A. PO00087695P (SOC 1/11), PO00918695P (SOC date 1/17) and PO00086695P (SOC date of 1/13) were all FAX orders. Pacific never sent the TG confirmation that these orders SOCed until 1/24.

DATE: 1/26/2000

A. Had to recover 19 orders with Eleanor Clay's name. Pacific agreed to re-establish these accounts with different names, but many of the orders have already been entered into the system and FOCed requiring that they be deleted, not just cancelled or pulled back.

DATE: 1/27/2000

A. We need to find out what role the TG has to play on this project. In other words, are they strictly doing order entry or do their tasks extend beyond that. This is in reference to the following: LPWP192001 was issued on 1/5/2000 and abandoned by the TG without notifying the TAM until 1/27. The TAM told TG not to abandon this order, however the TG did so because they said the order did not have the features specified. TG claims that they called the LSC at that time but Pacific was not able to provide the TG with any helpful information.

DATE: 1/28/2000

A. LPWP240001 and LPWP2410001 were issued on 1/25, however the TAM decided that these two orders along with the rest of the orders for that day should be abandoned because they were using the same contact name. The TG cancelled the FOCs on all of these orders. On 1/26 and 1/27, these two orders did not show up on LEX. On 1/28 the TAM found these two orders to be in FOC state both with a FOC of 1/25 and due date of 2/2. TG was unclear as to how the order reappeared and the TG is looking into this. In the meantime they are going to cancel both of the FOCs again.

B. There was an order issued for LPWP065001, TN 559-298-4284, we received a SOC on 2/8/2000 from Pacific. Issued an LPWP371001 ON 2/29 to add a feature and received an error back from Pacific saying invalid TN. The TG sent back to Pacific to see what happened to the order on 1/28 C27159479. LSC says they have no record of the TN and told them to contact the LOC. The LOC said that the number is not working at the customer address and there is only a business line for Pacific. It appears service was never installed even though we received a SOC.

C. Pacific changed a cable Id without notifying the TAM that caused an error because Pacific failed to notify the TAM of the change.

DATE: 1/31/2000

A. According to TG, the Toolbar response times are very slow. TG states that there was a problem getting into Verigate.

DATE: 2/3/2000

A. The TAM had to deal with a large number of errors on service orders. The majority of errors are related to a customer address that was bad data received from Pacific.

DATE: 2/4/2000

A. Pacific has a system problem with addresses in which a list of addresses that they gave to the TAM has the same addresses but they need apartment numbers. The TG is receiving an error response type 469 (valid address is found but no facilities were found). Pacific stated that they will have a new software release go into production on 3/18, but they will have to make patches for a work around. 12 orders had errors because of this problem.

B. Four friendly customers have denied access to Pacific's installers to complete any type of work and one friendly couldn't be worked because of lack cable pairs.

DATE: 2/10/2000

A. The TG notified us that they would be doing some DUMMY testing on LNP orders to find out what the required fields are needed for the LSR.

B. The TG cancelled six supplemental test cases because the original requests had to be abandoned. The address sub-locations were missing from Pacific's original retail accounts.

DATE: 2/15/2000

A. There were nine orders returned to the TAM for various errors. The errors consisted of:

B. Three orders that were friendly accounts with no access to premises.

C. Two were order entry errors with busy call forwarding.

D. One order had multiple SAGAs,

E. One had a supplement address problem.

F. One order that is not in Pacific's area but rather in GTEs area.

G. One order that is a friendly whose address is invalid.

DATE: 2/16/2000

A. The TG was in toolbar as Blackhawk and requested a due date. They received a Due Date of 11/17/1998. This was referred to the LSC at 7:05 am PST.

B. PBSM was experiencing system problems all day. Pacific is working on the problem and said that processing is "backed up".

DATE: 2/17/2000

A. Because there is no CSR from an original order, change orders have been issued with a conflicting features request. For example the original order in which a customer had 2 types of call blocking features. When there is a change order issued to delete one of the call block features, all blocking features get deleted. This is because the TG has no current CSR to show what features the customer has so they have no way of knowing what features are existing on the customer record.

DATE: 2/18/2000

A. Three M&R test cases were unable to be entered in PBSM. The TG received a message on three test cases that the numbers had been disconnected. This was referred to Pacific. Pacific's response was that the records may not have been posted by the time the test was generated (5:30 AM PST). The TG will reattempt the test cases.

DATE: 2/22/2000

A. After two voice mails and one e-mail there has been no response back from the TG concerning trouble tickets for today.

B. The TG said they are getting closer to finishing DataGate and would soon start processing orders for EDI-NAPA.

C. There were five LNP orders that were issued on 2/10/2000 that haven't been worked.

D. The TAM referred information concerning two trouble friendly accounts to Pacific because of problems calling long distance.

E. The TAM issued Suspend and Restore orders on 2/16 and the TG abandoned them without notifying the TAM's requester. The TG will report to the TAM on Wednesday as to why this happened.

F. The TAM sent the TG a file that contained all test cases that missed the due date and had not SOCed. The TG will determine the root cause for delays.

DATE: 2/23/2000

A. There were problems on LPWP065001 (PON BHPOG198) in LEX. The order has a FOC date of 1/31/2000 with a due date of 2/8/2000. This order sat in LEX with a status of FOC until 2/23/2000 and it shows complete. The system transaction completion date was shown to be 2/23/2000, however the SOC date appeared as 2/8/2000. The problem occurred on LPWP228004 (PON PO9165695P) which had a FOC date of 1/19/2000, a DD of 1/20/2000, SOC date of 1/20/2000, and a transaction completion date of 2/23/2000.

DATE: 2/28/2000

A. The TG proposes that change orders be created for the purpose of verifying that the original conversion order had been created. The TAM feels this is the wrong approach and that it is the TG responsibility to contact Pacific to verify that the order is complete.

DATE: 2/29/2000

A. LPWP042004 had a FOC of 12/9/1999 and a Due date of 12/10/1999. This order has been in LEX since then with a status of FOC, however today the system showed a status of complete with a SOC of 12/10/1999. The system transaction completion date is 2/28/2000.

DATE: 3/7/2000

A. There was problem found with the TG maintained tracking log. In some cases telephone numbers have been changed without the TAM being notified.

DATE: 3/13/2000

A. The TAM requested that the TG tell us when they are planning on working LNP and DSL and any other new types of orders. The TG sent back the LNP and the XDSL order for today, due to a lack of training and procedural knowledge.

DATE: 3/16/2000

A. The TG is not processing orders based on the issue dates. This has been brought to the attention of the TG Manager.

B. The TAM observed at 8:00 AM PST that the TG had 28 orders still to be processed and 13 of the orders were from the previous day's batches. The TAM raised the issue with the TG lead and he said he would talk to his group. There were two DS1, two XDSL, and four LNPO orders that were not processed because of the absences of the TG ordering process.

DATE: 3/21/2000

A. PBSM test cases cleared today but required several phone calls to the LSC and LOC. There were more that the normal amount of calls on this.

B. Verigate was down at 11:15 AM PST with the error displayed reading "Version problem due to weekend release. There is no time frame for a resolution.

C. There are three move orders on hold as we are waiting to hear from Pacific to verify the addresses/regions for these orders.

D. Received feed back from Pacific saying that the NPA for the service address is used both in the North and South regions and that the LEX system was not able to differentiate between the two regions. There had been a fix, but the system upgrade is not scheduled until December of 2000. In the mean time there is a workaround process used by issuing two orders. There must be a disconnect and a new connect. Pacific also states that the workaround process is to be inserted in the CLEC handbook in the near future.

DATE: 3/23/2000

A. The first two orders were placed for Napa by the TG.

DATE: 3/27/2000

A. There were many errors with the orders where the TG sent orders with a customer type of Business but Pacific worked as a Residence. However when a subsequent order was entered as a Business the LSC calls back and says that the order is not in the system as a Business but as a Residence (example: LPWP567001 issued on 3/27/2000 erred back from Pacific, per Nicky in the LSC all previous orders were processed in error). The customer is residence but should have been worked as a business. The same occurred when an order was entered as a residence.

DATE: 3/29/2000

A. The TAM had two numbers supplied by Pacific that we could not find CLLIs for. This was referred to Pacific.

DATE: 4/3/2000

A. The TG returned errors where the TAM & TG issued orders as a residence but Pacific worked as a business or vice versa.

DATE: 4/4/2000

A. Several of the order scripts produced for the TG were missing some of the key elements for successful order entry. The TAM is investigating what caused the errors.

DATE: 4/6/2000

A. There seems to be a problem developing with duplicate tracking numbers. Little research has been done but it appears that the TG expects that tracking numbers between CLECs must indicate the same order type or activity.

DATE: 4/7/2000

A. The TG was understaffed today as, out of 29 orders due today, 25 have not been processed.

DATE: 4/10/2000

A. There were 22 LNP orders issued on 4/7/2000 that still have not been processed but orders issued on 4/10/2000 have been processed, there are12 EDI orders for 4/10 that have not been processed. There are a total of 34 orders not processed.

B. The TG is not investigating errors before returning to the TAM. Sent two errors back that should not have been sent as errors. One reported error was an invalid TN but when Verigate was checked the TN was correct. The second reported error was an invalid ACTL, upon investigation it was found that the TG entered the ACTL in error.

C. There were system problems in the TAM that hampered the ability to either assign new test cases in the database, or sent the new orders to the TG. The system was unavailable from 10:30 am PST until the end of the day.

DATE: 4/11/2000

A. The TG has not been processing LNP orders because of the lack of contact name for one of the CLECs.

B. Pacific has provided some TNs where the TN came up invalid when trying to pull the CSR from Verigate.

DATE: 4/12/2000

A. Resolution of tracking number conflicts in EDI are being worked out between the TAM and the TG. This problem has been resolved with the TG removing their test tracking numbers.

B. Problems with facility being in use on basic loop orders are being referred to the appropriate CLEC by the TAM. Until Resolution, the TAM will change facility assignments.

C. Also, orders were rejected because of a technical conflict between a remote switching unit and a base unit facility assignment.

D. There are 14 LNP orders for EDI due dated for 4/3, 4/4, and 4/11 that are being held by the TG. Total number of orders being held is 29.

DATE: 4/14/2000

A. The TG is holding 47 LNPO conversion orders and five BASL as "Can't be worked". All are BLACKHAWK and the orders are a mix of FAX, GUI, and EDI.

DATE: 4/18/2000

A. The TG are holding 23 LNPO conversion orders and five BASL as "Can't be worked", all were in BLACKHAWK. The orders are a mix of FAX, GUI, and EDI. There are six LNPO FAX orders waiting to be processed. The EDI orders not worked are two ASSL for 4/14/2000, three ASSL for 4/18, one LPWP for 4/17, and six BASL for 4/18.

DATE: 4/19/2000

A. Invalid ACTL errors. It appears that the orders that have been rejected with invalid ACTLs have been done so in error on Pacific side. When the LSC was called about one order the TAM was told that it rejected because it belonged to XO. When discussed with the Account Manager she stated that although this is true, it should also show that BLACKHAWK (in this case) has a special arrangement to use these ACTLs. This is a training issue in the LSC per the Account manager.

B. The TAM is holding 20 LNPO orders because the TNs have not been pre-provisioned.

C. Nine orders for Discovery have been sent back from the TG to be reissued at a later date because the TG not ready to process Discovery orders.

DATE: 4/24/2000

A. The TAM found out that EDI would not permit reuse of a Tracking Number. If an order is cancelled then the tracking number it carried cannot be used by any subsequent order. The TAM has asked the TG to tell us what other rules may be in the EDI system that we have not been told concerning tracking in EDI.

B. The TAM found out that the EDI system creates a Customer ID number that locks the first seven characters of the Tracking number effectively preventing it from being reused. Any date in an order with the exception of CLEC and Customer Name can be corrected without locking the tracking number. If an order is cancelled a new tracking number must be submitted. Duplicates are not allowed.

C. Per the TG, NAPA and BLACKHAWK Pseudo-CLECs can process all types of products with the exception of DS1.

D. Discovery won't be available for production for two more weeks.

DATE: 4/27/2000

A. Today's attempt to issue a large number of orders was hampered by the limitations set by the participating CLECs on the number of NEW loops that could be tested in one day. Since the majority of the remaining orders to be

issued are NEW a different strategy for order flow may need to be developed. Too many of today's orders were NEW xDSLs. Five will be processed and the remainder were held back and released at the rate of 5-8 per day.

B. The CLECs stated that due to time and personnel constraints, they would not be able to test the number of loops that were planned to be sent. The workload must be divided up over a longer period of time to accommodate the number of loops that will need to be tested.

DATE: 4/28/2000

A. Team impacted by the inability of producing order quantities and quality due to the lack of facility pre-provisioned for test case assignments.

B. The DS1L orders have a problem related to NC/NCI codes. The question was raised if all DS1 orders will be the same and if the same codes will be valid regardless if AT&T or XO services the order.

C. All DS1 orders will share the same NC/NCI codes, for AT&T provided facilities the secondary NCI will be set for DS3 and the XO provided lines will be coded for DS1. The name of the participating CLEC will appear on the order.

DATE: 5/1/2000

A. There were 20 LNPO orders processed and are waiting pre-provisioning by AT&T.

DATE: 5/8/2000

A. A trouble report was issued this morning. It was committed for 14:00 PDT. The end user had to hunt down Pacific's technician in the building in San Francisco to tag the facilities. The technician dispatched on the trouble ticket number 0057248 closed the ticket without contacting the individual specified on the ticket.

DATE: 5/10/2000

A. A list of addresses provided by WorldCom does not include sub-locations, supposedly because CGT does not require testing beyond the initial demarcation point. A problem exists because the order entry process requires a valid sub-location when appropriate, regardless of the method or degree of testing to be preformed.

DATE: 5/11/2000

A. Assignments of CFAs provided by the CLECs were unavailable or busy per Pacific's LSC.

DATE: 5/12/2000

A. A discrepancy between the TG generated tracking report and the TAM database exists. The TAM database does not contain ECCKT values that the TG tracker has on the report.

DATE: 5/16/2000

A. Observed the TG order entry and tracking section processed several orders. TG's order entry process was orderly, accurate, and repeatable. No CSRs were researched on Conversion orders prior to entry into EDI. The order tracking section procedures appear to be adequate to properly track the orders.

B. A conflict exists between addresses on service orders when entered into EDI (DataGate). The "work around" that was used for the GUI order entry is not feasible in the EDI environment. Many orders fail in DataGate for lack of a Sub Address that did not appear in the service order address field.

DATE: 5/17/2000

A. Probable major impact due to DS2s from AT&T not compatible for testing.

B. AT&T's T3 lines require special authorization for use by Pacific. Either AT&T gave us incorrect CFAs or incomplete information. The LOC has told the TG that the DS1 orders they entered would need to be cancelled because there is no contract information for AT&T. Informed by the TG that Pacific LSC rejected the DS1 requests because the DS3s are Special access and a contract must be in place by AT&T before the PSUEDO-CLEC can use them.

DATE: 5/18/200

A. There is an apparent problem with the TG, APP to APP software, related to transmission of order status data between EDI (Pacific Database) and the TA database. The TG technical staff is currently investigating.

B. There was a problem with orders that were selected with M&R in that 14 of 19 orders was not ported correctly to the participating CLEC.

C. There were five LNPO orders with sub-locations as a test for an address problem with the Pacific database. The orders were successfully entered but no FOC was received.

DATE: 5/19/2000

A. Record orders are being generated by Pacific to add Sub-addresses of non-migrated Retail Accounts. Per Pacific record orders should be posted by NLT 5/23. A file should be received by Monday that will show the accounts and record orders.

B. It was discovered that cancelled orders do indeed SOC in the EDI system. This discovery required slight database query recalculations to ensure our order counts are correct.

DATE: 5/26/2000

A. There were nine XO DS1L orders but there were problems with the CFAs. This is the same problem that we ran into with AT&T CFAs.

DATE: 5/30/2000

A. All orders in the TAM's possession are being reviewed for error status and referred back to the TG or cancelled. Several orders that were in this group have been referred back to the TG for follow up with participating CLECs because of the CFA assignment being used, but since there had been no response from the CLEC, the TG had referred these orders back to the TAM.

B. No orders were handed off to the TG, as the TAM database is being relocated to Tampa.

C. Orders are being researched that have been SOCed even though there were comments such as "House Burned Down", etc. It was suggested to the TG that they contact Pacific for a clear definition of "JEOPARDY" and their process concerning orders that cannot be completed.

D. Nine DS1l orders were issued but there are problems with the CFA. Although they are for XO. This is a repeat of the problem experienced last week with the AT&T DS1 CFAs.

DATE: 5/31/2000

A. Orders with "BUSY CFAs" are being reviewed to determine the depth of the problem. The issue is multifaceted in that either the CFAs provided are in error, or they became busy through normal activity, which creates additional work for both the TAM and the TG. These orders usually involve processing an order a second time, and creating a problem with available inventory.

DATE: 6/5/2000

A. A "real" Pacific Customer's telephone number was in the TAM database as an embedded account. The TN was used on a conversion order from Pacific to BLACKHAWK as a BASL (BASL717021). Pacific is restoring the customer's service, and the TAM is removing the telephone number from the database (310-630-0461). This customer's service was disconnected on Friday 6/2 and was still not restored as of 8:00 AM PDT 6/6/2000. This issue has been referred to Pacific.

B. There were 37 orders handed off to the TG, 17 have not been processed at the close of business.

C. The TG notified the TAM of two Friendly orders that have been FOCed. When checked against the Friendly list, it was found that the customer was AT&T and there is no contact number.

D. There were trouble tickets in EB that Pacific's system doesn't show an ECCKT so orders cannot be tested. This was referred to Pacific.

DATE: 6/7/2000

A. There were 29 orders handed off to the TG and 19 still were not processed at the close of business.

DATE: 6/8/2000

A. There were 32 orders handed off to the TG and 23 orders have not been processed.

DATE: 6/13/2000

A. There was a visit to the Hollywood CO and we found out that CFAs given to the TAM are incorrect. There is no W23 cage for AT&T. The wire cages in this office were W01 or W11.

DATE: 6/14/2000

A. The first day of attempting Coordinated Hot Cuts. None of the eight scheduled hot cuts have been worked by AT&T. They all failed and have been restored by Pacific. Because of the problem with the orders all LNPL order scheduled Hot Cuts will be held back.

DATE: 6/19/2000

A. There were 123 orders handed to the TG but 42 had not been processed by the COB.

DATE: 6/28/2000

A. There were 71 orders issued to the TG, 22 of the 71 were not processed by the COB.

DATE: 6/29/2000

A. As part of the plan to generate the required number of orders, we had to issue disconnects on previously SOCed orders so that the facilities (CFA) could be reused on subsequent orders. We were also told that we cannot issue disconnects on LNPL tracking numbers. To reuse facilities previously used on an LNPL, the disconnect must be issued as a BASL. This is a requirement of the TG's APP-to-APP and not a requirement of Pacific or EDI.

DATE: 7/6/2000

A. AT&T requested that the TG request LSC the Telephone Number, the PON, and the CKT ID from Pacific when receiving a Busy CFA. If the LSC is not willing to provide such information the test case was cancelled and a new test case was built in another CLLI to replace the cancelled test case.

B. The TAM is still holding orders waiting on a response from XO for Busy CFAs.

DATE: 7/7/2000

A. There are orders that were issued after 10:00 AM PST. that have not been processed by the TG.

DATE: 7/11/2000

A. Directory Test Cases were issued and are coming back as rejects from the LSC because the customer has the same type of service that we are trying to

change to. This is due to not having a database to retrieve the original directory account set-ups.

B. When a FOC is received from the TG via the Daily report, it does not necessarily mean that test order is cleared and will continue processing to SOC. After the FOC is received a manual error can also be received from the LSC indicating that a problem exists placing an order in a jeopardy status. (Example: could be CFA not available). When this happened a chain reaction may occur since the FOC fails. CHCs and site testing as well as LOC/CLEC testing is impacted.

DATE: 7/17/2000

A. There were problems with DS1L test cases having XO CFA assignments being returned for invalid CFAs.

B. COVAD has not responded to the TAM concerning a facility to which the LSC gave back as an error because the CFA is not in the Database.

C. There was an order sent back as no access to the customer. Per WorldCom, Pacific's technician failed to find the office to gain access to the MPOE.

D. There were three LNPL CHC orders worked. Only one resulted in a completed test at both the ILEC and CLEC sides. One CHC was cut but a RETURN TO NOT AVAILABLE (RNA). A call was placed to the participating CLEC who informed the TG that they supplied the incorrect pair. The test case had to be cancelled and reissued. One LNPL CHC was not done because the TN supplied by the TAM to the TG was pre-provisioned by AT&T for a stand-alone LNP instead of a LOOP with LNP.

E. An LNPL CHC that was scheduled was cancelled by the LOC MA after it was cut. The MA requested the TG change the Due Date. It appears that when the LOC fails to port the number on time, it will be cancelled by the ASMS system, and the port will need to be rescheduled for the next day. This has something to do with Greenwich Mean Time. The TAM and the TG called the participating CLEC to get this information. The CLEC contact suggested that the TG request the LOC to release the TN by contacting the LNPC to make the date/time changes. The TG received a call back from the LOC that the change had been completed. After the LOC made the changes, the TAM placed a call to the TN to test the intercept message, with the CLEC POC on the line. The result received was an RNA. The CLEC POC then called the number while the TAM was on the line and an intercept message was available.

DATE: 7/19/2000

A. There were three DS1L orders resubmitted by the TG. The reason for resubmitting these orders was because XO provided the incorrect relay rack information.

DATE: 7/20/2000

A. The TG MDB file has not been updated since 6/28/2000. This has been referred to the TG.

DATE: 7/21/2000

A. The TG called about an LNPO order that was scheduled to cut at 11:00 AM PDT and had not been cut. The LOC informed the TG that since these are suppose to flow through the system, the system cuts them at the times indicated on the orders.

DATE: 7/26/2000

A. There has been an E-mail sent to XO to follow up on four test cases that had CFA errors and had been referred to them over two weeks ago. The TG had been holding the test cases and needed to get an answer back.

DATE: 8/7/2000

A. The TAM discovered nine test cases not showing a status of SOC in TG daily report. This was reported to the TG team lead to correct.

B. Received an error on an LNPO order that the TN is invalid. The TN was provided by Pacific as a Retail Account, after calling the TN the number has been disconnected.

DATE: 8/9/2000

A. There was an order rejected by the LSC because of Line Sharing. If we had disconnected the other line would have gone out of service.

DATE: 8/11/2000

A. The EDI system was unavailable from 7:30 AM PST until 10:30 AM PST.

B. The LNPL/LNPO orders that were issue have not been worked and we were informed by the TG that no more than 15 orders will be processed a day.

DATE: 8/16/2000

A. There was a list of 147 orders that are over seven days old that have not SOCed or been cancelled. TAM has asked the TG to looked into the why they haven't SOCed.

B. The LSC cannot process a disconnect request for an XDSL test case because they can't find the ECCKT in their system.

DATE: 8/18/2000

A. There were nine test cases with an address in Torrance, Ca and they were assigned to Sherman Oaks. All nine orders were cancelled, as there was no CFAs for Torrance.

DATE: 8/21/2000

A. An ASSL test case was submitted with a San Francisco CLLI/CFA that has an address of San Jose. The service line EEL cannot be supported unless the CLEC pays for the extended mileage. The TAM requested the TG to cancel the order. While investigating the CFA it was discovered that the test case with the same address and CFA had already SOCed twice. The TAM is investigating further as to the billing method utilized by Pacific for the other two turn-ups. After further

research it was determined that only one test case was previously issued. A disconnect was also issued afterwards.

DATE: 8/22/2000

A. Verigate has been unavailable since 8/21/2000.

B. There was one ASSL test case returned from the TG because the Pacific Technician returned it for no access. This was a WorldCom address so an e-mail was sent to them questioning no access. WorldCom responded via e-mail and informed Pacific that their technician had not been seen at the premise. An e-mail was forwarded to the TG to follow up with the Pacific LOC and try to deliver the loop.

DATE: 8/23/2000

A. The TAM received an LNPO order where Pacific shows a Due Date of 8/24/2000 but the order was actually worked on 8/22/2000. (LNPO175021).

DATE: 8/25/2000

A. The TAM had to cancel an LNPL order that was originally a retail account for us to use. This number has now been assigned to a live customer. (TN 916-457-4890).

B. The TAM had to cancel one LNPL because the TN has already been ported.

DATE: 8/28/2000

A. M& R induced trouble tickets being processed by the TG, but there are some concerns that need to be cleared up. For instance, out of the 11 induced troubles, TAM noticed: two troubles were cancelled after creation, one trouble created was referred, five troubles remained in a received status and three troubles were created but there was no indication of what was done by the technician to clear the problem.

DATE: 8/29/200

A. One BASL test case sent back to the TG to be cancelled, as it required approval for mileage.

B. Received 10 troubles submitted by the TG in support of Post SOC testing. Even though the TG did not submit the requests right after the SOC posted, a trouble ticket was not created by the system.

DATE: 8/30/2000

A. One ASSL Test case was sent back to the TG to open a trouble ticket. The response from XO indicates NDT. Additionally to clear up some confusion as per TG entry indicating No Access to Premise, but that the XO technician found Pacific tags on the ground.

B. One BASL was requested to be cancelled. After thorough investigation it was determined that in fact the AT&T CFA was pre-provisioned for a Basic w/NP, but since 4/2000 the test case had been issued as a loop only. Since the TG was

not submitting Test Requests to AT&T for loop only test cases, it was never identified by AT&T.

DATE: 8/31/2000

A. The TAM received two rejects because of invalid ECCKT and one because of Invalid Address. TAM made a request that the TG verify the reason for the rejects with Pacific LSC. The invalid ECCKTs are for disconnects and the invalid address has already been installed and disconnected once.

DATE: 9/1/2000

A. Received two rejects because of facilities shortage at Pacific.

B. One ECCKT already disconnected

C. 9/7/2000

D. The TG re-issued 10 SDIR test cases after finding a syntax error in the LEX system.

Appendix J – Functionality Test Methods and Procedures

Functional Test Methods & Procedures

Procedure for New Installs and Conversions of Basic and Assured Loop (without a Coordinated Hot Cut (CHC) or Number Portability)

1. The TAM will notify the Pacific contact person by Friday noon, pacific time, the week before they will be on site.
2. Pacific will supply a contact person and a backup in the Maintenance LOC to conduct loop tests as requested by the TAM. This contact person will be advised that the TAM representative is conducting an audit for an outside company.
3. On the day after the due date, the TAM will provide a list of ECCKTs with service addresses for the two-wire loops to be tested to the Pacific contact person. The test on a new install or a conversion without a CHC will be conducted on the day after the due date because no acceptance test is available on a two-wire loop and the loop could be installed at any time of the day.
4. The Pacific contact will secure the cable pair assignment for the ECCKTs to be tested.
5. The test will involve the following activities at the LOC:
   a. The Pacific contact will facilitate placing a 'shoe' on the cable pair on the vertical side of the MDF.
   b. The Pacific contact will facilitate the MLT (mechanized loop test) on the loop to determine the loop length and print the test result screen.
   c. The printed test results will be provided to the TAM representative.
   d. The TAM will compare the loop length to the loop length provided from 'Loop Qual' via a Verigate 'actual data inquiry' on the address. The 'Loop Qual' loop length is based on engineering records.
   e. The loop will pass the MECHANIZED LOOP TEST if:
      - the loop length is at least equal to or greater than 1000 feet less than the 'Loop Qual' length
      - and the loop tests as a 'clear open out', which means the loop is balanced

      For example, if the expected loop length from the 'Loop Qual' record is 15k feet and the MLT result is 14k feet or greater and balanced the loop test will pass.
   f. The loop will fail if it is shorter than 1000 feet less than the 'Loop Qual' length.

      For example, if the expected loop length from the 'Loop Qual' record is 15k feet and the MLT result is less than 14k feet the loop test will fail.

g. If the loop fails the MLT the TAM will request the Test Generator to issue a trouble report through PBSM. The trouble report will be tracked and the resolution recorded.

h. The loop will then be checked for dial tone from the CLEC. If dial tone is detected, the loop is good back through the collocation cage and the result will be noted.

i. The loop was then ANIed using the AT&T ANI code. If the AT&T ANI fails the loop will be ANIed using the universal ANI code and results noted. If the ANI fails, the TAM will request the Test Generator to issue a trouble report through PBSM.

j. If dial tone is not detected the Pacific contact will request the frame at the central office to provide a short at the last Pacific occurrence of the circuit, i.e., at the POT (point of termination) bay. If the short is seen the loop is good back to the collocation cage and the loop will be passed.

k. If the short is not seen, the TAM will request the Test Generator to issue a trouble report through PBSM. The trouble report will be tracked and the resolution recorded.

Procedure for Conversion of Basic Loop with Number Portability With a Coordinated Hot Cut (CHC)

1. The TAM will notify the Pacific contact person by Friday noon, pacific time, of the week before they will be on site.
2. Pacific will supply a contact person and a backup in the Maintenance LOC to conduct loop tests as requested by the TAM. This contact person will be advised that the TAM representative is conducting an audit for an outside company.
3. On the due date and one hour before the CHC time, the TAM will conduct an MLT on the retail line through PBSM to verify that the loop has not been converted early.
4. The TAM will provide the ECCKT and service addresses for the converted two-wire loop to be tested to the Pacific contact person.
5. The TAM will request the LOC to do a 'shoe' test an hour before the CHC time.
6. The Pacific contact will secure the cable pair assignment for the ECCKT to be tested.
7. The test will involve the following activities at the LOC:
   a. The Pacific contact will facilitate placing a 'shoe' on the cable pair on the vertical side of the MDF.
   b. The Pacific contact will facilitate the MLT (mechanized loop test) on the loop to determine the loop length and print the test result screen.
   c. The printed test results will be provided to the TAM representative.
   d. The TAM will compare the loop length to the loop length provided from 'Loop Qual' via a Verigate 'actual data inquiry' on the address. The 'Loop Qual' loop length is based on engineering records.
   e. The loop will pass the MLT if:
      - the loop length is at least equal to or greater than 1000 feet less than the 'Loop Qual' length
      - and the loop tests as a 'clear open out', which means the loop is balanced

      For example, if the expected loop length from the 'Loop Qual' record is 15k feet and the MLT result is 14k feet or greater and balanced the loop test will pass.
   f. The loop will fail if it is shorter than 1000 feet less than the 'Loop Qual' length.

      For example, if the expected loop length from the 'Loop Qual' record is 15k feet and the MLT result is less than 14k feet the loop test will fail.
   g. If the loop fails, the MLT the TAM will request the Test Generator to issue a trouble report through PBSM. The trouble report will be tracked and the resolution recorded.

h. The loop will then be checked for dial tone from the CLEC. If dial tone is detected, the loop is good back through the collocation cage and the result will be noted.

l. The loop will then be ANIed using the universal ANI code and results noted.

i. If dial tone is not detected the Pacific contact will request the frame at the central office to check for dial tone at the last Pacific occurrence of the circuit, (i.e., at the POT (point of termination) bay on the CLEC Tie Pair). If dial tone is detected the loop will be ANIed using the universal ANI code and results noted. If dial tone is detected the loop is good back to the collocation cage and the loop will be passed.

j. If dial tone is not detected at the CLEC Tie Pair, the TAM will request the Test Generator to issue a trouble report through PBSM. The trouble report will be tracked and the resolution recorded.

8. On the due date and one hour after the CHC time, the TAM will conduct an MLT on the retail telephone number through PBSM to verify that the loop has been converted. A failure of the ability to do an MLT through PBSM on the retail number will signify the retail number has been ported out.

9. The TAM will request the LOC to do a 'shoe' test an hour after the CHC time.

10. The test will involve the following activities at the LOC:

a. The Pacific contact will facilitate placing a 'shoe' on the cable pair on the vertical side of the MDF.

b. The Pacific contact will facilitate the MLT (mechanized loop test) on the loop to determine the loop length and print the test result screen.

c. The printed test results will be provided to the TAM representative.

d. The TAM will compare the loop length to the loop length provided from 'Loop Qual' via a Verigate 'actual data inquiry' on the address. The 'Loop Qual' loop length is based on engineering records.

e. The loop will pass the MLT if:

- The loop length is at least equal to or greater than 1000 feet less than the 'Loop Qual' length
- The loop tests as a 'clear open out', which means the loop is balanced

For example, if the expected loop length from the 'Loop Qual' record is 15k feet and the MLT result is 14k feet or greater and balanced the loop test will pass.

f. The loop will fail if it is shorter than 1000 feet less than the 'Loop Qual' length.

For example, if the expected loop length from the 'Loop Qual' record is 15k feet and the MLT result is less than 14k feet the loop test will fail.

g. If the loop fails, the MLT the TAM will request the Test Generator to issue a trouble report through PBSM. The trouble report will be tracked and the resolution recorded.

h. The loop will then be checked for dial tone from the CLEC. If dial tone is detected, the loop is good back through the collocation cage and the result will be noted.

i. The loop will then be ANIed using the AT&T ANI code. If the AT&T ANI fails the loop will be ANIed using the universal ANI code and results noted. If the ANI fails, the TAM will request the Test Generator to issue a trouble report through PBSM

j. If dial tone is not detected the Pacific contact will request the frame at the central office to provide a short at the last Pacific occurrence of the circuit, (i.e., at the POT (point of termination) bay). If the short is seen, the loop is good back to the collocation cage and the loop will be passed.

k. If the short is not seen, the TAM will request the Test Generator to issue a trouble report through PBSM. The trouble report will be tracked and the resolution recorded.

Procedure for Testing Conversion of Stand Alone Number Portability With a Coordinated Hot Cut (CHC Pre-Hot Cut)

1. The TAM will notify the Pacific contact person by Friday noon, pacific time, of the week before they will be on site.
2. Pacific will supply a contact person and a backup in the Maintenance LOC to conduct loop tests as requested by the TAM. This contact person will be advised that the TAM representative is conducting an audit for an outside company.
3. The TAM will request the LOC provide a copy of the Disconnect Order to verify Hot Cut Date and Time and Document results.
4. One Hour before the CHC time the TAM will perform a test call to the telephone number and document results of that call.
5. One Hour after the CHC time the TAM will perform a test call to the telephone number and document results of that call.
6. At the end of the working day of the CHC time the TAM will perform a test call to the telephone number and document results of that call.
7. The morning the day after of the CHC time the TAM will perform a test call to the telephone number and document results of that call.

Appendix K – Functionality Test Order Form

Tracking # LNPL522021

Circuit Testing Status

Testing Status ----------> [ ]

In Progress (IP), Hold (H), Trouble Ticket required(TT) or Complete (C)

Follow-up Required

Circuit previously Disconnected

Date ----------> [ ]

Order # ----------> [ ]

****

Pre SOC Local Loop Test (Pass/ Fail) --------- [ ]

Post SOC Local Loop Test (Pass/ Fail) ------- [ ]

Trouble Ticket required (Y/N) [ ]

****

Pre SOC PacBell Facility Test (Pass/ Fail) --- [ ]

Pre SOC CLEC Facility Test (Pass/ Fail) ------ [ ]

Post CLEC Facility Test (Pass/ Fail) ------> [ ]

Trouble to be turned over to CLEC (Y/N) [ ]

Notes:

Circuit Testing Request Form

Pacific Information

Date	6/21/2000	Order#	0
CLEC	0		
ECCKT	0		
PON #	0		
TN #(Conv. only)	0		
ADDRESS	0		
Coordinated Hot Cut	0	**Date ----------->**	1/0/00
		Time ----------->	12:00 AM

Tracking # 0

Order Data

CLEC	0		
PON #	0	Order #	0
	FOC Date	1/0/1900	
	SOC Date	1/0/1900	
	Due Date	1/0/1900	
TN #	0	**ECCKT**	0
CFA	0		
CUSTOMER NAME	0		
ADDRESS	0		
Contact Name	0		

Coordinated Hot Cut	0	**Date ---------->**	1/0/00
		Time ---------->	12:00 AM

Tracking # 0

Testing Information

Test Auditor		**Maintenance ADM**	
Date of Observation		**Time of Observation**	

Order Status	**SOC'd Order**	**If Disconnected**	
	Order In Progress	**Disconnect Order #**	
	Circuit Disconnected	**Date Disconnected**	

Coordinated Hot Cut -- One (1) Hour **Prior to Cut**

LOOP (Verigate)	0	**Pacific Bell**	
	(-)	**Dial Tone (Y/N)**	
LOOP (MLT)		**Recording (Y/N)**	
		Recording Type	
		ANI	
Difference	**#VALUE!**	**Test Pass/Fail**	
Is the loop length Difference > +1000' (Y/N)?		**CLEC**	
		Dial Tone (Y/N)	
		Recording (Y/N)	
		Recording Type	
		ANI	
Test Pass/Fail		**Test Pass/Fail**	

After Cut or when **SOC'd**

LOOP (Verigate)	**0**	**CLEC**	
	(-)	**Dial Tone (Y/N)**	
LOOP (MLT)		**Recording (Y/N)**	
Difference	**#VALUE!**	**Recording Type** (Dead Number,etc.)	
Is the loop length Difference > +1000' (Y/N)?		ANI (958)	
		CLEC or PB ANI	
Test Pass/Fail		**Test Pass/Fail**	

Tracking # 0

Trouble Reporting

End User "A" — Local Loop — PB CO (Colo) "B" — CLEC Facility — CLEC Switch "C"

Notify CLEC to issue a a trouble Ticket!

If Failed, Issue TT

Date

Time

Ticket Number#.

Request short on the assigned pair on the Frame.

Short Observed (Y/N)?

If "Yes"

Notify facility provider of the trouble.

If Failed, Issue TT

Date

Time

Providers Trouble Ticket Number #

Notes:

Tracking # LNPOXXXXXXXX

Circuit Testing Status

Testing Status ----------> [ ]

In Progress (IP), Hold (H), Trouble Ticket required(TT) or Complete (C)

PacBel FDT TBCC

Date ----------> [ ]

Time ----------> [ ]

****

Pre Test Call (Pass/ Fail) ---------> [ ]

1/0/00 12:00 AM

Post Test call (Pass/ Fail) ---------> [ ]

1/0/00 12:00 AM

Post Test call (Pass/ Fail) ---------> [ ]

1/0/00 12:00 AM

Post Test call (Pass/ Fail) ---------> [ ]

Notes:

Circuit Testing Request Form

Pacific Information

Date	6/21/2000
CLEC	0
ECCKT	0
PON #	0
TN #(Conv. only)	0
ADDRESS	0

Coordinated Hot Cut	0	**Date ----------->**	1/0/00
		Time ----------->	12:00 AM

Tracking # LNPOXXXXXXXX

Order Data

CLEC	0		
PON #	0	Order #	0
	FOC Date	1/0/1900	
	SOC Date	1/0/1900	
	Due Date	1/0/1900	
TN #	0	ECCKT	0
CFA	0		
CUSTOMER NAME	0		
ADDRESS	0		
Contact Name	0		
Coordinated Hot Cut	0	Date ---------->	1/0/00
		Time ---------->	12:00 AM

Tracking # LNPOXXXXXXXX

Testing Information

Test Auditor		**Maintenance ADM**	
PacBel FDT		**TBCC**	
		Date	
		Time	

LNPO -- **Prior to Cut**		LNPO -- **Post Cut**	
DATE		**DATE**	
TIME		**TIME**	
Call telephone number:		**Call telephone number:**	
Findings		**Findings**	
Recording (Y/N)		**Recording (Y/N)**	
Recording Type		**Recording Type**	
Test Pass/Fail		**Test Pass/Fail**	

LNPO -- **Post Cut**		LNPO -- **Post Cut**	
DATE		**DATE**	
TIME		**TIME**	
Call telephone number:		**Call telephone number:**	
Findings		**Findings**	
Recording (Y/N)		**Recording (Y/N)**	
Recording Type		**Recording Type**	
Test Pass/Fail		**Test Pass/Fail**	

Tracking # LNPOXXXXXXXX

Notes:

Appendix L –LCS/LOC Visits

PacBell Visit 11/15-11/16

Purpose: To visit the PacBells Local Service Center, and the Local Operations Center and get familiar with the processes performed when handling the various functionality's derived from ordering, provisioning and maintenance and repair of CLEC generated requests. The walkthrough of the facilities will give the team a better view of how the departments are structure and a feel for the operations daily activities.

Day 1
1) Visit the LSC
Date/Time: 11/15/99 - 9:30am
View Processes
- AOG
- Manual
- Toolbars – GUI interfaces

Specifics
- Service reps. handling of orders that fall off the AOG process.
- Orders not eligible for AOG
- Supplements, Cancellations,-> same representative?
- Escalation process
- Structure of units
    - UNE, Resale, coin, complex …
- Reasons why the CLEC will call the LSC
    - LSR errors (FE)
    - Questions concerning LSR field entry
- Other functions of the LSC away from monitoring AOG, manual entry and GUI interfaces
- Who handles Directory
- How does the 411 database get updated for facility/non-facility CLECs?

2) Visit the LOC – Provisioning
Time: 1:30pm
View Process
- Walkthrough Operation
- Structure- responsibilities

Specifics
- How they handle provisioning requests
- What determines a provisioning trouble versus a physical trouble
- Escalations
- Response time on troubles
- Interfaces to receive reports
- Translations of features

Day 2
Visit the LOC – Maintenance & Repair
Date/Time: 11/16/99 – 09:30am
View Process
- Trouble resolution
- Dispatch process
- Translations at the switch process

Specifics
- Time to respond to trouble tickets
- Interfaces for trouble responses (PBSM,EBI)

Agenda 11/15 – 11/16 Visit

PacBell Visit 11/15- 11/16 Notes
See assessment note at end of this document.

11/15/99 – 09:00am
Visit to the LSC – Anaheim CA

Atteendees:
PacBell

CPUC Consultants

A brief meeting was held in the conference room for introductions and to set visit expectations.

Expectations:
To visit the units within the LSC that are responsible for performing CLEC circuit migrations and to view the normal workflow of orders. This visit would help to determine the assignment of test administrators for the monitoring and evaluation of system processes during testing.

Process reviewed:
System availability: LASR-GUI application down for 1 hour.
Number of orders monitor for evaluation in a three-hour period: 1
Systems monitored: LASR – GUI and SORD
Units monitored: 2; The scanner or service representative responsible for the assigning orders.
The service representative responsible for processing the LSR and order input into the SORD system.

Overview:
The LSC main function is to process non-flow through LSR's received electronically from the CLEC. LSR orders that pass SORD criteria are AOG, and will not be maintained by the LSC, nor will the LSC see them. A service representative called a scanner process the exception LSR's by assigning them to a service representative for processing. The service representative review the LSR order to determine what caused it not to flow through. Once the problem is corrected, the service orders are created in the SORD application for distribution and order migration.

PacBell had indicated that orders containing incorrect information or missing data are rejected back to the CLEC, in this instance the CLEC initiator was contacted for verification of the address because PacBell could not pull address verification on this new area. The service representative then proceeded to correct the LSR order without rejecting it back to the CLEC.

Issues / Concerns: These are items in my opinion that could create changes to our schedules.

- LSC processing of FAX LSR is not expected because it is not in the MTP
- It was mentioned that presently the LSC processing of Loop w/Port orders is very minimal. Since this will be a large focus of our testing, there may be an issue with maintaining blindness.
- Maintaining blindness when monitoring test orders between the scanner, and the service representatives
- Volume of exception orders (non-AOG) input by GEIS, intended for AOG processing

LSC/LOC Visit 11/15- 11/16 Notes page 1

Additional information from conversations:

- Connie mentioned that PacBell has own LSOR Guidelines
- There is 2 SORD systems North and South Region
- PacBell Firewall is of 25 minutes. This excludes CLEC interfaces that could add up to the time of order delivery.
- Six hours to issue of FOC on exception orders. There was not an answer when posting the question of whether the CLEC is contacted on exceptions.

11/15/99 – 1:30pm
Visit to the provisioning LOC– Reseda CA
Atteendees:
PacBell
CPUC Consultants

A brief meeting was held in the LOC area manager office for introductions and to set visit expectations.

Expectations:
To visit the provisioning LOC responsible for the processing of circuit migrations, TBCC (hot cuts) and trouble resolution, and to view the processing functionality in order to determine assignment of test administrators for monitoring and evaluation of such processes during testing.

Processes reviewed:
System availability: Single System Image (SSI) application available.
Number of Hot Cuts monitor for evaluation in a two-hour period: 1
Number of circuits: 1
Systems monitored: SSI and Service Order Status and SORD
Units monitored: 1 Maintenance Administrator (MA) Responsible for coordinating orders, end user migrations of single, LNP's, xDSL and ISDN, and acceptance testing of such products.

TBCC Process:
The MA's main function is to interact with the CLEC to work customer Hot Cuts. The process is not completely automated. The CLEC has forty-eight hours to contact the LOC to schedule a Hot Cut. A package containing information such as the PON, circuit or telephone number, quantity of circuits, customer contact, etc… are placed together into a folder and scheduled for daily process of hot cuts. An E0135 form is also added to the package. When the CLEC calls the first time to schedule a hot cut this package is put together and filed based on the scheduled date of hot cut. The package is then distributed to one of the Ma's. If the schedule hot cut is missed it gets re-scheduled with the CLEC. This new schedule hot cut is based on LOC workload. Tickets are routed to the provisioning LOC for a period of five days after conversion to CLEC

Terms:
TBCC = To be call cut
MA = Maintenance Administrator

LSC/LOC Visit 11/15- 11/16 Notes page 2

Hot Cut process flow :

1. CLEC calls the LOC to schedule Hot Cut.
2. Message received via the 800 # is transfer to one of the MA and on to the SSI in message format.
3. The MA prints the message.
4. The MA calls the frame. AT THIS TIME THE CLOCK STARTS
5. The MA sends message back to originator that the frame has being contacted.
6. The MA person write updates based on progress.
7. The MA waits until the frame calls back that loop back has been accepted.
8. The frame calls back indicating dial tone tested.
9. The MA enters a progress update.
10. The MA calls the CLEC to inform that the loop has been worked
11. The CLEC has one hour to respond back if any problems are encounter

11/16/99 – 9:30am
Visit to the Maintenance and Repair LOC– Pasadena CA.
Attendees:
PacBell

CPUC Consultants

Overview
The maintenance & repair LOC in Pasadena employs approximately 70 service reps who take inbound calls from CLEC's whose customers experience a variety of service-affecting troubles, as well as working troubles reported through the PBSM and EBI interfaces. These 70 reps are responsible for taking calls concerning customers state-wide, not just a particular region. The center is the single point of contact for any CLEC trouble. Any re-routing of trouble to particular groups or CO's is done out of the office.

Normal Flow of Trouble Report
A CLEC rep calls in to report a trouble on a particular Circuit ID or Telephone Number. The Maintenance Administrator (MA) performs preliminary troubleshooting, such as running an MLT, then creates a trouble report based on the results. The MA then routes the trouble report to the appropriate field office or CO using a system based on the physical address of where the PacBell facility is located. PacBell's "G-3" system prioritizes the trouble report based on trouble type and commit time. Upon trouble correction, the technician working the ticket calls the MA at the maintenance & repair LOC, then the MA calls the CLEC contact to inform them that the trouble has been cleared. At that point, the CLEC rep has 24 hours to either confirm the correction with the customer or call the MA back if there is still a trouble. After the 24 hours, the MA closes the ticket.

PBSM & EBI as they Relate to the M&R LOC
The two interfaces that are used to report trouble are PBSM and EBI. These two systems pull the necessary from PacBell's Loop Maintenance Operations System (LMOS) and drop the trouble report into the main "bucket" of tickets that are worked by the MA's. In a conversation with an MA named Tangie, some things were learned: 1. Because of price restrictions, there are only a couple of CLEC's that use EBI, Sprint and MCIW. 2. Even though most CLEC's have the PBSM option, the majority of troubles are reported over the phone, not through an interface.

Trouble Administration as Related to CLEC Type
In the same conversation with Tangie, it was learned that most troubles reported are by CLEC's that are facilities-based. This means that PacBell's responsibility is only to either the collocation facilities or the end-pole that leads into a CLEC's facilities. This is different from a non-facilities based CLEC where the ILEC is usually responsible for providing dial tone to the customer's network interface.

Assessment note
It is our opinion that in order to maintain blindness while on-site at the LSC or either LOC, PacBell should provide access through software or hardware, to monitor the activity of the LSR through the LASR-GUI and SORD systems without monitoring the service rep in person.
Also, with the number of service reps at the LSC, it will be difficult to determine if a problem was corrected by the service rep without reject, or if it was rejected, along with the time frame of said reject without some tool by which to monitor the progress of the individual orders.

LSC/LOC Visit 11/15- 11/16 Notes page 4

AGENDA for Pacific LSC VISIT
August 15, 2000

Purpose: Follow up visit to observe and document observations of Service Order Processing in the LSC.

I. Introduction of Participants

A. Auditors
TAM resources

B. PacBel Representatives

II. Overview of the LSC procedures for Service order Processing by PacBel Representative. - Is the procedure documented and how?

III. How is the work divided up within the group?

A. Are there different processes for different CLECS?

B. Is the center Turfed by Area or Individual CLEC?

C. Is there a special group that handles CLEC's with sub facilities?

IV. Observe the Process first hand as a "Ride Along Exercise"

V. Conclusion of Visit

Total Time: not more than three hours
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LSC Visit Agenda

PacBel LSC VISIT
August 15, 2000

Auditors: TAM member

The purpose of this revisit was to observe the LSC process and determine how the work is "Turfed" (distributed) through the centers.

At 9:00 AM on 8/15/00 TAM members met with PacBel Mangers, the Center Manager and the Area Manager. They gave us a complete tour of the Center, which covers three floors. While there we observed Service Requests being processed through all phases including completion as well as Customer Care and Expedite calls being answered.

Following is a synopsis of our visit:

There are three Service Centers dedicated to handling the CLEC service requests within PacBel. They are San Francisco, Riverside, and this Service Center Anaheim. The Service Centers handle all CLEC requests within there given geographical area i.e. San Francisco: South.

The CLEC service requests come into the Service Center, via LASAR or CESAR. Sceeners pull up the requests by "buckets" that equate to all orders for a particular CLEC received and not yet processed. The Screener assigns the orders by type to the individual Service Order Writers who in turn build them into SORD where they become PacBel Service Orders. The only "Turfing" of the Service Center is by Service Request type. There are separate groups for LNP, DSL, Basic Loop, and Complex Services such as Centrex.

Besides the Screeners and Service Order writers there are two other groups in the Service Center. They are Service Managers and Customer Care.

LSC Visit 11/15- 11/16 Notes page 1

The Service Mangers handle special requests on orders already in the system. The request are things such as expedites and situations that are out of the ordinary. The Service managers are "Turfed" by CLEC because most of their work is done over the phone and requires some type of special handling. By Turfing the Service Managers by CLEC the CLEC personnel have a single point of contact for their special handling issues.

The Customer Care group receives all incoming calls on Service Order questions. They are "Turfed" by either PacBel Customer Care calls or CLEC Customer Care calls. Mangers whose job is to make sure the CLEC's monitor these two groups through an Automatic Call Distributor. Calls have priority over the PacBel Calls. At no time is the wait on hold to be longer for the CLEC's than for PacBel.

As orders are processed through SORD they automatically update back to the CLEC through LASR. This includes updates, changes and completions of Service requests.

In conclusion the he only other "Turfing" issues could be in the Provisioning groups and these are all done via the SORD Service Order.

Visit 11/15- 11/16 Notes page 2

A visit was made to three COs on 6/14/2000. The purpose of this visit was to inventory the 2-wire Circuit Facility Assignments given to the TAM by CLEC.

From: TAM resourc
Sent: Wednesday, June 14, 2000 12:21 AM
To: TAM resource

Subject: CO visits 6/13/00.

Today we visited three Central Office in the LA area; Sherman Oaks, Canoga Park and Hollywood. The purpose of this visit was to inventory the 2 wire Circuit Facility Assignments (CFA) given to the TA from CLEC. Attached is a file that contains the CFA inventory in each office.

Sherman Oak - one active pair (1590).
Conago Park - three active pairs (132,133 & 431)
Hollywood - the facility give to us as the CFA, does not exist in this office. There is no W23 cage or TPM50 Cable. It is recommended that we review this assignment with CLEC before we issue any order with this assignment.

TAM
CA TA testing team.

Central Offices Visits

Appendix M – Maintenance and Repair Phase Report

M & R Phase Report

Phase 1: Tuesday, January 18 2000 – Thursday, January 20 2000

The scheduled workload for the visit was 17 Loop with Port test cases to be entered. Additionally, MLTs were to be performed on a list of approximately 50 telephone numbers that had been compiled. The additional loop tests were used by the TAM to confirm the test readings that were expected from the test loops and not included in the reporting for any of the performance measurements.

The set of MLT tests was successfully run, with the only problem being a small amount of WorldCom system downtime. The trouble tickets were entered into the EB system. Upon transmitting the first trouble ticket through the EB gateway, an error was returned that stated "Access Denied" and "Create Ticket Failed at PacBell".

A call was placed to the TAM's M&R contact at approximately 2:40p.m. PST on January 18, 2000 to explain the problem that was encountered upon entering the trouble tickets. The contact indicated that Pacific had done their part in updating the Access Customer Name Abbreviations (ACNA) tables and that WorldCom needed to update their software to include the ACNAs of the four Pseudo-CLECs. During the course of the call the WorldCom manager assisting with the EB Testing, was able to determine that WorldCom's EB Interface did not transmit the ACNAs, only the Account Name Identifier (ANI).

At 8:15a.m. PST, the contact person called and informed the TAM's EB team that changes to the ACNA tables were completed and that the transmission of information for the Pseudo-CLEC's accounts over the WorldCom interface should be possible. The first Loop with Port trouble ticket was successfully created and processed at 8:30a.m. PST on January 19, 2000. The trouble reported was "No Dial Tone" and the commitment date returned by Pacific was for January 22, 2000. A second ticket was run to verify the system functionality and it was also successful. The TAM EB team decided that the first two tickets would be considered as a systems pre-test and not be included in the fulfillment of the requirements of the Master Test Plan. Four (4) additional tickets were successfully created through EB, with each returning commitment dates and times of approximately 24 hours from the time that the ticket was created. The subsequent commitments represented a noticeable decrease from the times that were returned on the first two tickets.

It was discovered that the WorldCom EB interface automatically populated all tickets, including our test tickets, with the name of the rep that created the ticket, as well as WorldCom's 800-number. It was determined that WorldCom's reps should not be handling calls resulting from EB Testing, so an alternate name and contact number replaced the WorldCom information on the remaining trouble tickets. The reps were instructed to refer the technicians to an alternate point of contact, which was a TAM member at the TG site. A technician called with a question about a code that was present on the order that he was working. It was determined that the code was not one that we provided, but was a Pacific code that had been added after it had passed the EB gateway. The code was "ESCO".

WorldCom's manager informed the TAM's EB team that PacBell had already closed six of the seven orders that were entered the day before. Upon investigating, it was learned that Pacific had sent notices that they had cleared the trouble, followed immediately by notices that they were closing the ticket. According to information provided by WorldCom, this is contrary to the procedures followed for WorldCom's EB tickets. In WorldCom's process, the notification that Pacific cleared the trouble is sent, then WorldCom has 24 hours to verify that the trouble was indeed corrected before the ticket is closed.

Upon attempting to close the final ticket, an error was received that spoke of "resource limitations". Per WorldCom, this error meant that Pacific's system had basically lost the ticket and, had we not closed it, it would have never been worked to completion.

Electronic Bonding Issues Following Phase 1 of EB Testing

Following the first phase of EB Testing, a concern was raised regarding Pacific's closing of test EB test tickets. WorldCom stated that the accepted industry standard for closing EB tickets was for Pacific to first send a clear notice, informing the CLEC that the trouble is believed to be corrected. This was to allow the CLEC to contact the customer and perform any follow-up testing to assure that the trouble was, in fact, corrected. After the CLEC had concurred that the trouble was repaired, or after 24 hours had passed, whichever happened first, Pacific would send the final close notice, informing the CLEC that they were closing out the trouble ticket. This differed from the results realized during the first round of EB testing, where the clear notice was followed immediately by the close notice.

Pacific stated that it was not their standard procedure for POTS services to send the clear notice, then wait 24 hours before following with the close notice. Pacific cited a Joint Implementation Agreement (JIA) that was negotiated between WorldCom and Pacific for the EB method of trouble reporting, in which the "close Out Verification" step is "Implemented and Supported with Limitations".

A subsequent conference call was held between the TAM, the CPUC and representatives of WorldCom to discuss the issue of the JIA and the "close Out Verification" step of Pacific's trouble resolution process. It was found that section 5.3 of the JIA for EB supported Pacific's position that a clear notice is followed immediately by a close notice, rather than waiting for the CLEC to return the "close Out Verification". The EB process was modified, reflecting the absence of the "close Out Verification" step.

Phase 2: Monday, June 7 2000 – Thursday, June 10 2000

The scheduled workload for the second phase of EB testing consisted of 61 orders (33 2-wire loops and 28 Loop with Port).

The first trouble tickets that were to be generated were for the Loop with Port numbers. Upon entering the tickets, the EB system returned a response of "access denied". This was the same problem that was encountered during the first phase of testing that was the result of the ACNAs not being loaded into WorldCom's EB tables in Pacific. It was found that the ACNAs were not properly loaded into the system. The Pacific contact person corrected the problem and the trouble tickets should once again be able to pass

through the gateway. The explanation for the problem was that due to inactivity, the codes had somehow been overwritten.

A concern that the Loop with Port numbers that were planned as part of testing would no longer have troubles effected on them was raised, as they were the same lines that had been scheduled for testing during the first round of EB testing. Due to routine system maintenance, the artificially induced troubles had most likely been corrected and would only return responses of "no trouble found". The TAM concurred with her assessment and agreed to hold back the Loop with Port test cases.

At 2:00 p.m. PST, WorldCom began entering the 2-wire loop test cases into the EB system. Once the trouble tickets were passed across the EB gateway, they fell out of the LMOS system as "fall-back reporting". From the information on fall back reporting that was provided to the TAM by WorldCom, this is the response that is returned when LMOS is unable to match the ECCKT provided on the ticket to any of the ECCKTs in Pacific's records. WorldCom verified that the correct format for entering the ECCKTs was being followed.

More trouble tickets were entered by WorldCom, but again received the fallback reporting message. The TAM contacted Pacific regarding the fall back reporting message. The TAM's EB team also contacted the PBSM team to attempt to enter a ticket on one of the test ECCKTs via the PBSM method of trouble reporting.

The TAM's M&R contact in Pacific confirmed that fallback reporting meant that the circuit could not be found in Pacific's database. A member of the TAM's PBSM team called and reported that they were successful in creating a ticket through PBSM that could not be entered through EB. To assure that this problem was universal and not just coincidental to the three circuits that were entered, four additional tickets were entered into EB, all of which returned the same fallback reporting error. WorldCom performed additional testing on the EB system by entering trouble tickets on three of WorldCom's own production DS-1 ECCKTs. All three of the test tickets that were entered were successfully transmitted and accepted at Pacific's side of the gateway.

Pacific stated that the ECCKT trouble had been identified as a problem within Pacific's DataGate database system. Although Pacific was working towards correcting the problem, a resolution would not occur that day. A decision was made to conclude the second round of EB testing and schedule a third round of testing for a future date.

Resolution of EB ECCKT Problem

The cause of the fallback reporting message received when trying to enter a trouble ticket on a 2-wire loop was a problem in Pacific's LMOS system. Under the current WorldCom production, the only products that were going into the LMOS system were reported by TN. The DS-1 circuits were reported by ECCKT, but are non-POTS and subsequently go into the Work Force Administration (WFA) system, rather than LMOS. No other loops that would use ECCKTs are reported through EB. When LMOS receives a report of line trouble, it formats the TN into the trouble ticket number that it returns to the CLEC. LMOS was never programmed to format the ECCKTs into trouble ticket numbers that it could return to the CLEC. As a result of WorldCom's use of the EB system, WorldCom neither requested to use the EB system for the various 2-wire loops or

previously realized that there was a problem with transmitting these ECCKTs. Pacific committed to have the problem corrected by June 15, 2000.

Phase 3: Monday, July 24 2000 – Friday, July 28 2000

The scheduled workload for the third phase of EB testing was 28 two-wire loop test cases, as well as 25 additional loops upon which trouble tickets were issued once the TAM EB test team was informed by the ordering team that the migration orders had SOCed.

The EB test tickets entered were successfully created and transmitted to Pacific through the EB gateway. The EB system returned trouble ticket numbers, as well as commit dates and times for each of the test cases. Soon after, the designated contact for the trouble tickets began receiving calls from Pacific technicians. In all, 14 of the scheduled test cases had trouble tickets issued on them within the first day, and 4 of the recently migrated loops had been tested.

The available remaining scheduled test cases were entered on the second day of EB testing. The nine trouble tickets that were entered again resulted in the successful submission of information across the EB gateway. 4 additional recently SOCed loops were tested. Through two days of testing, 23 scheduled test cases were performed through EB and eight of the 25 recently SOCed loops had been tested.

On the third day of EB testing, the WorldCom representative received responses of "server timed out" and "no association with LEC" when trouble reports were initiated on the recently SOCed loops that were included as part of the third round of EB testing. World Com researched the problem internally. At the same time, WorldCom was unable to enter electronic tickets for another ILEC. Data for the previously entered trouble tickets that had been closed out by Pacific was printed and collected.

The fourth day of testing the EB system returned the same results of "server timed out" and "no association with LEC" responses from WorldCom's EB interface. WorldCom's internal EB expert responded that there had been a long distance problem that may have caused the EB trouble. The long distance issue had since been resolved and any continued problems would have to be on the Pacific side of the gateway. Since the errors were still being received, WorldCom reinitiated its internal analysis.

Due to the problems encountered, the testing of the recently SOCed loops were invalidated. The amount of downtime that occurred made it impossible to attain an accurate estimate of the amount of time it took after the order SOC for Pacific's records to update and reflect the change in ownership of a circuit. Following the resolution of six (6) scheduled test case trouble tickets that remained open, the third phase of EB testing was considered completed.

On the final day of EB testing, no explanations of the cause of the EB problem was made available from either WorldCom or Pacific. WorldCom continued having a similar problem passing information electronically with another ILEC. The six remaining trouble tickets were still not closed out by the EB system. Arrangements were made with WorldCom to forward the results of those tests to the TAM once the EB system was again functional and the trouble tickets closed out.

Resolution of the EB Gateway Problem

The source of the inoperability of the EB system that began on Wednesday, July 24 was found to be a problem within WorldCom's internal EB interface. WorldCom resolved the issue and the EB system was repaired by August 4, 2000

Appendix N – Bill Receipt Tracking Tables

Paper Copy of the Bill

Pseudo-CLEC	Bill Cycle Month	Date Received	Difference (days)
Blackhawk and Discovery	October 26	11/8/1999	13
Napa and Camino	November 14	11/22/1999	8
Blackhawk and Discovery	November 26	12/6/1999	10
Napa and Camino	December 14	12/27/1999	13
Blackhawk and Discovery	December 26	1/6/00	11
Napa and Camino	January 14	1/21/2000	7
Blackhawk and Discovery	January 26	2/7/2000	12
Napa and Camino	February 14	2/24/2000	10
Blackhawk and Discovery	February 26		
Napa and Camino	March 14	3/23/2000	9
Blackhawk and Discovery	March 26	4/4/2000	9
Napa and Camino	April 14	4/24/2000	10
Blackhawk and Discovery	April 26	5/8/2000	12
Napa and Camino	May 14	5/22/2000	8
Blackhawk and Discovery	May 26	6/5/2000	10
Napa and Camino	June 14	6/26/2000	12
Blackhawk and Discovery	June 26	7/10/2000	14
Napa and Camino	July 14	7/26/2000	12
Blackhawk and Discovery	July 26	8/7/2000	12
Napa and Camino	August 14	8/24/2000	10
Blackhawk and Discovery	August 26		

Electronic Copy of the Bill

CABS File Name	Date Received	Time Received	Difference (days)
NAP.CABSBILL.021700	17-Feb-00	16:37	3
NAP.CABSBILL.022900	1-Mar-00	1:07	3
NAP.CABSBILL.030100	1-Mar-00	5:35	3
NAP_N.CABSBILL.031700	18-Mar-00	1:16	4
NAP_N.CABSBILL.033000	30-Mar-00	23:06	4
NAP_N.CABSBILL.041800	18-Apr-00	23:39	4
NAP_N.CABSBILL.042800	28-Apr-00	23:18	2
NAP_N.CABSBILL.051800	18-May-00	11:46	4
NAP_N.CABSBILL.053000	31-May-00	0:30	5
NAP_N.CABSBILL.061600	17-Jun-00	1:06	3
NAP_N.CABSBILL.063000	30-Jun-00	14:08	4
NAP_N.CABSBILL.072000	20-Jul-00	7:30	6
NAP_N.CABSBILL.073100	1-Aug-00	1:27	6
NAP_N.CABSBILL.081800	18-Aug-00	8:43	4
NAP_N.CABSBILL.083100	31-Aug-00	4:57	5
NAP_S.CABSBILL.031700	18-Mar-00	0:17	4
NAP_S.CABSBILL.033000	30-Mar-00	22:45	4
NAP_S.CABSBILL.041900	19-Apr-00	4:38	5
NAP_S.CABSBILL.042800	28-Apr-00	23:30	4
NAP_S.CABSBILL.051800	18-May-00	3:33	4
NAP_S.CABSBILL.053000	31-May-00	0:08	5
NAP_S.CABSBILL.061700	18-Jun-00	0:48	4
NAP_S.CABSBILL.062900	30-Jun-00	1:24	4
NAP_S.CABSBILL.072000	20-Jul-00	20:00	6
NAP_S.CABSBILL.073100	1-Aug-00	0:35	6
NAP_S.CABSBILL.081800	18-Aug-00	11:57	4
NAP_S.CABSBILL.083000	31-Aug-00	2:50	5

Usage Feed:

Blackhawk			
Data Exchange File Name	**Date Received**	**Time Received**	**File Size**
BLK.DE.USAGE.042000	20-Apr-00	11:27	121k
BLK.DE.USAGE.042700	27-Apr-00	11:50	113k
BLK.DE.USAGE.042800	28-Apr-00	13:48	21k
BLK.DE.USAGE.050400	4-May-00	14:24	73k
BLK.DE.USAGE.051100	11-May-00	14:40	109k
BLK.DE.USAGE.051800	18-May-00	12:14	129k
BLK.DE.USAGE.052500	25-May-00	13:20	141k
BLK.DE.USAGE.053100	1-Jun-00	0:00	83k
BLK.DE.USAGE.060100	1-Jun-00	8:16	34k
BLK.DE.USAGE.060800	8-Jun-00	12:01	106k
BLK.DE.USAGE.061500	15-Jun-00	22:24	113k
BLK.DE.USAGE.062200	22-Jun-00	19:06	125k
BLK.DE.USAGE.062900	29-Jun-00	10:39	124k
BLK.DE.USAGE.063000	30-Jun-00	13:03	25k
BLK.DE.USAGE.070600	6-Jul-00	14:32	79k
BLK.DE.USAGE.071300	13-Jul-00	21:46	132k
BLK.DE.USAGE.072000	20-Jul-00	13:08	128k
BLK.DE.USAGE.072700	27-Jul-00	12:03	135k
BLK.DE.USAGE.072900	29-Jul-00	21:22	63k
BLK.DE.USAGE.080400	4-Aug-00	4:39	96k
BLK.DE.USAGE.081000	10-Aug-00	12:48	175k
BLK.DE.USAGE.081700	17-Aug-00	12:03	170k
BLK.DE.USAGE.082400	24-Aug-00	13:40	160k
BLK.DE.USAGE.083100	31-Aug-00	18:10	151k

Usage Feed (cont'd)

Camino			
Data Exchange File Name	**Date Received**	**Time Received**	**File Size**
CAM.DE.USAGE.042000	20-Apr-00	11:27	33k
CAM.DE.USAGE.042700	27-Apr-00	11:50	24k
CAM.DE.USAGE.042800	28-Apr-00	13:48	3k
CAM.DE.USAGE.050400	4-May-00	14:24	13k
CAM.DE.USAGE.051100	11-May-00	14:40	23k
CAM.DE.USAGE.051800	18-May-00	12:14	18k
CAM.DE.USAGE.052500	25-May-00	13:19	19k
CAM.DE.USAGE.053100	1-Jun-00	0:00	10k
CAM.DE.USAGE.060100	1-Jun-00	8:16	2k
CAM.DE.USAGE.060800	8-Jun-00	12:01	17k
CAM.DE.USAGE.061500	15-Jun-00	22:24	18k
CAM.DE.USAGE.062200	22-Jun-00	19:06	29k
CAM.DE.USAGE.062900	29-Jun-00	10:39	27k
CAM.DE.USAGE.063000	30-Jun-00	13:03	4k
CAM.DE.USAGE.070600	6-Jul-00	14:32	16k
CAM.DE.USAGE.071300	13-Jul-00	21:46	33k
CAM.DE.USAGE.072000	20-Jul-00	13:08	30k
CAM.DE.USAGE.072700	27-Jul-00	12:03	25k
CAM.DE.USAGE.072900	29-Jul-00	21:22	9k
CAM.DE.USAGE.080400	4-Aug-00	4:40	13k
CAM.DE.USAGE.081000	10-Aug-00	12:48	19k
CAM.DE.USAGE.081700	17-Aug-00	12:03	24k
CAM.DE.USAGE.082400	24-Aug-00	13:40	32k
CAM.DE.USAGE.083100	31-Aug-00	18:10	19k

Usage Feed (cont'd)

Discovery			
Data Exchange File Name	**Date Received**	**Time Received**	**File Size**
DIS.DE.USAGE.042000	20-Apr-00	11:27	17K
DIS.DE.USAGE.042700	27-Apr-00	11:50	16K
DIS.DE.USAGE.042800	28-Apr-00	13:48	2K
DIS.DE.USAGE.050400	4-May-00	14:24	14K
DIS.DE.USAGE.051100	11-May-00	14:40	33K
DIS.DE.USAGE.051800	18-May-00	12:14	15K
DIS.DE.USAGE.052500	25-May-00	13:19	22K
DIS.DE.USAGE.053100	1-Jun-00	0:00	13K
DIS.DE.USAGE.060100	1-Jun-00	8:16	4K
DIS.DE.USAGE.060800	8-Jun-00	12:01	21K
DIS.DE.USAGE.061500	15-Jun-00	22:24	21K
DIS.DE.USAGE.062200	22-Jun-00	19:06	27K
DIS.DE.USAGE.062900	29-Jun-00	10:39	30K
DIS.DE.USAGE.063000	30-Jun-00	13:03	8K
DIS.DE.USAGE.070600	6-Jul-00	14:32	9K
DIS.DE.USAGE.071300	13-Jul-00	21:46	23K
DIS.DE.USAGE.072000	20-Jul-00	13:08	28K
DIS.DE.USAGE.072700	27-Jul-00	12:03	26K
DIS.DE.USAGE.072900	29-Jul-00	21:22	13K
DIS.DE.USAGE.080400	4-Aug-00	4:40	25K
DIS.DE.USAGE.081000	10-Aug-00	12:48	20K
DIS.DE.USAGE.081700	17-Aug-00	12:03	15K
DIS.DE.USAGE.082400	24-Aug-00	13:40	16K
DIS.DE.USAGE.083100	31-Aug-00	18:10	19K

Usage Feed (cont'd)

Napa			
Data Exchange File Name	**Date Received**	**Time Received**	**File Size**
NAP.DE.USAGE.042000	20-Apr-00	11:28	153K
NAP.DE.USAGE.042700	27-Apr-00	11:51	139K
NAP.DE.USAGE.042800	28-Apr-00	13:49	25K
NAP.DE.USAGE.050400	4-May-00	14:25	125K
NAP.DE.USAGE.051100	11-May-00	14:41	213K
NAP.DE.USAGE.051800	18-May-00	12:15	243K
NAP.DE.USAGE.052500	25-May-00	13:20	145K
NAP.DE.USAGE.053100	1-Jun-00	0:01	90K
NAP.DE.USAGE.060100	1-Jun-00	8:17	32K
NAP.DE.USAGE.060800	8-Jun-00	12:02	129K
NAP.DE.USAGE.061500	15-Jun-00	22:24	127K
NAP.DE.USAGE.062200	22-Jun-00	19:06	142K
NAP.DE.USAGE.062900	29-Jun-00	10:40	149K
NAP.DE.USAGE.063000	30-Jun-00	13:04	28K
NAP.DE.USAGE.070600	6-Jul-00	14:32	98K
NAP.DE.USAGE.071300	13-Jul-00	21:46	159K
NAP.DE.USAGE.072000	20-Jul-00	13:08	139K
NAP.DE.USAGE.072700	27-Jul-00	12:04	128K
NAP.DE.USAGE.072900	29-Jul-00	21:22	45K
NAP.DE.USAGE.080400	4-Aug-00	4:40	84K
NAP.DE.USAGE.081000	10-Aug-00	12:48	146K
NAP.DE.USAGE.081700	17-Aug-00	12:04	142K
NAP.DE.USAGE.082400	24-Aug-00	13:40	125K
NAP.DE.USAGE.083100	31-Aug-00	18:10	126K

Appendix O – Statistical Analysis Comparisons

"Pseudo-CLEC vs CLEC.xls"

"Pseudo-CLEC vs PB.xls"

"CLEC vs PB.xls"

Appendix P – CLEC/TG Interface Process

Participating CLEC / Test Generator Interface Process

For Pacific Bell OSS Test

1.0 Overview

This document describes the process to be used between the Pacific OSS Test Generator and the participating CLECs for facility and unbundled loop testing support of test orders. The loops to be tested include Basic, Assured, DS1, DSL, and LNP service.

The CLECs and Test Generator (TG) must be able to function as one facilities-based CLEC during LSR generation and testing on UNE loops for the purposes of this OSS test. In other words, the participating CLEC will act as the 'pseudo-engineering/switching group' for the pseudo-CLEC that is issuing the LSR.

1.1 Participation

The participating CLECs and their area of support are:

AT&T	two-wire and four-wire UNE loops in offered collocations, LNP in all areas
Cox	Standalone LNP in San Diego and Orange County only
XO	two-wire and four-wire UNE loops in offered collocations
Covad	DSL only, all areas

2.0 CLEC Requirements

The CLEC's participation is defined by two requirements. These requirements are:

- 'loaned' facilities
- provisioning and testing support on test orders

2.1 Facilities

The CLECs' will identify collocation sites with adequate capacity for the CLEC to reserve a block of ten assignments in each site for the duration of the test. This block will serve as the pseudo-CLEC's facility inventory and will be assigned, as needed, on test LSRs by the Test Administrator Manager (TAM) and TG. In the event it is determined that a particular site will not be used for any test orders, the TAM will return the reserved facilities in that site to the CLEC as soon as possible.

The CLEC will provide a list of ACTLs (11-digit CLLI plus collocation frame) for the test sites along with the reserved facility assignments. These are ZCFA for UNE loops and CCEA (bay, panel and jack) for DS1 loops that are four-wire at the collocation cage. Where a DS1 rides on a channel of a DS3 at the collocation cage the assignment is CFA.

The list should include any restrictions on what type of loop can be supported on these facilities and city name.

2.2 Provisioning/Testing Support

For UNE loops, except DS1 loops, the CLEC will preprovision dial tone on the facilities provided. This process will eliminate the need for coordination of order flow between the TG and the CLECs at the time the LSR is issued to Pacific. The quantities of pre-provisioned facilities required per loop type will be determined and communicated by the TAM to each CLEC after receipt of the collocation list from each CLEC and identification of friendly addresses. The CLEC will return confirmation of facilities and TNs, as applicable, on the facilities requested to be preprovisioned.

During the testing of each LSR, the TG will always be the interface between the Pacific LOC and the supporting CLEC. Both TG and supporting CLEC personnel should be careful to refer to all activity under the Pseudo-CLEC name to avoid jeopardizing blindness to any Pacific employee.

3.0 Testing Procedures

3.1 'Facility In Use' Steps

During the ordering, installation or trouble shooting of any loop type requiring collocation facilities, an assigned facility may be found to be 'in use' (i.e., already be assigned or have a jumper on it) by the Pacific employee. In this situation the TG and supporting CLEC will take the following steps.

If the condition is reported by the LSC or the LOC

1. The TG will request the telephone number and PON found on the busy CFA.
2. The TG will record the telephone number and/or PON supplied by the LSC, and request the TAM to place the busy CFA on hold in their records. If the LSC refuses to provide either the telephone number or PON, the TG will so document in their daily activity log, and return the order to the TAM for a new facility. If another CFA is not available, the TG will cancel the order and note that the CLEC's records showed the CFA was available and the LSC's database showed it was busy. The PON will be included in an "inconclusive" or "not determined" category in the final test results.
3. At the end of each day, the TAM will refer any busy CFAs encountered, with any information obtained by the TG, via e-mail to the CLEC's primary contact with a copy to the TAB member of the respective supporting CLEC and request verification of availability within two business days.
4. If the supporting CLEC verifies that the CFA contained on the test order is correctly preprovisioned (and that it is not in use by a real customer), the CLEC will return a response to the e-mail inquiry that the facility is available.
5. The TAM will return the order to the TG to be re-issued. If a busy CFA is again encountered with the same TN/PON the order will be cancelled and the TG will note

that the CLEC's records showed the CFA was available and the LSC's database showed it was busy. The PON will be included in an "inconclusive" or "not determined" category in the final test results.

6. If the supporting CLEC finds the facility is in use for a real customer, the CLEC will notify the TAM via a response to the e-mail inquiry that the facility is no longer available. The TAM will assign a new CFA, and return the order to the TG to be supped. If another CFA is not available, the TG will cancel the order and note that the CLEC's records showed the CFA was not available. The PON will be included in an "inconclusive" or "not determined" category in the final test results pertaining to

7. If the status of the CFA is still unknown after two business days, it will be removed from the available facilities on the TAM record. The TAM will assign a new CFA, and return the order to the TG to be supped. If another CFA is not available, the TG will cancel the order and note that the CLEC's records showed the CFA was available and the LSC's database showed it was busy. The PON will be included in an "inconclusive" or "not determined" category in the final test results.

3.2 Testing Steps by CLEC

The supporting CLEC testing responsibilities, based on the capabilities they have provided for their collocations, are:

1 Two-wire basic and assured

- AT&T – dial tone will be provisioned to the assigned facility.
- XO - dial tone will be provisioned to the assigned facility. The XO contact person will enter the provisioning confirmation on the 'Test Request Form'. When the SOC is received or the day after the due date, whichever occurs first, the TG will call the XO contact to request a test on the loop. The contact person will provide testing of the loop from the XO office to the end user premise, including testing from the collocation cage, if necessary, and at the end user premise to insure dial tone reaches the NID. *CAUTION -XO technicians should be informed that the 'customer' in this case is a volunteer who has allowed the use of their address to issue the test orders and cannot answer any questions about the order. If questioned on the difference in company name, the XO technician should explain he is the installation company for the Pseudo-CLEC.* The test results will then be entered on the 'Test Request Form' as failed or passed with the loop length and e-mailed back to the TG within four business hours.

2. Four-wire DS1

On the PTD (plant test date) a continuity test will be conducted by either AT&T or XO, depending on whose facilities are used. The test will consist of:

- Verifying that there are no pre-existing loops on the circuit.
- For ESF, B8ZF, and AMI circuits, loop the RJ-48C termination at the premise with a test pattern of :

QRSS for five minutes

3/24 unframed for two minutes

1/7 for two minutes

1s for one minute
0s for one minute (for AMI this should fail as verification)

- AT&T - the loop will be assigned to an existing DS3 channel. The continuity test will be conducted from AT&T's centralized location. Testing results will be documented on the returned 'Test Request Form' described below in section 4.0.

- XO – the loop will be assigned to a copper loop. A XO technician, acting as the pseudo-CLEC technician, will conduct the continuity test from the collocation cage. Testing results will be documented on the returned 'Test Request Form' described in subsection 4.0 below.

  - DS1 loops will be installed at CLEC buildings provided by TAB members. A local contact person for each of these addresses is provided to satisfy LSR requirements. Due to the limited or unknown technical ability of the local contact for XO and AT&T sites, should they be contacted by the Pacific technician, their only function will be to direct the Pacific technician to the correct address and acknowledge that the order should be installed to the MPOE, (minimum point of entry), at the address. The WorldCom contact will be notified as described in subsection 4.2 below and will perform the verification as follows:

    1. The WorldCom contact person may not be on site at the time of PacBell's installation. WorldCom assumes that PacBell will independently gain access to the 1.1 telco closet to complete the installation.

    2. The WorldCom contact person will make a visual verification that the test loop was installed at the correct MPOE, by looking for the circuit ID tag, no later than three business days following the implementation date. WorldCom will endeavor to make a visual verification the day following installation. However, due to resource constraints and unpredictable production priorities, WorldCom can only guarantee that the verification will be completed within 3 business days following the installation date.

    3. After completing the visual verification, the WorldCom contact person will reply to all on the e-mail notification message (described in subsection 4.2 below) and report the date and time that the visual verification was completed and one of these findings:

       - the loop was found to be installed at the correct MPOE
       - the loop was found to be installed at an incorrect MPOE specifying which IMPO
       - the loop was not found at the address

- xDSL

  Covad – will perform a Harris test on the loop provided for xDSL service to test the length and quality of the loop while the Pacific technician is at the premise. The test will be performed from Covad's centralized location, except when a test of an IDSL loop fails to reach the first repeater. In this case, a Covad technician will be dispatched to the central office on a scheduled 'collo meet' with Pacific. *CAUTION -Covad technicians should be informed that if they encounter a Pacific technician in the course of testing, they should explain they are the installation company for the Pseudo-CLEC.* Testing results showing the tested loop length and the expected loop length based on the Verigate prequalification loop detail for the end user address will be documented on the returned 'Test Request Form' described below in subsection 4.0 and returned to the TG within four business hours after the test is complete.

4.0 Test Request Procedure

The testing request details to be provided by the TG to the CLEC are shown below on the 'Test Request Form'. The communication process for this form is as follows:

When the FOC is received, the TG will complete a 'Test Request Form' and e-mail it within four business hours to the supporting CLEC contact person.

Test requests sent to XO contacts should also be copied to:

redacted	at	redacted
redacted	at	redacted

After testing is complete, the CLEC will add the test results to the 'Test Request Form' and send it back to the TG, via e-mail, within four business hours after the testing is complete.

The Subject line of the e-mail should designate 'Test Request – PON # (*PON #)*' to allow both parties to easily identify these messages in their e-mail inbox.

Test Request Form

Testing Request	
Sent Date/Time(TG)	**PON # (for pseudo-CLEC)(TG)**
Pseudo-CLEC Name (TG)	
End User Address (TG)	
End User Lcon Name (TG)	
Plant Test Date(TG)	
Due Date(TG)	
FTD / TBCC Time(TG)	*(If applicable*
TN/CKT ID(TG)	
Loop Type / Line Code – Frame Format for DS1(TG)	
CFA(TG)	
Supporting CLEC for CFA(TG)	
Test Results(CL/TG)	
Test Completion Date/Time(CL)	
Remarks(TG/CL)	*(Show any pertinent details.)*

4.1 Contact List

The contact list for the participating CLECs has been sent to the TG under separate cover. The contact information for the TG is:

Primary Contact: redacted
Secondary redacted
Phone: redacted
E-mail: redacted

4.2 CLEC Notification

1. When a CLEC building address is used for the DS1 order, the TAM Test Monitor, at the TG site, will notify the CLEC site contact of the pending order. This notification will be a phone call after the FOC is returned according to the TAM's established friendly notification process.
2. For WorldCom building locations, the WorldCom contact person will be notified of the order by being copied on the Test Request Form described in subsection 4.0 and using the e-mail addresses below.

WorldCom Building Contact Names:

Contact Name	E-mail Address	**Addresses to CC on Notification**
redacted	redacted	redacted
redacted	Redacted	"
redacted	Redacted	"
redacted	Redacted	"
redacted	Redacted	"
redacted	redacted	"

3. When a CLEC building address is used as the end user address, the TAM Test Monitor will notify the CLEC TAB member of all such orders scheduled in one day. This notification will be an e-mail sent at the end of the day after the FOC on these orders is received. The e-mail list is:

AT&T	redacted	redacted
XO	redacted	redacted
WorldCom	redacted	redacted
		redacted

5.0 Test Steps by Loop Type

5.1 Two-wire Basic and Assured Loop

1. As directed by the TAM, the TG will issue an LSR to Pacific for a new two-wire Basic or Assured UNE loop.
2. When the FOC is received, the TG will complete a 'Test Request Form' and E-mail it within four business hours to the supporting CLEC contact person.
3. The supporting CLEC (AT&T or XO) will verify that the provisioning has been completed on their side of the collocation for the assigned facilities.
4. If AT&T facilities are used, the contact person will enter the provisioning confirmation on the 'Test Request Form' and E-mail it back to the TG within four business hours.
5. If XO facilities are used, the contact person will enter the provisioning confirmation on the 'Test Request Form'. When the SOC is received or the day after the due date, whichever occurs first, the TG will call the XO contact to request a test on the loop. The contact person will provide testing of the loop from the XO office to the end user premise, including testing from the collocation

cage, if necessary, and at the end user premise to insure dial tone reaches the NID. *CAUTION -XO technicians should be informed that the 'customer' in this case is a volunteer who has allowed the use of their address to issue the test orders and cannot answer any questions about the order.* The test results will then be entered on the 'Test Request Form', showing the tested loop length and the expected loop length based on the Verigate loop prequalification detail for the end user address, and E-mailed back to the TG within four business hours.

6. If the test fails, the TG will issue a trouble ticket to Pacific.
7. If Pacific calls the TG (pseudo-CLEC) to resolve the trouble, the TG will notify the XO contact person if further testing is required. To assist with trouble isolation and resolution, the TG should verify with the Pacific technician that testing is being done from the CLEC collocation cage and not just at the MDF. Any deviation from this situation should be noted in the test case tracking details.
8. In the event that trouble resolution requires referral to Pacific's engineering or construction departments, the TG will cancel the LSR and document this status with their normal LSR tracking details.

5.2 Four-Wire DS1 Loop

1. For DS1 loops, CLEC switch preprovisioning will not be required because only a continuity test will be done on the loop. A continuity test provides the ability to loop the circuit at the RJ-48C NID and run a variety of industry standard T1 test patterns to insure the circuit has been provisioned with the proper line code and frame format. The test pattern to be used is shown in subsection 3.2.
2. The XO facilities to be used for DS1 will be a copper loop and the XO technician will test the loop from their collocation cage in the Pacific central office.
3. As directed by the TAM, the TG will issue an LSR to Pacific for a new DS1 loop. The LSR will include a remark requesting Pacific to install an RJ-48C termination at the end user premise.
4. When the FOC is received, the TG will complete a 'Test Request Form' and E-mail it within four business hours to the supporting CLEC contact person. Refer to the CLEC contact list to be sure the correct person is contacted. On the PTD (Plant Test Date), which is due date minus one day, the supporting CLEC will dispatch a technician to perform the loop test.
5. When the test is complete, the supporting CLEC will send an e-mail to the TG documenting the results of the test. If no such e-mail is received by the due date, the TG will call the supporting CLEC to obtain the status of the test. If the test has not been done, the TG will negotiate with the supporting CLEC to schedule the test. DS1 orders will not be SOCed by Pacific until this test has been done.
6. On the due date or as soon as the test is complete, the TG calls the Pacific DS1 work group and informs them that the test is complete, and to SOC the order. The TG will document the testing steps on their order tracking sheet.

7. If the test fails, the TG will notify the LOC that the loop is not accepted. The LOC and Pacific technician will review the LSR and perform continuity tests to determine the problem. To assist with trouble isolation and resolution, the TG should verify that the Pacific technician is testing from the end user premise and not just at the MDF. Any deviation from this situation should be noted in the test case tracking details.
8. The supporting CLEC will document test results each time on the 'Test Request Form'. In the event that trouble resolution requires referral to Pacific's engineering or construction departments, the TG will cancel the LSR and document this status with their normal LSR tracking details.

5.3 xDSL Loop

1. As directed by the TAM, the TG will issue an LSR to Pacific for a new xDSL loop. Dependent upon the RTZ value of the end user address, the loop will be for ADSL, SDSL, or IDSL. The LSR will include a remark requesting Pacific to complete an acceptance test at the end user premise at the time of installation.
2. When the FOC is received, the TG will complete a 'Test Request Form' and, within four business hours, e-mail it to the supporting CLEC contact person.
3. On the PTD, (Due date minus 3), for a new install, the Pacific LOC will inform the pseudo-CLEC (TG) that the installation is complete.
4. The TG will acknowledge the completion, ask the LOC to hold the line, then call the supporting CLEC to request that a Harris Test be performed on the xDSL loop from the CLEC side of the collocation. Note: The Pacific LOC standard practice is to hold the line for a maximum of ten minutes for the (pseudo) CLEC, (TG), to respond and begin the test.
5. If the LOC does not call on the PTD, the TG should follow up on the next day with the LOC to determine the status of the LSR. If the loop has been installed, TG will call the Covad contact and request a Harris test be performed as described below. If the loop is not installed, TG should wait for the LOC call to test. However, if a SOC is received without a call the TG will notify Covad to test immediately. The TG should document all activity in the test case tracking details.
6. The test will be performed as follows:

   For ADSL/SDSL

   - Covad, acting as a pseudo-CLEC technician, will work through the TG contact to perform an acceptance test with the Pacific technician. Covad will perform a standard loop test (which is also termed a Harris Test). The standard loop test will measure the loop for length and quality. The TG will ask the Pacific technician to put a short on the end user pair to ensure that the technician is testing the loop from the customer premise. When

the short is placed on the pair it should fail, which verifies that the loop was delivered to the customer premise.

Covad will report the tested loop length and the expected loop length based on the Verigate pre-qualification loop detail on the Test Request Form and e-mail it back to the TG within four business hours.

FYI - There should only be one loop tested per location. If the Pacific technician wants to test several loops, s/he is testing from the B-Box and not from the customer premise. To assist with trouble isolation and resolution, the TG should verify that the Pacific technician is testing from the premise and not just at the MDF. Any deviation from this situation should be noted in the test case tracking details.

- If the test is performed without a Pacific technician at the premise, the Covad technician will perform the Harris test when requested by the TG. Covad will then document the tested loop length and the expected loop length based on the Verigate prequalification loop detail for the end user address on the Test Request Form and e-mail it back to the TG within four business hours.

<u>For IDSL</u>

- With or without the Pacific technician on the line, the loop will be tested with a Harris test to the first repeater. This will insure the connection has been made at the collocation cage and the loop is leaving the MDF.

  Note: Covad SMEs have stated that no further test could be performed at the premise without installing a router. Therefore no technician will be dispatched to the premise because no additional equipment is to be installed.

- If the loop tests good to the first repeater it will be accepted and reported by Covad as 'tested good to first repeater'.
- If the loop does not reach the first repeater and the Pacific technician finds no problem; the TG will inform the LOC that they want to schedule a 'collo meet' with the Pacific technician.
- The TG will call the LOC Maintenance and Repair number (800-662-4664) and open a trouble ticket to schedule the 'collo meet'.
- The TG will notify Covad of the 'collo meet' date via the Test Request Form in an e-mail with the time and date details entered in the Remarks field.
- Covad will dispatch a technician for the 'collo meet' to work with the Pacific technician and complete the test to verify a good loop to the first repeater. When the loop tests good to the first repeater it will be accepted and reported by Covad as 'tested good to first repeater' and e-mail the report to the TG.

CAUTION -Covad technicians should be informed that if they encounter a Pacific technician in the course of testing, they should explain they are the installation company for thePseudo-CLEC.

- The TG will follow up to be sure a test result is received after each 'collo meet'. If any 'collo meet' tickets are outstanding at the end of the test period, the TG will cancel them with Pacific and notify Covad to cancel the dispatch via an e-mail Test Request Form remarks.

The following matrix is a summary of the xDSL testing steps:

	PB technician at premise?	**TG action**	**Covad action**
ADSL/SDSL LOC calls for acceptance test on PTD	Yes	• Notify Covad when LOC calls • Record result of Covad test	• Perform Harris Test • Work with PB technician through TG until test shows loop length comparable to Verigate length • E-mail test results to TG on Test Request Form
ADSL/ SDSL No call for acceptance	No	• On due date minus 2 check LSR status with LSC • If installed, notify Covad to do Harris Test • If not installed wait for LOC call and follow 'technician at premise' process • If no call till SOC is received, notify Covad to do Harris Test immediately • Record result of Covad test	• Perform Harris test • Record tested loop length and expected loop length based on Verigate loop detail • E-mail test results to TG on Test Request Form
IDSL	Yes	• Notify Covad when LOC calls • If test not good, issue trouble ticket for collo meet • Notify Covad via e-mail Test Request Form of collo meet date	• Perform Harris test until good loop to first repeater • If not good and PB technician finds no trouble, dispatch on collo meet date as notified by TG • After good loop to first repeater is detected

	PB technician at premise?	**TG action**	**Covad action**
		• Follow up with Covad on collo meet date for test results • Record result of Covad test	notify TG of result via e-mail Test Request Form remarks
IDSL	No	• On due date minus 2 check LSR status with LSC • If installed, notify Covad to do Harris Test • If not installed wait for LOC call and follow 'technician at premise' process • If no call till SOC is received, notify Covad to do Harris Test immediately • If test not good issue trouble ticket for collo meet • Notify Covad via e-mail Test Request Form of collo meet date • Follow up with Covad on collo meet date for test results • Record result of Covad test	• Perform Harris test until good loop to first repeater • If not good , dispatch on collo meet date, as notified by TG • After good loop to first repeater is detected notify TG of result via e-mail Test Request Form remarks

5.4 LNP with two-wire loop

1. As directed by the TAM, the TG will issue an LSR to Pacific to convert a retail line to a two-wire Basic loop with LNP.

2. When the FOC is received the TG will complete a 'Test Request Form' and e-mail it within four business hours to the supporting CLEC contact person. The Test Request Form will include whether a specified CHC is to be scheduled. If so, the Test Request Form will designate a CHC with a DFDT between 7:00AM and 2:30PM PT.
3. Within 18 hours of the time the FOC is received by the pseudo-CLEC, the supporting CLEC will send a subscription version concurred to the NPAC to establish the ported number ownership on the due date. If the 18-hour window expires the CLEC will send the subscription version create, and if there is no concur within 18 hours, the CLEC will send an activate. If the activate needs to be sent prior to the 18-hour time-out the CLEC will notify the TG via e-mail that they must ask Pacific to concur. The TG will notify Pacific that they need to concur.
4. If the port out request from Pacific does not match the port in request from the supporting CLEC, a conflict will be set by the NPAC. Both the LEC and the supporting CLEC will be notified of the conflict status. The supporting CLEC will notify the TG of the conflict and the TG will resolve the conflict with Pacific. After resolution, the TG will notify the supporting CLEC when to continue with the provisioning of the LSR.
5. If a coordinated hot cut (CHC) with a Desired Frame Due Time (DFDT) is scheduled, the TG will verify the CHC by calling the Pacific LSC two days prior to the due date to confirm the CHC time.
6. On the due date, the TG has 30 minutes from the CHC time to contact the Pacific LOC to convert the service. Once Pacific advises the TG that the cut is complete, the TG will call the supporting CLEC to have the subscription version activate message sent and route the TN to intercept. The supporting CLEC will notify the TG that NPAC activate has been sent and the TN has been routed to intercept (skip to step 16).
7. On the due date, if the Pacific technician does not detect dial tone, the TG will verify that the technician tested from the POT bay and not from the MDF. If the Pacific technician says the test was from the POT bay, the TG will contact the CLEC to check the facility. The TG will also verify that the Pacific technician did not cut the customer over with no dial tone. If the Pacific technician says that the customer was cut over without dial tone, the TG will instruct the Pacific technician to build the customer back into the Pacific switch, and then will contact the CLEC to check the facility.
8. If the CLEC reports the facility is clear and translations are correct, the TG will immediately Supp the order to change the due date to 5 days out.
9. As soon as the TG sends the supp, the TG will send an e-mail to the CLEC advising that the supp was sent and include the CRDD. The e-mail should explicitly state that the Pacific technician was unable to detect dial tone at the POT bay.

10. The TG will send the CLEC a Test Request for the supped order as soon as the FOC is received.
11. The CLEC will request a CLEC technician to verify facilities and translations are correct.
12. The CLEC will send an e-mail to the TG prior to the supp due date advising of the results of the facility and translations verification.
13. On the supp due date, the TG will follow the procedure described in item 5-7 above for cut with Pacific and the CLEC.
14. If no dial tone is found on the supp date, the TG will request that Pacific issue a trouble ticket and the CLEC issue a trouble ticket so that a Pacific/CLEC meet may be scheduled to resolve the problem.
15. When the loop has been cut successfully, the supporting CLEC will notify the TG and route the ported number to a recording in their switch to allow the TG to verify successful porting on test calls to the number. As AT&T is the only CLEC supporting LNP where collocations are matched to retail addresses, the text of the recording is:

    > "You have reached BTN "(the message will read back the BTN area code first) "This number has been changed. The New number is redacted ".

    The text will be the same for all test calls made for number portability.

16. For the two-wire loop portion of the LSR, the supporting CLEC is AT&T, therefore testing will be facilitated by the TAM through the Pacific LOC.

5.5 Standalone LNP

1. As directed by the TAM, the TG will issue an LSR to Pacific to convert a retail line to standalone LNP.
2. When the FOC is received, TG will complete a 'Test Request Form' and e-mail it within four business hours to the supporting CLEC contact person. The Test Request Form will designate either CHC with a DFDT between 7:00AM and 2:30PM PT or no CHC/DFDT.
3. Within 18 hours of the time the FOC is received by the Pseudo-CLEC, the supporting CLEC will send a subscription version concurred to the NPAC to establish the ported number ownership on the due date. If the 18 hour window expires the CLEC will send the subscription version create, and if there is no concur within 18 hours, the CLEC will send an activate. If the activate needs to be sent prior to the 18 hour time-out the CLEC will notify the TG via e-mail that they need to get Pacific to concur. The TG will notify Pacific that they need to concur.
4. If the port out request from Pacific does not match the port in request from the supporting CLEC, a conflict will be set by the NPAC. Both the LEC and the

supporting CLEC will be notified of the conflict status. The supporting CLEC will notify the TG of the conflict and the TG will resolve the conflict with Pacific. After resolution, the TG will notify the supporting CLEC when to continue with the provisioning of the LSR.

5. If a CHC with a DFDT is scheduled (7:00AM to 2:30PM PT), the TG will spread the DFDTs across the 7:00AM –2:30PM PT window and note the time on the Test Request Form.
6. On the due date, the TG has 30 minutes from the CHC time to contact the Pacific LOC to port the number. After the number is ported, the TG will call the supporting CLEC to have the subscription version activate message sent. The supporting CLEC will confirm to the TG via e-mail when the subscription version activate message is sent.
7. If a CHC is not scheduled, Pacific will set a ten digit trigger on the number to be ported on the day before the due date to insure all intra-switch calls are routed through the NPAC rather than within the local switch. The TG will call the CLEC between 7:00AM and 2:30PM PT on the due date to have the subscription version activate message sent. The supporting CLEC will notify the TG via e-mail when the subscription version activate message is sent. At 10:00PM on the due date Pacific will remove the ten-digit trigger and disconnect the TN in their switch.
8. The supporting CLEC will route the ported number to a recording in their switch to allow the TG to verify successful porting on test calls to the number. As AT&T is the only CLEC supporting LNP, the text of the recording is:

   > "You have reached BTN "(the message will read back the BTN area code first) "This number has been changed. The New number is redacted."

   The text will be the same for all test calls made for number portability.
9. The TG and the TAM will place calls to the ported number, both intraswitch and interswitch before and after the activation time to verify the service has been changed.

6.0 Roles and Responsibilities

6.1 CLEC

A. Provide a block of ten facilities in each site offered for testing to be used as pseudo-CLECs' facility inventory. Once the TAM has identified the number of new and conversion loops required along with the TNs to be converted the participating CLEC will pre-provision the required number of facilities.

B. Provide a contact person and a backup who is familiar with the OSS Test and can blindly coordinate within the CLEC workgroup(s):

a) Hot cut coordination as necessary.

b) Switch provisioning as necessary.

c) Loop testing request from the TG.

d) Coordination with the TG to interface with Pacific for failed loop tests.

e) Verification of completion back to the TG on the 'Test Request Form'.

C. Provide a contact person's name, e-mail, and fax number to TAM and TG

D. For LNP orders, issue the NPAC order to complete switch routing and allow test calls to be completed. The CLEC will route numbers ported out from Pacific to a recording in their switch, which will easily identify that the call is routed correctly.

6.2 Test Generator

A. Provide a contact person for CLEC interface including name, number, e-mail and fax to the TAM.

B. Advise participating CLEC contact of upcoming order activity via an e-mailed 'Test Request Form' within four business hours of FOC received.

C. Track dates and times of order sent and verification received between the TG and the CLEC.

D. After completion received from CLEC contact, make a test interLATA call to the ported number on standalone LNP and LNP with basic loop orders to insure correct routing.

E. For LSRs scheduled as CHCs, initiate calls to Pacific workgroups to verify hot cut is scheduled two days before the due date and to request hot cut to be completed on the due date.

F. After notification of order completion to collocation cage by Pacific LOC, work with the CLEC contact to complete order.

G. For LSRs scheduled for a DFDT, initiate contact to the CLEC for loop testing.

6.3 Test Administrator

A. Insure the interface between the TG and the CLECs is prompt through monitoring at the TG site.

B. Insure the CLECs are provisioning and testing the test orders in the same manner as they would for their own customers through monitoring at the participating CLECs site.

C. Provide quantities of new CLEC facilities required at each collocation to participating CLECs.

D. Provide the TNs to be converted for loop with LNP type and LNP only orders to participating CLEC to enable preprovisioning of the participating CLEC switch translations.

E. Release any unused collocations and or terminations as soon as quantities and locations are firmly identified.

F. After SOC is received, make local and intraLATA test calls to ported numbers on LNP orders to insure correct routing.

Appendix Q – Supporting Documentation Inventory

Supporting Documentation Inventory

HOLDER	DESCRIPTION	BRIEF DESCRIPTION
TAM	Risk Assessment	Risk assessment & mitigation plan
TAM	Daily Testing Report	Daily report generated from database
TAM	Weekly Activity Report	Weekly activity report generated from database
TAM	Daily Testing Log	Daily report generated by monitoring resources
TAM	PB Daily Report	Daily report received from PB
TAM	Friendlies Database	Database of all friendly participants
TAM	TAM Test Tracking Database	Database holding all test case scenarios
TAM	PB Action Item Log	Weekly action item list for PB status call
TAM	Project Plan	Project schedule
TAM	Pseudo CLEC Raw Data	Raw data for all measures for all testing months
TAM	Standard deviation reports	Standard deviations from PM
TAM	PB Rose data reports	Average response time (to pre-order queries)
TAM	PB Purple data reports	Monthly receipt to FOC/SOC/REJ report
TAM	All project approved processes	Rules of engagement processes
TAM	All TAB minutes	Minutes from TAB meetings
TAM	X-coded order reports	List of x-coded orders
TAM	E-mails on info dissemination	E-mails disseminating info to TAB members
TAM	Data Exchange Usage Files	Usage files - **View at CPUC**
TAM	P-CLEC CABS Bill	Billing files -**View at CPUC**
TAM	PB Weekly Status – Collo Cages	Weekly status of collocation cage matrix during retail line build
TAM	PB Weekly Status – BTNs/Prod	Weekly status of test bed by BTNs & products during retail line build
TAM	PB Weekly Status – Test addresses	Weekly status of test addresses during retail line build
TAM	TAB member list	Contact list of all TAB members
TAM	TAB agendas	Agendas for all TAB meetings

HOLDER	DESCRIPTION	BRIEF DESCRIPTION
TAM	CLEC offered collo information	All CFAs offered by participating CLECs
TAM	Standard interval data	PB matrix of standard due dates by product
TAM	Weekly Action Item/ Issue/Jeopardy Summary	Weekly summary of action items/issues/jeopardies
TAM	Project Contact List	Major project contacts
TAM	PB OSS Contact List	PB contact list for OSS test
TAM	PB Test Plan	PB plan for supporting test
TAM	EBI Test Plan	TAM plan to test EBI
TAM	Supporting Documentation Log	Log of all redaction decisions made during meetings
TAM	Statistical Discussion Log	Log of all questions asked and requests made by statisticians
TAM	Capacity Pre orders database	Pre-order queries performed
TAM	Capacity Seed orders database	Listing of all capacity test case orders
TAM	Capacity PM raw data	Raw data for all measures included in capacity test
TG	TG Daily Report-GUI/FAX and EDI	Daily report(s) received from TG
TG	PB E-mail	E-mails to or from PB - **View at CPUC**
TG	PB Mail and Faxes	Physical mail and faxes to or from PB - **View at CPUC**
TG	TG Order Archives (abandoned orders)	Listing of all abandoned orders
TG	TG Order Archives (folder contents)	Order folder for each test case processed – **View at CPUC**
TG	EDI Archives	Outbound and inbound transactions of various types in EDI format – **Requires Oracle 8.0 and GXS query software to view (not on supporting documentation CD)**
TG	Error List and Causes	List of errors and their associated causes
TG	Interconnect Matrices (NDA)	PB data elements within LSOG industry standard formats - **Requires NDA**
TG	User Defined File Format (NDA)	P-CLEC LSOG-4 based file format - **Requires NDA**

HOLDER	**DESCRIPTION**	BRIEF DESCRIPTION
TG	EDI Logical Maps	Logical specification relating PB data elements to Pseudo-CLEC data elements
TG	EDI Physical Maps (NDA)	Physical relationship of PB data elements to P-CLEC data elements - **Requires NDA**
TG	MOSS DB Schema (NDA)	P-CLEC data element relationship - **Requires NDA**
TG	MOSS Application Design Document (NDA)	MOSS application software design - **Requires NDA**
TG	P-CLEC Support Call Log	Log of support to Friendlies
TG	P-CLEC Product Schedule	History of P-CLEC product introduction
TG	TG Test Plan	Test Generator test plan and specifications
TG	P-CLEC CABS Bills	Billing files – **View at CPUC**
TG	P-CLEC Data Exchange Usage Files	Usage files – **View at CPUC**
TG	EDI Flow	Local service ordering EDI process flow