

5.0 Test PMR5: Metrics Calculation and Reporting Verification and Validation Review**5.1 Description**

This test evaluates the processes used to calculate performance metrics and retail analogs. The test will rely on re-calculating CLEC-aggregate metrics and retail analogs from raw data and reconciling any discrepancies to verify and validate the reporting of the metrics. The test will use retrospective data. The test will rely on checklists, document reviews, and inspections.

5.2 Objectives

The objectives of this test are to determine the accuracy of recent metrics calculations and reports.

5.3 Entrance Criteria

Criteria	Responsible Party
All global entrance requirements satisfied	See Table III-3
Successful Completion of PMR3	KPMG

5.4 Test Scope

Table IV-5 Test Target: Metrics Calculation and Reporting Verification and Validation Review

Process Area	Sub Process/ Attribute	Evaluation Measure	Evaluation Technique	Criteria Type
Metrics Calculations	Replication of metrics calculations	Agreement between re-calculated and reported metrics values	Calculation Comparison	Quantitative
	Reconciliation of discrepancies	Reconciliation of re-calculated and reported metrics values	Revision of calculations	Qualitative
	<u>Implementation of instructions for calculation of metrics</u>	<u>Consistency between documented calculation and calculation performed</u>		

5.5 Scenarios

This test does not rely on scenarios.

5.6 Test Approach**5.6.1 Inputs**

1. BLS definitions and standards as verified by PMR2
2. BLS's target database as verified and validated by PMR1
3. PMAP documentation
4. Other appropriate procedural and technical documentation
5. Evaluation checklists

6. Interview guides

5.6.2 Activities

1. Gather information
2. Perform interviews and documentation reviews
3. Complete evaluation checklists and interview summaries
4. Gather data
5. Recreate performance metrics from target data
6. Develop and document findings

5.6.3 Outputs

1. Completed evaluation checklists and interview summaries
2. Completed performance metrics calculations
3. Summary report

5.7 Exit Criteria

Criteria	Responsible Party
Limited to Global Exit Criteria requirements	See Table III-4

6.0 Test PMR6: Statistical Evaluation of Transactions Test Metrics

6.1 Description

This test evaluates BLS's service performance for the KPMG Test CLEC using statistical methods to make comparisons to parity and benchmark standards. The test will rely on statistical methods deemed to be appropriate by KPMG, BLS, and other concerned parties. Comparisons will not be conducted for performance measures for which a retail analog or benchmark has not been established.

6.2 Objectives

The objective of this test is to compare BLS's performance metrics generated for the KPMG Test CLEC with the metrics for BLS retail analogs or with a predetermined value.

6.3 Entrance Criteria

Criteria	Responsible Party
All global entrance requirements satisfied	See Table III-3
Successful Completion of PMR5	KPMG

6.4 Test Scope

Table IV-6 Test Target: Statistical Evaluation of Transactions Test Metrics

Process Area	Sub Process/ Attribute	Evaluation Measure	Evaluation Technique	Criteria Type
Statistical Evaluation	Calculate and compare test statistic to critical value, depending on metric	Test statistic exceeds critical value	Calculation Comparison	Quantitative

6.5 Scenarios

This test does not rely on scenarios.

6.6 Test Approach

6.6.1 Inputs

1. BLS definitions and standards as verified by PMR2
2. BLS's target database as verified and validated by PMR1
3. PMAP documentation
4. Other procedural and technical documentation that may be appropriate
5. Evaluation checklists

6.6.2 Activities

1. Gather information
2. Perform documentation reviews
3. Complete evaluation checklists
4. Gather data
5. Calculate test statistics from performance measures
6. Develop and document findings

6.6.3 Outputs

1. Completed evaluation checklists
2. Completed performance metrics calculations
3. Summary report

6.7 Exit Criteria

Criteria	Responsible Party
Limited to Global Exit Criteria requirements	See Table III-4

V. Pre-Ordering, Ordering, and Provisioning Test Section

A. Purpose

The purpose of this section is to define the specific tests to be undertaken in evaluating the systems, processes, and other operational elements associated with BLS's support of pre-ordering, ordering and provisioning tests for resale and xDSL wholesale products. The purpose of the specified tests is to evaluate functionality, compliance with measurement agreements, procedures to accommodate increases in wholesale xDSL order volume, and to provide a basis for comparing this operational area to parallel systems and processes supporting BLS's retail operations. Additional order and pre-order tests are described in *BellSouth - Georgia OSS Evaluation Master Test Plan*:

- O&P-1: EDI Functional Test
- O&P-2: TAG Functional Test
- O&P-3: EDI/TAG Normal Volume Performance Test
- O&P-4: EDI/TAG Peak Volume Performance Test
- O&P-5: Provisioning Verification Test
- O&P-6: Order Processing Systems Capacity Management Evaluation
- O&P-7: O&P Performance Results Comparison
- O&P-8: EDI Documentation Evaluation
- O&P-9: TAG Documentation Evaluation
- O&P-10: EDI/TAG Production Volume Performance Test
- PRE-1: TAG Pre-Ordering Functional Test
- PRE-2: Pre-Ordering Performance Results Comparison
- PRE-3: TAG Pre-Ordering Documentation Evaluation
- PRE-4: TAG Pre-Ordering Normal Volume Test
- PRE-5: TAG Pre-Ordering Peak Volume Test
- PRE-6: Pre-Ordering Processing Systems Capacity Management Evaluation

B. Organization

The Ordering and Provisioning Test is comprised of three test target areas. These test target areas include:

1. Pre-Ordering and Ordering
2. Provisioning Verification
3. Ordering and Provisioning Documentation

Each test target area is further broken down in the "Scope" section that follows into a number of discrete Process and Sub Process Areas that serve to identify the particular area of interest to be tested and the types of measures that apply.

For Pre-Ordering, Ordering, and Provisioning there is not a one-to-one correspondence between the test target areas and the Test Processes. One or more tests have been developed to evaluate each test target area dependent on the scope of the testing required in each area. In an effort to simulate the end-to-end ordering and provisioning procedures, evaluation processes will be defined for the following:

- PO&P11: EDI and Tag Resale Functional Test Evaluation
- PO&P12: TAG-xDSL Functional Test Evaluation
- PO&P13: Provisioning Verification Evaluation Test - Resale & xDSL
- PO&P14: Documentation Test Evaluation - Resale & xDSL
- PO&P15: Manual Order Processing Test Capacity Management Work Center Evaluation
- PO&P16: xDSL Systems Capacity Management Evaluation - xDSL
- PO&P17: xDSL Process Parity Evaluation

C. Scope

The purpose of this section is to identify the system, process, and document areas that will be tested within the Ordering and Provisioning Test Processes.

The following order types will be tested:

- New install
- Disconnect
- Inside move of the physical termination within a building
- Outside move of an end user location
- Change or modification to an existing Local Service Provider's (LSP) end user
- Record activity for ordering administrative changes
- Suspend

- Restore
- Conversion to new LSP
- Conversion as is

The order types identified above will be ordered using applicable BLS service delivery methods. The following service delivery methods will be tested:

- Resale
- xDSL-capable loops
- ADSL wholesale products

In addition to service activities, directory-listing activities will also be tested.

Transactions will be submitted with known error conditions. Supplements and Cancels will also be tested. Transactions will be submitted during normal CLEC interface operational hours, as documented by BLS.

Multiple end-offices and cities will be tested. Service locations supported by different BLS ordering, provisioning, and Central Office switching and transmission configurations will be tested.

Only a portion of the test cases will be physically provisioned. Some orders will be future dated, allowing them to be canceled prior to work scheduling and provisioning. In addition to test orders, the CLECs will be solicited for "live" orders to assist in the testing of xDSL services. Agreed upon interface business rules and formats negotiated between BLS and the CLECs will be included in the test transaction formats.

Documentation affecting ordering and provisioning of resale and xDSL provided to the CLECs will be reviewed as part of the documentation review.

D. Test Process

This section contains the specific evaluations to be performed in this analysis of BLS's support of resale and xDSL Ordering and Provisioning operations.

1.0 Test PO&P11: EDI and TAG Resale Functional Evaluation

1.1 Description

The EDI and TAG Resale Functional Test-Evaluation will evaluate the functional elements of the-Pre-Ordering, eOrdering, and pProvisioning; the achievement of prescribed measures; and an analysis of performance in comparison to BLS's retail systems. process for resale products as delivered to CLECs through the EDI interface. This test will be executed by submitting local service requests (LSRs) for resale products against BLS test bed accounts and allowing the process to continue through the return of either a firm order confirmation (FOC) or reject/error notice. These transactions will be permitted to proceed through the physical provisioning process and the return of an

electronic completion notice (CN). This test will address electronically ordered resale requisition type and activity type combinations for business and residence customers based on the product and feature list described in ~~Appendix~~ Appendices B and C. Other functional elements of the resale ordering and provisioning process to be tested include flow-through and non-flow-through orders, full and partial migrations, error conditions, order supplements, directory listings, cancels, dispatch and non-dispatch provisioning, expedites, service order status inquiries, and jeopardy notices delivered through ~~the~~ EDI and TAG interfaces.

Orders will be submitted both as stand-alone transactions and as integrated pre-order/order transactions. For a defined set of integrated transactions, information returned on the pre-order response will be used to populate fields on orders. This activity is undertaken to simulate the system-related activities of a CLEC integrating the pre-order and order functions.

The EDI and TAG ordering and provisioning tests will require BLS to establish a test bed of customer accounts against which to place the requisite service requests. Customer test accounts will be distributed geographically across multiple Georgia Central Offices and switching/transmission equipment configurations. Scenarios for CLEC-to-CLEC migrations will be processed by KPMG using customer data and other requisite order data from CLECs currently doing business with BLS.

Test performance data will also be collected through test management tools.

1.2 Objective

~~The objective of the EDI and TAG Functional Evaluation Performance Test is to validate the existence, functionality, and behavior of the interfaces and processes established by BLS for pre-ordering, ordering, and provisioning transaction requests and responses. measure BLS's capability to meet agreed upon functionality and measures of service for ordering, and provisioning, and to evaluate the existence of EDI functionality for electronically ordered resale products in accordance with BLS documentation.~~

1.3 Entrance Criteria

Criteria	Responsible Party
All global entrance criteria satisfied	See Table III-3
Identification of EDI data entry/response tracking techniques completed	KPMG
Transaction submission tools installed and configured	KPMG
BLS measurements available at the CLEC level	BLS
Test bed data bases and facilities in place and CSR's provisioned	BLS
Test Scenarios selected	KPMG
Specific Test Cases and expected results developed	KPMG
Detailed "Go/No Go" checklist created	KPMG
Specific Evaluation techniques developed	KPMG
EDI documentation and training materials obtained	KPMG
Provisioning log and activity checklist developed	KPMG
Manual jeopardy/delay notification log developed	KPMG
Successful completion of QA/SRT testing	BLS, KPMG
Test Case execution schedule developed	KPMG

Criteria	Responsible Party
All appropriate Systems Readiness Test (SRT) activities completed	KPMG
Test Plan and evaluation criteria defined and approved	KPMG
Test execution team staffed, scheduled, and trained	KPMG

1.4 Test Scope

The table below outlines the processes and sub-processes involved in evaluating BLS Ordering functionality and performance. Ordering transactions consist of three distinct, but related, processes.

- Pre-Order Processing - submission of requests for information required to complete orders;
- Order Processing - submission of orders required to add/delete/change a customer's service; and
- Provisioning - physical work performed by BLS as a result of the submitted orders.

The following chart contains the processes and sub-processes that will be used in evaluating BLS's pre-ordering, ordering, and provisioning functionality and performance.

Table V-1: Test Target: EDI and TAG Resale Functional Evaluation

Process Area	Sub-Process	Evaluation Measure
Pre-ordering	<u>Retrieve customer CSR</u>	<u>Presence of functionality</u> <u>Timeliness of response</u> <u>Accuracy of response</u>
	<u>Validate Customer Address</u>	<u>Presence of functionality</u> <u>Timeliness of response</u> <u>Accuracy of response</u>
	<u>Reserve and release telephone numbers</u>	<u>Presence of functionality</u> <u>Timeliness of response</u> <u>Accuracy of response</u>
	<u>Request information about services, features, facilities, and PIC/LPIC choices available to customers</u>	<u>Presence of functionality</u> <u>Timeliness of response</u> <u>Accuracy of response</u>
	<u>Determine due date/appointment availability</u>	<u>Presence of functionality</u> <u>Timeliness of response</u> <u>Accuracy of response</u>

Process Area	Sub-Process	Evaluation Measure
Ordering	<u>Submit an order for the migration of a customer from BLS to a CLEC "as is"</u>	<u>Presence of functionality</u> <u>Timeliness of response</u> <u>Accuracy of response</u>
	<u>Submit an order for the migration of a customer from BLS to a customer "as specified"</u>	<u>Presence of functionality</u> <u>Timeliness of response</u> <u>Accuracy of response</u>
	<u>Submit an order for the partial migration of a customer from BLS to a CLEC</u>	<u>Presence of functionality</u> <u>Timeliness of response</u> <u>Accuracy of response</u>
	<u>Submit an order for establishing service for a new customer of a CLEC</u>	<u>Presence of functionality</u> <u>Timeliness of response</u> <u>Accuracy of response</u>
	<u>Submit an order for feature changes to an existing CLEC customer</u>	<u>Presence of functionality</u> <u>Timeliness of response</u> <u>Accuracy of response</u>
	<u>Submit an order for adding lines to an existing CLEC customer.</u>	<u>Presence of functionality</u> <u>Timeliness of response</u> <u>Accuracy of response</u>
	<u>Submit an order for a telephone number change for an existing CLEC customer</u>	<u>Presence of functionality</u> <u>Timeliness of response</u> <u>Accuracy of response</u>
	<u>Submit an order for a directory change for an existing CLEC customer</u>	<u>Presence of functionality</u> <u>Timeliness of response</u> <u>Accuracy of response</u>
	<u>Submit an order for an inside move of an existing CLEC customer</u>	<u>Presence of functionality</u> <u>Timeliness of response</u> <u>Accuracy of response</u>
	<u>Submit an order for the outside move of an existing CLEC customer</u>	<u>Presence of functionality</u> <u>Timeliness of response</u> <u>Accuracy of response</u>
	<u>Submit an order for suspending service of an existing CLEC customer</u>	<u>Presence of functionality</u> <u>Timeliness of response</u> <u>Accuracy of response</u>
	<u>Submit an order for restoring service to an existing CLEC customer</u>	<u>Presence of functionality</u> <u>Timeliness of response</u> <u>Accuracy of response</u>
	<u>Submit an order for disconnecting service from an existing CLEC customer</u>	<u>Presence of functionality</u> <u>Timeliness of response</u> <u>Accuracy of response</u>
	<u>Submit an order for disconnecting some lines/circuits for an existing CLEC customer</u>	<u>Presence of functionality</u> <u>Timeliness of response</u> <u>Accuracy of response</u>
	<u>Receive order confirmation</u>	<u>Timeliness of response</u> <u>Accuracy of response</u> <u>Clarity and completeness of response</u>
Supplement and Order	<u>Create supplement transaction(s)</u>	<u>Presence of functionality</u>
	<u>Submit supplement</u>	<u>Presence of functionality</u> <u>Timeliness of response</u> <u>Accuracy of response</u>
	<u>Receive acknowledgment</u>	<u>Timeliness of response</u> <u>Accuracy of response</u>

Process Area	Sub-Process	Evaluation Measure
	<u>Receive FOC/error/reject notification</u>	<u>Timeliness of response</u> <u>Accuracy of response</u> <u>Clarity and completeness of error message.</u>
	<u>Correct error(s)</u>	<u>Timeliness of response</u> <u>Accuracy of response</u>
	<u>Re-send supplement</u>	<u>Presence of functionality</u>
	<u>Receive FOC</u>	<u>Timeliness or response</u> <u>Accuracy of response</u>

1.5 Test Approach

KPMG will utilize various pre-order and order transactions. EDI and TAG transaction test cases and test instances will be developed based on the Ordering and Provisioning Test Case Scenarios. The objective of this test is to validate the accuracy, completeness, and behavior of the EDI and TAG interfaces to BLS for ordering transaction requests and responses.

1.5.1 Inputs

1. Test scenarios and cases
2. Test case execution schedule
3. Interface availability
4. BLS documentation
5. Trained personnel to execute test cases
6. Test "Go/No Go" checklist
7. Detailed operational test plan

1.5.2 Activities

1. Use test cases to develop transactions and transaction content based upon instructions provided in the appropriate documentation
2. Submit EDI and TAG test case transactions according to schedule. Submittal date, time, and appropriate transaction information logged
3. Receive transaction responses via EDI and TAG. Receipt date, time, response transaction type, and response condition (valid vs. reject) are logged
4. Match transaction response to original transaction. Verify that matching transaction can be found and record mismatches
5. Verify that transaction response contains expected data and flag unexpected errors

6. Manually review unexpected errors. Identify error source (KPMG or BLS). Identify and log reason for the error. Determine if test should be discontinued
7. Correct expected errors. Re-submittal date, time, and appropriate information are logged
8. Identify transactions for which responses have not been received. Where multiple responses are expected for the same request, the receipt of each response will be monitored.
9. Record missing responses
10. Log documentation issues uncovered during transactions creation and submission process
11. Review status of pending orders. Verify and record accuracy of response
12. Jeopardy, Pending Facilities Status and delay notifications are recognized and logged. Any jeopardy or delay notifications not received electronically are logged using the jeopardy/delay notification log
13. Generate reports

1.5.3 Outputs

1. Variance between actual test performance and the standards of performance defined in BLS methods and procedures
2. Report of expected results versus actual results
3. Rejects received after confirmation notification and percentage of total
4. Report of unexpected errors categorized by type of problem
5. Transaction counts, error ratio, response time, etc. by transaction type, product family and delivery method
6. Minimum, maximum, mean, average, and aggregate response time/interval per transaction set
7. Transaction counts per response time/interval range per transaction set
8. Orders erred after initial confirmation
9. Completed jeopardy / delay notification logs
10. Summary Report

1.6 Exit Criteria

Criteria	Responsible Party
Limited to Global Exit Criteria requirements	See Table III-4

2.0 Test PO&P12: xDSL Functional Evaluation**2.1 Description**

The xDSL Order Processing Functional Evaluation will evaluate the functional elements of the Pre-Ordering, Ordering, and Provisioning process for xDSL (Digital Subscriber Line) products as delivered to CLECs over two BLS-supported interfaces: 1) High Speed Data Service Order Entry Gateway System (SOEG), or 2) manually. Pre-ordering will include submission of Service Inquiries to BellSouth to determine loop characteristics. This test cycle will be executed by submitting local service requests (LSRs) for xDSL products against BLS test bed accounts and allowing the process to continue through the return of either a firm order confirmation (FOC) or reject/error notice. A number of these transactions will be permitted to proceed through the physical provisioning process and the return of an electronic or faxed completion notice (CN).

CLECs participating in this test will be interviewed and their experiences will be incorporated into the test results after validation by the Test Manager. In addition, for some types of transactions, involvement will be sought from CLECs to participate in some aspects of the live transaction testing. CLEC participation will be important for complex orders that cannot be simulated adequately in the test environment.

This test will address the BLS Wholesale ADSL service offering orderable either through SOEG or manually. This test cycle will also address all manually ordered loops capable of xDSL service. Other functional elements of the xDSL ordering and provisioning process to be tested include full and partial migrations, error conditions, order supplements, directory listings, cancels, dispatch and non-dispatch provisioning, expedites, service order status inquiries, and jeopardy notices delivered through the manual interfaces.

Orders will be submitted as both stand alone transactions and as integrated pre-order/order transactions. Note that although some of the transactions to order xDSL products will be submitted manually, the related pre-orders will be submitted electronically or manually, depending on the information required. For a defined set of integrated transactions, information returned on the pre-order response will be used to populate fields on subsequent orders. This activity is undertaken to simulate the system-related activities of a CLEC wishing to integrate the pre-order and order functions.

The xDSL ordering and provisioning tests will require BLS to establish a test bed of customer accounts against which to place the requisite service requests. Customer test accounts will be distributed geographically across multiple Georgia Central Offices and switching/transmission equipment configurations.

2.2 Objective

The objective of the xDSL functional evaluation is to measure BLS's capability to meet agreed upon functionality and measures of service for pre-ordering, ordering, and provisioning through established electronic and manual processes in accordance with BLS documentation.

2.3 Entrance Criteria

<u>Criteria</u>	<u>Responsible Party</u>
<u>All global entrance criteria satisfied</u>	<u>See Table III-3</u>
<u>All documentation pertaining to Manual Order processing pertaining to xDSL obtained</u>	<u>BLS</u>
<u>Identification of Manual Ordering data entry/response tracking techniques completed</u>	<u>KPMG</u>
<u>BLS measurements available at the CLEC level</u>	<u>BLS</u>
<u>Test bed data bases and facilities in place and CSR's provisioned</u>	<u>BLS</u>
<u>Test Scenarios selected</u>	<u>KPMG</u>
<u>Identify CLEC participants in order to utilize xDSL capabilities</u>	<u>KPMG, CLEC(s)</u>
<u>Specific Test Cases and expected results developed</u>	<u>KPMG</u>
<u>Detailed "Go/No Go" checklist created</u>	<u>KPMG</u>
<u>Specific Evaluation techniques developed</u>	<u>KPMG</u>
<u>Successful completion of OA/SRT testing</u>	<u>BLS, KPMG</u>
<u>Test Case execution schedule developed</u>	<u>KPMG</u>
<u>Test Plan and evaluation criteria defined and approved</u>	<u>KPMG</u>
<u>Test execution team staffed, scheduled, and trained</u>	<u>KPMG</u>

2.4 Test Scope

The table below outlines the processes and sub-processes involved in evaluating BLS's xDSL Ordering functionality and performance

Table V-2: Test Target: xDSL Functional Evaluation

<u>Process Area</u>	<u>Sub-Process</u>	<u>Evaluation Measure</u>
<u>Submit a Service Inquiry</u>	<u>Submit Loop Inquiry</u>	<u>Accessability of interface</u>
	<u>Receive response to Loop Inquiry</u>	<u>Timeliness of Response</u> <u>Accuracy and completeness of response</u>
<u>Submit an Order</u>	<u>Create order transaction(s).</u>	<u>Accessibility of fax interface</u>
	<u>Submit Local Service Request (LSR).</u>	<u>Presence of functionality for manual processing</u>
	<u>Receive acknowledgment.</u>	<u>Presence of Response</u>
	<u>Receive Firm Order Confirmation (FOC)/error/reject notification.</u>	<u>Timeliness of Response</u> <u>Accuracy and completeness of response</u>
<u>Submit an Error</u>	<u>Submit expedited order transaction.</u>	<u>Accuracy and completeness of response.</u>
	<u>Create error transaction(s).</u>	<u>Timeliness of response</u> <u>Accuracy of response</u> <u>Clarity and completeness of error message</u>
	<u>Receive acknowledgment.</u>	<u>Timeliness of response</u> <u>Accuracy and completeness of error message.</u>
	<u>Receive planned error/reject</u>	<u>Timeliness of response</u>

Table V-2: Test Target: xDSL Functional Evaluation

Process Area	Sub-Process	Evaluation Measure
	<u>notification.</u>	<u>Accuracy of response</u> <u>Clarity and completeness of error message</u>
	<u>Correct error(s).</u>	<u>Timeliness of response</u> <u>Accuracy of response</u>
	<u>Re-send integrated LSR.</u>	<u>Accessibility of fax interface</u>
	<u>Receive FOC.</u>	<u>Timeliness of response</u> <u>Accuracy of response</u>
Supplement an Order	<u>Create supplement transaction(s).</u>	<u>Presence of functionality</u>
	<u>Submit supplement.</u>	<u>Presence of functionality</u> <u>Timeliness of response</u> <u>Accuracy of response</u>
	<u>Receive acknowledgment.</u>	<u>Timeliness of response</u> <u>Accuracy of response</u>
	<u>Receive FOC/error/reject notification.</u>	<u>Timeliness of response</u> <u>Accuracy of response</u> <u>Clarity and completeness of error message</u>
	<u>Correct error(s).</u>	<u>Timeliness of response</u> <u>Accuracy of response</u>
	<u>Re-send supplement.</u>	<u>Presence of functionality for manual processing</u>
	<u>Receive FOC.</u>	<u>Timeliness of response</u> <u>Accuracy of response</u>
Receive Completion Notice (CN)	<u>Receive CN transaction.</u>	<u>Timeliness of response</u> <u>Accuracy of response</u>
Receive Pending Facility Status	<u>Receive pending facility (PF) notification.</u>	<u>Timeliness of response</u> <u>Accuracy of response</u>
Receive Jeopardy Notification	<u>Receive jeopardy notification transaction.</u>	<u>Timeliness of response</u> <u>Accuracy and completeness of response</u>
Check Service Order Status	<u>Check service order status.</u>	<u>Accuracy of response</u>

2.5 Test Approach

KPMG will utilize various xDSL transaction test cases and test instances developed based on the ordering and provisioning test case scenarios. The objective of this test is to validate the accuracy and completeness of orders to BLS for ordering transaction requests and responses.

2.5.1 Inputs

1. xDSL test cases for ordering
2. Test case execution schedule
3. Manual order handling methods and procedures
4. BLS documentation
5. Trained personnel to execute test cases
6. Test "Go / No Go" checklist
7. Detailed operational test plan

2.5.2 Activities

1. Use test cases to develop transactions and transaction content based upon instructions provided in the appropriate documentation
2. Submit ordered test case transactions for Ordering according to schedule. (CLEC participation may be required)
3. Match transaction response to original transaction. Verify that matching transaction can be found and record mismatches
4. Verify that transaction response contains expected data and flag non-expected errors
5. Manually review non-expected errors. Identify error source (KPMG or BLS). Identify and log reason for the error. Determine if test should be discontinued
6. Correct expected errors. Re-submittal date, time, and appropriate information are logged
7. Identify transactions for which responses have not been received. Where multiple responses are expected for the same request, the receipt of each response will be monitored. Record missing responses
8. Log documentation issues uncovered during transactions creation and submission process
9. Review status of pending orders. Verify and record accuracy of response
10. Jeopardy, Pending Facilities Status, and delay notifications are recognized and logged. Any jeopardy or delay notifications not received electronically are logged using the jeopardy/delay notification log
11. Verify correct provisioning on a sampling of orders that have been completed. Record results in appropriate provisioning log and activity checklist
12. Generate reports

2.5.3 Outputs

1. Variance between actual test performance and the standards of performance defined in BLS methods and procedures
2. Report of expected results versus actual results

3. Rejects received after confirmation notification and percentage of total
4. Report of unexpected errors categorized by type of problem
5. Transaction counts, error ratio, response time, etc. by transaction type, product family and delivery method
6. Minimum, maximum, mean, average, and aggregate response time/interval per transaction set
7. Transaction counts per response time/interval range per transaction set
8. Orders erred after initial confirmation
9. Completed jeopardy / delay notification logs
10. Summary Report

2.6 Exit Criteria

Criteria	Responsible Party
Limited to Global Exit Criteria requirements	See Table III-4

2.0 Test O&P12: TAG Functional Evaluation

2.1 Description

The TAG Functional Test will evaluate the functional elements of the pre-order, ordering, and provisioning processes for resale products as delivered to CLECs through the TAG interfaces. This test will be executed by submitting local service requests (LSRs) for resale products against BLS test bed accounts, and allowing the process to continue through the return of either a firm order confirmation (FOC) or reject/error notice. These transactions will be permitted to proceed through the physical provisioning process and the return of an electronic completion notice (CN). This test will address electronically ordered resale requisition type and activity type combinations for business and residence customers based on the product and feature list described in Appendix B. Other functional elements of the resale ordering and provisioning process to be tested include flow-through and non-flow-through orders, full and partial migrations, error conditions, order supplements, directory listings, cancels, dispatch and non-dispatch provisioning, expedites, service order status inquiries, and jeopardy notices delivered through the TAG interface.

Orders will be submitted both as stand-alone transactions and as integrated pre-order/order transactions. For a defined set of integrated transactions, information returned on the pre-order response will be used to populate fields on orders. This activity is undertaken to simulate the system-related activities of a CLEC's integrating the pre-order and order functions.

The TAG ordering and provisioning tests will require BLS to establish a test bed of customer accounts against which to place the requisite service requests. Customer test accounts will be distributed geographically across multiple Georgia Central Offices and switching/transmission equipment configurations. Scenarios for CLEC to CLEC migrations will be processed by KPMG using customer data and other requisite order data from CLECs currently doing business with BLS.

Test performance data will also be collected through test management tools.

2.2 Objective

The objective of the TAG Functional Evaluation Performance Test is to measure BLS's capability to meet agreed upon functionality and measures of service for pre-order, ordering, and provisioning, and to evaluate the existence of TAG functionality for electronically ordered resale products in accordance with BLS documentation.

2.3 Entrance Criteria

Criteria	Responsible Party
All global entrance criteria satisfied	See Table III-3
Identification of TAG data entry/response tracking techniques completed	KPMG
Transaction submission tools installed and configured	KPMG
BLS measurements available at the CLEC level	BLS
Test bed data bases and facilities in place and CSR's provisioned	BLS
Test Scenarios selected	KPMG
Specific Test Cases and expected results developed	KPMG
Detailed "Go/No Go" checklist created	KPMG
Specific Evaluation techniques developed	KPMG
TAG documentation and training materials obtained	KPMG
Provisioning log and activity checklist developed	KPMG
Manual jeopardy/delay notification log developed	KPMG
Successful completion of QA/SRT testing	BLS, KPMG
Test Case execution schedule developed	KPMG
All appropriate Systems Readiness Test (SRT) activities completed	KPMG
Test Plan and evaluation criteria defined and approved	KPMG
Test execution team staffed, scheduled, and trained	KPMG

2.4 Test Scope

The table below outlines the processes and sub-processes involved in evaluating BLS Ordering functionality and performance.

Table V-2: Test Target: TAG Functional Evaluation

Submit an Order	Create order transaction(s).	Accessibility of interface
	Submit integrated Local Service Request (LSR).	Presence of functionality
	Receive acknowledgment.	Presence of Response
	Receive Firm Order Confirmation (FOC)/error/reject notification.	Timeliness of Response Accuracy and completeness of response

Table V-2: Test Target: TAG Functional Evaluation

	Submit expedited order transaction.	Presence of functionality
Submit an Error	Create error transaction(s).	Timeliness of response Accuracy of response Clarity and completeness of error message
	Receive acknowledgment.	Timeliness of response Accuracy and completeness of error message.
	Receive planned error/reject notification.	Timeliness of response Accuracy of response Clarity and completeness of error message
	Correct error(s).	Timeliness of response Accuracy of response
	Re-send integrated LSR.	Presence of functionality
	Receive FOC.	Timeliness of response Accuracy of response
Supplement an Order	Create supplement transaction(s).	Presence of functionality
	Submit supplement.	Presence of functionality Timeliness of response Accuracy of response
	Receive acknowledgment.	Timeliness of response Accuracy of response
	Receive FOC/error/reject notification.	Timeliness of response Accuracy of response Clarity and completeness of error message
	Correct error(s).	Timeliness of response Accuracy of response
	Re-send supplement.	Presence of functionality
	Receive FOC.	Timeliness of response Accuracy of response
Pre-order/Order Integration	Populate integration orders with information returned from designated pre-order response.	Accuracy of response Clarity and completeness of response
	Submit integration orders.	Presence of functionality
	Receive acknowledgement.	Timeliness of response Accuracy of response
	Receive error/reject notification.	Timeliness of response Accuracy of response Clarity and completeness of error message
	Correct errors.	Timeliness of response Accuracy of response
	Re-send integration order.	Presence of functionality
	Receive FOC.	Timeliness of response Accuracy of response
Receive Completion Notice (CN)	Receive CN transaction.	Timeliness of response Accuracy of response
Receive Pending Facility Status	Receive pending facility (PF) notification.	Timeliness of response Accuracy of response
Receive Jeopardy Notification	Receive jeopardy notification transaction.	Timeliness of response Accuracy and completeness of response
Check Service Order Status	Check service order status.	Accuracy of response

2.5 Test Approach

~~KPMG will utilize various pre order and order transactions. TAG transaction test cases and test instances will be developed based on the Pre Order, Ordering and Provisioning Test Case Scenarios. The objective of this test is to validate the accuracy, completeness, and behavior of the TAG interface to BLS for pre order and ordering transaction requests and responses~~

2.5.1 Inputs

- ~~1. Test scenarios and cases~~
- ~~2. Test case execution schedule~~
- ~~3. Interface availability~~
- ~~4. BLS documentation~~
- ~~5. Trained personnel to execute test cases~~
- ~~6. Test "Go/No Go" checklist~~
- ~~7. Detailed operational test plan~~

2.5.2 Activities

- ~~1. Use test cases to develop transactions and transaction content based upon instructions provided in the appropriate documentation~~
- ~~2. Submit TAG test case transactions according to schedule. Submittal date, time, and appropriate transaction information logged~~
- ~~3. Receive transaction responses via TAG. Receipt date, time, response transaction type, and response condition (valid vs. reject) are logged~~
- ~~4. Match transaction response to original transaction. Verify that matching transaction can be found and record mismatches~~
- ~~5. Verify that transaction response contains expected data and flag unexpected errors~~
- ~~6. Manually review unexpected errors. Identify error source (KPMG or BLS). Identify and log reason for the error. Determine if test should be discontinued~~
- ~~7. Correct expected errors. Re-submittal date, time, and appropriate information are logged~~
- ~~8. Identify transactions for which responses have not been received. Where multiple responses are expected for the~~

~~same request, the receipt of each response will be monitored.~~

- ~~9. Record missing responses~~
- ~~10. Log documentation issues uncovered during transactions creation and submission process~~
- ~~11. Review status of pending orders. Verify and record accuracy of response~~
- ~~12. Jeopardy, Pending Facilities Status and delay notifications are recognized and logged. Any jeopardy or delay notifications not received electronically are logged using the jeopardy/delay notification log~~
- ~~13. Generate reports~~

2.5.3 Outputs

- ~~1. Variance between actual test performance and the standards of performance defined in BLS methods and procedures~~
- ~~2. Report of expected results versus actual results~~
- ~~3. Rejects received after confirmation notification and percentage of total~~
- ~~4. Report of unexpected errors categorized by type of problem~~
- ~~5. Transaction counts, error ratio, response time, etc. by transaction type, product family and delivery method~~
- ~~6. Minimum, maximum, mean, average, and aggregate response time/interval per transaction set~~
- ~~7. Transaction counts per response time/interval range per transaction set~~
- ~~8. Orders erred after initial confirmation~~
- ~~9. Completed jeopardy / delay notification logs~~
- ~~10. Summary Report~~

2.6 Exit Criteria

Criteria	Responsible Party
Limited to Global Exit Criteria requirements	See Table III-4

3.0 Test PO&P13: Provisioning Verification Evaluation

3.1 Description

The Provisioning Verification Test will evaluate BLS's ability to accurately and expeditiously complete the provisioning of service requests placed in the PO&P11 and O&P12-EDI and TAG Functional Tests Evaluation. This analysis will focus on electronically ordered resale products. In addition, to test the full functionality of BLS's provisioning process, orders will be supplemented and canceled, require outside dispatch, and require validation of record changes associated with resale orders and address provisioning of new services or functionality.

The Provisioning Verification Test will also evaluate BLS's ability to accurately and expeditiously complete the provisioning of service requests placed in the PO&P15-P12 xDSL Manual Order Processing Functional Test Evaluation. This analysis will focus on electronic and manually ordered-orderable xDSL products, and involves the physical inspection of BLS's provisioning process. To test the end-to-end provisioning process on xDSL orders, participation of real CLECs will be solicited for observation of provisioning activities. In addition, to test the full functionality of BLS's provisioning process, orders will be supplemented and canceled, require outside dispatch, and address customer coordination.

Test performance data will be collected by a KPMG on-site observer, and results will be included as inputs to the final report.

3.2 Objective

The objective of the Provisioning Evaluation Test is to measure BLS's capability to meet agreed-upon functionality and measures of service for provisioning of xDSL and Resale products

3.3 Entrance Criteria

Criteria	Responsible Party
All global entrance criteria satisfied	See Table III-3
<u>PO&P11, O&P12, and PO&P15P12: EDI, TAG, and Manual xDSL Order Functional Tests</u> successfully executed	KPMG
Transaction submission tools (electronic or manual) installed and configured/in place	KPMG
BLS measurements/ methods and procedures available at the CLEC level	BLS
Test bed data bases and facilities in place and CSR's provisioned	BLS
<u>CLEC participant(s) for xDSL capabilities (xDSL Capable Loop/Wholesale ADSL) identified</u>	KPMG, CLEC(s)
Test Scenarios selected	KPMG
Specific Test Cases and expected results developed	KPMG
Detailed "Go/No Go" checklist created	KPMG
Specific Evaluation techniques developed	KPMG
Interview guide/questionnaire(s) completed for BLS & CLEC	KPMG
Provisioning log and activity checklist developed	KPMG
Manual jeopardy/delay notification log developed	KPMG
Test Case execution schedule developed	KPMG

Criteria	Responsible Party
All appropriate Systems Readiness Test (SRT) activities completed	KPMG
Test Plan and evaluation criteria defined and approved	KPMG
Test execution team staffed, scheduled, and trained	KPMG

3.4 Test Scope

The table below outlines the processes and sub-processes involved in evaluating BLS's provisioning of xDSL and Resale products.

Table V-3: Test Target: Provisioning Verification Evaluation

Process Area	Sub-Process	Evaluation Measure
Receive completion notification	Receive completion notification transaction	Timeliness of response Timeliness of dates Accuracy of data
	Match response to order transaction and confirmation	Accuracy of provisioning
	Verify receipt of completion notification	Completion notification received for all transactions
Provision BLS Service	Receive design documents	Accuracy of data
	Confirm provisioning date and time - determine coordinated/non-coordinated/coordinated-time specific.	Accuracy of data
	Perform provisioning activities.	Timeliness of dates Timeliness of completion
	Perform testing activities.	Accuracy of provisioning Timeliness of response
Receive jeopardy notification	Turn up service.	Accuracy of data Timeliness of closure Timeliness of notification
	Receive jeopardy notification	Timeliness of notification Timeliness of dates Accuracy of data Frequency of notification
	Identify reason for jeopardy	Accuracy of response
Receive delay notification	Monitor follow-up activities	Timeliness of closure Compliance with procedures
	Receive delay notification transaction	Timeliness of response Timeliness of dates Accuracy of data Frequency of delay
	Match response to transaction	Accuracy of response
	Identify reason for delay	Accuracy of response Availability of support
Follow up on delayed provisioning activities	Monitor to closure	Timeliness of closure Compliance to procedures

3.5 Test Approach

KPMG will utilize various order transactions test instances developed based on the ordering and provisioning test case scenarios. The objective of this test is to validate the accuracy, completeness, and timeliness of BLS provisioning for resale and xDSL orders.

3.5.1 Inputs

1. Test cases and expected results
2. Test case execution schedule
3. Provisioning documentation
4. Provisioning log and activity checklists
5. Trained personnel to execute test cases
6. Test "Go/No Go" checklist
7. Interview questionnaire for BLS and CLEC personnel

3.5.2 Activities

1. Use test cases to develop transactions and transaction content based upon instructions provided in the appropriate documentation
2. Analyze Firm Order Confirmation (FOC) for provisioning details
3. Match transaction response to original transaction. Verify that matching transaction can be found and record mismatches
4. Verify that transaction response contains expected data and flag non-expected errors
5. Verify appointment date, time and detail. Meet BLS provisioning staff if applicable
6. Review provisioning activities within BLS Central Offices. Identify and log actions, including date and time of process in provisioning checklist
7. Identify actions warranting exceptions and determine next steps in exception process.
8. Log documentation issues uncovered during provisioning activities
9. Review status of pending orders. Verify and record accuracy of response
10. Jeopardy, Pending Facilities Status and delay notifications are recognized and logged. All jeopardy or delay notifications not received electronically are logged using the jeopardy/delay notification log
11. Verify correct provisioning on a sampling of orders that have been completed. Record results in appropriate provisioning log and activity checklist
12. Conduct interviews with BLS and CLEC personnel

13. Generate reports

3.5.3 Outputs

1. Variance between actual test performance and the standards of performance defined in BLS methods and procedures
2. Report of expected results versus actual results
3. Rejects received after confirmation notification and percentage of total
4. Report of unexpected errors categorized by type of problem
5. Transaction counts, error ratio, response time, etc. by transaction type, product family, and delivery method
6. Transaction counts per response time/interval range per transaction set
7. Completed provisioning logs and checklists
8. Completed jeopardy / delay notification logs
9. Provisioning accuracy and timeliness report
10. Completed interview reports
11. Summary Report

3.6 Exit Criteria

Criteria	Responsible Party
Limited to Global Exit Criteria requirements	See Table III-4

4.0 Test PO&P14: Resale and xDSL Manual Order Documentation Evaluation

4.1 Description

The ~~EDI and TAG~~ Resale and xDSL -Documentation Evaluation is an analysis of the pre-ordering, ordering, and provisioning documentation provided by BLS to CLECs to interact with the EDI, and TAG, and SOEG interfaces, as well as the ~~The Manual Order Processing Documentation Evaluation is an analysis of~~ documentation provided by BLS to CLECs to manually order and provision xDSL products. These evaluations are intended to review the availability, accuracy, timeliness and completeness of BLS's pre-ordering, ordering, and provisioning documentation. A variety of operational analysis techniques will be employed in the evaluations.

The ~~EDI and TAG~~ test will receive input from the PO&P-11 and O&P-12: EDI and TAG Resale Functional Test Evaluation exceptions report. ~~The exception reports are based on issues pertaining to documentation that addresses whether system functionality matches that described in the business rules documentation. and the PO&P12: xDSL~~

Functional Evaluation exceptions report. The Manual Order test will receive input from the O&P 15 Manual Order Processing Functional Test. The exception reports are based on issues pertaining to documentation that addresses whether the manual process matches that described in the business rules documentation.

4.2 Objective

The objective of the EDI, TAG, Resale and xDSL and Manual Order Documentation Evaluation is to determine the accuracy, timeliness, availability and usability of the BLS documentation. It is also to determine if the BLS documentation adequately assists CLECs in understanding how to implement and use all of the EDI, TAG, SOEG, and manual ordering and provisioning functions available to them.

4.3 Entrance Criteria

Criteria	Responsible Party
All global entrance criteria satisfied	See Table III-3
All documentation pertaining to EDI, TAG, <u>SOEG</u> , and Manual Order processing obtained	BLS
Evaluation Checklist for Documentation completed	KPMG
BLS measurements/methods and procedures for development and distribution of documentation available at the CLEC level	BLS
Specific Evaluation techniques developed	KPMG
Interview guide/questionnaire(s) completed for BLS & CLEC	KPMG
Test Plan and evaluation criteria defined and approved	KPMG
Test execution team staffed, scheduled, and trained	KPMG
Exception report(s) arising from documentation issues from <u>PO&P11 and O&P12: EDI and TAG Functional Test Evaluation</u> , and from <u>PO&P15P12: Manual xDSL Order Functional Test Evaluation</u> obtained	KPMG
BLS and CLEC documentation Order Specialist and User contact information provided	BLS, CLEC(s)

4.4 Test Scope

Table V-4 below identifies the specific documentation to be tested under PO&P14: EDI, TAG, and Manual Order Documentation Evaluation - Resale & xDSL Evaluation. Additional documentation found during the course of testing may be included in the documentation evaluation. Table V-5 below outlines the processes and sub-processes involved in evaluating BLS's documentation for xDSL and Resale products.

Table V-4: Documentation to be Tested for PO&P14: EDI, TAG, and Manual Order Documentation Evaluation - Resale & xDSL

Document Name
BellSouth Local Exchange Ordering Guide, Volume 1 (Issue 7M)
BellSouth Local Exchange Ordering Guide, Volume 4 (TCIF 7)
Resale Based Advisory Guide
TAG Programmers Training Guide
Telecommunications Access Gateway (TAG) API Reference Guide