



# **EXHIBIT OSS – 61**

## **Testing Plan and Guidelines For Telecommunications Access Gateway (TAG) and Competitive Local Exchange Carriers**



TESTING PLAN and GUIDELINES

For

TELECOMMUNICATIONS ACCESS

GATEWAY (TAG)

And

COMPETITIVE LOCAL EXCHANGE CARRIERS

October 12, 1998

Prepared by:

BellSouth Telecommunications, Inc. / BellSouth Interconnections Services

LCSC Staff Support

675 West Peachtree St. N. E.

Atlanta GA. 30375

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## **About the Manual:**

### **Audience:**

The BellSouth Telecommunications Access Gateway (TAG) Testing Guidelines document is intended for BellSouth Telecommunication's employees and Competitive Local Exchange Carriers (CLECs) who perform testing via TAG.

### **Assumptions:**

Pre-order testing can be conducted independently of TAG Firm Order processing.

### **Introduction:**

As part of the Telecommunications Act of 1996, the Federal Communication Commission (FCC) has required the access to the Incumbent Local Exchange Carrier's (ILEC) Operational Support Systems (OSSs) be made available to Competitive Local Exchange Carriers (CLECs). This type of gateway access will enable the CLECs to provide customer service on parity to that which has been offered by the ILEC.

The FCC's order mandates that the gateway is an electronic, machine-to-machine interface that does not rely on human intervention in the ultimate transfer of information from the ILEC OSS to the CLEC.

It is important to provide standard interfaces so all carriers can develop their OSS infrastructure while continuing to exchange information necessary to service customers in a competitive local service market.

The pre-ordering and ordering processes enable local service providers and network providers to exchange information about current and future retail service, unbundled network elements and combinations of network elements. The pre-ordering process permits a service negotiator to assemble the data required to provide service to a customer.

This Test Plan and Guidelines document provides an outline for the activities necessary to achieve the complete and satisfactory execution of the BellSouth - CLEC Pre-Order and Firm Order Test Specifications.

The testing process described in this document is designed to validate BST - CLEC TAG local exchange pre-order and ordering procedures. The testing achieves the following goals:

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- Verification of connectivity between BST and CLEC.
- CLEC compliance with BST usage requirements as presented in the BellSouth Local Exchange Ordering (LEO) Implementation Guide and API Reference Guide.
- Verification of CLEC's ability to send Firm Order requests to BST.
- Verification of BST's ability to electronically acknowledge CLEC order requests.
- Verification of BST's ability to translate and process CLEC orders.
- Verification of CLEC ability to send Pre-Order requests and receive expected output.





**Regulations:**

- BellSouth requires that each CLEC participate in TAG training as a pre-requisite to End-To-End (ETET) testing.
- BellSouth fully supports End-to-End testing (ETET). BellSouth will not retest the same application and/or products and services.
- If the CLEC requests suspension of testing, all new test dates must be re-negotiated.
- BellSouth reserves the right to suspend testing for failure to meet all entrance criteria defined in this testing plan, i.e., training, agreed time frames, major coding changes, requirements, connectivity failures, or in the best judgment of the business.
- BellSouth will terminate testing at the CLECs request.
- During Validity Testing, BellSouth will only test the functionality performed in Application Testing; adding new functionality requires a new testing agreement.
- This document outlines the business operational parameters set forth for the purpose of conducting TAG ETET with CLECs. Any arrangements other than those outlined in the TAG Testing Guidelines or LEO-IG/BellSouth Business Rules must be negotiated with the LCSC Testing Staff.



**Scope:**

This plan covers each test phase and assumes each partner has successfully completed unit and integration testing of their systems. This implies that the functionality has been comprehensively tested. Therefore, this testing will focus on ETET.

To ensure the quality of electronic communications, tests in each test phase for the following conditions are included (but are not limited to):

1. The normal day-to-day functions and features of the systems, and
2. Test error conditions and the system responses to them.

**Types of Testing:**

- Connectivity
- End-to-End
- Service Readiness

**Test Descriptions:**

Connectivity testing ensures the CLECs ability to communicate with BellSouth's electronic systems. TAG supports two types of access:

- LAN-to-LAN
- Internet



**LAN-to-LAN:**

The CLEC:

- Verifies CLEC's circuit is physically connected to the EGA router.
- Installs TAG simulator software, and runs tests via simulator.
- Sends a pre-determined test message to TAG, and ensures TAG responds with expected output.

**Internet:**

The CLEC:

- Verifies CLEC's connectivity to TAG server.
- Installs TAG simulator software and runs tests via simulator.
- Sends a pre-determined test message to TAG, and TAG responds with expected output.

**Entrance Criteria:**

- Technical Training
- TAG ACP Profile Established

**Exit Criteria:**

- CLEC receives test message from BST.

After successful testing, notification is sent to ICS, Application/System Testers and the Account team indicating that connectivity has been completed for the transport part of the transaction and CLEC is ready to begin End to End Testing.

**End-to-End (ETET):**

End-to-End Testing verifies that data content provided by the CLEC is meaningful to the LEO and ordering systems at BST. This testing also verifies that the data content will remain valid throughout the full order cycle as identified by the business transactions.

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There are two types of End-to-End testing:

**Application:**

Application testing is performed in the Test bed and occurs during development of the CLEC application code. The CLEC issues standard test cases in the TAG test environment pointing to a Business Logic Processor (BLP), and pre-order and order simulators. The results may include Firm Order Confirmation (FOC), error code messages, or a service order. Each CLEC is required to perform security violation and password aging tests in this phase of testing.

Upon successful completion of testing with simulated back ends, CLECs perform testing against a real BLP, and pre-order and order test environments. The Test Client Simulator is available for troubleshooting and debugging purposes.

The duration for pre-order and firm order combined in this phase is three (3) weeks. When the two types of testing are conducted independently of each other then the time frames are:

- Pre-order is 1-5 days
- Firm order is 1-10 days

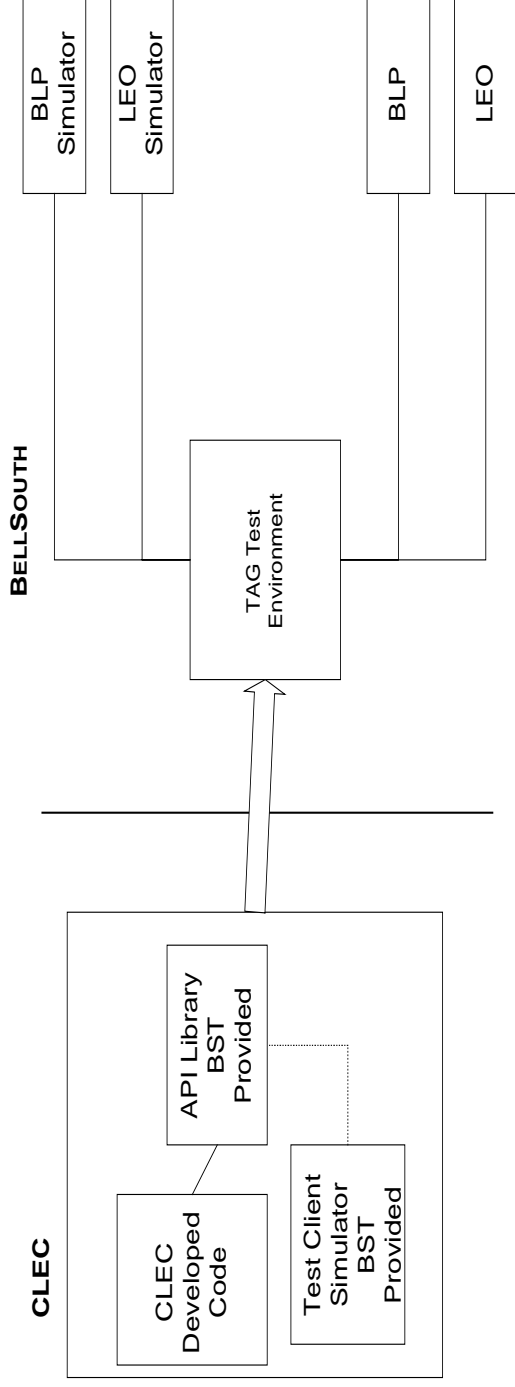
**Entrance Criteria:**

- Successful completion of TAG training.
- Successful completion of Connectivity testing.
- Successful completion of unit and integration testing.

**Exit Criteria:**

- Successful completion of test case data at a 90% success rate

## APPLICATION END-TO-END TESTING



### Application Testing

1. Application testing will occur during development of the CLEC application.
2. CLEC will perform standard test cases against TAG test environment pointing to a BLP/LEO simulator.
3. Upon successful completion of testing with simulated backends, CLECS will perform testing against real BLP and LEO test environments.
4. Test Client Simulator is available for trouble shooting and debugging purposes.

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**Validity:**

Validity Testing is an extension of Application testing which results in a service order, FOC, and Completion Notice (CN) for Firm Order. This testing is conducted in the Test environment and includes a verification of error messages received and returned. BellSouth will only test a subset of the test case functionality performed in Application testing.

**Pre-Order** - A pre-defined set of test cases for pre-order used by the CLEC and expected data is returned.

**Firm Order** - A pre-defined set of test cases for Firm Order - used by the CLEC and generates a service order, FOC, and CN.

The duration for pre-order and firm order combined in this phase is three (3) weeks. When the two types of testing are conducted independently of each other then the time frames are:

- Pre-order is 1-5 days
- Firm order is 1-10 days

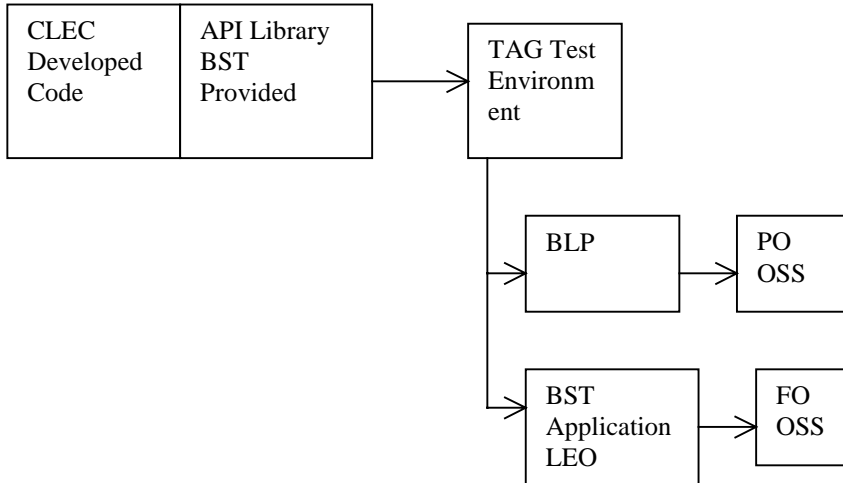
**Entrance Criteria:**

- Completion of Application Testing

**Exit Criteria:**

- Successful Completion of Test Cases at a 90% success rate

End to End Validity Testing:



1. Conduct final end to end demonstration for BellSouth using standard test cases against the test TAG environment

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**Service Readiness Testing (SRT):**

Service Readiness Testing is conducted at the end of the Validity testing. Service Readiness is conducted to ensure production readiness. BellSouth will allow the CLEC to connect directly to the TAG production server and conduct the following with the CLEC:

- Connectivity test
- One Pre-Order test
- One Firm Order test

When these three (3) tests are scheduled for testing, BellSouth expects the tests will be conducted on the same day. On those occasions when all three (3) tests cannot be conducted on the same day, this phase will last only three (3) days.

**Entrance Criteria:**

- **Successful completion or Validity testing**

**Exit Criteria:**

- **Successful completion of the Connectivity testing, Pre-order and Firm order testing for production readiness**

After BellSouth acknowledges the success of these tests, the CLEC is released from the testing phase to production.

**Roles and Responsibilities:**

The following representatives from both companies will form the test team, jointly write the test documentation, and conduct the testing.





**Role: Process Manager/Tester**

Responsibilities:

- Conducts Validity and Service Readiness Testing
- Monitors the testing to ensure it remains on schedule
- Takes appropriate action if the schedule appears to be in jeopardy
- Ensures appropriate personnel review test output
- Coordinates the availability of the appropriate systems/personnel to complete the tests scheduled
- Tracks status and notifies team on a periodic basis (i.e., weekly) of overall status as appropriate
- Serves as Single Point-Of-Contact (SPOC) for test case results
- Determines the possible impact this change will have on the overall test schedule as well as on the application itself
- Tracks defect documentation
- Approves the movement out of a testing phase

**Role: Transport Support Manager**

Responsibilities:

LAN-to-LAN/Internet:

- Establishes implementation conference call with CLEC, BST Transport, TAG application support, and BST account team
- Verifies CLEC physical circuit connection to EGA router
- Verifies CLEC connectivity to the TAG server
- Establishes serial link connectivity
- Loads and applies BST filters in the EGA router
- Conducts PING tests between BST and CLEC host machines
- Conducts preliminary application testing utilizing application specific TCP port/jointly with Application/System Testers

**Role: Application/System Tester**

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**Responsibilities:**

- Assists in coordination of the schedule for Connectivity
- Provides technical support
- Assists in developing the test schedule
- Conducts technical training with the CLECs.
- Conducts Application testing
- Documents defects found during Application testing
- Notifies BST IT Transport of CLEC production readiness
- Ensures software is loaded for simulator testing
- Notifies Process Manager when schedule is in jeopardy
- Provides minutes for test case reporting
- Verifies pre-order transaction log entries
- Conducts preliminary application testing utilizing application specific TCP port/jointly with the Transport Support Manager

**Role: Account Team**

**Responsibilities:**

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- Ensures TAG profiles are built and tested
- Arranges the test plan meeting
- Develops the test schedule
- Facilitates meeting
- Document minutes for test plan meeting
- Addresses issues that are outside of the test plan
- Monitors test calls
- Facilitates bringing in other Subject Matter Experts (SMEs)/Work Groups, as necessary
- Negotiates test plan agreement with customer
- Secures test plan sign-off for CLEC and BST
- Handles escalation when necessary
- Ensures Communications Plan is being followed
- Coordinates the schedule for connectivity
- Acts as Single Point-of-Contact (SPOC) for escalations
- Ensures testing specs are done and concurred



### **Testing Schedule**

Testing schedule will be coordinated between the Account Team, the Science Applications International Corporation (SAIC) and the Process Manager/Tester.

When the schedule is not adhered to, testing is suspended or terminated at the CLECs request; new testing timeframes must be negotiated based on the current schedule of participants. (See guidelines under Regulations)

BellSouth will provide adequate resources during each testing phase to meet the negotiated dates. The test dates for ETET will be negotiated with each CLEC.

The normal testing hours will be Monday through Friday from 9 AM to 5 PM Eastern Time zone.

### **Escalation Process:**

During testing the Account team representative will be the Single Point of Contact (SPOC).

Once the CLEC has transitioned to production, then the Electronic Communications (EC) Support group will be the SPOC for application troubles.

### **Notification of Production Readiness:**

When the CLEC has successfully completed ETET and is ready for the production environment, the Process Manager/Tester will provide 2-5 days advance notification to the EC- Support to modify CLEC profiles.



### Construction of Test Cases:

BellSouth will provide the CLEC with test cases for Application and Validity testing. Each test case is designed to demonstrate the correct functioning of a specific set of features or user activities. Each test case consists of the purpose and expected results.

### Test Case Reporting:

During ETET the results of the test cases will be tracked and the number of passed, failed, incomplete and deferred/not tested cases documented.

Weekly conference calls will be conducted between the test teams. The agenda for the conference call is shown below:

- Coordination of testing issues
- Status of outstanding defects
- New Problems
- Issues
- Testing Results

### Defect Documentation:

If a defect is identified during testing, BellSouth will ensure the defect is logged and tracked through the operating processes. BellSouth will provide a status of the pending action for the defect to the CLEC.

### Defect Severity and Priority Descriptions:

For the purposes of prioritization, defects will be categorized as follows for ETET:

- Severity Level 1 - These are problems that **require a solution or fix** for the test to continue. **These problems have no work around and will halt the testing procedure.** BST will work to resolve the problem within 24 hours. This is the highest priority defect.

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- Severity Level 2 - These problems have a **major impact** on the system, but a **workaround is available that will allow testing to continue**. BST will work to resolve the problem within a 2 to 3 day period. The time will start when the defect is verified—not when defect is identified. This is the second highest level of a defect.
- Severity Level 3 - These are problems that have a **minimal impact** on the progress of the test. These **defect fixes will be included in the next regular release of the code to the test environment** prior to the completion of testing.
- Severity Level 4 - These are **minor problems, which may or may not be fixed during the test period**. The disposition of these defects will be jointly agreed upon by both organizations.

When the resolution times cannot be met, BST must notify the CLEC.

**Defect Status Classifications:**

Defects will be assigned with five different status categories. They are as follows:

**Open** - Indicates that the defect is under investigation.

**Verified** - Indicates that the defect has been investigated and a solution is in the process of being developed to resolve the problem.

**Retest** - Indicates that a resolution has been found or system corrected but is awaiting re-test

**Closed** - Indicates that the defect has been successfully re-tested and resolved.

**Canceled** - Indicates that the defect was issued in error or is no longer needed.



**Feature Documentation:**

Testing and production features (enhancements) identified by the CLEC will follow the Electronic Interface Change Control Process.

**Test Plan Change Control:**

Any changes to this document require BellSouth's testing team approval.

**Test Cases, Tracking forms are available in the Test Case Document.**

**Flow Process of Testing Phases:**

