

E. Test Results - CRIS/CABS Invoicing Documentation Test (BLG-5)

1.0 Description

The objective of the Customer Records Information System/Carrier Access Billing System (CRIS/CABS) Invoicing Documentation Test was to evaluate billing documentation provided by BellSouth for use by Competitive Local Exchange Carriers (CLECs).

Specifically, KCI evaluated whether the billing documentation provided by BellSouth adequately supports CLECs in receipt and validation of BellSouth wholesale bills, and in the subsequent billing of their own customers.

The CRIS/CABS Invoicing Documentation Test consisted of four sub-tests. The first sub-test evaluated individual BellSouth documents for structure and format as they affect usability by the CLEC customer.

The second sub-test evaluated BellSouth billing documentation for content. The review encompassed considerations of topical coverage, depth of coverage, and general usability of the documentation. As KCI conducted this review, CLECs were consulted for input on potential documentation issues. Topics considered included:

- Understanding Billing
- Receiving and Processing Bills
- Validating Bills
- Processing Credits and Adjustments
- Getting Help

Documents considered for the structure and content sub-tests are identified in “Table VI-5.2: Data Sources for BLG-5 CRIS/CABS Invoicing Documentation Test,” as indicated by an asterisk (*).

The third sub-test examined the procedures used by BellSouth to produce and distribute the subject documentation.

The fourth sub-test evaluated the accuracy of the BellSouth documents by identifying errors (discrepancies between the billing documentation and BellSouth practice or between BellSouth billing related documents) that significantly impacted the bill validation and usage testing (BLG-1 and BLG-2). The bill validation and usage testing itself relied heavily on the accuracy of the BellSouth documentation.

2.0 Methodology

This section summarizes the test methodology.

2.1 Business Process Description

BellSouth wholesale customers receive and process their bills in order to validate the BellSouth charges and bill their own customers in turn. Receipt and processing of the BellSouth bills relies upon timely, accurate, and comprehensive billing information that is to be found in BellSouth-provided documentation. See Section VI, “Billing Overview” for a description of BellSouth’s billing systems and usage data files that feed into wholesale customer bills.

2.2 Scenarios

Scenarios were not applicable to this test.

2.3 Test Targets & Measures

The test target was BellSouth-provided invoicing documentation. Sub-processes, functions, and evaluation criteria are summarized in the following table. The last column “Test Cross-Reference” indicates where the particular measures are addressed in section 3.1 “Results & Analysis.”

Table VI-5.1: Test Target Cross-Reference

Sub-Process	Function	Evaluation Criteria	Test Cross-Reference
Billing Invoicing Documentation	Document Structure and Format	Existence of Structural Elements	BLG-5-1-1
		Completeness of Data	BLG-5-1-2
			BLG-5-1-3
	Document Content	Clarity of Information Completeness of data	BLG-5-2-1
			BLG-5-2-2
			BLG-5-2-3
			BLG-5-2-4
			BLG-5-2-5
Billing Invoicing Documentation	Release Management	Existence and Adequacy of the Update Process Availability of Documentation Accuracy of Documentation	BLG-5-3-1
			BLG-5-3-2
			BLG-5-3-3
			BLG-5-3-4
			BLG-5-3-5
			BLG-5-3-6
			BLG-5-3-7
			BLG-5-3-8
			BLG-5-3-9
			BLG-5-3-10
			BLG-5-3-11
	Document Accuracy	Accuracy of Documents	BLG-5-4-1

2.4 Data Sources

The data collected for the test are summarized in the table below.

Table VI-5.2: Data Sources for CRIS/CABS Invoicing Documentation Test

Document ¹	File Name	Location in Work Papers	Source
<i>Magnetic Tape Billing Plan Specifications *</i>	No Electronic Copy	BLG-1-A	BLS
<i>Product Information *</i>	No Electronic Copy	BLG-1-B	BLS
<i>General Subscriber Service Tariff *</i>	No Electronic Copy	BLG-1-C	BLS
<i>Facility Based Activation Requirements – Interconnection Services *</i>	No Electronic Copy	BLG-1-D	BLS
<i>CLEC Training Unbundled Network Elements *</i>	No Electronic Copy	BLG-1-E	BLS
<i>Facility Based – CLEC Starter Kit*</i>	http://www.interconnection.bellsouth.com/guides/guidepdf/stfb_is2.pdf Also in hardcopy.	BLG-1-F	BLS
<i>CLUB*EDI Customer Handbook *</i>	No Electronic Copy	BLG-1-G-1	BLS
<i>Electronic Payment System Implementation Guidelines *</i>	No Electronic Copy	BLG-1-G-2	BLS
<i>Sample Customized Large User Bill (CLUB) *</i>	No Electronic Copy	BLG-5-A-20	BLS
<i>Beyond DAB *</i>	No Electronic Copy	BLG-1-G-4	BLS
<i>Diskette Analyzer Bill User's Guide *</i>	No Electronic Copy	BLG-1-G-5	BLS
<i>Batch File Processing with DAB *</i>	No Electronic Copy	BLG-1-G-6	BLS
<i>Customized Large User Bill *</i>	No Electronic Copy	BLG-5-A-21	BLS
<i>FTP Protocol *</i>	No Electronic Copy	BLG-1-G-7	BLS
<i>Diskette Billing System ASCII Data Exporting *</i>	No Electronic Copy	BLG-1-G-8	BLS
<i>How to Retrieve Data Files and Install/Activate Analyzer Software *</i>	No Electronic Copy	BLG-1-G-9	BLS
<i>Interconnect Agreement (as provided to KCI) *</i>	No Electronic Copy	Project Management Office Work Papers	BLS
<i>Copy of Form RF-602</i>	No Electronic Copy	BLG-1-K-9	BLS
<i>Interview Summary/Report: 7</i>	No Electronic Copy	BLG-5-A-3	KCI

¹An asterisk (*) indicates material that is generally available to CLECs, and that was used in the document structure, content, and accuracy sub-tests (BLG-5-1, BLG-5-2, and BLG-5-4).

Document ¹	File Name	Location in Work Papers	Source
BLS Response to Interview Summary/Report: 7	No Electronic Copy	BLG-5-A-4	BLS
Interview Summary/Report: 14	No Electronic Copy	BLG-5-A-5	KCI
BLS Response to Interview Summary/Report: 14	No Electronic Copy	BLG-5-A-6	BLS
<i>BellSouth Billing Documentation Writer's Guide (How to Develop BBI Documentation)</i>	No Electronic Copy	BLG-5-A-18	BLS
<i>BellSouth CLEC Billing Guide</i>	No Electronic Copy	BLG-5-A-22	BLS
<i>Understanding Your Bill (7/28/00; Issue 1.0)</i>	No Electronic Copy	BLG-5-A-19	BLS
<i>Carrier Access Billing System (CABS) Billing Output Specifications</i>	No Electronic Copy	BLG-1-L thru BLG-1-AD	Telcordia Technologies

2.4.1 Data Generation/Volumes

This test relied on the submission of orders to generate bills for validation, and on the generation of usage from test calling associated with the BLG-1 and BLG-2 tests, respectively.

2.5 Evaluation Methods

BellSouth billing document structure and format was evaluated based upon KCI's definition of three major structural considerations (see table VI-5.3) that determine usability of the documentation. The documents were evaluated for effective and consistent implementation of those considerations.

BellSouth billing document content was evaluated based upon KCI's definition of five key topical areas (see table VI-5.3) that must be addressed to effectively support the CLECs' receipt and processing of wholesale bills. KCI subject matter experts (SMEs) participating in the billing transaction-based testing evaluated each topical area for breadth and depth of topical coverage.

The evaluation of BellSouth release management procedures was based upon criteria developed by KCI prior to the start of the testing. Interviews with the responsible BellSouth parties and reviews of supporting internal documentation provided by BellSouth served as the basis for determining the extent to which the criteria were satisfied.

To evaluate documentation accuracy, KCI implemented procedures to log instances of documentation errors (defined as cases where documentation differed from actual BellSouth practice or where contradictory information was identified). Logging was limited to examples where the error resulted in significant impact to the conduct of the transaction-based testing. The transaction-based testing covered relevant aspects of BellSouth wholesale billing

for Unbundled Network Elements (UNEs) and relied heavily on the availability of accurate information.

2.6 Analysis Methods

The CRIS/CABS Invoicing Documentation Test included a checklist of evaluation criteria developed by KCI during the initial phase of the BellSouth - Georgia OSS Evaluation. These evaluation criteria provided the framework of norms, standards, and guidelines for the CRIS/CABS Invoicing Documentation Test.

The data collected from documentation reviews and interviews were analyzed employing the evaluation criteria referenced above.

3.0 Results Summary

The results of this test are presented in the table below. Definitions of evaluation criteria, possible results, and exceptions are provided in Section II.

Table VI-5.3: BLG-5 Evaluation Criteria and Results

Test Cross-Reference	Evaluation Criteria	Result	Comments
<i>Document Structure and Format</i>			
BLG-5-1-1	Organization and flow of the documents facilitate ready understanding and access to needed information.	Satisfied	<p>Document reviews indicate that organization and flow of the subject documents support the reader in understanding and accessing the information content.</p> <p>The following qualifications were noted:</p> <ul style="list-style-type: none"> Redundant information is provided (e.g., information pertaining to Billing and Policies is duplicated in the <i>Facility Based – CLEC Starter Kit</i> and the <i>Facility Based Activation Requirements</i>). Some documents do not include a table of contents. <p>Qualifications regarding the organization and flow of BLS-provided documentation do not prevent CLECs from utilizing the documentation in an acceptably efficient manner.</p>

Test Cross-Reference	Evaluation Criteria	Result	Comments
BLG-5-1-2	References are provided to facilitate efficient usage of the documentation.	Satisfied	<p>Document reviews indicate that references generally facilitate usage of the subject documents.</p> <p>The following qualifications were noted:</p> <ul style="list-style-type: none"> • There is no overview of how information is organized across the various documents. • Illustrations or attachments would assist in interpreting data (e.g., samples of the various bills that are provided). Use of illustrations and examples is inconsistent. BLS has published two documents, the <i>BellSouth CLEC Billing Guide</i> and <i>Understanding Your Bill</i> which provide extensive examples and illustrations that would assist a CLEC in interpreting their bills. • Examples or illustrations were noted without corresponding explanation. BLS has published two documents, the <i>BellSouth CLEC Billing Guide</i> and <i>Understanding Your Bill</i>, which provide corresponding explanations for examples and illustrations included in the documentation that would assist a CLEC in interpreting their bills. • Several documents do not include a glossary of terms, and, in cases where one is present, additional terms should be defined. • Screen prints were used in some documentation (e.g., Diskette Analyzer Bill – User’s Guide); however, screen prints would have also been useful in other documents (e.g., <i>Facility Based – CLEC Starter Kit</i>). • Some of the documentation contains old dates, which may lead a reader to question the

Test Cross-Reference	Evaluation Criteria	Result	Comments
			currentness of the information. Qualifications regarding references in BLS-provided documentation do not prevent CLECs from utilizing the documentation in an acceptably efficient manner.
BLG-5-1-3	Style elements that facilitate document use are defined consistently and effectively implemented.	Satisfied	<p>Document reviews indicate that style elements generally facilitate reader usage of the subject documents.</p> <p>The following qualifications were noted:</p> <ul style="list-style-type: none"> • The writing style is variable, ranging from informal to highly technical. • The use of bulleted lists is confusing when outlining the steps of processes. Use of numeric lists instead would enhance useability. • The fonts are inconsistent between and within documents. • Some of the documentation is offered in the form of a high level PowerPoint presentation. As such the presentation is not sufficient as a stand-alone reference document because it lacks necessary depth. • Page numbers are missing from some documents. <p>Qualifications regarding the style of BLS-provided documentation do not prevent CLECs from utilizing the documentation in an acceptably efficient manner.</p>
Document Content			
BLG-5-2-1	The BLS-provided billing documentation provides CLECs with an adequate understanding of BLS billing policy and practice, and of billing alternatives.	Satisfied	<p>Documentation provides sufficient information for CLECs to understand BLS Billing without significant recourse to additional BLS information sources.</p> <p>Documentation provides information on the basic purpose and types of bills needed for understanding Billing. However,</p>

Test Cross-Reference	Evaluation Criteria	Result	Comments
			<p>the term “bill medium” (paper, tape, EDI) is sometimes confused with “bill format” (CLUB, CABS). Information was not provided on how to request a change to the bill medium.</p> <p>This information was obtained from document reviews and input from KCI invoicing tests.</p> <p>Qualifications regarding document content do not prevent CLECs from utilizing the documentation in an acceptably efficient manner.</p>
BLG-5-2-2	The BLS-provided billing documentation provides CLECs with an adequate understanding of how to receive and process wholesale bills.	Satisfied	<p>Documentation provides sufficient information for CLECs to receive and process bills without significant recourse to additional BLS information sources.</p> <p>Information on how to request and process an address change is missing.</p> <p>Minimal information is provided on changing the selected options for bills, such as FTP or Direct Connect. This information was obtained from document reviews and input from KCI invoicing tests.</p> <p>Qualifications regarding document content do not prevent CLECs from utilizing the documentation in an acceptably efficient manner.</p>
BLG-5-2-3	The BLS-provided billing documentation provides CLECs with an adequate understanding of steps necessary to validate wholesale bills.	Satisfied	<p>Documentation provides sufficient information for CLECs to understand and validate their wholesale bills without significant recourse to additional BLS information sources. However, KCI’s initial evaluation found that the documentation provided was insufficient to support a complete validation of BLS bills. KCI detailed these issues in Exception 73.</p> <p>KCI initially found that no information defining the various sections of an invoice was provided and limited bill samples were</p>

Test Cross-Reference	Evaluation Criteria	Result	Comments
			<p>provided and explained. In addition, information on how to calculate a bill and how to interpret a Customer Service Record (CSR) was missing.</p> <p>To address these issues, BLS published two documents, the <i>BellSouth CLEC Billing Guide</i> and <i>Understanding Your Bill</i>, which provide extensive examples, illustrations, and explanations of invoices that assist a CLEC in validating its bills. KCI found that these two documents addressed the issues identified by KCI.</p> <p>Exception 73 is closed. See Exception 73 for additional information.</p> <p>The information used to test this evaluation criterion was obtained from document reviews and input from KCI invoicing tests.</p>
BLG-5-2-4	The BLS-provided billing documentation provides CLECs with an adequate understanding of how to request and follow-up on credit or adjustment requests for wholesale bills.	Satisfied	<p>Documentation provides sufficient information for CLECs to process credits and adjustments without significant recourse to additional BLS information sources.</p> <p>Information was provided on the procedure used for requesting credits or adjustments; however, the documentation only briefly describes the procedure for tracking disputes.</p> <p>Documentation does not provide information on the dispute escalation protocol (e.g., contact names, phone numbers).</p> <p>This information was obtained from document reviews and input from KCI invoicing tests.</p> <p>Qualifications regarding document content do not prevent CLECs from utilizing the documentation in an acceptably efficient manner.</p>

Test Cross-Reference	Evaluation Criteria	Result	Comments
BLG-5-2-5	The BLS-provided billing documentation provides CLECs with an adequate understanding of how to request and follow-up on BLS assistance with wholesale billing issues and questions.	Satisfied	Documentation provides sufficient contact information for CLECs to obtain additional assistance with Billing questions or issues, should a need arise. This information was obtained from document reviews and input from KCI invoicing tests.
<i>Release Management Procedures</i>			
BLG-5-3-1	Responsibilities and procedures for developing, updating, and correcting documentation are clearly defined.	Satisfied	Document management responsibilities were adequately described in the interviews, however, documentation of these responsibilities was not available. Responsibility for producing billing documentation rests with a number of BLS organizations, including Enhanced Billing Services, Information Technology, Network Carrier Services, and the External Response Team (ERT).
BLG-5-3-2	Responsibilities and procedures for maintaining distribution lists and distributing documentation are clearly defined.	Satisfied	Interviews indicate that the responsibilities and procedures for distributing BLS wholesale billing documentation reside in a variety of channels. Distribution is accomplished adequately via the Web site (notifications), through the Account Manager or CLEC Advisory Team, via the billing medium itself (e.g., Diskette Analyzer Bill [DAB], or through the Billing product managers (for Electronic Data Interchange [EDI] and magnetic tape billing). As responsibility for ensuring that the CLECs have the latest billing documentation is shared with the customer, no centralized lists of documentation users are maintained, and no formal procedures exist to ensure that all customers have actually received the documentation.

Test Cross-Reference	Evaluation Criteria	Result	Comments
BLG-5-3-3	Distribution procedure allows latest document version to be made available to interested parties in electronic and paper versions in a timely manner.	Satisfied	Interviews indicate that the latest document versions are generally made available to users in a timely manner. BLS has chosen to document only certain billing information, such as CABS bill format and delivery options, in conjunction with issuance of the relevant CLEC bill (paper, or paper equivalent distribution only). While billing change notifications are posted on the BLS Interconnection Web site, no standard intervals between the notification posting and the implementation of the subject change were described.
BLG-5-3-4	Process includes procedures for accepting change requirements from all stakeholders.	Satisfied	Internal BLS review procedures, where in place, provide opportunity for creating a change requirement. The primary driver for CABS billing changes in particular is changes in the CABS Billing guidelines. The actual BLS implementation is then documented by BLS. Review of the <i>BellSouth Billing Documentation Writer's Guide</i> indicates that as part of the feedback from user training sessions, procedures exist to report billing documentation errors or discrepancies encountered.
BLG-5-3-5	The document development and production process includes procedures for change, version, and effective date management	Satisfied	Interviews and document reviews indicate that dates are applied to the documents, but not in a standardized manner. Although no single reference listing current versions or version dates of all documents exists, the latest version of any document can be retrieved from the BLS website. Flagging of changes between versions is not a requirement for issuing revised user

Test Cross-Reference	Evaluation Criteria	Result	Comments
			documentation.
BLG-5-3-6	The process includes procedures to define documentation coverage (breadth and depth) requirements.	Satisfied	Review of the <i>BellSouth Billing Documentation Writer's Guide</i> indicates that the procedure provides for soliciting/gathering CLEC requirements for topics to be included in BLS documentation.
BLG-5-3-7	The process includes style (organization, format, etc.) guidance.	Satisfied	Interviews and document reviews indicate that for certain Web postings (Carrier Notifications), style requirements are determined by the External Response Team (ERT). Documents not controlled by the ERT are in general, stylistically consistent internally, although no explicit style guides applicable across all documents were provided.
BLG-5-3-8	The process provides for independent Quality Assurance (QA) of coverage and style.	Satisfied	Review of the <i>BellSouth Billing Documentation Writer's Guide</i> indicates that the process includes independent Quality Assurance (QA) of the topical content of billing documentation.
BLG-5-3-9	The process provides independent validation of correctness.	Satisfied	Interviews indicate that the ERT is responsible for ensuring that Carrier Notifications posted on the BLS Web site are reviewed by BLS subject matter experts. Guidelines for these reviews were not provided.
BLG-5-3-10	The procedure provides for independent evaluation of usability.	Satisfied	Review of the <i>BellSouth Billing Documentation Writer's Guide</i> indicates that the procedure provides for independent evaluation of usability by users.
BLG-5-3-11	Procedures are carried out in compliance with described responsibilities and available documentation.	Satisfied	The procedures, as described during the interviews, were generally followed, although documentation of the procedures was not available.

Test Cross-Reference	Evaluation Criteria	Result	Comments
<i>Document Accuracy</i>			
BLG-5-4-1	BLS-provided billing documentation contains no errors that significantly impact a CLEC's ability to receive and process wholesale bills.	Satisfied	No billing documentation errors that seriously impacted KCI's billing transaction-based testing were encountered.