

A. Test Results: OSS '99 Release Evaluation (CM-2)

1.0 Description

The objective of the CM-2: OSS '99 Release Evaluation was to examine the methods and procedures that BellSouth used in applying its change management process to a major software release. The OSS '99 applications package and supporting documentation were evaluated to assess the process that BellSouth uses to manage changes to interfaces supporting CLEC wholesale customers. This evaluation focused on 1) the adequacy, accuracy, and timeliness of BellSouth's OSS '99 change management procedures and release documentation; and 2) the availability of interface testing support and functioning test environments during the OSS '99 Release.

2.0 Methodology

This section summarizes the test methodology.

2.1 Business Process Description

BellSouth developed the OSS '99 Release package to address multiple interface enhancement requests that it had received from Competitive Local Exchange Carriers (CLECs) via the *Electronic Interface Change Control Process* (EICCP)¹. The OSS '99 Release also sought to incorporate the “best”² features of the Telecommunications Industry Forum (TCIF) Electronic Data Interchange (EDI) Guidelines, Issues 8, 9, and 10.

In October 1998, BellSouth assembled a core OSS '99 Release project team that included representatives from BellSouth and eight CLECs. This team met weekly from November 1998 through February 2000 to provide status on the resolution of project issues, update the OSS '99 Work Schedule, and review OSS '99 sub-team reports. The OSS '99 Release project included 10 sub-teams, each of which was comprised of both BellSouth and CLEC participants. Organized by system feature/function (e.g., digital loops, hunting, blocking, selective routing, etc.), these sub-teams developed the business requirements documentation for each of the pre-order and order interfaces included within the scope of the OSS '99 Release. Pre-ordering interfaces that were affected included the Telecommunications Access Gateway (TAG), Robust TAG (RoboTAG), and the Local Exchange Navigation System (LENS). Ordering interfaces impacted

¹ The BellSouth process for managing change among CLECs and BellSouth that was in effect prior to and during the OSS '99 Release period.

² The OSS '99 Release was designed to address the interface enhancement requests that BellSouth had received from EICCP participants. BellSouth worked with CLECs to determine which enhancement requests would be included in the final scope of the OSS '99 Release.

included TAG, RoboTAG, LENS, and Electronic Data Interchange (EDI). BellSouth reviewed preliminary OSS '99 business requirements with CLECs at a joint meeting in January 1999. The final scope of the OSS '99 Release and a tentative system implementation date were delivered to CLECs in February 1999. In March 1999, BellSouth and CLECs conducted an official review of all OSS '99 business requirements at the BellSouth Executive Learning Center in Atlanta, Georgia. Following this review, in April 1999, BellSouth delivered the final business requirements to the CLECs, and system coding for the OSS '99 Release began.

Prior to the implementation of the OSS '99 Release, BellSouth conducted internal testing. External testing with CLEC participation followed. External testing included EDI and LENS beta testing. External EDI beta testing stages consisted of connectivity, syntax, carrier, and service readiness testing. External LENS beta testing consisted of carrier and service readiness testing. One CLEC participated in the EDI beta testing. Eight CLECs participated in the LENS beta testing. BellSouth provided interested CLECs with the opportunity to conduct TAG and RobTAG beta testing, though no CLECs elected to participate during the OSS '99 Release period.

The OSS '99 Release was implemented in two phases: Non-Local Number Portability (LNP) functionality in December 1999, and LNP functionality in January 2000. Following implementation, the OSS '99 Release core project team disbanded in February 2000.

2.2 Scenarios

Scenarios were not applicable to this test.

2.3 Test Targets & Measures

The test target was the BellSouth OSS '99 Release process. Processes, sub-processes, and evaluation measures 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 VII-1.1: Test Target Cross-Reference

Process	Sub-Process	Evaluation Measure	Test Cross-Reference
Change Management: OSS '99 Release	Implementing Change	Adequacy and completeness of change implementation process	CM-2-1-1 2-1-2
	Documentation	Adequacy, accuracy, completeness, and timeliness of release documentation	CM-2-1-3 2-1-4 5

Process	Sub-Process	Evaluation Measure	Test Cross-Reference
	Availability of Functioning Test Environments	Availability of functioning test environments for all supported interfaces	CM-2-1-6 CM-2-1-7
	Provision of Support for Interface Testing	Availability and documentation of provision of support for interface testing	CM-2-1-8 CM-2-1-9

2.4 Data Sources

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

Table VII-1.2: Data Sources for OSS '99 Release Evaluation

Document	File Name	Location in Work Papers	Source
BST Customized LSOG 4 forms (LSR, End User Information, Number Portability, Loop Service with Number Portability)	http://www.interconnection.bellsouth.com/guides/guides.html	CM-2-A-1	BLS
OSS '99 Parking Lot Issues (1/25/99)	No Electronic Copy	CM-2-A-2	BLS
CLECs' Questions about OSS '99 – Data Element Documents (3/14/99)	No Electronic Copy	CM-2-A-3	BLS
CLEC Questions/Issues	CLECDOC.DOC	CM-2-A-4	BLS
OSS '99 Project Plan	No Electronic Copy	CM-2-A-5	BLS
BellSouth/CLECs Project OSS '99 -- Final Scope	No Electronic Copy	CM-2-A-6	BLS
OSS '99 Requirement Documents --6/4/99	No Electronic Copy	CM-2-A-7	BLS
OSS '99 CLEC Documents Matrix—7/31/99	No Electronic Copy	CM-2-A-8	BLS
OSS '99 CLEC Documents Matrix—12/29/99	CDOC1229.DOC	CM-2-A-9	BLS
OSS '99 CLEC Documents Matrix —1/13/00	CDOC0113.DOC	CM-2-A-10	BLS
OSS '99 CLEC Document Matrix (1/17/00)	CDOC0117.DOC	CM-2-A-11	BLS

Document	File Name	Location in Work Papers	Source
OSS '99 LEO Requirements for CLECs 1 of 6 e-mail (January 17, 2000)	FW OSS'99 LEO Requirements for CLECs – 1 of 6.msg	CM-2-A-12	BLS
OSS '99 LEO Requirements for CLECs – 2 of 6 e-mail (January 17, 2000)	FW OSS'99 LEO Requirements for CLECs – 2 of 6.msg	CM-2-A-13	BLS
OSS '99 LEO Requirements for CLECs – 3 of 6 e-mail (January 17, 2000)	FW OSS'99 LEO Requirements for CLECs – 3 of 6.msg	CM-2-A-14	BLS
OSS '99 LEO Requirements for CLECs – 4 of 6 e-mail (January 17, 2000)	FW OSS'99 LEO Requirements for CLECs – 4 of 6.msg	CM-2-A-15	BLS
OSS '99 LEO Requirements for CLECs – 5 of 6 e-mail (January 17, 2000)	FW OSS'99 LEO Requirements for CLECs – 5 of 6.msg	CM-2-A-16	BLS
OSS '99 LEO Requirements for CLECs – 6 of 6 e-mail (January 17, 2000)	FW OSS'99 LEO Requirements for CLECs – 6 of 6.msg	CM-2-A-17	BLS
OSS '99 Work Schedule for CLEC Community (07/30/99)	CSOTS.XLS	CM-2-A-18	BLS
OSS '99 Project Team Meeting Notice for Wednesday, September 1, 1999	C0901NTC.DOC	CM-2-A-19	BLS
OSS '99 Work Schedule for CLEC Community (8/27/99)	OSS99B.XLS	CM-2-A-20	BLS
OSS '99 Project Team Meeting Cancellation notice e-mails (for September 8, 1999)	OSS'99 Project Status Meeting.msg	CM-2-A-21	BLS
LSNP Loop Service Number Portability, All Data Elements – Feature 67, Version 5.3 (September 14, 1999)	c-9-14-99-LSNP.doc	CM-2-A-22	BLS
LSNP Loop Service Number Portability, All Data Elements (1/24/00)	CLSNP124.DOC	CM-2-A-23	BLS

Document	File Name	Location in Work Papers	Source
OSS '99 Project Team Meeting Notice for Wednesday, September 15, 1999	C0915NTC.DOC	CM-2-A-24	BLS
BST/CLEC OSS '99 Meeting Minutes – September 1, 1999	C0901MIN.DOC	CM-2-A-25	BLS
OSS '99 Project Status Report – September 13, 1999	PS0913.DOC	CM-2-A-26	BLS
OSS '99 Work Schedule for CLEC Community (9/13/99)	OSS99B.XLS	CM-2-A-27	BLS
OSS '99 Project Team Meeting Notice for Wednesday, September 29, 1999	C0929NTC.DOC	CM-2-A-28	BLS
BST/CLEC OSS '99 Meeting Minutes – September 15, 1999	C0915MIN.DOC	CM-2-A-29	BLS
OSS '99 Project Status Report – September 17, 1999	PS0917.DOC	CM-2-A-30	BLS
OSS '99 Work Schedule for CLEC Community (9/17/00)	OSS99B1.XLS	CM-2-A-31	BLS
OSS '99 Beta Testing Team Meeting Notice for Thursday, September 23, 1999	BT923N.DOC	CM-2-A-32	BLS
OSS '99 Beta Testing Team Meeting Minutes from September 16, 1999	BT916M.DOC	CM-2-A-33	BLS
EDI Testing Agreement with AT&T (9/16/99)	TEST916.DOC	CM-2-A-34	BLS
OSS '99 EDI Beta-Testing Agreement with AT&T (10/29/99)	FTEST.DOC	CM-2-A-35	BLS

Document	File Name	Location in Work Papers	Source
TCIF Issue 9 EDI Map and Application File Format Design for a Purchase Order (850) / Purchase Order Change (860) Version 1.5 – 9/23/99	No Electronic Copy	CM-2-A-36	BLS
865 Purchase Order Change Acknowledgment/Request – Seller Initiated (Version 1.3)	865v1_3.rtf	CM-2-A-37	BLS
OSS '99 Technical Specs Change History (9/23/99)	chgs1_3.doc	CM-2-A-38	BLS
OSS '99 Project Team Meeting Revised Notice for Wednesday, October 13, 1999	C1013N~1.DOC	CM-2-A-39	BLS
BST/CLEC OSS '99 Meeting Minutes – September 15, 1999	C0915MIN.DOC	CM-2-A-40	BLS
OSS '99 Project Status Report – October 11, 1999	PS1011.DOC	CM-2-A-41	BLS
ENCORE User Requirements for FOC/JEOPARDY/POS For OSS '99 (Final LEO5000.doc), Version 9.0	LEO5000.DOC	CM-2-A-42	BLS
OSS '99 Work Schedule for CLEC Community (10/19/99)	OSS99B1.XLS	CM-2-A-43	BLS
OSS '99 Project Team Meeting Notice for Wednesday, October 20, 1999	C1020NTC.DOC	CM-1-A-44	BLS
BST/CLEC OSS '99 Meeting Minutes – October 13, 1999	C1013MIN.DOC	CM-2-A-45	BLS
OSS '99 Project Status Report – October 19, 1999	PS1019.DOC	CM-2-A-46	BLS

Document	File Name	Location in Work Papers	Source
LEO-IG Volume 4, Issue 9a—EDI Documentation for OSS '99 (Revision History, Table of Contents, EDI Overview, Transaction Sets 850, 855, 860, 865, 997, EDI Testing Guidelines) [October 29, 1999]	http://www.interconnection.bellsouth.com/guides/guidepdf/leo4_is9a1.pdf	CM-2-B-1	BLS
OSS '99 Project Team Meeting Notice for Wednesday, November 3, 1999	C11039~1.DOC	CM-2-B-2	BLS
OSS '99 Project Status Report – November 2, 1999	PS110299.DOC	CM-2-B-3	BLS
BST/CLEC OSS '99 Meeting Minutes – October 20, 1999	C10209~1.DOC	CM-2-B-4	BLS
OSS '99 Project Status Report—November 6, 1998	PS1106.DOC	CM-2-B-5	BLS
OSS '99 Work Schedule for CLEC Community (11/02/99)	OSS99B2.XLS	CM-2-B-6	BLS
OSS '99 Project Team Meeting Notice for Wednesday, November 10, 1999	C11109~1.DOC	CM-2-B-7	BLS
BST/CLEC OSS '99 Meeting Minutes – November 3, 1999	C11039~2.DOC	CM-2-B-8	BLS
OSS '99 Project Status Report – November 9, 1999	PS110999.DOC	CM-2-B-9	BLS
OSS '99 Work Schedule for CLEC Community (11/02/99)	OSS99B2.XLS	CM-2-B-10	BLS
OSS '99 Project Team Meeting Notice for Wednesday, November 17, 1999	C11179~1.DOC	CM-2-B-11	BLS
BST/CLEC OSS '99 Meeting Minutes November 10, 1999	C11109~2.DOC	CM-2-B-12	BLS

Document	File Name	Location in Work Papers	Source
OSS '99 Project Status Report for November 16, 1999	PS111699.DOC	CM-2-B-13	BLS
OSS '99 Work Schedule for CLEC Community (November 16, 1999)	OSS99B.XLS	CM-2-B-14	BLS
OSS '99 Impacted Interfaces e-mail (December 7, 1999)	OSS '99.msg	CM-2-B-15	BLS
OSS '99 Project Team Meeting Cancellation notice e-mail	FW: OSS'99 Project Status Report.msg	CM-2-B-16	BLS
OSS '99 LEO Requirements Matrix e-mail (December 30, 1999)	FW: OSS'99 Requirements for CLECs - #4.msg	CM-2-B-17	BLS
OSS '99 Project Status Meeting e-mail (January 12, 2000)	FW: OSS'99 Project Status Meeting.msg	CM-2-B-18	BLS
ENCORE User Requirements for Update and Add Global Requirements for OSS '99 – Final (LEO5415.DOC) – December 7, 1999	LEO54151.DOC	CM-2-B-19	BLS
ENCORE User Requirements for Update and Add Global Requirements for OSS '99 – Final (LEO5415.DOC) – January 13, 2000	LEO541511.DOC	CM-2-B-20	BLS
OSS '99 LEO Requirements for CLECs - #2 e-mail (December 30, 1999)	FW: OSS'99 LEO Requirements for CLECs - #2.msg	CM-2-B-21	BLS
OSS '99 LEO Requirements for CLECs - #3 e-mail (January 3, 2000)	FW: OSS'99 LEO Requirements for CLECs - #3.msg	CM-2-B-22	BLS
OSS '99 Project Team Meeting Notice for Wednesday, January 12, 2000	011200NTC.DOC	CM-2-B-23	BLS

Document	File Name	Location in Work Papers	Source
OSS '99 Project Team Meeting Minutes – January 12, 2000	I011200M.DOC	CM-2-B-24	BLS
OSS '99 Project Team Meeting Notice for Wednesday, January 19, 2000	C01190~1.DOC	CM-2-B-25	BLS
OSS '99 Project Team Meeting Minutes – January 12, 2000	C011200M.DOC	CM-2-B-26	BLS
OSS '99 Migration/Recovery Plan for CLECs (12/20/99)	MIGRPL~1.DOC	CM-2-B-27	BLS
OSS '99 Project Team Meeting Notice for Wednesday, January 26, 2000	C01260~1.DOC	CM-2-B-28	BLS
OSS '99 Project Team Meeting Notice for Wednesday, January 19, 2000	C01190~1.DOC	CM-2-B-29	BLS
OSS '99 Project Status Report – January 21, 2000	PS012100.DOC	CM-2-B-30	BLS
OSS '99 Work Schedule for CLEC Community (1/21/00)	OSS99B1.XLS	CM-2-B-31	BLS
OSS '99 Project Team Meeting Notice for Wednesday, February 2, 2000	C0202NT.DOC	CM-2-B-32	BLS
BST/CLEC OSS '99 Meeting Minutes – January 26, 2000	C01260~2.DOC	CM-2-B-33	BLS
OSS '99 Project Status Report – January 31, 2000	PS013100.DOC	CM-2-B-34	BLS
OSS '99 Work Schedule for CLEC Community (01/31/00)	OSS99B1.XLS	CM-2-B-35	BLS
BST/CLEC OSS '99 Meeting Minutes – February 2, 2000	FW: OSS'99 Project Team Minutes from 2/02/00.msg	CM-2-B-36	BLS

Document	File Name	Location in Work Papers	Source
OSS '99 Project Status Report -- February 5, 1999	No Electronic Copy	CM-2-B-37	BLS
BST/CLEC OSS '99 Meeting Minutes [EICCP]—February 24, 1999	No Electronic Copy	CM-2-B-38	BLS
AT&T Non-LNP Test Cases for OSS '99	ATTPL.DOC	CM-2-B-39	BLS
AT&T LNP Test Cases for OSS '99	ATTLNPS.DOC	CM-2-B-40	BLS
AT&T Test Case Data—Directory Listing Only (BLS.BS.JB.01.03)	ATTJB991.DOC	CM-2-B-41	BLS
AT&T Test Case Data—New – Loop Only – Analog – Non-Designed (BLS.BS.AB.0102)	ATTNON~1.DOC	CM-2-B-42	BLS
AT&T Test Data Script—Partial Migration—Port Loop Combo (BLS.BS.MB.0101)	ATTPLC1.DOC	CM-2-B-43	BLS
AT&T Test Case Data—New – Loop Only – Analog – Designed (BLS.BS.AB.0101 and Digital DS1)	ATTDIG.DOC	CM-2-B-44	BLS
AT&T Test Case Data—New – Loop Only – Analog – Designed (BLS.BS.AB.0101)	ATTDES.DOC	CM-2-B-45	BLS
AT&T Test Data Script—New – Port Loop Combo (BLS.BS.MB.0102)	ATTPLC2.DOC	CM-2-C-1	BLS
AT&T Test Data Script—Change – Port Loop Combo (BLS.BS.MB.0103)	ATTPLC3.DOC	CM-2-C-2	BLS
AT&T Test Data Script—Change – Port Loop Combo (BLS.BS.MB.0104)	ATTPLC5.DOC	CM-2-C-3	BLS

Document	File Name	Location in Work Papers	Source
AT&T Test Data Script— Partial Disconnect – Port Loop Combo (BLS.BS.MB.0106)	ATTPLC7A.DOC	CM-2-C-4	BLS
AT&T Test Data Script— Seasonal Suspend – Port Loop Combo (BLS.BS.MB.0105)	ATTPLC~1.DOC	CM-2-C-5	BLS
AT&T Test Data Script— Seasonal Restore – Port Loop Combo (BLS.BS.MB.0105)	ATTPLC~2.DOC	CM-2-C-6	BLS
AT&T Test Data Script— Disconnect – Port Loop Combo (BLS.BS.MB.0106)	ATTPLC~3.DOC	CM-2-C-7	BLS
REQ TYP=C --- LNP Number Portability -- P Activity Type – All Fields TEST CASE ID: BLS.BS.CB.0101 Case #1	ATTLPN8.DOC	CM-2-C-8	BLS
REQ TYP=C --- LNP Number Portability -- Q Activity Type – All Fields TEST CASE ID: BLS.BS.CB.0201 Case #2	ATTLPN7.DOC	CM-2-C-9	BLS
REQ TYP=C --- LNP Number Portability -- P Activity Type – All Fields TEST CASE ID: BLS.BS.CB.0102 Case #3	ATTLPN6.DOC	CM-2-C-10	BLS
REQ TYP=C --- LNP Number Portability -- Q Activity Type – All Fields TEST CASE ID: BLS.BS.CB.0202 Case #4	ATTLPN5.DOC	CM-2-C-11	BLS
REQ TYP=C --- LNP Number Portability -- V Activity Type – All Fields TEST CASE ID: BLS.BS.CB.01.03 Case #5	ATTLPN4.DOC	CM-2-C-12	BLS

Document	File Name	Location in Work Papers	Source
REQ TYP=C --- LNP Number Portability -- P Activity Type – All Fields TEST CASE ID: BLS.BS.CB.0204 Case #6	ATTLNP3.DOC	CM-2-C-13	BLS
REQ TYP=B --- Loop w/Number Portability -- P Activity Type – All Fields TEST CASE ID: BLS.BS.CB.0402 Case #7	ATTLNP2.DOC	CM-2-C-14	BLS
REQ TYP=B --- Loop w/Number Portability -- V Activity Type – All Fields TEST CASE ID: BLS.BS.BB.0502 Case #8	ATTLNP1.DOC	CM-2-C-15	BLS
LEO Automatic Test System—Inbound & Outbound	LEOTAUTO.DOC	CM-2-C-16	BLS
OSS '99 LNP Beta-Testing Summary Updates	LBTU0114.DOC	CM-2-C-17	BLS
OSS '99 Beta-Testing Summary Updates (Non- LNP)	NLBTU1216.DOC	CM-2-C-18	BLS
ENCORE Electronic Interface Ordering (EIO) Release Implementation Plan (X908R) for Electronic Data Interchange (EDI) EIO Release 6.0	60X908R.DOC	CM-2-C-19	BLS
LENS Beta Test	BETACUST.DOC	CM-2-C-20	BLS
LENS Testing Agreement	BETALENS.DOC	CM-2-C-21	BLS
CM-2: OSS '99 Release Evaluation—Follow-up Interview Questions	CM-2 Follow-up Interview Questions.doc	CM-2-C-22	KCI
Interview Request--OSS '99 Release Evaluation	GACM-2_INT REQ022300.doc	CM-2-C-23	KCI
Documentation Request— OSS '99 Release Evaluation	GACM-2_DOC REQ022300.DOC.doc	CM-2-C-24	KCI

Document	File Name	Location in Work Papers	Source
Change Management Interview Report -- 3/2/00	CM-2 INTERVIEW REPORT_3.2.00.DOC	CM-2-C-25	KCI
Change Management Interview Report – 3/15/00	CM-2 INTERVIEW REPORT_Follow-up_3.15.00.DOC	CM-2-C-26	KCI
Change Management Interview Report – 3/7/00	CM-2 INTERVIEW REPORT_3.7.00.DOC	CM-2-C-27	KCI
Change Management Interview Report – 3/15/00	CM-2 INTERVIEW REPORT_Follow-up_3.15.00b.DOC	CM-2-C-28	KCI
<i>Electronic Interface Change Control Process, Interconnection Services</i>	No Electronic Copy	CM-1-A-2	BLS
ENCORE User Requirements to Provide WSOP (Working Service on Premise) Ability for OSS'99	LEO4409.doc	CM-2-C-30	BLS
LS Loop Service Data Elements, All LSOG 4 New Deletes	OSSLS_1A.DOC	CM-2-C-31	BLS
OSS '99 February Calendar of Meetings	CREQSCH.DOC	CM-2-C-32	BLS
OSS '99 Meeting Announcement	OSS'99 Meeting.msg	CM-2-C-33	BLS
OSS'99 Project Team Meeting Minutes (December 2, 1998)	C1202MIN.DOC	CM-2-C-34	BLS
OSS'99 Project Summary Report – December 4, 1998	PSUM1204.DOC	CM-2-C-35	BLS
OSS'99 Project Team Meeting Notice for Wednesday, December 9, 1998	C1209NTC.DOC	CM-2-C-36	BLS
Joint Implementation Agreement for Electronic Data Interchange Local Order and Preorder	JIA.DOC	CM-2-C-37	BLS
BellSouth/CLECs Project OSS99	JIAA1.DOC	CM-2-C-38	BLS
OSS'99 Project Plan	JIAA3.DOC	CM-2-C-39	BLS

Document	File Name	Location in Work Papers	Source
OSS'99 [Workplan] – 12/04/98	OSS99.XLS	CM-2-C-40	BLS
OSS'99 Project Status Report (March 26, 1999)	PS0326.DOC	CM-2-C-41	BLS
OSS'99 Project Team Meeting Notice for Wednesday, March 31, 1999	C0331NTC.DOC	CM-2-C-42	BLS
OSS'99 [Workplan] – 3/26/99	OSS99.XLS	CM-2-C-43	BLS
CLEC Questions/Issues	CLECDOC.DOC	CM-2-C-44	BLS
OSS'99 Project Status Report (May 7, 1999)	PS0507.DOC	CM-2-C-45	BLS
BST/CLEC OSS '99 Meeting Minutes (May 5, 1999)	C0505MIN.DOC	CM-2-C-46	BLS
OSS'99 Project Team Meeting Notice for Wednesday, May 12, 1999	C0512NTC.DOC	CM-2-C-47	BLS
OSS'99 [Workplan] – 5/07/99	OSS99B1.XLS	CM-2-C-48	BLS
OSS'99 Project Status Report (June 25, 1999)	PS0625.DOC	CM-2-C-49	BLS
OSS'99 Project Team Meeting Notice for Wednesday, June 30, 1999	C0630NTC.DOC	CM-2-C-50	BLS
BST/CLEC OSS'99 Meeting Minutes (June 16, 1999)	C0623MIN.DOC	CM-2-C-51	BLS
OSS'99 Work Schedule for CLEC Community – 6/25/99	OSS99B.XLS	CM-2-C-52	BLS
OSS'99 Project Team Meeting Notice for Wednesday, July 21, 1999	C0721NTC.DOC	CM-2-C-53	BLS
BST/CLEC OSS'99 Meeting Minutes (July 14, 1999)	C0714MIN.DOC	CM-2-C-54	BLS
OSS'99 Project Status Report (July 16, 1999)	PS0716.DOC	CM-2-C-55	BLS

Document	File Name	Location in Work Papers	Source
LENS 6.0 Beta – Bulk Order Summary by CLEC, 9/13/99 – 9/24/99	BETARE~1.XLS	CM-2-C-56	BLS
LENS Proposed Beta Testing of Release 6.0	BETA1.DOC	CM-2-C-57	BLS
LENS 6.0 Beta Pre-Release – Information Presentation	BETALENS.PPT	CM-2-C-58	BLS
LENS Beta Return to Production	BETARE~1.DOC	CM-2-C-59	BLS
LENS 6.0 Release - a.k.a. LENS'99 – Overview Presentation	BETASTAT.PPT	CM-2-C-60	BLS
Electronic Interface Trends – “Inside the LSR Numbers”	TRENDS.PPT	CM-2-C-61	BLS
LENS September Pre-Release – Notes 7/13/99	BETA.DOC	CM-2-C-62	BLS
LENS Beta Test	BETA2.DOC	CM-2-C-63	BLS
LENS Bulk and Fast Path Order Summary	BETASTAT.XLS	CM-2-C-64	BLS
LENS Beta Results	LENSBETA.XLS	CM-2-C-65	BLS
1999 CLEC Activity	LSRINFO.XLS	CM-2-C-66	BLS
Telecommunications Access Gateway (RoboTAG) Testing Agreement for Network One	NETWOR~1.DOC	CM-2-C-67	BLS
LENS 6.x Production Servers	LENSPR~1.DOC	CM-2-C-68	BLS
LENS Test Servers	LENSTE~1.DOC	CM-2-C-69	BLS
Telecommunications Access Gateway Test Environment	TAG.BMP	CM-2-D-1	BLS
Network One [RoboTAG] Test Scripts	Network One Test Cases.msg	CM-2-D-2	BLS
EDI Test Environment	EDICR.PPT	CM-2-D-3	BLS
Status of CLECs (Principals in OSS'99)	CVR628.DOC	CM-2-D-4	BLS

Document	File Name	Location in Work Papers	Source
Telecommunications Access Gateway (TAG) Testing Agreement for First Tel	No Electronic Copy	CM-2-D-5	BLS
[TAG] Testing Summary	No Electronic Copy	CM-2-D-6	BLS
First Tel Test Case 1	No Electronic Copy	CM-2-D-7	BLS
First Tel Test Case 2	No Electronic Copy	CM-2-D-8	BLS
First Tel Test Case 3	No Electronic Copy	CM-2-D-9	BLS
First Tel Test Case 4	No Electronic Copy	CM-2-D-10	BLS
First Tel Test Case 5	No Electronic Copy	CM-2-D-11	BLS
First Tel Test Case 6	No Electronic Copy	CM-2-D-12	BLS
First Tel Test Case 8	No Electronic Copy	CM-2-D-13	BLS
First Tel Test Case 9	No Electronic Copy	CM-2-D-14	BLS
SRT Restoral	No Electronic Copy	CM-2-D-15	BLS
First Tel CLEC Survey	No Electronic Copy	CM-2-D-16	BLS
Telecommunications Access Gateway (RoboTAG) Testing Agreement for Network One	No Electronic Copy	CM-2-D-17	BLS
Network One Test Case Log	No Electronic Copy	CM-2-D-18	BLS
BLS written responses to KCI clarification questions	No Electronic Copy	CM-2-D-19	BLS
KCI Observation 50 and BLS response	No Electronic Copy	CM-2-D-20	KCI/BLS
Encore Electronic Interface Ordering (EIO) – Test Approach Document (T910) For Electronic Data Interchange (EDI), EIO Release 6.0	99EDTST1.DOC	CM-2-E-1	BLS
ENCORE Electronic Interface Ordering (EIO) Release 6.0 Test Approach (T910), Document Version 1.1	99TEST1.DOC	CM-2-E-2	BLS
TAG Test Strategy Release 3.0/3.1 (T911), Version 1.0	99TGATS1.DOC	CM-2-E-3	BLS

Document	File Name	Location in Work Papers	Source
Staged Testcase Specifications (STTS) for Telecommunications Access Gateway (TAG), TAG Version 7.1	99TGTST1.DOC	CM-2-E-4	BLS

2.4.1 Data Generation/Volumes

This test relied on interviews with BellSouth personnel and documentation reviews.

2.5 Evaluation Methods

The OSS '99 Release Evaluation entailed documentation reviews and interviews with BellSouth personnel responsible for or involved with the OSS '99 Release. Documentation collected and reviewed for this evaluation included project plans, team rosters, document change logs, beta testing agreements, test cases, technical specifications and diagrams, and interface requirements.

2.6 Analysis Methods

The OSS '99 Release Evaluation included a checklist of evaluation criteria developed by KCI during the preparation of test activities for the BellSouth - Georgia OSS Evaluation. These evaluation measures provided the framework of norms, standards, and guidelines for the OSS '99 Release Evaluation.

3.0 Results Summary

This section identifies the evaluation criteria and test results.

3.1 Results & Analysis

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

Table VII-1.3: CM-2 Evaluation Criteria and Results

Test Cross-Reference	Evaluation Criteria	Result	Comments
CM-2-1-1	The release provided reasonable intervals for considering and notifying customers about proposed changes.	Satisfied	KCI interviews and documentation reviews revealed that BLS conducted regular OSS '99 core team meetings, sub-team meetings, and <i>ad hoc</i> conference calls. BLS and CLECs held weekly OSS '99 Release core team meetings to update the OSS '99

Test Cross-Reference	Evaluation Criteria	Result	Comments
			<p>Project Plan, to discuss and help to resolve existing OSS '99 Release issues, and to review weekly reports from the 10 OSS '99 sub-teams. These sub-teams, which included BLS and CLEC members, met more frequently than the core team and developed the OSS '99 requirements documentation for each of the interfaces included in the OSS '99 Release.</p> <p>The BLS OSS '99 Release Program Manager published and distributed a calendar that identified the schedule for all core and sub-team meetings. Included in the <i>OSS '99 Project Status Report</i>, this schedule was distributed to BLS and CLECs on a weekly basis. These meetings served to notify the CLECs of proposed changes to be incorporated in the OSS '99 release. The <i>OSS '99 Project Status Report</i> also referenced the scope of the OSS '99 Release, including a description of the interface features/functionality to be included in the OSS '99 Release.</p> <p>KCI interviews and documentation reviews revealed that implementation of the OSS '99 Release occurred in two phases: Non-Local Number Portability (LNP) functionality in December 1999, and LNP functionality in January 2000. Developed by the 10 BLS/CLEC sub-teams between November 1998 and March 1999, the final OSS '99 business requirements were delivered to CLECs in April 1999. The OSS '99 Release Program Manager redistributed these business requirements to CLECs on a monthly basis between April 1999 and January 2000, regardless of whether or not changes had been made. Changes that were made to OSS '99 business requirement documentation, such as modifications to rules and</p>

Test Cross-Reference	Evaluation Criteria	Result	Comments
			<p>values associated with data element fields, were those identified by sub-team members or by BLS/CLEC participants at weekly core team meetings.</p> <p>BLS also distributed to CLECs on a weekly basis the <i>BST/CLEC OSS'99 Meeting Minutes</i> and the <i>OSS'99 Project Team Meeting Notice</i>, the latter of which provided an agenda for the next scheduled meeting.</p>

Test Cross-Reference	Evaluation Criteria	Result	Comments
CM-2-1-2	The release process included provisions for allowing and incorporating input from customers.	Satisfied	<p>KCI interviews and documentation reviews revealed that BLS developed the OSS '99 Release to address multiple interface enhancement requests that BLS had received through the <i>Electronic Interface Change Control Process</i> (EICCP), which was the process in place prior to and during the OSS '99 Release period by which BLS and CLECs managed requested changes to BLS local electronic interfaces.</p> <p>BLS solicited input from the CLECs during the weekly OSS '99 Release core team meetings and sub-team meetings. CLECs were able to provide input and voice their concerns about specific interface requirements; "Review Project Status" and "Open Discussion" were standard agenda items for these meetings.</p> <p>The BLS OSS '99 Release Program Manager established and published – via the <i>OSS'99 Project Status Report</i> – conference bridge numbers for each of the sub-teams so that the CLECs and BLS were able to discuss OSS '99 Release requirements on a daily basis if needed.</p> <p>The Program Manager also captured a variety of CLEC feedback/issues in a document entitled <i>CLECs' Questions About OSS '99 Data Element Documents</i>. Published monthly, this document provided answers and updates to CLEC questions regarding the OSS '99 Release feature/functionality requirements. CLEC input was addressed in subsequent pre-release versions, as appropriate.</p>

Test Cross-Reference	Evaluation Criteria	Result	Comments
CM-2-1-3	Initial interface specifications, which defined applicable business rules, data formats and definitions, and transmission protocols, were made available to customers.	Satisfied	<p>To provide the “foundation” interface requirements by which system coding could be performed for the OSS '99 Release in March 1999, BLS provided CLECs with <i>ENCORE User Requirements to provide WSOP (Working Service on Premise) Ability for OSS '99</i>. BLS reviewed preliminary user requirements with the CLECs at a joint meeting in January 1999. On March 15 – 16, 1999, BLS and the CLECs conducted an official walk-through of all OSS '99 Release requirements.</p> <p>KCI interviews and documentation reviews revealed that BLS appointed leads for each OSS '99 Release sub-team. These leads were responsible for collecting and distributing interface requirements documentation to their respective sub-teams and also to the OSS '99 Release Program Manager once the requirements were 75% to 80% complete. Following receipt of the requirements, the Program Manager provided the updated requirements documentation to BLS's <i>Electronic Interface Change Control Process</i> team for distribution to all CLECs in April 1999.</p>
CM-2-1-4	Revised interface specifications, following assimilation of customer input, were made available to customers.	Satisfied	<p>On February 23, 1999, the OSS '99 Release Program Manager compiled the preliminary OSS '99 requirements into the <i>BellSouth / CLECs Project OSS '99 Final Scope</i> document, and subsequently distributed it to the CLECs. On February 24, 1999, BLS held a joint meeting with the CLECs to review this document. Following a joint walk-through of requirements developed by the 10 BLS/CLEC sub-teams, BLS delivered the final OSS '99 Release requirements to CLECs in April 1999.</p> <p>Throughout the OSS '99 Release, the</p>

Test Cross-Reference	Evaluation Criteria	Result	Comments
			Program Manager collected questions and issues logs from each of the interface sub-teams on a monthly basis and sent updates, incorporating CLEC input, to the CLECs via the EICCP once per month.
CM-2-1-5	Accurate and complete revision summary documentation was provided to customers.	Satisfied	<p>A Change History matrix was contained within each of the OSS '99 interface requirements documents. To track document updates and to verify that all sub-teams were working from the most recent document versions, the OSS '99 Release Program Manager published and distributed monthly the <i>OSS '99 CLEC Documents Matrix</i>, as well as the documents it referenced. This matrix identified the document's name, LEO document number, version number, version date, and date that it was distributed to CLECs.</p> <p>The OSS '99 Release Program Manager also used version numbers and color coding to help highlight updates made to CLEC documentation. When a change was made to one or more of these documents, all CLEC documents were redistributed, regardless of whether or not changes had been made to the previous version.</p> <p>EDI revision summaries were provided to CLECs via the following two documents:</p> <ul style="list-style-type: none"> – <i>TCIF Issue 9 EDI Map and Application File Format Design for a Purchase Order (850) / Purchase Order Change (860)</i>. This document contains a record of changes made to the EDI map. – <i>OSS '99 EDI Technical Specs Change History Log</i>. This document contains a record of changes made to the data format and contents of the Purchase

Test Cross-Reference	Evaluation Criteria	Result	Comments
			order (850), Purchase Order Change (860), and Purchase Order Change Acknowledgement/Request (865).
CM-2-1-6	Functioning testing environments were made available to customers for all supported interfaces.	Satisfied	<p>BLS captured LNP and Non-LNP EDI beta testing progress/activity in the following documentation: <i>OSS '99 LNP Beta-Testing Summary Updates</i> and <i>OSS '99 Beta-Testing Summary Updates</i>. These documents tracked specific LSR test cases from submission through receipt of corresponding Completion Notices. LENS, TAG, and RoboTAG testing activities were captured in the following documents respectively: <i>LENS Beta Results</i>, <i>TAG Testing Summary</i>, and the <i>Network One Test Case Log</i>.</p> <p>BLS conducted multiple phases of testing for the OSS '99 Release:</p> <ul style="list-style-type: none"> • Component/Unit Testing • Assembly Testing • System Testing • Integration (End-to-End) Testing • Internal "Sanity" Testing • User Acceptance (UAT) • Beta Testing <p>The document entitled <i>ENCORE ELECTRONIC INTERFACE ORDERING (EIO) – Test Approach Document (T910) for Electronic Data Interchange (EDI)</i> outlined BLS's approach for conducting Component and Assembly Testing for the OSS '99 Release. The document entitled <i>ENCORE Electronic Interface Ordering (EIO) Release 6.0 – Test Approach</i> referenced the System Functionality Testing plan followed during the OSS '99 Release.</p> <p>The Beta Testing phase was</p>

Test Cross-Reference	Evaluation Criteria	Result	Comments
			<p>conducted with CLEC participation and included the following sub-levels of testing:</p> <ul style="list-style-type: none"> • Connectivity • Syntax • Carrier-to-Carrier • Service Readiness Testing (SRT) <p>BLS published beta testing documentation, namely the <i>OSS '99 EDI-Beta-Testing Agreement</i> and <i>OSS '99 LENS Testing Agreement</i>, for participating CLECs. This documentation provided testing procedures and made reference to the testing environments to be used during the Connectivity, Syntax, Carrier-to-Carrier, and SRT. The documents entitled <i>Telecommunications Access Gateway (TAG) Testing Agreement for First Tel</i> and <i>Telecommunications Access Gateway (RoboTAG) Testing Agreement for Network One</i> also provided participating CLECs with descriptions of the various types of testing to be conducted, including Connectivity, Validity, and SRT.</p> <p>KCI interviews and documentation reviews revealed that BLS's Local Carrier Service Center (LCSC) maintained the OSS '99 Release test environment. The OSS '99 Release test environment was the same test environment that BLS uses for all of its testing within the LCSC. The LCSC also maintained the testing procedures, including BLS's internal test plan and implementation checklist, which included the following documents:</p> <ul style="list-style-type: none"> – <i>Encore Electronic Interface Ordering (EIO) Release Implementation Plan (X908R) For Electronic Data Interchange (EDI) EIO Release 6.0</i>

Test Cross-Reference	Evaluation Criteria	Result	Comments
			<p>– LEO Automatic Test System INBOUND & OUTBOUND.</p> <p>In addition, the LEO-IG Volume 4, Issue 9a-EDI Documentation for OSS '99 – EDI Testing Guidelines for Competitive Local Exchange Carriers provided forms for the CLECs to complete in order to establish connectivity to the test environment.</p>
CM-2-1-7	Carrier-to-carrier test environments were stable and segregated from BLS production and development environments.	Satisfied	<p>The OSS '99 EDI-Beta-Testing Agreement and LEO-IG Volume 4, Issue 9a-EDI Documentation for OSS '99 – EDI Testing Guidelines for Competitive Local Exchange Carriers documentation states that the Connectivity, Syntax, and Carrier Testing occurred in a test environment, while the SRT occurred in BLS's production environment.</p> <p>During the OSS '99 Release, BLS provided CLECs with access to dedicated CLEC EDI and LENS test environments that were not completely segregated from the BLS production environment. In the case of EDI, test files co-existed with production files in a common EDI translation environment, but were logically segregated by indicators that differentiated the output files from the application interfaces: "T" for test files and "P" for production files. Test files were then relegated to test environments or production environments for downstream systems for additional processing and order generation based on those indicators. EDI Trading Partner (TP) files were established in the Harbinger Operation Center for the testers' Trading Partner logon identifiers to point to test libraries in order to execute the test maps. During internal EDI testing, before actual CLEC participation in beta and</p>

Test Cross-Reference	Evaluation Criteria	Result	Comments
			<p>SRT, BLS used test tools to simulate CLEC system users.</p> <p>TAG and RoboTAG interfaces provided the CLECs with access to a test environment that was completely segregated from the BLS production environment. Those environments required the CLECs to direct their test files to separate Internet Protocol (IP) addresses at which the test environments resided. Test files submitted to the TAG and RoboTAG interfaces were processed and sent to downstream test environments for further processing and order generation.</p> <p>As noted in the documents entitled <i>Current Inbound EDI Test and Production</i> and <i>Current Outbound EDI Test and Production</i>, test and production environments were differentiated by IP addresses, maps, and dataset names. During KCI's evaluation interviews, the BLS OSS '99 Release Program Manager noted that a specific testing IP address (90.12.72.1) was established for connectivity to reserved test boxes. The document entitled <i>Telecommunications Access Gateway Test Environment</i> references the IP address (90.70.125.2) associated with the midrange and mainframe systems in BLS's Development, System Readiness Test (SRT), Volume Test, RSIMMS Test, Production, and IOT environments. The Program Manager also noted that user authorization and access controls limited user privileges to the test environment so that the testers could not access the production environment.</p> <p>While KCI believes that an ideal carrier testing process stipulates completely segregated test and production environments, BLS's</p>

Test Cross-Reference	Evaluation Criteria	Result	Comments
			<p>process for logically separating test orders from production orders was adequate for carrier testing.</p> <p>According to the BLS EDI technical team, EDI testing occurred in Site D of the BLS IBM MVS mainframe in Birmingham, Alabama. The EDI maps were located in test map libraries for testing prior to implementation. Eventually, BLS moved the test maps to the production libraries to conduct the SRT. BLS's EDI implementation procedures were referenced in the following document: <i>Encore Electronic Interface Ordering (EIO) Release Implementation Plan (X908R) For Electronic Data Interchange (EDI) EIO Release 6.0</i>. No implementation procedures were provided for LENS.</p> <p>Regarding the stability of the OSS '99 EDI Test Environment, OSS '99 Release testing issue logs (i.e., <i>OSS '99 LNP Beta-Testing Summary Updates</i> and <i>OSS '99 Beta-Testing Summary Updates</i>) were reviewed during the OSS '99 Evaluation to determine if any problems existed within the BLS test environment. The documents entitled <i>LENS Beta Results</i>, <i>TAG Testing Summary</i>, and <i>Network One Test Case Log</i> summarized interface testing results for LENS, TAG, and RoboTAG respectively. No environment-related issues were found.</p>
CM-2-1-8	BellSouth provided telephone customer support for interface testing to the CLECs (with on-call support available 24 hours a day, seven days a week for emergencies).	Satisfied	<p>KCI interviews and documentation reviews revealed that throughout the OSS '99 Release interface testing, BLS provided customer and technical support. BLS's testing documentation detailed Operating Procedures that included hours of availability for technical support. This documentation also identified "Terms and Conditions" for</p>

Test Cross-Reference	Evaluation Criteria	Result	Comments
			<p>emergencies and weekend support and provided contact numbers, including Contact Type, Name, Phone, and Fax. This information was provided in the following documents:</p> <ul style="list-style-type: none"> • OSS '99 EDI Beta-Testing Agreement • OSS '99 LENS Beta-Testing Agreement • LEO-IG Volume 4, Issue 9a-EDI Documentation for OSS '99 – EDI Testing Guidelines for Competitive Local Exchange Carriers <p>According to the BLS OSS '99 Release Program Manager, the test and production environments received equal technical support under BLS's existing maintenance agreements. During the testing phases, maintenance was performed nightly, and daily reviews of the testing activities were conducted with the participating CLECs.</p> <p>Technical support hours during the interface testing were from 8:00 A.M. to 6:00 P.M. EDT; 24 x 7 support was not included or required in accordance with the Testing Agreements signed by both BLS and CLECs.</p>
CM-2-1-9	Procedures were defined to log and communicate software "bugs," errors, and omissions in specifications, as well as other issues discovered during carrier-to-carrier testing.	Satisfied	<p>BLS provided participating CLECs with testing documentation that defined procedures to follow when bugs, errors, or omissions were discovered during interface testing. These documents included:</p> <ul style="list-style-type: none"> • OSS '99 EDI Beta-Testing Agreement ▪ LEO-IG Volume 4, Issue 9a-EDI Documentation for OSS '99 – EDI Testing Guidelines for Competitive Local Exchange Carriers

Test Cross-Reference	Evaluation Criteria	Result	Comments
			<p>BLS also developed error/issue logs to track the errors and issues reported during the interface testing. These logs included:</p> <ul style="list-style-type: none"> • Defect Log (EDI Test Agreement) • Discovery Log (EDI Test Agreement) • OSS '99 LNP Beta-Testing Summary Updates • OSS '99 (Non-LNP) Beta-Testing Summary Updates <p>In addition, the BLS EDI team maintained an error testing log and utilized an internal tracking system called the Electronic Tracking and Reporting System (eTARS) to document the test results.</p> <p>During the OSS '99 interface testing, daily conference calls were held with the participating CLECs to review issues and identify target dates for resolution. These issues were captured in the error/issue documentation listed above. The OSS '99 Project Manager distributed testing status information to CLECs via the OSS '99 Release core team meetings and via the EICCP.</p>