

## **IV. Pre-Ordering, Ordering and Provisioning (PO&P) Domain Results and Analysis**

### **1.0 Description**

The purpose of this section is to present the specific tests, results, and analysis from KCI's evaluation of the systems, processes, and other operational elements associated with BellSouth's support for wholesale pre-ordering and ordering functions. The Pre-Ordering, Ordering and Provisioning (PO&P) tests evaluated the systems and processes associated with BellSouth's ability to provide Competitive Local Exchange Carriers (CLECs) with non-discriminatory access to its Operational Support Systems (OSS). The pre-ordering and ordering portion of the test assessed the adequacy of BellSouth's ordering processes/systems and support procedures to efficiently process Local Service Request (LSRs) for Resale and Digital Subscriber Line (xDSL) services. The provisioning verification portion of the test included a review of BellSouth's ability to accurately complete the provisioning of CLEC Resale and xDSL orders.

### **2.0 Methodology**

The scope of the PO&P tests encompassed the review and analysis of BellSouth's processes, procedures, interfaces, and systems for pre-ordering, ordering and provisioning Resale and xDSL accounts. This was accomplished by reviewing and assessing relevant documentation, testing the functionality of BellSouth's pre-ordering, ordering and provisioning processes/systems, testing the capability to increase system capacity, and evaluating provisioning performance for BellSouth's CLEC customers. Additionally, a parity analysis was conducted to compare the BellSouth processes and systems that support xDSL services for wholesale and retail customers.

#### **2.1 Business Process Description (Resale)**

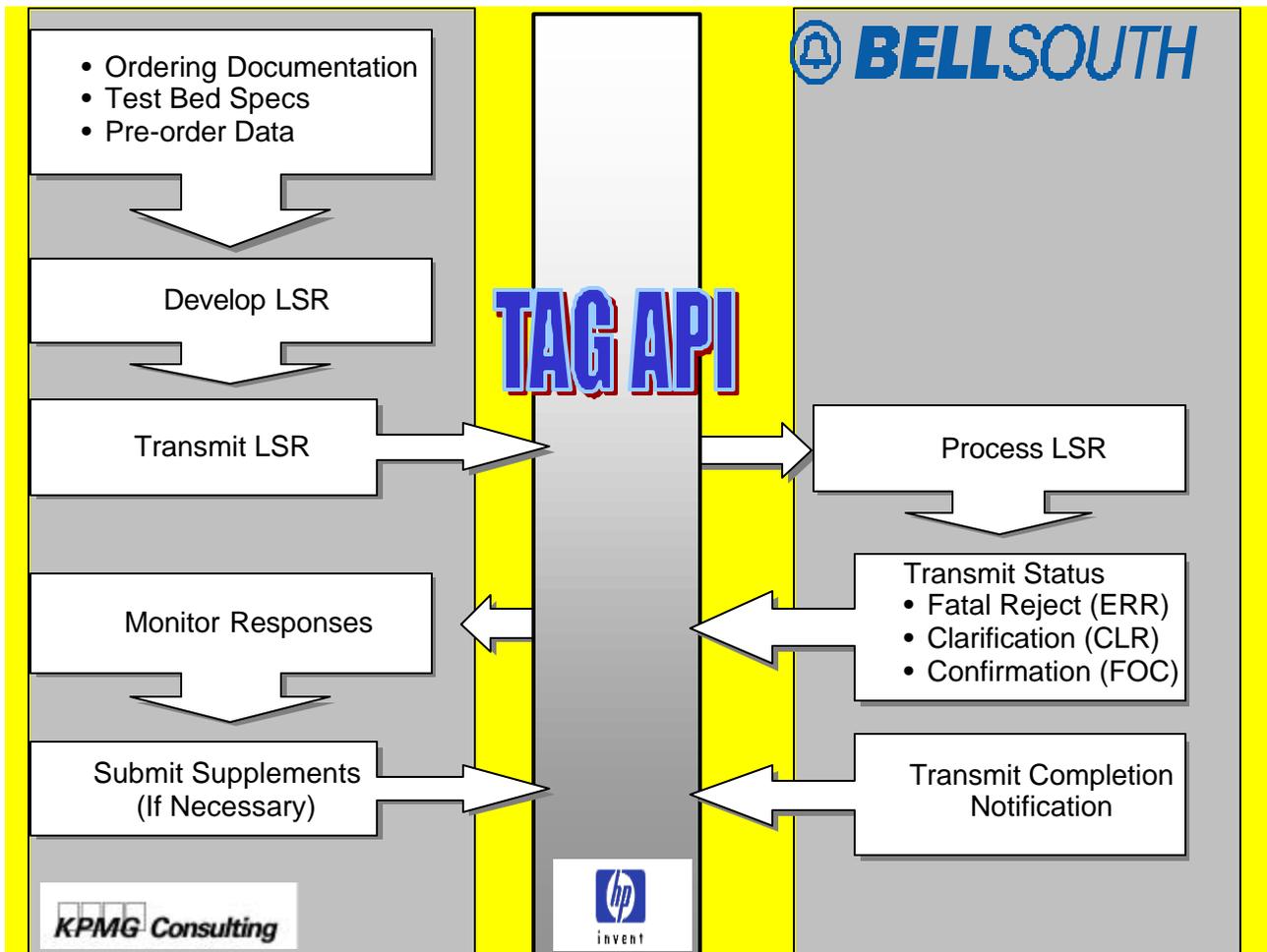
Two BellSouth electronic ordering interfaces, the Telecommunications Access Gateway (TAG) and the Electronic Data Interchange (EDI), were tested.

The TAG and EDI environments are described in more detail below.

#### **TAG**

Pre-Order queries, and orders, can be submitted electronically to BellSouth through TAG, a BellSouth-developed CORBA-based machine-to-machine interface. TAG allows for bi-directional flow of information between BellSouth's OSS and CLEC customers. CLECs develop their own software applications to obtain information from BellSouth's OSS through TAG, and can incorporate various internal functions, such as down loading information directly to their own inventory / billing systems, creating their own customer databases and generating internal reports.

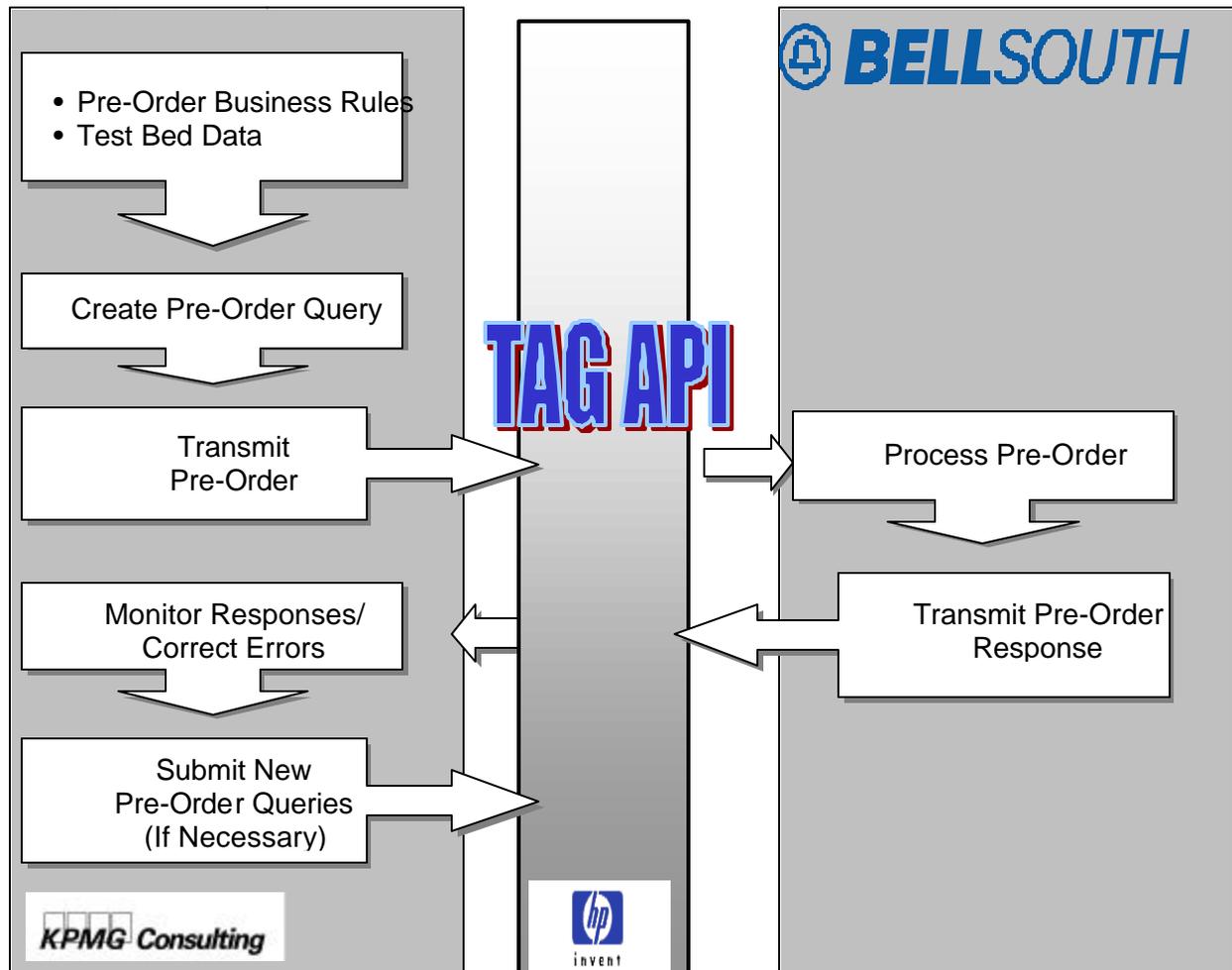
Figure IV-A: TAG Order Process Flow



Additionally, TAG provides a standard Application Program Interface (API) to BellSouth's pre-ordering OSS. TAG transactions are real time. TAG allows CLECs to execute the following pre-order queries:

- Telephone Number Selection / Reservations / Assignment
- Appointment Availability
- Service Availability
- Customer Records
- Due Date Calculation

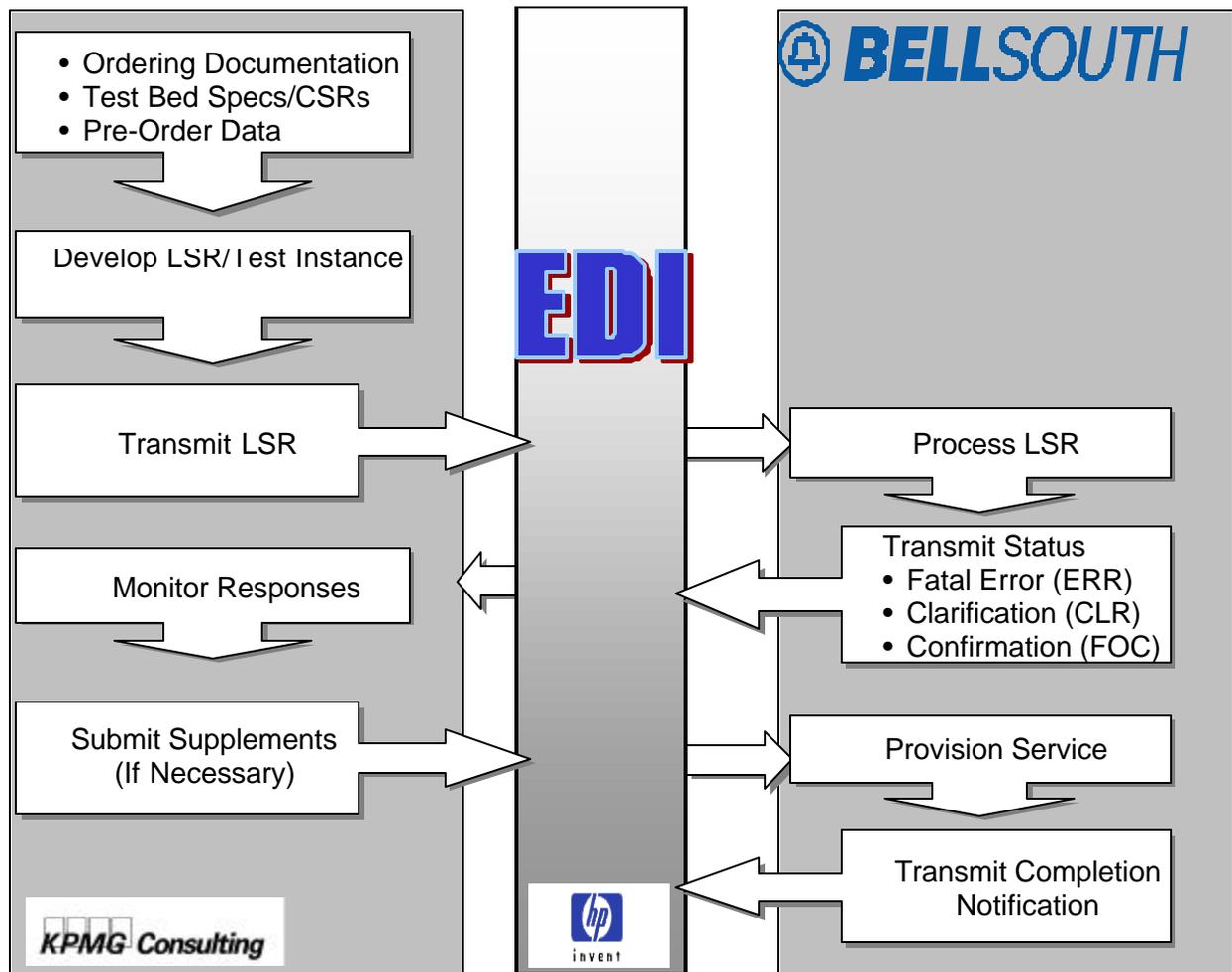
**Figure IV-B: TAG Pre-Order Process Flow**



**EDI**

Electronic Data Interchange (EDI) is a batch driven machine-to-machine interface designed to allow BellSouth’s computer applications to exchange business files with CLEC computer applications. BellSouth defines the information that is needed to successfully submit each order type. This information is encoded to fit the standard EDI transaction set for data transmission. EDI uses industry standards, which define the format and data content of each transaction sent between CLECs and BellSouth. BellSouth determines how and when each data element is transferred (or mapped) into a BellSouth Service Order.

Figure IV-C: EDI Order Process Flow



### Transaction Types

TAG and EDI allow CLECs to process the following ordering transactions types through BellSouth's OSS:

- Submit Local Service Requests (LSRs)
- Receive Functional Acknowledgements (FA)
- Receive Firm Order Confirmations (FOCs)
- Receive Completion Notices (CNs)
- Receive Rejects (ERRs), Clarifications (CLRs), and Status Messages (e.g., Jeopardy and Missed Appointment Notifications)

### 2.1.1 Ordering Process Flow (Resale)

KCI utilized three primary inputs to create order test instances: test bed information, pre-order data, and BellSouth’s ordering documentation.

#### *Test Bed Information*

Test bed information consists of data on the baseline accounts against which order and pre-order transactions were executed. These accounts included customers in BellSouth and CLEC “start states.” See Section 2.3 “Test Bed” for a description of test bed requirements and the Customer Service Record (CSR) delivery process.

#### *Pre-Order Data*

For a defined number of Resale test instances, KCI performed pre-order queries to validate customer address and service information, validate specific switch capabilities, select and reserve telephone numbers (TNs), and obtain valid due dates. KCI reviewed the pre-order response information and used this information to validate or add data to the subsequent service request.

#### *BellSouth Ordering Documentation (Resale)*

BellSouth Resale pre-ordering and ordering documentation contains two main components: 1) The technical specifications include programming instructions for creating TAG or EDI transaction sets; and 2) The business rules provide the pre-ordering and ordering forms and data elements that comprise a pre-order query or service request, as well as the data characteristics, usage requirements, and valid entries for each data element.

Using test bed and pre-order information, and applying the ordering rules defined in BellSouth documentation, KCI developed an order test instance, or Local Service Request (LSR). Each LSR was assigned a unique Purchase Order Number (PON) for BellSouth and KCI tracking purposes. The LSR was transmitted in a text file to Hewlett Packard (HP), which utilized the BellSouth technical specifications to map the text file into TAG or EDI data<sup>2</sup>, and transmitted the LSR to BellSouth’s EDI or TAG gateway.

When BellSouth receives the LSR, an FA is automatically returned to the CLEC, confirming that the file has been successfully received. As the LSR passes through the

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<sup>2</sup> HP reported and delivered errors encountered during the text file-to-TAG/EDI mapping to KCI. LSRs containing errors identified at the text file level were never transmitted to the BellSouth EDI or TAG Gateway. In these cases, KCI investigated the errors, made appropriate modifications to the LSR, and resubmitted the service request/text file to HP for processing.

BellSouth back-end OSS systems, BellSouth systems or representatives perform validations to determine if the CLEC's service request is properly formatted and contains accurate data. In response to an erred LSR, BellSouth transmits one of the following error responses<sup>3</sup>:

*Fatal Reject (ERR)*

BellSouth returns an ERR when a CLEC electronically submits an LSR that is unreadable or lacks correct information in all required fields. BellSouth categorizes fatal rejects as fully-mechanized responses.

*Auto Clarification ("auto" CLR)*

BellSouth returns an auto CLR when an electronically-submitted LSR does not pass second level system edit checks for order accuracy. BellSouth categorizes auto CLRs as fully-mechanized responses.

*Clarification (CLR)*

BellSouth returns a CLR after an electronically-submitted LSR "falls out" for manual handling. When an LSR falls out, a representative from BellSouth's Local Carrier Service Center (LCSC) reviews the LSR. If it is determined that the request fell out due to a CLEC error, the representative sends a request for clarification back to the CLEC. BellSouth classifies CLRs as partially-mechanized responses.

In response to an ERR, the CLEC must re-submit the original LSR after correcting any errors. Following receipt of a CLR (system- or representative-generated), the CLEC must submit a supplemental service request ("Sup") that modifies the original order.

Once an LSR passes through the ordering validation process, it is logged in the BellSouth Service Order Communication System (SOCS), which coordinates downstream provisioning activity and monitors the status of the order. SOCS generates a Firm Order Confirmation (FOC) response that is delivered to the CLEC. This FOC confirms that BellSouth has validated the LSR and provides a Due Date (DD) on which BellSouth commits to provisioning the requested service.

### 2.1.2 Provisioning (Resale)

The provisioning process begins once SOCS produces a complete and accurate service order. Once SOCS receives the order information, it is transmitted to the Service Order Analysis & Control System (SOAC). SOAC determines which downstream assignment and control systems require information necessary to complete order provisioning, based on information contained in the service order.

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<sup>3</sup> Definitions of error categories taken from the BellSouth Service Quality Measurements (SQM) Georgia Performance Reports, 10/22/99, p. 14 (Percent Rejected Service Request report definition).

A Local Service Request (LSR) passes through several stages after confirmation and prior to completion. The LSR status changes to indicate the order's progress through provisioning validation and completion activities. With each change in status, BellSouth transmits a Status Message to the CLEC. Notification is also provided in the event that provisioning activities cannot be completed on the committed due date as a result of a CLEC or BellSouth issue. BellSouth delivers a Missed Appointment (MA) notice when the due date on a service order is missed. Status and MA codes, definitions, and information on required CLEC action are provided on the BellSouth Web site. Upon completion of provisioning activities, BellSouth transmits a Completion Notification (CN) to the CLEC indicating successful activation of the order.

## 2.2 Business Process Description (xDSL)

KCI tested the existence and functionality of the manual interfaces established by BellSouth for pre-ordering and ordering of xDSL capable loops<sup>4</sup>. KCI tested two BellSouth manual processes for DSL ordering: e-mail and facsimile.

The pre-order/order process for xDSL capable loops is a manual process, encompassing three steps. These steps include submission of three forms: 1) Loop Make-Up Service Inquiry<sup>5</sup> (LMU-SI)/Local Service Request (LSR); 2) Unbundled Loop Modification (ULM)<sup>6</sup>; and 3) Local Service Request/Service Inquiry<sup>7</sup> (LSR/SI).

The LMU-SI/LSR is the pre-order query utilized by CLECs to obtain detailed characteristics of a specific loop. CLECs may use BellSouth's LMU-SI/LSR to determine if a specific loop is capable of supporting xDSL and other advanced data services, as applicable. BellSouth provides CLECs access to loop make-up information that consists of: the composition of the loop material (copper/fiber); the existence, location and type of equipment on the loop, including but not limited to digital loop carrier or other remote concentration devices, feeder/distribution interfaces, bridge taps, load coils, pair-gain devices, disturbers in the same or adjacent binder groups; the loop length; the wire gauge; and the electrical parameters of the loop.

CLECs e-mail or transmit by facsimile (fax) the LMU-SI/LSR form to BellSouth's Complex Resale Support Group (CRSG) account team. BellSouth personnel from the CRSG collect the necessary information from the appropriate BellSouth central office for the requested loop. If spare facilities are available, Outside Plant & Engineering (OSPE) provides the cable and pair information including detailed characteristics of the loop. Additionally, if the CLEC requests that the loop be reserved, OSPE populates the

<sup>4</sup> KCI evaluated the xDSL ordering processes and documentation associated with BellSouth's TCIF issue 9.

<sup>5</sup> Details of the process can be found in the BellSouth Document entitled *BellSouth Loop Makeup (LMU) CLEC Pre-Ordering and Ordering Guide For Manual Loop Makeup* (Issue 1.0 September 15, 2000).

<sup>6</sup> Details of the process can be found in the BellSouth Document entitled *Unbundled Loop Modifications CLEC Information Package*, Version 2, September 15, 2000.

<sup>7</sup> Details of the process can be found in BellSouth Interconnection Services Document entitled *BellSouth Unbundled ADSL/HDSL Compatible Loops CLEC Information Package*, Version 3, August 25, 2000.

Facilities Reservation Number (FRN) on the returned response to the LMU-SI. If spare facilities are not available, OSPE returns the LMU with reasons for the unavailability of compatible facilities for the loop type being ordered by the CLEC (e.g., facilities are out of range, no compatible facilities). The CRSG forwards the CLEC a response to the LMU-SI within seven business days of receiving the LMU-SI. Specific guidelines for submission of both faxed and e-mailed LMU-SI can be found in *BellSouth Loop Makeup (LMU) CLEC Pre-Ordering and Ordering Guide For Manual Loop Makeup*<sup>8</sup>.

The ULM<sup>9</sup> is submitted to BellSouth when a CLEC requests modification of loop characteristics (e.g., removal of bridge taps or load coils). Based on the LMU-SI/LSR process, a CLEC may wish to modify an existing loop if the loop cannot accommodate the specific DSL capabilities desired.

The SI/LSR is the form by which a CLEC orders an xDSL capable loop. CLECs prepare and send via e-mail or fax an SI accompanied by an LSR with the FRN populated to BellSouth's Local Carrier Service Center (LCSC). The FRN identifies the specific loop that has been reserved during the LMU-SI/LSR process. The SI links the pre-order LMU-SI to the LSR. The SI also indicates if a ULM has been requested on the BellSouth loop. The CLEC must specify the loop type (Asymmetric DSL [ADSL] or High-bit-rate DSL [HDSL]) on the LSR by using the proper Network Channel Code (NC) and Network Channel Interface Code (NCI). Once a complete and correct LSR has been processed, the LCSC forwards a Firm Order Confirmation (FOC) to the CLEC. The requested loop type is provisioned through the ordering and provisioning systems according to the targeted intervals stated in the interval section of the *BellSouth Unbundled ADSL/HDSL Compatible Loop CLEC Information Package*<sup>10</sup>. Once provisioning has been completed, the CLEC must obtain completion information through the BellSouth CLEC Service Order Tracking System (CSOTS) via the Internet.

### 2.2.1 Ordering Process Flow (xDSL)

KCI utilized three primary inputs to create order test instances:

#### *Test Bed Information*

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<sup>8</sup> Issue 1.0, September 15, 2000.

<sup>9</sup> Unbundled Loop Modifications were not tested due to test bed limitations. Loops utilized in PO&P12 terminated within the BellSouth Central Office facilities.

<sup>10</sup> BellSouth Unbundled ADSL/HDSL Compatible Loops CLEC Information Package, Version 3, August 25, 2000, page 15.

<sup>15</sup> KCI observed the provisioning of actual CLEC orders due to limitations of the Psuedo-CLEC. The CLECs observed by KCI ordered ADSL capable loops.

See Section 2.3 “Test Bed” for a description of test bed requirements and the Customer Service Record (CSR) delivery process.

#### *Pre-Order Data*

For each xDSL test instance, KCI submitted LMU-SIs to obtain detailed characteristics of a specific loop. KCI reviewed the LMU-SI response information and used this information to populate subsequent service request, (LSR/SI). Additionally, KCI used actual CLEC end-user customer addresses for pre-order testing. This was required to obtain actual customer loop characteristics that could not be simulated in the testing environment.

#### *BellSouth Ordering Documentation (xDSL)*

BellSouth xDSL LMU-SI and LSR/SI documentation provide the pre-ordering and ordering forms as well as the data characteristics, usage requirements, and valid entries for each data element.

Using test bed and pre-order information, and applying the ordering rules defined in BellSouth documentation, KCI developed an order test instance, or LSR. Each LSR was assigned a unique PON for BellSouth and KCI tracking purposes. The LSR was transmitted via facsimile or e-mail to BellSouth’s Complex Resale Support Group (CRSG) account team.

When BellSouth receives the LSR/SI, BellSouth representatives perform validations to determine if the CLEC’s service request is properly formatted and contains accurate data. In response to an erred LSR, BellSouth transmits a clarification or error message back to KCI. In response to a valid LSR/SI, BellSouth returns a Firm Order Confirmation (FOC) back to the CLEC.

#### *2.2.2 Provisioning (xDSL)*

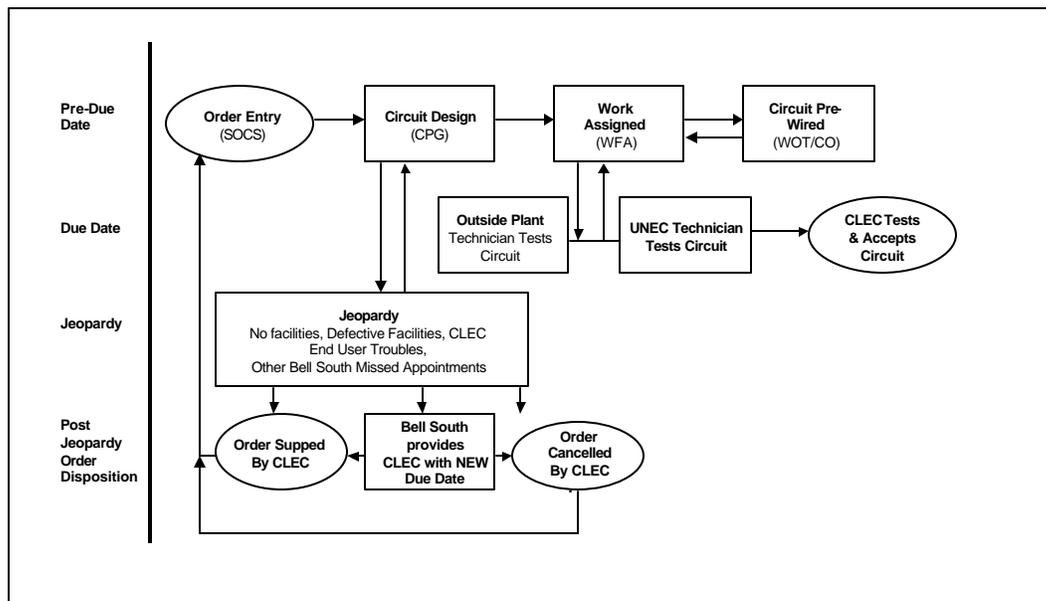
ADSL<sup>15</sup> orders are provisioned either as new lines or as conversions<sup>16</sup>. For some conversions, BellSouth is unable to reuse the existing voice grade facilities because the ADSL orders require non-loaded copper loops. For technical reasons, ADSL service must be provisioned on a loop that is free of load coils, bridge taps, or repeaters.

The ADSL provisioning process is overseen by the Unbundled Network Element Center (UNEC). BellSouth divides the provisioning process into two stages: 1) Pre-due date and 2) On due date.

The ADSL provisioning process flow is depicted in Figure IV-3.1 and described below.

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<sup>16</sup> A “conversion” converts an existing BellSouth retail customer to a BellSouth wholesale customer.

**Figure IV-3.1: ADSL Provisioning Process Flow**

### 2.2.2.1 Pre-due date

The UNEC is required to check the work list in the Work Force Administration Control System (WFA/C) on the Operating Support System Order Information (OSSOI) screen for all new service orders three times a day. The new service order is verified in the Service Order Control System (SOCS), the Work Order Record Detail (WORD) document, and the Loopan Screen. The SOCS verification ensures that the order has passed through the required groups within BellSouth and the customer can be billed. The WORD document gives a detail record of the order including the required service and loop design. The Loopan Screen uses the information from the WORD.doc screen to verify the circuit including loop length and cable limits. The verification in these three areas ensures that the cable pair meets the Design Cable Limits and is ready for provisioning.

These requirements and procedures are defined in the Product Information section of the *Unbundled Network Elements Products, References, Systems and Links* book of the UNEC collection in Corporate Document and Information Access (CDIA) and the TR73600 (CDIA and TR73600 are BellSouth internal documentation tools used to define the provisioning processes, procedures, and design requirements). If the cable pair does not meet the requirements, the pair is then changed. To ensure coordination, the CLEC is contacted 24 to 48 hours before the due date to negotiate the time for the conversion. This step occurs even if new facilities are used. The final test is the Wire Office Test/Central Office (WOT/CO). This test ensures that the main distribution frame connecting the CLEC equipment to the customer cable pair has been wired.

### 2.2.2.2 On Due Date

The UNEC is responsible for ensuring that a field technician is assigned the order on the due date. The field technician completes the outside plant wiring and then calls the UNEC from the demarcation location (demarc) to complete the loop testing. The UNEC representative verifies that the load coil test has been completed by the technician. If load coils are found, the pair must be changed. The technician then supplies a short of 135 ohms termination at the demarcation. The UNEC uses the short to perform a loop test to verify continuity, foreign voltage, resistance, capacitance, and loop length. The UNEC performs calculations to derive the actual loop length. If the pair does not fall within the design requirements for any of these tests, the pair is changed. During the final test, the UNEC and the technician check the decibel loss limit to ensure that it does not exceed the limit specified for the type of circuit provided. The design requirements are presented in Table 1 below.

**Table IV-3.1: ADSL Line Parameters**

Type of service	Capacitance	Resistance	Loop Length	Foreign Voltage	DB Test
ADSL	<.286mF	< 1300 ohms	< 18Kft	<5VDC & 50VAC	<42DB@40Khz

These line parameters are taken from the *Unbundled Network Elements Products, Reference, Systems, and Links* book of the UNEC collection in CDIA and the TR73600. If the loss on the cable pair exceeds any of the defined limits, the pair should be changed. Once testing is completed, the demarcation location is recorded at the UNEC on the Operating Support System Circuit Notes (OSSCN) screen within the WFA/C system, and the CLEC is contacted to complete the line acceptance process. The UNEC and technician are required to wait 15 minutes for the CLEC to respond to a verification call. On the phone, the CLEC, UNEC, and technician verify that the circuit is acceptable and work together to address any issues that require additional action. After the circuit is tested and accepted, the demarcation location is relayed to the CLEC. The UNEC then updates the order in the WFA/C system and changes the status in SOCS to completed.

### 2.2.2.3 Jeopardy

When ADSL orders are delayed past the due date, the UNEC employs specific procedures to handle missed due dates depending on the cause of the delay. Delayed orders are defined to be in jeopardy and the orders follow the processes below until the issues are resolved.

There are three types of jeopardy covered in the BellSouth procedures: 1) BellSouth causes the delay, 2) the CLEC causes the delay, or 3) the End User causes the delay.

1. *BLS causes the delay.* (Generally, this is caused by the limitation of facilities available at the customer's location).

*A. Conversion delay, (Non-Pending Facilities [PF]):*

The UNEC informs the CLEC of the new date on which BellSouth will be ready to complete the installation. When the CLEC agrees that this date is acceptable, the UNEC enters a supplemental due date on all associated orders using the appropriate appointment code. The UNEC records the CLEC contact name on the service order. The information is entered in the WFA/C log and includes the jeopardy code and missed function code on the OSSOI or OSSGI screens.

*B. New Service Order delay, (Non-PF condition):*

The UNEC keeps the order in a pending status in SOCS, reflecting the present due date. BellSouth continues to escalate to the responsible BellSouth work centers until the order can be completed. When the due date is missed, the UNEC inputs the MFC (Missed Function Code) in the WFA log and the missed appointment code in SOCS. The CLEC is advised of the service order status and entries are placed into both the WFA log and SOCS.

*C. Pending Facility (PF) condition delay:*

PF delays due to BellSouth provided equipment or facilities are considered to be a BellSouth “miss” for the service order. Most PF statuses are applied to the service order early in the provisioning process before a due date is assigned. When the AFIG and outside plant engineers do not have the facilities for the service order, the order is placed in a PF status.

PF conditions also occur on the due date, when the outside technician discovers defects<sup>17</sup> in either: a) the connection from the Main Distribution Frame to the first accessible cross connect box or customer terminal (F1) or b) the connection from the F1 termination to either the next cross connect box or customer terminal (F2) facility assigned to the order. The technician notifies the Address Facility Inventory Group (AFIG), which resolves cable discrepancies on service orders that fall out, of the need to place the order into a PF status. This drives the PF'd order to the Outside Plant Engineer (OSPE). The UNEC calls the CLEC to inform appropriate personnel of the service order status change, and advises the LCSC (Local Carrier Service Center) to contact the CLEC with a new due date when new facilities are identified.

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<sup>17</sup> When defects are identified, the technician checks for additional spare facilities before assigning a PF condition.

2. *CLEC causes delay* (Generally occurs when the CLEC is unavailable to accept the completed order on the coordinated due date).

- A. *For a new service order:*

When the CLEC causes the delay, the UNEC places the orders in a missed appointment status and enters the appropriate customer missed appointment code. In each of these cases, the CLEC is required to send in a supplemental order to re-establish a new due date. The UNEC then records the CLEC contact information in the SOCS remarks section of the service order. If the order is present in the WFA/C system, the contact information, in addition to the jeopardy and missed function codes, must be entered.

- B. *For conversion service orders:*

When the CLEC causes the delay, the UNEC center places all orders except “Listing orders” into a missed appointment status. The UNEC then enters the appropriate customer missed appointment code. “Listing orders” must be assigned a supplemental order by the UNEC with a due date that exceeds a 60 day interval. The CLEC then must submit a supplemental service order to re-establish a new conversion due date. The UNEC records the CLEC contact information on the service order remarks screen in SOCS. If the order is present in WFA/C, the contact information, in addition to the jeopardy and missed function codes, must be entered.

3. *End-User causes delay* (Generally occurs when the demarcation location needed for installation is not accessible to the BellSouth technician and the customer is not available).

- A. *For a new service order:*

When the end-user customer causes the delay, the UNEC places the order in a missed appointment status and enters the appropriate customer missed appointment code. In each of these cases the CLEC must submit a supplemental order to re-establish a new due date. The UNEC then records the end user contact information in the SOCS remarks section of the service order. If the order is present in the WFA/C system, the contact information, in addition to the jeopardy and missed function codes, must be entered.

- B. *For conversion service orders:*

When the end user causes the delay, the UNEC center places all orders except “Listing orders” into a missed appointment status. The UNEC then enters the appropriate customer missed appointment code. “Listing orders” must be assigned a supplemental order by the UNEC with a due date that exceeds a 60-day interval. The CLEC then must submit a supplemental service order to re-

establish a new conversion due date. The UNEC will record the end-user contact information on the service order remarks screen in SOCS. If the order is present in WFA/C, the contact information, in addition to the jeopardy and missed function codes, must be entered.

### 2.3 Scenarios

Various PO&P-related scenarios were used to evaluate the PO&P processes and systems for Resale and xDSL. The *BellSouth – Georgia OSS Evaluation Supplemental Test Plan (STP)* defined the TAG/EDI resale pre-order and order scenarios to be tested in PO&P-11, and the xDSL pre-order and order scenarios to be tested in PO&P-12. The scenarios outline, at a high level, the specific products and services to be ordered and activity types to be requested. The scenarios also defined requirements for testing of different customer types (business and residential) and migration activity (partial and full migration<sup>18</sup>). Using these test scenario descriptions, KCI developed test cases for each scenario. The test cases contain a more-detailed description of the order. Each test case was used to generate one or more distinct service requests, or test instances, for specific end users.

The EDI and TAG Resale Functional Evaluation (PO&P11) scenarios covered the following Resale activity types:

**Table IV-A: Resale Scenarios**

Activity	Res. POTS	Bus. POTS	Res. ISDN-BRI	Bus. ISDN-BRI	PBX	Syn-chronet
Migration from BLS “as is”	X	X	X	X	X	
Feature changes to existing customer	X	X				
Migration from BLS “as specified”	X	X	X	X		
New customer	X	X			X	X <sup>19</sup>
Telephone number change	X	X				
Directory change	X	X				
Add lines/trunks/ circuits	X	X			X	
Suspend/restore service	X	X				
Disconnect (full and partial)	X	X	X	X	X	X

<sup>18</sup> A full migration converts all of a customer’s lines to a new service provider. A CLEC requests a partial migration for a multi-line customer that wishes to retain at least one line with BellSouth.

<sup>19</sup> BLS supports electronic orders for new Synchronet service at speeds of 2.4, 4.8, and 9.6Kbps.

Moves (inside and outside)	X	X				
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The xDSL Functional Evaluation (PO&P12) scenarios covered the following xDSL activity types:

**Table IV-B: xDSL Scenarios**

Activity	Res. xDSL-Capable Loop	Bus. xDSL-Capable Loop
<b>Pre-Order</b>		
Loop Makeup Service Inquiry	X	X
<b>Order</b>		
Migration from BLS to CLEC	X	X
Add new loops to existing customer	X	X
Purchase loops for a new customer	X	X
Disconnect	X	X

#### 2.4 Test Bed

In order to provide KCI with a set of customers against which to submit service requests, BellSouth provided KCI with a test bed. BellSouth provisioned the test bed accounts according to specifications submitted by KCI. These requirements covered a range of customer starting states (e.g., BellSouth retail, CLEC resale), line counts (single and multi-line), service types (business, residential), and features (e.g., call waiting, return call, speed dial). The test bed accounts were established across a range of Central Offices (COs), covering different rate centers and switch types.

The test bed specifications submitted to BellSouth provided no indication of the subsequent order activity planned by KCI. In addition to the test bed accounts, BellSouth provided KCI with facility and customer information (cable-pair assignments, telephone numbers, and addresses) required to populate specific service requests.

The test bed was comprised of specific customer accounts and facility information provided by BellSouth. KCI received test bed account (built according to KCI specifications) information in the form of Customer Service Records (CSRs) that identified the end user's initial state, including information on the address, billing accounts, and existing services and equipment. BellSouth delivered test bed CSRs to KCI via a direct database extract process.

To execute xDSL activities, KCI, in collaboration with the GPSC, solicited the participation of actual CLECs currently doing business with BellSouth Georgia. As a pseudo-CLEC, KCI lacked access to the facilities needed to provision xDSL service. Therefore, KCI obtained assistance from CLECs possessing xDSL capability. These CLECs provided KCI with the opportunity to observe the provisioning activities of both the CLEC and BellSouth associated with randomly selected xDSL orders. Additionally, KCI used live CLEC end-user customer addresses for pre-order testing. This practice was conducted to obtain actual customer loop characteristics that could not be simulated in the testing environment.