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May 15, 2000

By Hand

David Waddell
Executive Secretary
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Nashville, Tennessee 37243

> *Re:* *AT&T Communications of the South Central States, Inc. 's Petition for the Establishment of an Independent Third Party Testing Program of BellSouth's Operational Support Systems – Docket No. 99-00347*

Dear Mr. Waddell:

Pursuant to the TRA's April 24, 2000, letter requesting information regarding OSS operations in Tennessee and other states in BellSouth's region, AT&T Communications of the South Central States, Inc. hereby files an original and thirteen copies of its Response to the TRA's Data Requests.

Thank you for your assistance in this matter. If you have questions, please let me know.

Sincerely,

Jim Lamoureux

Encls.

cc: Counsel for all Parties of Record

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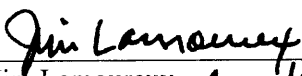
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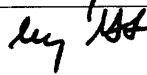
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Re: AT&T Communications of the) South Central States, Inc.'s Petition for) the Establishment of an Independent) Third Party Testing Program of) BellSouth's Operational Support Systems)	Docket No. 99-00347

AT&T'S RESPONSES TO TENNESSEE REGULATORY AUTHORITY'S DATA REQUESTS

Pursuant to the Tennessee Regulatory Authority's ("TRA") April 24, 2000, letter requesting information regarding OSS operations in Tennessee and other states in BellSouth's region, AT&T Communications of the South Central States, Inc. ("AT&T") hereby files its Responses to the TRA's Data Requests.

RESPONSES

1. For OSS preordering functions:

a. Identify and explain all areas where BellSouth's interfaces, systems and processes utilized in Tennessee differ from those used in other states within BellSouth's region.

Preordering includes those activities that a CLEC undertakes with its customer and BellSouth to gather the information necessary to place a request for service. Before a CLEC can submit a request for service with BellSouth, the CLEC must gather and confirm certain required customer and location specific information.

BellSouth provides two interfaces that CLECs may use to retrieve preordering information on an electronic basis from a number of BellSouth legacy systems and databases. These interfaces are the Local Exchange Negotiation System (LENS) and the Telecommunications Access Gateway (TAG). Currently both may be used to obtain address validation information, telephone number reservation information, service and feature availability information, installation (order) due date information, and customer service record information. Other types of preorder information such as loop make-up information and information necessary to order complex services is currently provided through manual processes.

These two CLEC interfaces use a number of different software programs that may be identified as either "middle-ware" or "contracts" to obtain information from the BellSouth legacy systems and databases, or may even be loaded with such information directly by BellSouth.

In a somewhat similar fashion, BellSouth also provides preordering functions to its own employees. There is a residential ordering system used in all nine BellSouth states known as the Regional Negotiation System (RNS). There are two business ordering systems in use, the Direct Order Entry (DOE) system used in the former Southern Bell states, and the Service Order Negotiation System (SONGS) used in the former South Central Bell states.[1]

RNS uses contracts to communicate with legacy systems and databases similar to those used by LENS and TAG. DOE and SONGS however use mainframe software that can directly query these systems and databases. In addition, BellSouth directly loads SONGS with certain preordering information.

The situation in Tennessee is different in several key areas. SONGS has not been tested in either Georgia or Florida because it is not used there. Less obvious is the fact that the middle-ware or contracts used to access the legacy system databases contain state specific coding and many of the legacy system databases themselves are state specific. There are Regional Street Address Guide (RSAG) databases, Application for Telephone Number Load Administration (ATLAS) databases, Customer Record Information System (CRIS) databases, Central Office Features File Interface (COFFI), and Product and Services Inventory Management System (PSIMS) databases, etc. unique to Tennessee. Additionally, the personnel in work groups performing the manual preordering processes who focus specifically on Tennessee use Tennessee-specific methods and procedures and databases.

b. What impact, if any, would the Tennessee-specific differences identified in 1.a. have on third party testing of BellSouth's OSS?

The accuracy of the information residing in the unique Tennessee-specific databases is dependent upon a number of factors including:

1) the ability of BellSouth's employees using the systems that create changes in these data bases to occur to faithfully follow the methods and procedures of the company;
2) the appropriateness and adequacy of the BellSouth methods and procedures provided to its employees;
3) the reliability of the BellSouth software processes that convert the inputs of BellSouth's employees into data base entries;
4) the ability of CLEC employees using systems that create changes in these data bases to occur to faithfully follow the methods and procedures BellSouth provides;

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[1] Both DOE and SONGS may be used to input any type of business or residence order and are also used by BellSouth to prepare CLEC order that are manually submitted, or fallout for manual processing after being submitted electronically.

5) the appropriateness and adequacy of the BellSouth methods and procedures provided for CLECs use; and
6) the reliability of the BellSouth software processes that convert the inputs of CLEC employees into data base entries.

The ability of a CLEC to access and retrieve information from a given unique Tennessee-specific database in a timely manner is dependent upon:

1) the Tennessee-specific coding that has been written into the software contracts by BellSouth; and
2) the capacity of the connectivity BellSouth has provided between the CLEC preordering interfaces and the BellSouth legacy systems and databases.

Neither the accuracy, nor the timeliness of access to the information in the unique Tennessee-specific databases can be assumed from test data gathered in another state. The accuracy, timeliness, utility, and efficiency of the preordering process for Tennessee can only be evaluated through the use of Tennessee specific test scenarios, cases and instances that retrieve information specific to Tennessee and then use that information in the preparation of local service requests intended for implementation in Tennessee.

2. For OSS ordering functions:

a. Identify and explain all areas where BellSouth's interfaces, systems and processes utilized in Tennessee differ from those used in other states within BellSouth's region.

Ordering includes the exchange of information necessary for a CLEC to request services, network elements, and combinations from BellSouth.

The two CLEC interfaces discussed above, LENS and TAG may also be used by CLEC's for ordering. In addition BellSouth also provides an Electronic Data Interchange (EDI) interface for use in submitting Local Service Requests (LSRs) electronically. The LENS interface is designed for human-to-machine interaction and both the TAG and EDI interfaces are designed for machine-to-machine interaction.[2]

BellSouth has not provided fully automated electronic ordering capabilities for all services and network elements that CLECs order. BellSouth therefore operates and maintains two Local Carrier Service Centers (LCSCs), one in Atlanta and one in Birmingham, that combined employ approximately 1200 service representatives to handle CLEC requests. AT&T estimates that in March 2000, the LCSCs processed approximately 79,000 LSRs for CLECs - this number represents one-third of all CLEC LSRs. (17,314 were electronically submitted LSRs for which BellSouth provides no

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[2] BellSouth also provides, for a fee, and as a separate business arrangement, "ROBO-TAG". Under this arrangement BellSouth will provide a CLEC with a customized presentation layer for TAG. A presentation layer may be thought of as providing for human-to-machine access to a machine-to-machine interface.

automation; 14,576 were electronically submitted LSRs that encountered BellSouth caused system errors; 4,597 were electronically submitted LSRs containing CLEC input errors; and an estimated 42,500 were submitted manually.) The LCSC service representatives use DOE to input CLEC LSRs for the former Southern Bell states and SONGS to input CLEC LSRs for the former South Central Bell states.

For ordering within its own retail operations in Tennessee BellSouth uses the RNS and SONGS systems discussed above under preordering.

The LENS, TAG and EDI CLEC interfaces as physical systems are common to CLEC ordering across all BellSouth states. However as with preordering, there is unique software coding in each system associated with Tennessee ordering requirements. The boxes are the same, but what happens in the boxes is different state by state. These differences are caused by a number of factors including tariff requirements, regulatory requirements and specific BellSouth policy decisions. Similarly the service representatives in the LCSCs must apply the Tennessee-specific ordering requirements when they input service requests on behalf of CLECs.

b. What impact, if any, would the Tennessee-specific differences identified in 2.a. have on third party testing of BellSouth's OSS?

The ability of CLECs to successfully submit electronic service requests for customers in Tennessee is dependent upon a number of factors including:

1) the ability of CLEC employees using LENS, TAG or EDI to faithfully follow the methods and procedures BellSouth provides;
2) the appropriateness and adequacy of the BellSouth methods and procedures provided for CLECs use; and
3) the reliability of the BellSouth software processes that convert the service requests input by CLEC employees into service orders.

At present, fully automated electronic processes address no more than two-thirds of CLEC's LSR ordering needs. The remaining third of CLEC's LSRs will be handled in an LCSC by a BellSouth service representative using SONGS. The use of SONGS to input LSRs on behalf of CLECs has not been tested in either Georgia or Florida.

The ability of a BellSouth LCSC service representative to successfully submit LSRs on behalf of CLECs for customers in Tennessee using SONGS is dependent upon a number of factors including:

1) the ability of BellSouth's employees using SONGS to faithfully follow the methods and procedures of the company;
2) the appropriateness and adequacy of the BellSouth methods and procedures provided to its employees; and
3) the reliability of the BellSouth software processes that convert the service requests input by BellSouth's employees into service orders.

It can not be demonstrated from test data gathered in another state that:

1) Tennessee-specific software coding in the ordering systems (LENS, TAG, EDI and SONGS) operates correctly;
2) the Tennessee-specific methods and procedures (both for CLECs and the LCSC) are both appropriate and adequate;
3) or the training and conformance of LCSC personnel handling Tennessee-specific LSRs are sufficient to prevent the state's consumers from being unwitting test dummies.

3. For OSS provisioning functions:

a. Identify and explain all areas where BellSouth's interfaces, systems and processes utilized in Tennessee differ from those used in other states within BellSouth's region.

Provisioning includes those activities necessary to install services, elements and combinations for the CLEC and its customers as well as the exchange of information necessary to inform the CLEC of that status of that work. After a service order is generated, the services, elements and combinations ordered by the CLEC must be installed and information must be exchanged between the companies regarding work status.

Once a request has been accepted, all of the remaining processes necessary to install the requested service are accomplished by work groups and downstream legacy systems organized on a geographic basis. The geographic basis may be several states, a single state, or even a portion of a state. Below the state level, BellSouth is organized geographically into organizations called "Turfs".

Some of the activities necessary following acceptance of a request include Facility Assignment, Circuit Design, Central Office Translation Activation, Central Office Wiring, and Outside Plant Wiring. Some work groups include the Address and Facility Inventory Group (AFIG), the Circuit Provisioning Group (CPG), the Recent Change and Memory Administration Center (RCMAC), the Work Management Center (WMC) and Installation Field Forces (IFF). Each of these processes and work groups is organized geographically. For example, there are 10 AFIGs – two for Florida and one for each of the eight other states. The performance of these will vary from State to State and from Turf to Turf.

Also obvious but easily overlooked is that fact that the provisioning process relies upon the network assets actually in-service within a state. The capabilities and capacity of the in-service network assets in Tennessee are different from those in-service in any other state.

b. What impact, if any, would the Tennessee-specific differences identified in 3.a. have on third party testing of BellSouth's OSS?

The ability of BellSouth to successfully provision services, elements, and combinations to CLECs and their customers in Tennessee once an order has been placed is dependent upon a number of factors including:

1) the ability of BellSouth's geographically organized resources and employees to faithfully follow the methods and procedures of the company;
2) the appropriateness and adequacy of the BellSouth methods and procedures provided to its employees; and
3) the reliability, capability, and capacity BellSouth network assets in-service in Tennessee.

No amount of testing conducted in another state can provide the assurance that provisioning of services, elements and combinations to CLECs and their customers in Tennessee by BellSouth is at parity to the service BellSouth provides to itself and its customers.

4. For OSS maintenance and repair functions:

a. Identify and explain all areas where BellSouth's interfaces, systems and processes utilized in Tennessee differ from those used in other states within BellSouth's region.

Maintenance and repair involves the monitoring and fault management activities that assure the proper functioning of services, elements and combinations. These activities include trouble reporting, and the testing, monitoring and correction of reported troubles.

BellSouth provides two maintenance and repair interfaces to CLECs, the Trouble Analysis and Facilitation Interface (TAFI) and the Electronic Communications Trouble Administration (ECTA) interface. TAFI is a human-to-machine interface that provides the CLEC employee with a broad range of functions and the ability to clear numerous trouble reports without involving BellSouth personnel. ECTA communicates on a machine-to-machine basis but limits CLEC employees to entering a trouble report, modifying an existing report, canceling a report and obtaining status information about a report. All troubles reported by a CLEC using ECTA are routed to BellSouth personnel, who then attempt to clear the trouble using other systems.

In its own retail operations, BellSouth uses TAFI and two other primary systems the Loop Maintenance Operations System (LMOS) and the Work Force Administration (WFA) system.

The TAFI system BellSouth uses and the TAFI system it makes available to CLECs are said to be identical, with the exception of some security screening programming. Both

TAFI systems communicate with numerous BellSouth legacy systems and databases. As discussed above under preordering and ordering, there are multiple instances of these systems and databases and there is Tennessee-specific coding and data in these systems and databases. For example, there are 16 Predictor systems, 4 MARCH systems and 3 LMOS systems in service across the 9 BellSouth states.

Maintenance and repair processes and work groups are also organized geographically as discussed above under provisioning.

b. What impact, if any, would the Tennessee-specific differences identified in 4.a. have on third party testing of BellSouth's OSS?

The ability of BellSouth to successfully maintain and repair services, elements, and combinations provided to CLECs and their customers in Tennessee once an order has been provisioned is dependent upon a number of factors including:

1) the ability of BellSouth's geographically organized resources and employees to faithfully follow the methods and procedures of the company;
2) the appropriateness and adequacy of the BellSouth methods and procedures provided to its employees;
3) the Tennessee-specific coding that has been written into the software linking the maintenance and repair systems and databases; and
3) the reliability, capability, and capacity BellSouth network assets in-service in Tennessee.

As is the case for provisioning, maintenance and repair is organized geographically. No amount of testing conducted in another state can provide the assurance that maintenance and repair of services, elements and combinations to provided to CLECs and their customers in Tennessee by BellSouth is at parity to the service BellSouth provides to itself and its customers.

5. For OSS billing functions:

a. Identify and explain all areas where BellSouth's interfaces, systems and processes utilized in Tennessee differ from those used in other states within BellSouth's region.

Billing involves the process by which BellSouth records and transfers data that enables a CLEC: (1) to bill its customers for telecommunications services (i.e., customer usage data) or other telecommunications carriers for access and call termination/transport, and (2) to pay BellSouth for services rendered.

Call detail recording obviously occurs in each local switch and tandem office. The recorded data is then transferred to the BellSouth Data Center associated with that switch. BellSouth has a number of Data Centers, each of which serves a geographic area. In the

Data Centers the collected usage data is processed 1) for forwarding to the CLECs to bill their customers and 2) into bills to the CLECs for the services BellSouth has provided.

b. What impact, if any, would the Tennessee-specific differences identified in 5.a. have on third party testing of BellSouth's OSS?

Each central office/tandem office – Data Center combination must be properly programmed with the information necessary to correctly collect, process and distribute usage information to the CLECs doing business in Tennessee. Each Data Center must also be properly programmed with the information necessary to bill the CLECs doing business in Tennessee.

Testing of billing functions in another state provides no information on the status of billing related capabilities in Tennessee.

6. For OSS administrative activities, such as change management and technical assistance:

a. Identify and explain all areas where BellSouth's interfaces, systems and processes utilized in Tennessee differ from those used in other states within BellSouth's region.

In addition to the five primary OSS functions, there are a number of other associated functions that may be thought of as "administrative". Five key administrative functions are defined and discussed below.

1. A Change Control Process (also known as a "change management process") - is a process used to manage changes to a system, process, or documentation so that they are made in an orderly and predictable fashion. Change management includes the methods and procedures that BellSouth employs to communicate with competing carriers regarding the performance of and changes in systems, processes or documentation that affect CLECs' production or test environments.

2. Technical Assistance – is the process of providing support to CLECs with OSS questions, escalations, problems and issues related to systems, process or procedures associated with any of the five functions or any of the interfaces supporting the five functions.

3. Capacity Management – these processes include: 1) collection, reporting, analysis and verification of systems performance, system resource utilization, and business and transaction volume data; 2) forecasting of business volumes and transactions; and 3) consideration of business requirements and existing system capacity, usage, and performance data during the capacity planing process.

4. Interconnection, Collocation and Network Design – competitors entering the market using unbundled network elements and their own facilities must also obtain from BellSouth interconnection facilities, collocation facilities, and the installation of a coordinated network design including trunk, routing and NXX activation. As discussed above under provisioning, the processes and work groups that perform these functions are organized geographically.

5. Performance measurement – performance measurement is a systematic process and methodology by which the quality of service being provided can be determined, analyzed and improved. In a long term voluntary customer-supplier relationship data collection and analysis will typically be undertaken by the supplier to ensure that the customer's needs are being met, or if they are not, determine why not (root cause analysis) and correct the problem (process improvement). The same level of detail data collection and analysis necessary to sustain a successful long term voluntary customer-supplier relationship should also meet BellSouth's obligations under the Act to demonstrate that the quality of service it is providing to CLECs is at parity to the quality of service it provides to itself and its customers or provides CLECs a meaningful opportunity to compete.

b. What impact, if any, would the Tennessee-specific differences identified in 6.a. have on third party testing of BellSouth's OSS?
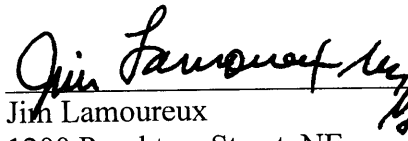
Each of the five administrative functions discussed above impacts the level of service consumers in Tennessee will receive from CLECs. Likewise, BellSouth's ability to perform each of these five administrative functions is impacted by the same Tennessee-specific factors -- software coding, database contents, methods and procedures, training, adherence to procedures, management guidance, employee performance, geographic organizational structures, network configuration, and network reliability -- discussed above for each of the five primary OSS functions.

Performance measurement is the foundation function required for successful market entry by CLECs and BellSouth's demonstration that it has met its obligations under the Act. A comprehensive performance measurement plan will include:

- agreed upon and defined performance measures to be collected;
- agreed upon and defined performance standards against which performance can be measured;
- using agreed upon and defined statistically valid comparison techniques;
- to determine the level of performance that has been obtained and apply agreed upon and defined consequences when required standards have not been met; that will
- result in process improvements and the elimination of sub-standard performance.

The results of testing in other states can not be blindly relied upon to insure that the needs of Tennessee's consumers are being met. In addition, Tennessee has ordered to collection of performance data not being required in other states.

Respectfully submitted,

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