BELLSOUTH TELECOMMUNICATIONS, INC.

DIRECT TESTIMONY OF GLORIA CALHOUN

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

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Q. Please state your name, address and position with BellSouth Telecommunications, Inc. ("BellSouth").

A. My name is Gloria Calhoun. My business address is 675 West Peachtree Street, Atlanta, Georgia 30375. I am employed by BellSouth Telecommunications, Inc. as a Manager in the Strategic Management Unit. In that position I handle responsibilities associated with operations planning for local competition.

Q. Please summarize your background and experience.

A. I graduated *summa cum laude* with a Bachelor of Arts degree in Economics from the University of North Florida. In 1995, I completed a management program at the Georgia Tech Management Institute. I began my BellSouth career in 1981 when I joined the Southern Bell Business Marketing organization in Jacksonville, Florida. In that capacity I was responsible for coordinating the interdepartmental efforts needed to implement complex voice systems and associated exchange

services. I transferred to the economic analysis group at company headquarters in Atlanta in 1985, where I analyzed operations costs for dedicated services. I subsequently was promoted to a position in which I had pricing responsibility for dedicated services, as well as for additional testing, maintenance and other special provisioning activities for access customers.

Q. What is the purpose of your testimony?

A. First, I will demonstrate that BellSouth is operationally prepared to support the market entry of local exchange competitors, and that other alternative local exchange companies (ALECs) are operating effectively with BellSouth's interfaces. Second, I will specifically address AT&T's petition as it relates to operational interfaces between BellSouth and ALECs in the following areas: ordering and provisioning, pre-ordering, trouble reporting, customer usage data transfer, and local account maintenance. I will demonstrate that BellSouth already has provided substantial electronic interfaces for those areas, including some for which AT&T now petitions the Florida Public Service Commission ("FPSC" or "Commission"). I will describe the costly and time-consuming work undertaken by BellSouth to provide still additional or enhanced interfaces, and will describe how the timelines for those efforts are driven by the complexities of the undertaking. I will further explain how BellSouth's electronic ordering interfaces comply with

existing and emerging national standards, and thus represent a reasonable approach to accommodating the operational needs of other ALECs as well as AT&T. I will describe how the AT&T-requested electronic ordering interface that BellSouth is jointly developing with AT&T is different from the interface for which AT&T now petitions this Commission. I will explain how BellSouth's substantial implementation efforts represent a balanced, reasonable and prudent approach to providing operational interfaces for ALECs. Finally, while cost recovery will be addressed by Mr. Scheye, I will include estimates of the significant costs associated with BellSouth's operational implementation in order to illustrate the strength of BellSouth's commitment to accommodating the local market entry of ALECs.

While such matters as ordering services and reporting troubles seem fairly straightforward, the underlying systems that support those activities are not. Of necessity, therefore, this testimony will contain certain technical information that is necessary to demonstrate the reasonableness of BellSouth's approach.

BellSouth's Operational Preparedness

Q. Is BellSouth operationally prepared for both resale and facilities-based local exchange competition?

A. Yes. For nearly a year and a half, BellSouth has devoted extensive human and financial resources to its operational plans for accommodating other local service providers, and to implementing those plans.

BellSouth has developed operational interfaces, processes and procedures for both resellers and facilities-based competitors. BellSouth has already made available interfaces -- many of which are electronic or mechanized -- for each of the areas requested by AT&T, and has other electronic interfaces under active development on accelerated timelines. Each of these interfaces will be described in later sections of this testimony. However, it is important to note at the outset that BellSouth's processes already are in operation for a number of competitors. In addition, BellSouth has undertaken extensive internal operational preparations to accommodate its competitors -- preparations which have required the expenditure of thousands of work hours as well as millions of dollars in internal systems changes.

Q. Please describe BellSouth's efforts to prepare operationally for local exchange competition.

A. In March, 1995, BellSouth established an interdepartmental operations planning team to identify solutions for the pre-ordering, ordering, provisioning, billing and repair needs of ALECs. Because of the broad

scope and sheer number of the issues, the solutions developed have involved and will affect almost every aspect of BellSouth's operations. Despite the extent of the operations preparations already completed, this work is still in progress, and has thus far resulted in:

- Numerous modifications to ordering and billing systems
- Development or modification of electronic operational interfaces
- Extensive process and procedure changes
- Employee training on new procedures and obligations
- Establishment of new roles and responsibilities

Q. Has BellSouth established an ordering center for facilities-based ALECs?

A. Yes. Facilities-based ALECs order interconnection trunking and most unbundled elements through the Interexchange Carrier Service Center (ICSC). BellSouth has produced a handbook for use by facilities-based ALECs to explain the ordering process for these services. The ICSC is the same ordering center that handles access orders for interexchange carriers (IXCs) and competitive access providers. These orders are received and processed through the same mechanized ordering system used today by IXCs to submit Access Service Requests (ASRs) for access services. Using this process facilitates the requests of most ALECs for firm order confirmations and design layout records. This

system, called EXACT (Exchange Access Control and Tracking), was put into place in 1984 to provide mechanized order communications between BellSouth and IXCs, and operates in accordance with national industry standards. Those standards were developed by the telecommunications industry's standard-setting body, the Ordering and Billing Forum (OBF). The OBF has endorsed the ASR method for processing local interconnection trunking orders.

When BellSouth receives an ASR via EXACT, BellSouth creates service orders, often with the aid of internal mechanized order generation programs. These same procedures apply to the new order types related to local competition. The ICSC service representatives have been trained on these new types of orders, and are actively processing such orders today.

Q. Does AT&T currently submit its access orders through a real-time or interactive ordering interface?

A. No. While BellSouth does have an interactive interface to EXACT available that processes ASRs every 15 minutes, AT&T sends its orders via EXACT in "batches". Batch processing simply means that orders are collected in groups and sent at certain intervals. AT&T sends batches of access orders to BellSouth four times per day.

Q. Is AT&T satisfied with this industry-standard order processing method for local interconnection trunking and the unbundled elements supported by the ASR process?

A. That has not been clear. While most of our electronic interface discussions with AT&T have focused on resale, their petition to this Commission is so broadly worded that their request for a real time, interactive interface could apply to ordering for interconnection as well.

Q. Does BellSouth believe that the existing industry standard for access services -- the ASR process -- should be used for local interconnection trunking and the unbundled elements supported by that process?

A. Yes, for the following reasons. The ASR process has worked well in the access environment for many years, and can support orders for local interconnection trunking and unbundled elements as well. More importantly, the OBF sanctions and supports using this ordering process for facilities-based local competition. In discussions with other facilities-based local competitors, nearly all have sought assurances that BellSouth would comply with OBF ordering standards for interconnection and unbundling. In fact, through the ASR process, BellSouth already has processed orders for more than 1000 local interconnection trunks to connect ALECs with BellSouth's network.

Until such time as OBF recommends otherwise, BellSouth believes this Commission should recognize the existing industry-standard ASR process as the appropriate electronic ordering standard for local interconnection trunking and for the unbundled elements currently supported by that process. This will allow BellSouth to continue using the EXACT system to process these requests.

Q. Has BellSouth established an ordering center for resellers?

A. Yes. BellSouth created a new center, the Local Carrier Service Center (LCSC), as the point of contact for ordering and billing matters for all resellers operating in the BellSouth region. BellSouth also has created a handbook for use by resellers to describe the ordering process for resold services. The LCSC also handles orders for certain unbundled elements not supported via the ASR process, such as listings for facilities-based ALECs, interim number portability, and unbundled ports. That center, which is physically located within the Atlanta ICSC, was operational prior to July 1, 1995.

Equipping the LCSC has thus far resulted in capital expenditures of more than $400,000. This cost was incurred to purchase routers, servers, terminals and other equipment necessary to provide the LCSC service representatives with the initial ability to process orders and billing inquiries. From the outset, BellSouth anticipated that industry

ordering standards for resale would emerge, and would result in electronic interfaces similar to those used for access. Of course, even early on BellSouth had every intention of complying with those standards as they became available. The importance of adopting industry standards for resale, and the interfaces currently being developed on the basis of those standards, will be described in detail later in this testimony.

The center also hired LCSC service representatives, and trained them on the types of orders, both simple and complex, that resellers were expected to generate. The LCSC also is prepared to handle ALECs' orders for listings, interim number portability and unbundled ports. To date, the LCSC has successfully processed more than 1,500 service orders associated with local competition for the BellSouth region. This demonstrates that the processes BellSouth has established to support ALECs' initial market entry in fact have met that objective.

Q. Has BellSouth provided other direct support to ALECs entering the local exchange market?

A. Yes. In addition to establishing the ordering centers and creating the other interfaces that will be described in this testimony, BellSouth assigned account team managers from the InterConnection Services business unit to all new entrants. Also, the responsibilities of existing

account teams serving interexchange carriers (IXCs) have been expanded to support the needs of IXCs who become ALECs. These teams assist resellers and facilities-based ALECs with activities such as completing ordering documents for complex resold services, or establishing interconnection trunking arrangements. BellSouth also provides its resale and facilities-based handbooks to all new entrants to assist them with their interaction and communications with BellSouth.

Q. Has BellSouth committed significant personnel and financial resources to preparing operationally for local exchange competition?

A. Yes. The magnitude of this ongoing effort has involved extensive resources within BellSouth and has generated significant expense. For example, the operations team itself has averaged approximately ten full-time members since April of 1995, with numerous other employees involved on an *ad hoc* basis during that same period. By conservative estimate, the ten full-time members alone represent more than 27,000 work hours expended thus far. In addition, a separate team of technical experts has been working full-time with AT&T on an electronic ordering interface. That team was established in May, 1996.

Furthermore, BellSouth has made available or has under active development electronic operational interfaces specifically for use by ALECs. Those interfaces, the costs of which currently are projected to

be approximately $10.5 million, address each of the operational areas raised in AT&T's petition, and will be described in detail in later sections of this testimony. These cost projections are summarized on the chart filed with this testimony as Attachment GC-1.

Q. Have there been other significant expenditures?

A. Yes. In addition to the $10.5 million cost for developing electronic interfaces, expenditures for other internal operational support and billing system changes needed to support ALECs' entry are expected to approach $5 million by the end of 1996. This systems' work encompasses many areas. For example, BellSouth's billing systems have been modified extensively to handle services provided to ALECs. Further, to protect ALECs' account records, BellSouth initiated system modifications to "restrict" ALECs' end user account information from BellSouth's end user customer service centers. Simultaneously, BellSouth developed a mechanized process to display ALECs' telephone numbers to end user service representatives, so that, if the end user should mistakenly call BellSouth, the service representative can provide the ALEC's number to the end user. Even more systems changes were needed to display ALEC contact information on the handheld terminals used by service technicians installing or repairing services on behalf of an ALEC. These and myriad other changes were initiated by BellSouth to accommodate the ALECs' market entry. Mr.

Scheye will address in his testimony the need for determining how BellSouth will recover these significant costs that have been incurred to serve ALECs.

BellSouth's Planning Assumptions

Q. When BellSouth began its operations planning process, did it have specific information about the operations requirements of the new entrants?

A. No. BellSouth initially had little factual information. First, BellSouth had no information as to when ALECs would choose to enter the local exchange market, or exactly who those entrants would be. Next, BellSouth could not be certain as to whether ALECs would choose to emphasize resale or facilities-based competition. For example, AT&T's decision to discontinue actively marketing local exchange services during its resale market trial in Rochester gave little indication as to whether resale would be a significant or long-term market strategy.

Q. In the absence of such information, did BellSouth proceed with its planning and implementation?

A. Yes. Based on legislative activity in its region, BellSouth set for itself the objective of ensuring that it could accommodate the initial entry of

any ALEC in the BellSouth region by July 1, 1995. However, to my knowledge no company, including AT&T, requested an operational meeting until after that date. Therefore, in undertaking its operations planning, BellSouth had to make a number of assumptions about the resale and interconnection markets, and about the operational requirements of both resellers and facilities-based ALECs.

Q. Please describe some of those assumptions.

A. BellSouth assumed that facilities-based ALECs would expect to use the existing electronic order communications and trouble-reporting processes available for access services to the extent possible. BellSouth therefore established procedures for facilities-based ALECs that relied heavily on those existing electronic interfaces.

For resale, BellSouth proceeded under the assumption -- which has proven to be well founded -- that it would need initially to be prepared to interface with a range of resellers with varying capabilities. These included niche resellers, whose mechanization needs and capabilities would likely be minimal, as well as more sophisticated resellers such as large interexchange carriers.

Q. Did that assumption affect BellSouth's early implementation activities?

A. Yes. BellSouth's initial objective was to move quickly to ensure it could operationally accommodate the initial entry of any reseller, then to proceed with developing additional or more sophisticated interfaces, if warranted, as industry standards became available and the resale market picture became more clear.

For some interfaces, meeting this objective necessitated a phased approach to development. The first or interim phase, which was intended to ensure that any ALEC could enter the market, involved a combination of some mechanized and some manual processes. The second or longer-term phase, which is well underway, is intended to provide additional mechanization capabilities for those ALECs preferring that mode of operation. Where a particular type of interface involved a phased approach, the specific capabilities associated with each phase will be detailed in the individual descriptions of each interface later in this testimony.

Q. AT&T asks the Commission to issue orders requiring BellSouth to provide electronic interfaces to accomplish pre-ordering, ordering and provisioning, maintenance and repair, customer usage data transfer, and local account maintenance. Is BellSouth prepared to accommodate the needs of ALECs in each of these areas?

A. Yes. BellSouth has made available interfaces -- many of which are electronic -- for each of the areas requested by AT&T. While each area will be discussed individually in this testimony, it is important to note that some of these interfaces were initiated by BellSouth early in its planning process, prior to having any operational discussions with an ALEC. For example, BellSouth proactively developed the electronic interface that is now available to provide ALECs with daily customer usage data transfer. In addition, BellSouth initiated modifications to the electronic interface previously used by IXCs to validate street addresses, expanded the capabilities of that interface to serve the needs of ALECs, and created a data file for use in ALECs' computer systems to provide feature information to ALECs. Also, BellSouth determined that it would be feasible for ALECs to use the existing electronic trouble reporting gateway previously available to IXCs. For each of these and other areas, BellSouth has worked diligently to accommodate AT&T's demands, and in many cases has modified its initial design to accommodate those demands.

Electronic Interfaces and "Parity"

Q. In its petition, AT&T takes the position that electronic access via a gateway to BellSouth's operational support systems is necessary to ensure parity between AT&T's and BellSouth's local service offerings.

Does BellSouth agree that electronic interfaces are necessary for parity?

A. No. As discussed in Mr. Varner's testimony, AT&T's arguments about parity are not supported by the Telecommunications Act of 1996 ("the Act"). Even if AT&T's concept of parity were supported by the Act, however, that concept would not justify the types of electronic interfaces sought by AT&T. In attempting to link its notion of "parity" with electronic access to BellSouth systems, AT&T is confusing its operational needs with its operational preferences. In fact, parity and electronic interfaces do not go hand-in-hand. Parity, even as defined by AT&T, would require only that certain information be available to resellers, and that processes exist to support the exchange of information. BellSouth has developed processes and procedures -- many of which are electronic -- to exchange the necessary information. As long as that information is exchanged, how the information is exchanged is secondary. The fact that AT&T *prefers* electronic interfaces, and *prefers* real-time or interactive arrangements, is hardly a requirement from the end user's point of view.

AT&T's arguments regarding parity rely on the misconceived notion that, in the absence of electronic access to BellSouth's systems, AT&T will be unable to entice customers to switch to their service because it will just be too burdensome for the customer to do so. It is important to

note that the vast majority of customers for whom AT&T will initially compete will be the existing base of customers who already receive local service from BellSouth. For resale, the principal action required to switch those existing customers will be to change the billing records for that account. That is, BellSouth will cease billing the end user for local service at the retail rate and will begin billing the new service provider at the wholesale rate.

It is highly likely that customers will be persuaded to switch primarily by factors such as the availability of customer choice, the strength of AT&T's brand, and the long-awaited prospect of one-stop shopping. It is highly *unlikely* that the communications processes used between AT&T and BellSouth will be a factor in the end user's decision to switch -- the end user should neither know, nor care, that such communication is even necessary.

Q. AT&T often cites its dissatisfaction with the arrangements it encountered in its Rochester resale trial as evidence of its need for electronic interfaces. How do BellSouth's arrangements compare with those employed by Rochester?

A. First, unlike Rochester, BellSouth has many mechanized processes available to support resellers, and has others under active development. However, even for its interim manual methods,

BellSouth attempted to make the process as easy as possible for resellers. For example, to switch an existing customer, BellSouth's form requires only three items of information: the customer's name, telephone number, and a simple checkmark on the order form to indicate that all services should be switched "as is". (This is depicted on the sample form filed with this testimony as Attachment GC-2.) In addition, the resale order forms are available on computer diskette, which enables resellers with personal computers (PCs) to fax the forms directly from their PCs to the LCSC.

For the same situation in Rochester, however, the reseller was required to elicit from the end user every detail of the existing service arrangement, including an enumeration of all optional features, and to provide that information on a multipage ordering form. Rochester's arrangements may have had a direct impact on the end user; but BellSouth's arrangements were designed to be transparent to the end user and easy for the reseller.

Industry Standards, Cost Justification and Timing

Q. You have indicated that BellSouth has made available a number of electronic interfaces, and has others under active development. What, then, are BellSouth's main concerns with regard to AT&T's requests?

A. BellSouth believes the key issues include the availability of and compliance with national industry standards, cost justification of the development effort, timing, and -- as addressed by Mr. Scheye in his testimony -- cost recovery. Throughout its implementation process, BellSouth wanted to be certain that it invested its time and money wisely. BellSouth therefore has sought to ensure that any additional interfaces it developed were compatible with the industry standards that would eventually emerge, that they were cost-justified on the basis of order volumes, and that the timing of the expenditures matched the actual market need.

Q. What are BellSouth's concerns with regard to industry standards?

A. BellSouth's objective was to be certain it offered interfaces that met the needs of all ALECs. The need to support all ALECs prompted BellSouth's concern that premature or independent development of an electronic interface for a specific reseller would be wasted investment on BellSouth's part if a different process were adopted as the national standard.

BellSouth, along with AT&T and most major industry players, has long participated in the OBF, which sets standards for the ASR-based ordering and provisioning processes for access services. Based on its experience in that forum, BellSouth recognized that most facilities-

based ALECs would expect to expand their use of the existing access ordering interfaces to include local interconnection and unbundling.

BellSouth also recognized that, if resale became a dominant ALEC strategy, large resellers ultimately might prefer electronic or mechanized interfaces. However, BellSouth also assumed that -- as with mechanized interfaces for access services -- those resellers would want industry solutions to mechanization issues. For example, given that national resellers could be expected to operate from centralized operations centers, it would not appear cost-effective for those resellers to use different mechanized arrangements to interface with different local exchange companies.

Furthermore, it would have been an imprudent use of resources for BellSouth to establish independent mechanized interfaces, knowing that subsequently the industry could well establish different standards -- standards that BellSouth ultimately would be expected to meet. Indeed, in May of 1995, OBF expanded its scope beyond access services to include all interconnection, including local. Therefore, BellSouth was well aware that OBF would play an active role in evaluating the resale ordering process and associated systems, and that OBF intended to develop national standards.

Q. Have BellSouth's concerns about industry standards proven to be valid?

A. Yes. In negotiations with larger ALECs, nearly all have sought assurances that BellSouth would adhere to OBF standards for interconnection, unbundling and resale, as the various standards became available.

Q. Does AT&T recognize the likelihood of industry standards for electronic interfaces?

A. Yes, it would appear so. AT&T, along with BellSouth, has been a regular participant in OBF meetings in which these topics have been addressed. Therefore, it would appear that AT&T is fully aware of the OBF's role in establishing standards, as well as the entire industry's reliance upon those standards.

Q. What were BellSouth's concerns with regard to ALEC order volumes and timing, and how did those relate to the development of additional electronic interfaces?

A. Given that additional electronic interfaces beyond those already available will cost millions of dollars to design and implement, BellSouth wanted to be certain that any further interfaces it developed were cost-

justified on the basis of order volumes, and that the timing of its expenditures for additional interfaces matched the actual market need as closely as possible. At low order volumes, BellSouth's interim manual procedures would not be a burden for an ALEC. Therefore, there would be little justification for additional electronic interfaces to support ALEC market entry, even if an ALEC "preferred" a mechanized mode of operation. In addition, even if low initial volumes were expected to increase, or the types of orders were expected to be different, BellSouth still needed information about the timeframes in which those increased volumes or order types were expected. It would have been an imprudent use of BellSouth's resources to commit people and money to developing interfaces to support low ordering volumes, or to prematurely provide interfaces for volumes that were not expected to materialize or become significant until some unspecified point in the future.

In view of this concern, BellSouth attempted to obtain information on ordering volumes, order types and timing in operations discussions with various ALECs, including AT&T. As early as September of 1995 and on many occasions thereafter, BellSouth advised AT&T that, along with the availability of industry standards, the availability of AT&T's volume and timing forecast would be a key element in enabling BellSouth to make a fact-based decision on the cost-effectiveness of additional electronic interfaces.

Q. Did AT&T provide this information as requested by BellSouth?

A. Despite BellSouth's repeated requests, as well as BellSouth's offer to sign a non-disclosure agreement and to protect the information from BellSouth's retail marketing units, AT&T did not provide any information until seven months after BellSouth's initial request.

Electronic Interfaces Provided by BellSouth

Q. Please list the specific electronic interfaces that BellSouth has offered to ALECs.

A. These interfaces include: ordering and provisioning, pre-ordering, trouble reporting, billing usage detail and local account maintenance. I will describe each of these arrangements individually.

Ordering Interfaces

Q. Does BellSouth provide electronic ordering interfaces for use by ALECs?

A. Yes. Local interconnection trunking and most unbundled elements are being ordered via EXACT -- the mechanized system used for access

services. For other ALEC order types, including resale, BellSouth is jointly developing with AT&T an AT&T requested electronic ordering interface.

Q. What was the impetus for BellSouth to begin developing the new interface?

A. In April of 1996, there were two significant developments related to BellSouth's stated concerns. First, AT&T finally provided BellSouth with a preliminary ordering forecast. BellSouth obtained that information pursuant to a non-disclosure agreement, and thus will not disclose its contents here. However, it did contain some information that provided BellSouth with a factual basis for proceeding with an electronic order communications process for resale.

Second, on April 23, 1996, the Ordering and Provisioning Committee of OBF recommended standards for resale order communications. The recommended standard is based on an arrangement known as Electronic Data Interchange, or EDI. AT&T also had requested that BellSouth pursue an EDI-based interface. Therefore, the OBF recommendation, while far from a final standard, at least gave BellSouth the assurance it had sought that its development efforts would be in keeping with the eventual national standard.

Q: On the basis of these developments, what actions did BellSouth take?

A. The week following OBF's recommendation of the EDI standard, BellSouth assigned a team of experts to work with AT&T on the technical details of the implementation. That work has proceeded on a full-time basis since then.

Q. Does this mean, then, that BellSouth -- at AT&T's request -- is working with AT&T on an EDI interface, and that OBF has sanctioned EDI for ALEC order communications?

A. Yes.

Q. Should the EDI ordering interface being jointly developed by BellSouth and AT&T therefore satisfy AT&T's requirements?

A. Yes, BellSouth believes that the EDI interface is sufficient to support AT&T's initial market entry. Prior to receiving OBF's EDI recommendation, BellSouth and AT&T had discussed the feasibility of various types of electronic interfaces, including EDI. AT&T's stated preference was an EDI interface. However, the EDI interface is neither "real-time" nor "interactive", as requested by AT&T in its petition, nor need it be. The EDI interface still meets AT&T's ordering needs.

Q. How has AT&T defined "real-time"?

A. AT&T has not provided BellSouth with a clear definition of "real time". While BellSouth defines real-time as transmitting and processing data and transactions as they occur, AT&T used the term rather loosely in its original requirements to BellSouth. In some instances, AT&T initially asked for "real time" responses that were later clarified to mean something other than an electronic interface. For example, an initial requirement for "a real time response for Order Status at critical intervals" subsequently was clarified by AT&T to mean that "AT&T needs critical dates on all designed or complex orders." In some instances, AT&T used "real time" simply to indicate the need for an electronic feed.

Q. How has AT&T defined "interactive"?

A. AT&T has not provided a definition of "interactive". However, BellSouth interprets interactive to mean that, when an individual with a computer inputs a query, they receive a response. It is important to note that serving a customer in an "interactive" manner is not dependent upon having either a "real time" or an "interactive" interface. For example, BellSouth could electronically provide a data file of information that AT&T could then load in its own computer. AT&T could then "query" that data, and receive a response. The fact that the information was

provided via a data file, rather than through a "real-time" or "interactive" electronic interface to a BellSouth system, would not prevent AT&T from building its own interactive interface to that data to serve its customers "interactively".

Q. Even though EDI is not a real-time interface, can it be made to function in near real-time?

A. Yes. While EDI is not a real-time interface, it can be made to function in near real-time. This depends on the choice of transport method between the parties' computer systems, and the software applications in those systems. For example, these transport methods can include either Value-Added Networks (VAN), or point-to-point private line connections. Of these, VANs are least able to support real-time transactions. This is because a VAN functions as a "middleman" in the EDI world, or like a centralized electronic post office where electronic mail is sorted for later delivery. This process, of course, adds time to transactions as the VAN collects and distributes data. Point-to-point private lines, on the other hand, do not suffer from the delays inherent in VAN-based transport, and thus are better suited to near real-time processing.

Q. What type of transport method did AT&T request for the EDI interface?

A. AT&T chose a VAN as its preferred data transport method. In view of AT&T's emphasis in this proceeding on real-time, interactive interfaces, their choice of VAN transport is puzzling to BellSouth. For the reasons explained earlier, VAN transport is at odds with a real-time arrangement.

Q. What EDI transport method was proposed by BellSouth?

A. BellSouth proposed point-to-point private lines for transport, which would have allowed the EDI interface to function in near real-time. Should AT&T change its requirements in the future and abandon the VAN in favor of private line connections, the EDI interface can then be made to function in near real-time.

Q. So while petitioning this Commission for a real-time, interactive interface, AT&T rejected the BellSouth-proposed EDI transport method -- a method which would have moved AT&T closer toward its publicly-stated objective of a real-time interface?

A. Yes.

Q: Despite the conflict with AT&T's petition, does BellSouth believe that fundamentally the EDI interface being developed by BellSouth satisfies

an ALEC's reasonable requirements for an electronic ordering interface for resale?

A. Yes. The EDI interface certainly has the capability to support AT&T's and other ALECs' needs, and has been designed to AT&T's specifications.

Q. Does BellSouth recommend EDI as an appropriate electronic ordering interface for resale?

A. Yes, for the following reasons. First, the OBF and other related industry committees have adopted EDI as the industry standard for such ordering. Those industry committees have made the development of local service ordering guidelines their number one priority. Thus, while industry standards are far from being finalized, it is clear that the work BellSouth has in progress is very likely to be in concert with the emerging industry standards.

Second, EDI provides ALECs with an electronic order communications process for resale that is similar to that currently used for access services. The EXACT system allows IXCs and ALECs to submit ASRs electronically. Upon receipt of the ASR, the ICSC creates service orders to flow through BellSouth's internal service order systems. The EDI interface under development will allow a reseller to submit Local

Service Requests (LSRs) electronically. As with access, the LCSC will then create service orders that will flow through all BellSouth's provisioning systems in the same manner as do BellSouth's end user orders. The similarities between the access and resale processes are depicted in the drawing filed with this testimony as Attachment GC-3.

Next, using the EDI interface is beneficial to a reseller. The EDI arrangement allows a reseller to transmit LSRs via data lines rather than FAX lines, and to receive confirmation of those orders electronically as well.

Finally, this arrangement also provides a foundation for mechanized enhancements of the order generation process. For all these reasons, BellSouth believes this Commission should find that the EDI arrangement under development is an appropriate vehicle for electronic resale order communications.

Timing and Cost of Ordering Interfaces

Q. AT&T's petition states that BellSouth refuses to make AT&T's preferred ordering interfaces available upon AT&T's initial market entry. When does BellSouth anticipate that the EDI interface will be operational?

A. Implementation of the initial EDI links for an order transmission and confirmation process for single line residence, single line business, PBX and vertical service orders is scheduled for September, 1996. Expansion of the interface to include complex orders at the first production site is scheduled for December, 1996.

Q. Is this an aggressive schedule?

A. Yes, this is very aggressive, particularly considering the number of order types to be included. Furthermore, due to the detailed technical negotiations that must take place for each type of transaction, it is not unusual for an EDI implementation to be lengthy. These technical negotiations, which are well underway between BellSouth and AT&T, are among several industry-recognized steps that must be taken to ensure a successful EDI implementation.

For example, the parties must agree on an industry standard, on what type of information will be exchanged on the interface, and must agree on the data transport method. Further, the parties must agree on the characteristics of every field on every business form that will be used, so that the computer systems on either end of the interface will be able to interpret the data correctly.

The BellSouth EDI implementation is particularly time-consuming because of the emerging nature of the industry standards. Typically, an EDI implementation begins with a well-developed industry standard that includes many pre-defined data elements. The parties' technical negotiations then focus on customizing these pre-defined data sets for their particular use. In this case, BellSouth and AT&T are operating somewhat ahead of the industry, and are therefore having to include in their development effort much of the detailed definition work that normally would take place at the industry level, in the standard-setting committees. However, on the basis of the OBF recommendation to adopt EDI as the standard, BellSouth agreed to undertake this definitions work with AT&T in order to expedite delivery of the interface. In doing so, BellSouth naturally expected that AT&T would support the jointly-developed specifications at the industry level.

In summary, the need to negotiate every detail of every transaction that will take place over the interface is one of the primary drivers of the implementation timetable. BellSouth has a team of technical experts currently working on a full-time basis to develop such a specific structure based on the OBF recommendation to adopt EDI. While those experts are jointly developing the initial structure with a team from AT&T, the structure being developed is not intended to be, nor should it be, specific to BellSouth and to AT&T. Rather, it is intended

to be the structure for any local service provider using EDI-based order communications with BellSouth.

Q. What are the projected costs of providing the EDI-based ordering interface?

A. The cost of establishing the initial EDI links between AT&T and BellSouth for single line residence, single line business, PBX and vertical service orders initially was estimated to be in the range of $300,000 to $500,000. These costs will increase as additional capacity is added and additional testing is undertaken to support other ALECs. In addition, these amounts do not include ongoing support costs.

BellSouth also has agreed to expand the scope of the EDI implementation to include complex order types. The costs of this additional work have not yet been finalized. However, they are expected to be at least as much as the cost of the initial order types. As the development effort proceeds through the design phase these costs will be determined. Finally, as detailed OBF standards are adopted throughout 1997 and 1998, BellSouth anticipates that some rework and associated expenditure may be required to ensure its interface complies with the final standards.

Q. Please summarize BellSouth's position on electronic ordering interfaces.

A. The industry-standard ASR process used for access services will support electronic ordering for local interconnection trunking and most unbundled elements. No additional interfaces are required for these services. For resale and certain unbundled elements such as listings, interim number portability and unbundled ports, BellSouth -- at AT&T's request -- is co-developing an OBF-sanctioned EDI interface with AT&T; that interface provides electronic order communications comparable to those for access services. BellSouth has a team of technical experts working full-time with AT&T on the EDI implementation; that team is operating on an accelerated timeline.

AT&T has not shown that a real-time or interactive ordering interface is necessary to support its market entry, however, the industry-sanctioned EDI interface *will* support AT&T's market entry. Furthermore, the EDI interface could have been designed to function in a near real-time mode if AT&T had accepted BellSouth's recommended transport method. BellSouth believes this Commission should recognize the EDI interface and the current schedule to provide it as reasonable and appropriate for all ALECs, including AT&T.

Provisioning

Q. AT&T's petition also refers to provisioning systems. Is direct access to BellSouth's provisioning systems a requirement for either resale or facilities-based interconnection?

A. No. Provisioning of interconnection, unbundling and resale services ordered from BellSouth are BellSouth's responsibility. No interfaces are required -- all necessary provisioning activities are triggered by the service order.

Pre-Ordering Interfaces

Q. How does BellSouth define pre-ordering information?

A. Pre-ordering information allows a reseller to determine the availability of features and services, assign a telephone number, advise the customer of a due date, and validate a street address for service order purposes. Pre-ordering information does not include marketing information about BellSouth's existing customers.

Q. Is pre-ordering information needed for all orders?

A. No. This information is only needed for those orders involving new service or changes such as adding features. It is not needed for existing customers simply changing to a reseller without feature or number changes.

Q. AT&T indicates in its petition that BellSouth is unwilling to provide AT&T with real-time and interactive access to its operational support systems via electronic interfaces. Is this true?

A. No. Because of the number of systems involved, this undertaking is complex, time-consuming, and involves significant expense. Therefore, BellSouth's work in this regard necessarily has proceeded in two phases. The first phase, which BellSouth began in mid-1995, includes real-time interactive access to some pre-ordering information, and makes arrangements for all pre-ordering information. The second phase provides real-time interactive access to all categories of pre-ordering information.

Q. Please describe phase one for pre-ordering.

A. The first pre-ordering phase was intended to ensure that any ALEC entering the market could assign telephone numbers, ascertain the availability of features and services, and advise the customer of a due

date. This phase involved a combination of mechanized and manual processes.

Q. What were the specific capabilities available during phase one?

A. Phase one includes the following four capabilities, all of which provide the ALEC with the capability to obtain pre-ordering information and to advise the customer accordingly -- with the customer on the line -- without consulting BellSouth:

- Real time access via an electronic interface to information that identifies the serving central office for a particular street address, and that validates the address for service order purposes. This, together with the feature information described in the next bullet, allows an ALEC -- with the customer on the line -- to advise the customer of feature and service availability without consulting BellSouth. The cost of this development effort was about $200,000.
- Access through a data transmission line to a data file containing service and feature availability for each serving central office. Using the data line, the ALEC can access this information at will, or can download this information to its own computer system and access it interactively. Together with the information described in the previous bullet, the ALEC can use this

information to advise its customer of feature and service availability -- with its customer on the line -- without consulting BellSouth.

- Access through a computer diskette file to a pool of telephone numbers reserved for the ALEC in each central office requested by the ALEC. If an ALEC loads this file into their own computer system, the ALEC can interactively assign telephone numbers from this pool -- with its customer on the line -- without consulting BellSouth.
- Access to installation intervals through interval guidelines developed by BellSouth. This information can be used by the ALEC to quote a due date to its customer without consulting BellSouth.

Q. Please describe the phase two pre-ordering capabilities.

A. Having ensured via its phase one procedures that ALEC market entry could proceed, BellSouth then began evaluating a fully mechanized capability for the second phase effort. BellSouth completed its formal proposal on May 1, 1996, and subsequently began its actual development effort. Phase two varies from the phase one capabilities in the following ways:

- Real-time access to the information that identifies the serving central office for a particular street address, and that validates the address for service order purposes, will continue to be provided. In addition, BellSouth will enhance this interface to provide additional information of interest to the ALEC, such as the availability of facilities at a particular location.
- Real-time access will replace the data transmission line access to information on service and feature availability.
- Real-time access to telephone number reservation information will replace the computer file of reserved telephone numbers.
- Real-time access to the information BellSouth uses to calculate due dates will replace the installation interval guidelines.

The specific pre-ordering capabilities for both phase one and phase two are shown on the figure filed with this testimony as Attachment GC-4.

Q. What type of pre-ordering interface has AT&T requested?

A. In its petition for arbitration, AT&T has requested that BellSouth provide real-time or interactive access through an electronic gateway to systems that BellSouth uses to access pre-ordering information.

Q. Will BellSouth's phase two pre-ordering interfaces satisfy AT&T's request?

A. It should. While the phase one interfaces include as much mechanization as possible, the phase two interfaces will provide real-time, interactive access to the same pre-ordering information used by BellSouth, as requested by AT&T.

Q. When will the pre-ordering interfaces be available?

A. The phase one interfaces are available now. The interdepartmental team planning the phase two project will complete the necessary technical specifications on August 15, 1996. Implementation is currently scheduled for completion by April 1, 1997.

Q. Is this an aggressive schedule?

A. Yes. This effort involves a number of systems and is tremendously complex. Hardware must be ordered and installed for the communications links necessary to provide the real-time, interactive capability. Further, presentation software must be developed and tested to display the information obtained from the databases. In addition, the databases themselves must be modified to provide the necessary data to the presentation system. All of these activities are magnified due to the number of systems involved.

Q. Will AT&T be able to compete successfully in the interim for customers who choose to switch their existing local service to a new provider?

A. Yes. For a customer switching their existing service to a new provider, it will not be necessary for a reseller to assign a telephone number, ascertain an installation date, nor investigate product and service availability. The reseller will merely notify BellSouth that the end user has elected to become a customer of the reseller, and BellSouth will make the necessary changes in the billing records.

Q. What are the projected costs of the phase two pre-ordering interfaces?

A. The cost of this project is currently estimated to be $5 million to $6 million. Actual cost will, of course, depend upon the final design.

Q. Please summarize your testimony on pre-ordering interfaces.

A. AT&T's claim that BellSouth is unwilling to provide AT&T with real-time and interactive access to its pre-ordering information is simply not true. BellSouth already has many mechanized processes in place that allow an ALEC to obtain pre-ordering information and to advise the customer accordingly -- with the customer on the line -- without consulting BellSouth. In addition, BellSouth is actively working on a complex, time-consuming and expensive interface that will provide AT&T with

real-time, interactive access to pre-ordering information. Meanwhile, this information is not even necessary to enable AT&T to compete for existing customers who simply choose to switch local service providers.

Electronic Interfaces for Maintenance and Repair

Q. AT&T claims in its petition that BellSouth has been unwilling to make a real-time, interactive electronic interface available for trouble reporting. Is this true?

A. No, it is not true. BellSouth has a fully electronic, real-time, interactive trouble reporting interface currently available for use by ALECs. In addition, at AT&T's request BellSouth has under development an enhancement that will provide ALECs with access to the same interactive testing capabilities BellSouth uses to screen POTS trouble reports. Finally, in keeping with its need to accommodate ALECs with varying mechanization capabilities, BellSouth also is prepared to accept verbal trouble reports.

Q. Please describe the currently available real-time, interactive, electronic interface for trouble reporting.

A. BellSouth has offered ALECs the same electronic interface for trouble reporting that is now available to IXCs for access services. This

interface allows the ALEC to enter a trouble report, obtain the same appointment interval that would be given to a BellSouth end user customer, subsequently add information to the report itself, check for trouble completion, cancel the trouble report if necessary and perform other trouble administration functions. In response to troubles reported via the gateway, BellSouth will test and initiate repair to the service.

The similarities between this arrangement and the electronic trouble reporting available for access customers are shown in the figure filed with this testimony as Attachment GC-5. This interface was implemented by BellSouth in 1995 for access services, at AT&T's request. This interface is based on national standards published by the American National Standards Institute (ANSI) and was implemented in accordance with industry guidelines. The ANSI standard defines the transfer of maintenance requests, status and closeout information between two telecommunications providers.

Q. Please describe the additional capabilities being added to the existing electronic trouble reporting interface.

A. At AT&T's request, BellSouth is adding the capability for the ALEC to access the same interactive testing sequence that BellSouth follows to screen trouble reports.

Q. When will this enhancement be available?

A. This enhancement is scheduled for completion in March of 1997.

Q. Is this an aggressive schedule?

A. Yes, it is. This system was not originally built for external access. Therefore, extensive modifications are required in order to maintain the security and integrity of the system. BellSouth is not internally staffed for this development effort. Therefore, after defining the technical specifications for the interface, BellSouth must acquire external programming resources for an effort that will require thousands of programmer hours. In addition, the preliminary architecture will require BellSouth to purchase and install a new computer platform to establish connectivity with the external users of this system.

Q. What is the estimated cost of providing this enhancement?

A. Current estimates are that this interface will cost BellSouth approximately $3.5 million to develop and implement. Actual cost will be determined as the implementation proceeds.

Q. Please summarize your testimony on electronic interfaces for trouble reporting.

A. AT&T's assertion that BellSouth is unwilling to provide a real-time, interactive, electronic trouble reporting interface is simply not true. BellSouth has already provided such an interface. In addition, at AT&T's request, BellSouth has a time-consuming and costly effort underway to provide additional interactive trouble reporting capabilities to ALECs.

Electronic Interfaces for Customer Usage Data Transfer

Q. In its petition, AT&T claims that BellSouth has been unwilling to make an electronic interface available for customer usage data transfer. Is this true?

A. No, it is not true. BellSouth already has the capability available to electronically provide customer usage detail to ALECs. This option provides detail for billable usage such as directory assistance or toll calls associated with a resold line or a ported telephone number. The usage option allows the ALEC to bill end users at their discretion, rather than on BellSouth's billing cycles. This option also allows an ALEC to establish toll limits, detect fraudulent calling, or analyze its customer usage patterns.

Q. How long has BellSouth had this electronic interface available?

A. In anticipation of ALECs' requests for this option, BellSouth undertook its development effort in September of 1995. This electronic interface was made available on March 31, 1996. In addition, BellSouth now has modified its original design to specifically accommodate an AT&T request; that modification will be completed in September of 1996.

Q. Does this interface meet AT&T's request for an electronic interface for customer usage data transfer?

A. Given that BellSouth already has available an electronic interface of the type requested by AT&T, and given further that BellSouth is modifying that interface specifically to accommodate AT&T, one would assume that the interface meets their needs.

Q. What are the estimated costs of this interface?

A. BellSouth's initial development cost for this interface was approximately $125,000. This does not include the cost of the AT&T modification, nor the ongoing costs for producing the usage files themselves.

Electronic Interfaces for Local Account Maintenance

Q. In its petition for arbitration, AT&T indicates it has requested that BellSouth provide an electronic interface for local account maintenance. What does this mean?

A. AT&T's petition is not clear in this regard. The petition defines local account maintenance as the means by which BellSouth can update information regarding a particular customer, such as a change in the customer's features or services. However, changes to a customer's features or services normally will be initiated by AT&T, and thus will be handled via the normal service order flow through the processes described throughout this testimony. There will, however, be some exceptions to this norm, and it is possible that AT&T is intending to address those exceptions with this request. However, these exceptions certainly do not warrant the cost and effort of establishing yet another interface.

Q. Please describe those exceptions.

A. The first exception occurs when an end user customer switches from one ALEC to another (i.e., from AT&T to another ALEC), and that end user's service involves, for example, a resold BellSouth service. AT&T has requested electronic notification of this change on a daily basis, which BellSouth has agreed to provide. BellSouth believes the only

issue associated with this request is cost recovery, as addressed by Mr. Scheye.

AT&T also has requested the capability, as the local exchange carrier, to initiate PIC (presubscribed interexchange carrier) changes on resold lines via a local service request. BellSouth has agreed to accept these orders, and is currently evaluating the data elements necessary to include them in the EDI ordering interface discussed previously.

Carrier Billing Standards

Q. AT&T has raised the issue of whether BellSouth should be required to provide carrier billing using industry standards. What is BellSouth's position?

A. BellSouth understands this issue to mean that AT&T wants BellSouth to bill resold local exchange services via the carrier access billing system (CABS). To BellSouth's knowledge, there currently is no industry standard requiring such billing, nor is one imminent.

The billing for the retail services available for resale, as well as the unbundled port offering, currently is done via the Customer Record Information System (CRIS). The CRIS billing system contains the necessary infrastructure to provide the line level-detail resellers need,

while the CABS billing system, which is geared towards access services, does not. AT&T appears to prefer CABS billing because of the CABS billing quality control measures with which AT&T is familiar. However, AT&T's resale billing account in CRIS will be subject to the same internal quality controls and measurements used for BellSouth's other CRIS accounts. The CRIS billing system has the capability to meet all the requirements delineated by AT&T except one: it is not CABS. AT&T's preference for CABS appears to be strictly that -- a preference. BellSouth believes that this Commission should support the use of the billing system equipped for the task at hand, which, for resold local exchange services, is the CRIS billing system. If, at some time in the future, the industry were to define CABS as the standard for resale billing, the matter should be addressed at that time.

Q. Please summarize your testimony.

A. BellSouth is operationally prepared to support the market entry of local exchange competitors. Other ALECs are operating effectively with the interfaces BellSouth has established to date. BellSouth has established or modified many electronic interfaces to support ALECs, and has others under development on an accelerated timeline. For ordering and for trouble reporting, BellSouth is providing electronic interfaces for both resellers and facilities-based carriers that are similar to the processes that have worked effectively in the interexchange

access world. While pre-ordering information is not even necessary to compete for customers who simply switch their existing service, BellSouth nonetheless has established interfaces to allow ALECs to obtain such information electronically. In addition, BellSouth has devoted substantial time and money to providing real-time and interactive pre-ordering interfaces, and additional trouble reporting capabilities, as rapidly as the complexity of the development effort will permit. BellSouth also has provided electronic customer usage data transfer, and is modifying its original design specifically to accommodate AT&T's requests.

The real-time and interactive interfaces demanded by AT&T are not requirements for successful market entry. An exchange of information *is* required, but how that information is exchanged is secondary, and is likely to be of little concern to the end user. Nonetheless, BellSouth has dedicated substantial resources in an attempt to understand and accommodate AT&T's "requirements", and has developed extensive electronic processes to support the exchange of information. In fact, a full-time BellSouth implementation team is jointly developing an OBF-supported ordering interface with AT&T. Meanwhile, AT&T petitions this Commission for a different type of interface.

BellSouth has committed thousands of work hours and millions of dollars to provide effective operational interfaces for AT&T as well as

other ALECs, and is operating on accelerated timelines. Nonetheless, AT&T ignores this substantial effort, and even petitions this Commission for some interfaces BellSouth already has provided. BellSouth hopes that this Commission will recognize BellSouth's implementation efforts as timely, appropriate and responsive to the needs of an emerging and evolving market.

Q. Does this conclude your testimony?

A. Yes.