

Legal Department

NANCY B. WHITE
General Attorney

BellSouth Telecommunications, Inc.
150 South Monroe Street
Room 400
Tallahassee, Florida 32301
(404)335-0710

October 15, 1996

Mrs. Blanca S. Bayo
Director, Division of Records and Reporting
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399

RE: Docket No. 961150-TP

Dear Mrs. Bayo:

Enclosed are an original and fifteen copies of BellSouth Telecommunications, Inc.'s Direct Testimony of Vic Atherton, Daonne Caldwell, Gloria Calhoun, Keith Milner, Tony Pecoraro, Walter Reid, Robert Scheye, and Al Varner. Please file these documents in the captioned docket.

A copy of this letter is enclosed. Please mark it to indicate that the original was filed and return the copy to me. Copies have been served on the parties shown on the attached Certificate of Service.

Sincerely,

Nancy B. White
Nancy B. White (AW)

Enclosures

cc: All Parties of Record
A. M. Lombardo
R. G. Beatty
W. J. Ellenberg

Atherton	11030-96	✓
Caldwell	11031-94	✓
Calhoun	11034-96	✓
Milner	11035-96	✓
Pecoraro	11036-96	✓
Reid	11037-94	✓
Scheye	11038-96	✓
Varner	11039-96	✓

- ACK _____
- AFA _____
- APP _____
- CAF _____
- CMU _____
- CTR _____
- EAG _____
- LEG 2
- LIN 5
- OPC _____
- RCH _____
- SEC 1
- WAS _____
- OTH _____

CERTIFICATE OF SERVICE

Docket No. 961150-TP

I HEREBY CERTIFY that a copy of the foregoing has been furnished by Federal Express this 15th day of October, 1996 to:

Benjamin W. Fincher
Sprint
3100 Cumberland Circle
#802
Atlanta, GA 30339

Monica Barone
Florida Public Service
Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399

Nancy B. White (M)

BELLSOUTH TELECOMMUNICATIONS, INC.
DIRECT TESTIMONY OF GLORIA CALHOUN
BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
DOCKET NO. 961150-TP
OCTOBER 15, 1996

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 Director 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. I will show that BellSouth is operationally prepared to support the market entry of competing telecommunications service providers (ALECs) in the areas of Pre-Service Ordering, Service Trouble Reporting, Service Order Processing and Provisioning, Customer Usage Data Transfer and Local Account Maintenance. To that end, BellSouth already has provided substantial electronic interfaces between BellSouth and ALECs. Furthermore, BellSouth has undertaken costly and time-consuming work to provide still additional or enhanced interfaces. The timelines for those additional efforts are driven by the complexities of the undertaking. BellSouth interfaces address each function required by the FCC in its First Report and Order in CC Docket No. 96-98 ("FCC Order"). BellSouth's electronic ordering interfaces also comply with existing and emerging national guidelines and standards. As such, BellSouth's interfaces represent a reasonable approach to accommodating the operational needs of ALECs, including Sprint. The significant effort and costs incurred during BellSouth's

operational implementation 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.

Q. Has BellSouth reached agreement on electronic operational interfaces with any other ALEC?

A. Yes. As AT&T has stated in testimony before the North Carolina Utilities Commission Docket No. P-140, Sub 50 on September 30, 1996, BellSouth and AT&T have agreed on the interfaces and the schedule, for Pre-Service Ordering, Service Trouble Reporting, Service Order Processing and Provisioning, Customer Usage Data Transfer and Local Account Maintenance as they pertain to resale. However, BellSouth's electronic interfaces cover these functions for not only for resale, but also for interconnection and for unbundled network elements. Based on the fact that these same interfaces apply for both resale and unbundled network elements, BellSouth believes this Commission should find that no additional interfaces are required for AT&T, and that the interfaces and implementation schedule agreed upon with AT&T are also appropriate for Sprint.

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 Sprint. BellSouth 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. 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 guideline-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 Sprint currently submit their 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, Sprint send its orders via EXACT in "batches". Batch processing simply means that orders

are collected in groups and sent at certain intervals, such as several times per day.

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

A. That has not been clear. Sprint does emphasize the need for adhering to industry standards. However, in Mr. Key's testimony on page 10, Sprint requests real-time electronic ordering systems for unbundled network elements and interconnection facilities. This request is at odds with the existing industry-wide mechanized ordering procedures for these services.

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

A. Yes. 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 in Florida for more than 1900 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-wide ASR process as the appropriate electronic ordering interface for local interconnection trunking and for the unbundled elements currently supported by that process. This will allow BellSouth to continue using the mechanized 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. 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 and interim number portability. 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 on an electronic ordering interface. That team was established in May, 1996.

BellSouth has devoted substantial resources to developing electronic operational interfaces specifically for use by ALECs. Those interfaces

address each of the operational areas raised in Sprint's petition, and will be described in detail in later sections of this testimony. While detailed analysis and design work can provide a firm picture of the ultimate cost of the various interfaces, the initial cost estimates total approximately \$10.5 million. These are preliminary estimates, and may be understated, perhaps by as much as half. These cost estimates will continue to change until the final analysis, design, and implementation work is complete. Furthermore, as addressed by Mr. Scheye, the cost recovery issue is still outstanding. The current cost projections are summarized on the chart filed with this testimony as Exhibit GC-1.

Q. Have there been other significant expenditures?

A. Yes. In addition to the estimated 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 a ALEC. These and myriad other changes were initiated by BellSouth to accommodate the ALECs' market entry. As addressed by Mr. Scheye the cost recovery issue has not been resolved.

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 for ALECs.

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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 Sprint, 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 first 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 resale 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. In its petition, Sprint asks the Commission to conclude that BellSouth must provide electronic interfaces to accomplish functions described in

this testimony as 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, and provide electronic interfaces, in each of these areas?

- A. Yes. BellSouth has made available interfaces -- many of which are electronic -- for each of the areas requested by Sprint. 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 a 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 Sprint's and other ALECs' requests.**

- Q. Has Sprint requested a "switch as is" process?**

- A. Yes. On page 28 of the "Sprint Terms for LEC/CLEC Interconnection and Other Agreements - Interconnection, Unbundling, Resale, Ancillary Services and Associated Arrangements", Sprint requires an "as is" process when customers are migrating from BellSouth to Sprint at the same location. This is consistent with the "switch as is" process developed by BellSouth, which 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". 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.
- Q. Mr. Key suggests in his testimony that BellSouth says it supports the concept of operational parity, however, at a detailed level of actual operational interface, the notion of true operational parity goes awry. Is this true for BellSouth?
- A. No. BellSouth proactively implemented several electronic interfaces prior to initial operational discussions with Sprint beginning on July 12, 1996, and was actively working on design and development for several others. For example, BellSouth completed the development of the billing electronic interface for daily customer usage data by March 1996 and the address validation on-line interface by April 1996.

In addition, BellSouth will provide the following interfaces on the following schedules:

- **Electronic interface for ordering interconnection trunking and most unbundled elements -- available now;**
- **Electronic interface via electronic data interchange (EDI), for ordering resold services and unbundled elements such as listings and ports -- scheduled for availability by December 15, 1996;**
- **Electronic interface for pre-ordering information on serving central office and street address validation -- available now, with real-time, interactive enhancements scheduled for April, 1997;**
- **Electronic access to pre-ordering information on product and service availability by serving central office -- available now, with real-time, interactive, enhancements scheduled for April, 1997;**
- **Electronic transfer of telephone numbers reserved for CLPs -- available October, 1996, with real-time, interactive electronic access to telephone numbers scheduled for April, 1997;**
- **Electronic interface for real-time, interactive due date assignment -- scheduled for April, 1997;**

- Electronic interface for maintenance and repair trouble reports -- available now, with enhanced interactive testing capability scheduled for April, 1997; and
- Electronic interface for customer usage data transfer -- available since March 1996, with an ALEC-requested modification completed in September, 1996.

Industry Standards

Q. Did BellSouth have any concerns with regard to industry guidelines and standards?

A. Yes. BellSouth's objective was to be certain it offered interfaces that met the needs of all ALECs. BellSouth, along with Sprint 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 significant 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.

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, including Sprint, nearly all have sought assurances that BellSouth would adhere to OBF standards for interconnection, unbundling, and resale, as the various standards became available.

Q. Is BellSouth's focus on industry ordering standards consistent with the FCC Order?

A. Yes. Paragraph 527 of the FCC Order states, "Ideally, each incumbent LEC would provide access to support systems through a nationally

standardized gateway. Such national standards would eliminate the need for new entrants to develop multiple interface systems, one for each incumbent. We believe that the progress made by standards-setting organizations to date evidences a strong national movement towards such a uniform standard."

Q. Does Sprint emphasize the importance of adhering to industry standards for electronic interfaces?

A. Yes. In fact, Mr. Key on page 74 of his testimony points out the importance of industry standards when he states that "continued inefficiencies due to non-standard electronic interfaces will hinder the competitive activities of the ALECs, waste development resources, and delay the intended outcomes of the FCC Order and the Telecommunications Act".

Electronic Interfaces Provided by BellSouth

Q. Please list the specific electronic interfaces required by the FCC Order.

A. The FCC Order requires access to pre-ordering, ordering, provisioning, maintenance, repair, and billing functions.

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

- A. **BellSouth has offered electronic interfaces for each of the functions required by the FCC. I will describe each of these arrangements individually.**

Ordering Interfaces

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

- A. **Yes. As described earlier, 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 developing an Electronic Data Interchange (EDI) electronic ordering interface sanctioned by the industry forum, OBF.**

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

- A. **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. 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 guideline.

Q. On the basis of this development, what actions did BellSouth take?

A. The week following OBF's recommendation of the EDI standard, BellSouth assigned a team of experts to work 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 is working on an EDI interface, and that OBF has sanctioned EDI for ALEC order communications?

A. Yes.

Q. Then is the EDI ordering interface consistent with Sprint's request?

A. Yes, and no. The EDI interface is supported as a long term, industry-standard ordering solution by Sprint on page 74 of Mr. Key's testimony. However, that is inconsistent with Sprint's request for a real-time, interactive ordering interface on page 68 of Mr. Key's testimony.

Q. How has Sprint defined "real-time"?

A. Sprint has not provided BellSouth with a clear definition of "real time". BellSouth, however, defines real-time as transmitting and processing data and transactions as they occur.

Q. What is meant by "interactive"?

A. BellSouth interprets Sprint's reference to "interactive" to mean that, when an individual with a computer inputs a query, that individual receives a response. It is important to note, however, 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 Sprint could then load in its own computer. Sprint 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 from building their 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.

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 standards 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, given the industry's adoption of an EDI ordering standard, the EDI interface comports with the FCC's ideal of a nationally standardized interface.

Third, 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 Exhibit GC-2.

Fourth, 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. By December 31, 1996, BellSouth will have mechanized the order generation process on BellSouth's side of the EDI interface for several types of orders, including "switch as is", new connects for residence and single line business, and disconnects. 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.

Q. Will BellSouth's ordering interfaces meet Sprint's ordering needs?

A. Yes. The ASR process is an industry-wide process, as requested by Sprint. This process also meets Sprint's request for Firm Order Confirmation (FOC), and rejection or error notification. However, other

information requested by Sprint, such as notification of additional order charges, is not supported by the industry-wide process, and will be handled in the same manner as for other services, i.e., the appropriate BellSouth work center will advise the Sprint ordering contact of any pertinent information as it becomes available. This is equivalent to the manner in which BellSouth service representatives would obtain such information.

The EDI interface also will provide firm order confirmations, as well as completions information as requested by Sprint. In addition, EDI is recognized by the industry as the standard for resale ordering, and, as demonstrated earlier, Sprint is very much in favor of complying with industry standards.

Timing and Cost of Ordering Interfaces

- Q. When does BellSouth anticipate that the EDI interface will be operational?
- A. BellSouth has committed to completing its development of this interface by December 15, 1996.
- Q. Is the current schedule consistent with the FCC Order?

A. Yes. The FCC Order requires BellSouth to make this interface available by January 1, 1997.

Q. How aggressive is the scheduled date?

A. This is a very aggressive date, particularly considering the number of order types to be included. 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. Technical development then focuses on customizing these pre-defined data sets for a particular use. In this case, BellSouth is operating somewhat ahead of the industry, and is therefore having to include in its 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 in order to expedite delivery of the interface.

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. The structure being developed is intended to be the structure for any local service provider using EDI-based order communications with BellSouth.

interface?

A. The EDI development cost currently is estimated at about \$1.5 million. However, these are not final costs. Also, these costs will increase as additional capacity is added and additional testing is undertaken to support each ALEC, nor do these amounts include ongoing support costs. 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. Does the EDI interface eliminate the need for manual handling of ALECs' service orders?

A. Yes, for some all order types. As described earlier, BellSouth initially is mechanizing the order generation process on the BellSouth side of the EDI interface for several types of orders including "switch as is", new connects for residence and single line business and disconnects. Furthermore, even for those orders that do require manual entry, this is no different than the process by which BellSouth's service representatives manually input service orders for BellSouth's customers. For example, orders for complex services typically are negotiated with the customer by a salesperson and entered into the

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 and interim number portability, BellSouth is developing an OBF-sanctioned EDI interface; that interface provides electronic order communications comparable to those for access services. BellSouth has a team of technical experts working full-time on the EDI implementation. That team is operating on an accelerated timeline, and is scheduled to complete its work prior to January 1, 1997, which is consistent with the FCC Order.

Sprint has not shown that a real-time or interactive ordering interface is necessary to support its market entry. In fact, Sprint emphasize the need to adhere to industry standards. However, neither the ASR process nor the EDI interface is either real-time or interactive, but both are consistent with industry ordering standards.

BellSouth believes the Commission should recognize both the ASR process and the EDI interface as reasonable and appropriate ordering interfaces for all ALECs, including Sprint.

Provisioning

Q. What is BellSouth's definition of provisioning?

A. Provisioning is the filling of a service request and the tracking of installation activities including, for example, receipt of a firm order confirmation (FOC) or completion notification.

Q. Sprint'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 is BellSouth's responsibility. No separate interfaces are required -- all necessary provisioning activities are triggered by the service order.

Q. In the document entitled "Sprint Terms for LEC/CLEC Interconnection and Other Agreements - Interconnection, Unbundling, Resale, Ancillary Services and Associated Arrangements" on pages 7 and 11, Sprint

requests that BellSouth dedicate carrier centers, available 7 days a week, 24 hours a day. What is BellSouth's position?

- A. BellSouth currently has in operation *maintenance* service centers for interconnection services, business, and residence trouble handling. These centers operate 24 hours a day, 7 days a week. BellSouth disagrees that separate centers should be dedicated to individual ALECs. The existing centers will handle repair for ALECs, in the same manner and the same timeframes as for BellSouth end users.

The *ordering* centers supporting ALECs were described earlier in this testimony. Local interconnection and resale orders will be processed in the Interexchange Carrier Service Center (ICSC) and Local Carrier Service Center (LCSC), respectively. Both centers currently operate during standard business hours. However, because both centers will be supported by the electronic order interfaces described earlier in this testimony, BellSouth can accept orders 24 hours per day, 7 days per week, but will process those orders requiring manual intervention during the centers' normal hours of operation. This is consistent with access ordering today, and also with BellSouth's end user practices. The only orders for which BellSouth's service representatives are available to end users 24 hours per day are consumer representatives. As described earlier, "switch as is" and new residence service are among the order types that initially will be mechanized. In the absence of reliable forecast information that would indicate otherwise, BellSouth

believes this is a reasonable arrangement. However, BellSouth has agreed to re-evaluate the operations of these centers, if warranted by service order volumes.

Q. On page 7 of the Sprint Term Sheet Matrix, Sprint requests order completion with all service order and time and cost related fees, rejections/errors on service data elements (s), jeopardy against the due date, missed appointments, additional order charges (construction charges), order status, validation of street address detail, and electronic notification of the local line options that were provisioned, at the time of order completion. Has BellSouth made provisions to provide the requested information?

A. Yes, as follows:

- Completion notification will be provided via the EDI ordering interface for resold services.
- Rejections and errors on service orders via the EDI interface is currently an open issue being discussed at the OBF. Until industry consensus is reached, notification of service order errors and rejects will be sent via fax or telephone based on ALEC preference.
- Notification of due date jeopardies which occur on the scheduled due date will be provided by the installation service technician and notification of due date jeopardies which occur prior to the scheduled due date will be provided by a LCSC service representative.

- Notification of missed appointments based on occurrence such as no access to the customer premises will occur via fax from the LCSC on a daily basis.
- The service technician will call the ALEC with any additional order charges (construction charges) incurred during installation.
- An electronic interface for validation of street address detail has been available since April 1996.
- EDI is a standard method for exchanging information which has no transaction sets to support exchange of order status information. However, this is the interface selected by Sprint for ordering and provisioning.
- The OBF resolution for firm order confirmation did not include notification of the local line options provisioned. The issue of local line options on the completion notification is still an open OBF issue.

As discussed previously, the ASR process for services such as interconnection trunks is the same process currently utilized by Sprint for access services, therefore, no new interface is required.

- Q. In Mr. Key's testimony under the heading of Service Ordering on page 69, Sprint requests the ability to update BellSouth's Line Information Database (LIDB) directly. Does BellSouth agree?**
- A. No. Updates to databases such as Intercept Information, LIDB, Listing Services Database, and Directory Assistance Databases**

for BellSouth's users are driven by the service order process. This is the same service order process that will be used for Sprint's and other ALECs' service orders. Thus, Sprint's and BellSouth's access to those systems will be comparable, and no additional interfaces are required.

Q. Sprint has requested an electronic interface with the ability to suspend/restore service on request. Does BellSouth agree to provide this interface?

A. Yes. Sprint can send suspend or restore order via the EDI interface requested by Sprint.

Q. Sprint states that appropriate ordering/provisioning codes should be established for each identified service and unbundled combination. What is BellSouth's position?

A. BellSouth will use both the Telecommunications Industry Forum (TCIF) Service Order Feature Codes (EDI X12 Standard) as well as Universal Service Codes (USOCs) depending on the service. BellSouth will continue to work with the appropriate industry forums to develop and implement standard codes as they are required.

Q. Sprint recognizes that it is BellSouth's intent to provide Sprint's customers the same average intervals as BellSouth provides its own customers. Does this apply to comparisons between unbundled loops

and bundled local exchange services that BellSouth provides to its end user customers?

- A. No. This only can be accomplished as long as both services are alike. However, the provisioning activities for unbundled loops can be very different from the provisioning activities for a bundled exchange service.

BellSouth has developed procedures to convert existing loops wherever possible to an unbundled loop without complete re-provisioning. For the most part, and whenever possible, existing facilities will be re-used, with the existing loop being redirected to the ALEC facilities. The ALEC will notify BellSouth to issue a disconnect order to free the loop, and a new connect order for the unbundled loop. BellSouth will need to schedule a BellSouth technician to do the physical disconnection and cross connection of the loop to the ALEC's loop transport facilities, in addition to coordinating and scheduling such cross connection with Sprint or other respective ALEC.

The manual coordination involved in this process, the required scheduling of physical work to redirect the loop, the re-provisioning requirements when Subscriber Loop Carrier system facilities are involved, and the coordination with the ALEC are different from the provisioning requirements of a bundled exchange service. Conversions of bundled services where facilities are already connected sometimes

can be simply activated through a mechanized process and can be done on short notice. On the other hand, orders for bundled service where facilities are not available may require more time than a coordinated conversion of an unbundled loop. Installation for retail bundled services will vary depending upon the unique circumstances of the request. The interval for provisioning a bundled single line residence or business line will typically vary from one to five days, depending upon factors such as the availability of facilities, whether those facilities are already connected through to the central office, work load, scheduling of forces in particular offices and many other factors.

For these reasons, BellSouth cannot guarantee that provisioning for conversions of unbundled loops will occur in precisely the same time interval as provided for a bundled service, because the provisioning of an unbundled loop requires additional procedures, as well as coordination with the ALEC, that are not applicable to bundled services. It is, however, BellSouth's intent to establish intervals for unbundled loops on a "Customer Desired Due Date" (CDDD) basis.

Q. Please describe BellSouth's Customer Desired Due Date process.

A. Under the CDDD process, BellSouth will provide service on the requested due date or, if the requested date cannot be met, on the earliest available installation date thereafter. Every effort will be made to meet an end user's, or a ALEC's, requested due date if one is

provided. The due date is impacted by work load, features and services requested and equipment availability. These items can only be determined when the order is processed. By applying CDDD guidelines to ALECs' requests for unbundled loops, BellSouth is committed to working with ALECs to meet their individual needs. It is BellSouth's intention to give ALECs' orders for unbundled elements when converting existing service or provisioning new loops the same priority it gives its end user orders, and to establish similar intervals for similar services in similar circumstances.

- Q. Mr. Key has requested that within 48 hours of any disconnect, BellSouth notify Sprint of the disconnect of any Sprint unbundled element/combination/service. Does BellSouth agree to do this?
- A. Yes. BellSouth currently has two processes for notification of disconnect in place for resold services which are generated when a customer transfers from one ALEC to another: 1) a mechanized letter printed nightly and mailed the next day; and, 2) a daily electronic batch feed.

As stated previously, disconnect notification is currently an open issue at OBF. BellSouth will work with Sprint and the other OBF participants to bring this issue to closure in a manner acceptable to all parties.

Q. In reference to provisioning of unbundled elements, Sprint requests real-time access to integrated test functionality. Does BellSouth agree with this request?

A. No. As the underlying network provider, BellSouth is responsible for installing, testing and repairing the network.

Definition of Pre-Ordering Information

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. Is Sprint's definition of pre-ordering information different from BellSouth's?

A. While BellSouth's and Sprint's definitions are generally consistent, they do differ in some important respects. First, in describing pre-ordering and ordering systems on page 27 of the Sprint Term Sheet Matrix (XIV.D.4) and in Mr. Key's testimony on page 68, Sprint indicates its desire that pre-ordering information include the access to the current customer service record (CSR).

BellSouth does not agree that pre-ordering information includes existing customer service records. It is not appropriate to provide a ALEC with on-line access to the existing customer service record of BellSouth's customers, or of any ALEC's customers for the following reasons: 1) This would be an invasion of customer's privacy; and 2) ALECs have other ways of obtaining this information. In addition, this is at odds with Sprint's assertion on page 3 of the attachment entitled "Sprint Terms for LEC/CLEC Interconnection and Other Agreements - Interconnection, Unbundling, Resale, Ancillary Services and Associated Arrangements" that an ILEC shall protect Sprint Customer Proprietary Network Information ("CPNI") and the CPNI of Sprint customers, including pub/non-list information, and shall not use this information for its own or other marketing purposes.

Q. How is this an invasion of customer's privacy?

A. Sprint wants electronic access to customer service records, even when those customers are still customers of BellSouth, or, for that matter, of any other reseller. But all local entrants would have to be given the same access, so granting Sprint's request would mean that any local service provider could look at any customer's record, at any time, with no controls. Just as BellSouth has taken steps to restrict the ALECs' records from BellSouth's end user marketing centers, it is appropriate to protect the customer records of one company from other companies. Providing Sprint or any other ALEC with direct access to the current service records of any customer the ALEC chooses to target would not be appropriate. Providing electronic on-line access to this information would allow Sprint or any ALEC to browse BellSouth's databases for marketing purposes. Meanwhile, the information Sprint wants is included on every customer's local service bill, every month.

Therefore, BellSouth is asking this Commission to protect the privacy of the customers of Florida by denying Sprint's request for on-line access to CSRs.

Q. What other avenues do ALECs have for obtaining this information?

A. An ALEC is free to initiate its marketing effort by simply asking those customers which services they wish to receive, or to which services

they already subscribe. BellSouth's monthly bills contain an itemized list of the services to which each customer subscribes.

Q. Sprint also request that credit history should be included with pre-ordering information? Does BellSouth agree?

A. No. Due to the proprietary nature of this data, BellSouth feels it is inappropriate to provide the credit history. However, BellSouth is willing to explore participation in the exchange of credit information through appropriate credit reporting agencies.

Q. Are there any other differences in Sprint's and BellSouth's pre-ordering definitions?

A. Yes. Sprint indicates its belief, on page 12 of the "Sprint Terms for LEC/CLEC Interconnection and Other Agreements - Interconnection, Unbundling, Resale, Ancillary Services and Associated Arrangements", that information about service and feature availability for each switch should include rate centers. While BellSouth is providing most of the products and feature information requested by Sprint, rate center information is available in Bellcore's Local Exchange Routing Guide ("LERG"). This information is not currently available on-line, and therefore is not used by BellSouth service representatives.

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 a 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 a 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

evaluation 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 including vanity numbers 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 Exhibit GC-3.

Q. What type of pre-ordering interface has Sprint requested?

- A. In its petition for arbitration, Sprint 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 request?
- A. Yes. 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 Sprint.
- 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 developed the necessary technical specifications in August, 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. How does this schedule compare with the date in the FCC Order?

A. The currently scheduled completion date is three months beyond the FCC's date of January 1, 1997. BellSouth will address this issue with the FCC.

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

A. Yes. Pre-ordering information is most relevant to "new" customers, i.e., those without existing telephone service. Pre-ordering information is not required for any existing customers who already have telephone numbers and installed service, and who simply choose to switch local service providers without otherwise changing their service. This is consistent with page 28 of the "Sprint Terms for LEC/CLEC Interconnection and Other Agreements - Interconnection, Unbundling, Resale, Ancillary Services and Associated Arrangements" in which Sprint requires an "As Is" process. For a customer switching 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. BellSouth will process these service requests as expeditiously as possible, and in all instances, the change will be effective on the date requested by the ALEC, either via the due date of the order, or the utilization of an effective billing date.

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. BellSouth already has many mechanized processes in place that allow a 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 Sprint with real-time, interactive access to pre-ordering information; that interface is scheduled for delivery by April, 1997.

Electronic Interfaces for Maintenance and Repair

Q. Sprint has requested read and write access to BellSouth's maintenance and trouble reporting systems including the following functionality:

- Trouble reporting/dispatch capability - access must be real time;
- Repair status/confirmations; maintenance/trouble report systems;
- Planned/unplanned outage reports; and,
- Mechanized line testing.

Does BellSouth's electronic interface for trouble reporting meet this definition?

A. Yes, for the most part. While direct read and write access to BellSouth's trouble reporting systems is not available, BellSouth has a fully electronic, real-time, interactive trouble reporting interface currently available for use by ALECs. In addition, BellSouth has under development, for delivery by April 1, 1997, an enhancement that will provide ALECs with access to the same interactive testing capabilities BellSouth uses to screen 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 capabilities of the currently available interface.

A. 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 this interface, BellSouth will perform mechanized testing, if necessary, and initiate repair to the service. This electronic interface can be used for monitoring troubles with unbundled loops and trunking as well as unbundled ports. This interface was implemented in 1995 for access services, at the request of interexchange carriers, and is based on national standards developed by the American National Standards Institute (ANSI) T1M1.5 Committee. The ANSI standard defines the transfer of maintenance requests, status and close-out information between two telecommunications providers. The similarities between this arrangement and the electronic trouble reporting available for access customers are shown in the figure filed with this testimony as Exhibit GC-4.

Q. Is BellSouth's existing trouble reporting gateway consistent with Sprint's definition of an electronic interface to maintenance and trouble reporting systems?

A. Yes, with two exceptions. Sprint requests electronic notification of planned or unplanned network outages and the ability to monitor BellSouth network. These capabilities currently are not provided by the electronic trouble reporting gateway. However, BellSouth has agreed to work with Sprint through the appropriate standards bodies and implementation forums, such as the Electronic Communications

Implementation Committee (ECIC), to determine when and how these features should be implemented.

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

A. 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 by April 1, 1997.

Q. How does this schedule compare with the date established in the FCC Order?

A. The currently scheduled completion date is three months beyond the FCC's date of January 1, 1997. BellSouth will address this issue with the FCC.

Q. Is this an aggressive schedule?

A. Yes, it is. This system was not originally built for ALEC 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 options for the ALEC 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. BellSouth has already provided a real-time, interactive, electronic trouble reporting interface for ALEC use. In addition, BellSouth has a time-consuming and costly effort underway to provide additional interactive trouble reporting capabilities to ALECs; that enhanced interface is scheduled for delivery by April 1, 1997. BellSouth will continue to work cooperatively with Sprint in the appropriate national forums such as ECIC to address additional functionality.

Electronic Interfaces for Customer Usage Data Transfer

Q. In its petition, Sprint requests that BellSouth provide an electronic interface available for daily customer usage data transfer. Will BellSouth provide this interface?

A. Yes. BellSouth already has the electronic capability available to 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 a 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 enhanced its original design specifically to accommodate an ALEC request; that enhancement was completed in September of 1996.

Q. Does this interface meet Sprint's request for an electronic interface for customer usage data transfer?

A. Yes. Sprint has requested a daily usage file. In addition, BellSouth is providing the daily usage file at the call level in the industry-standard Exchange Message Record (EMR) format requested by Sprint.

Q. Sprint requests that BellSouth provide the daily usage file via an agreed upon media at no additional charge. Does BellSouth agree to provide this data free of charge?

A. No. As addressed by Mr. Scheye, BellSouth expects to recover the costs of providing electronic interfaces for ALECs.

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 enhancement provided in September, 1996, nor the ongoing costs for producing the usage files themselves.

Electronic Interfaces for Local Account Maintenance

Q. In its petition for arbitration, Sprint has requested that BellSouth provide an electronic interface for local account maintenance. Does the FCC Order specifically address this?

A. No.

Q. How does Sprint define "local account maintenance"?

A. In Mr. Key's testimony on page 67, Sprint lists Local Account Maintenance as an interface required under the heading Billing Interfaces. While Sprint does not provide a definition, other ALECs have defined 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 the ALEC, and thus will be handled via the normal service order flow through the processes described throughout this testimony. There will be some exceptions to this norm, and it is possible that Sprint is intending to address those exceptions with this request, but 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 Sprint to another ALEC), and that end user's service involves, for example, a resold BellSouth service. BellSouth has agreed to provide electronic notification of this change on a daily basis. BellSouth believes the only issue associated with this request is cost recovery which is still an outstanding issue

as addressed by Mr. Scheye.

Sprint also may need the capability, as the local exchange carrier, to initiate PIC (pre-subscribed 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

Q. What billing systems does BellSouth currently use?

A. BellSouth has two billing systems. The Carrier Access Billing System (CABS) is currently used for access services. The Customer Records Information System (CRIS) is used by BellSouth to bill for local exchange services and other services provided from the General Subscriber Services Tariff (GSST).

Q. What BellSouth billing system is appropriate for services purchased by Sprint?

A. BellSouth will use either CABS or CRIS, depending on the particular service being billed. CABS is appropriate for billing local interconnection services such as interconnection trunking, unbundled loops, or collocation. CRIS, however, is designed for billing services

such as resold local exchange lines, private lines, intraLATA toll, directory listings and unbundled ports.

Q. On page 72 of Mr. Key's testimony, Sprint raised the issue of whether BellSouth should be required to provide all carrier billing, including billing for resold services, via the Carrier Access Billing System (CABS), in the Carrier Access Billing format. Does BellSouth agree?

A. No. Using BellSouth's CABS system for resold local exchange services is completely inappropriate. The CABS billing system is designed to render bills for access services. BellSouth's CABS bills do not include the line level detail associated with resold local exchange lines. Examples of line level detail include per line charges for billable usage, such as directory assistance, collect calls, intraLATA toll calls or local measured service.

Q. What BellSouth billing system does provide such detail?

A. The billing system that does support resold services is the Customer Record Information System (CRIS). The CRIS billing system contains the necessary infrastructure to provide the line level-detail resellers have requested, while BellSouth's CABS billing system, which is geared towards access services, does not. There is no reason that BellSouth should be required to completely redesign the CRIS billing system, which is specifically designed to bill for the local exchange

required to populate the 911/E911, Listing, Directory Assistance, Line Information and Intercept databases.

Q. What has BellSouth done to ensure that the CRIS system meets the needs of resellers of BellSouth services?

A. BellSouth has made many enhancements to the CRIS billing system, some of which are particularly suited to accommodating resale billing. Thus, BellSouth is able to offer resellers a CRIS bill which incorporates many of the features that ALECs receive with a CABS bill for access services. For example, BellSouth's billing process will provide CRIS bills designed to meet the needs of these customers. BellSouth offers Customized Large User Bills (CLUB) designed for those customers who have multiple service locations, and a variety of differing services. The CLUB billing arrangement provides ALECs with a single bill from each BellSouth Revenue Accounting Office each month, and that bill includes all charges for each of the ALECs' individual end user accounts. In addition, the CLUB bill provides a sufficient level of detail for ALECs to uniquely identify all charges generated by each of their end users.

Further, the ALECs can choose from a variety of offerings for the actual media through which the billing data is delivered to them. Enhanced Billing Service options include magnetic tape, Diskette Analyzer Bills, CD ROM, Electronic Data Interchange, as well as the paper bills. The

CLUB arrangement allows ALECs to choose among numerous sorting options to customize the presentation of billed data to meet their needs.

BellSouth also has implemented several changes to the CLUB billing procedures to meet specific needs of ALECs. The single bill from each Revenue Accounting Office offers a single balance due for all the aggregated charges associated with the CTSP end user accounts. The billing is performed on a calendar month basis, and the CTSP can choose the billing period when the bill is rendered.

- Q. If BellSouth were to attempt to modify its CABS system to include the line level detail now in CRIS, what would be involved?**
- A. Very broad gauge estimates of time and cost for implementing a process to render CABS bills for the resold charges indicate that the work effort would require a year at minimum and fifty Information Technology (IT) staff members. There would be requirements for heavy participation by other departments during the development process (Comptrollers, Interexchange Carrier Service Center, Local Carrier Service Center, etc.). Such an intensive undertaking is inappropriate, unnecessary, and not at all reasonable, given that the CRIS system already contains the functionality required and provides a "tried and true" mechanism for rendering bills on the same services which ALECs will resell.**

Q. Is there an industry standard requiring CABS billing for resold services?

A. No, nor is one imminent. BellSouth, Sprint and many other telecommunications providers participate in the telecommunications industry's forum, the Ordering and Billing Forum (OBF), which produces inter-company billing guidelines. The OBF Billing Committee recently worked issue #1215, *Resale Billing*, to final closure at the OBF meeting held August, 1996. This resolution, while not an industry standard, does provide guidelines for the billable components and the data elements that should appear on a resale bill. This guideline, however, does not dictate the billing system, nor the format, for the bill. In fact, the OBF specifically declined to add a preference statement for CABS mechanized billing. One reason for this was that the OBF recognized that small resellers who may not be able to handle mechanized bills, were not participating in OBF, and that their interests were not represented. Therefore, consensus was not reached on CABS mechanized bills.

Q. Are other Incumbent Local Exchange Carriers (ILECs) utilizing CABS to render reseller bills?

A. While some ILECs are utilizing systems that also are referred to as "CABS" for resale billing, not all ILECs' "CABS" billing systems are alike. For example, some companies have a single billing system called "CABS" that incorporates the CRIS billing function. For

is not designed for this task. Sprint's resale billing accounts in CRIS will be subject to the same internal quality controls and measurements used for BellSouth's other CRIS accounts.

BellSouth requests that the Commission support the use of BellSouth's CRIS billing system for resold local exchange services because it is the system which has been in place, has been tested and was developed specifically to render bills for those services. There is no industry standard specifying CABS billing, nor is one imminent. Finally, despite its stated long-term preference for CABS billing, AT&T has agreed to accept CRIS bills for resold services.

911 and E911 Interfaces

- Q. Sprint requests an automated interface to the Automatic Location Identification (ALI) database and access to the MSAG (Master Street Address Guide), any mechanized systems used in the editing process, and any other systems and processes used in populating the 911 ALI (Automatic Location Identification) database. Has BellSouth agreed to provide this?
- A. Yes. Three databases are required to provide the E911 data for display at the PSAP.
- Master Street Address Guide (MSAG)
 - Telephone Number (TN) Database

- **Network Tandem Information (TN/ESN)**

BellSouth has arranged for access to all three databases. Upon request, the MSAG will be sent quarterly to the ALEC. The network information files in the Interim Regional Emergency Information System (IREIS) database are used to update both the telephone number and tandem databases. ALECs will send daily updates for E911 to the IREIS database via mechanized file transfer. The procedures for doing so are specified in the E911 LOCAL EXCHANGE CARRIER GUIDE FOR FACILITY-BASED PROVIDERS that BellSouth has prepared for use by ALECs. Given the critical nature of E911 services, BellSouth will continue to cooperate to the fullest extent to ensure the continued integrity of this system in a multi-local exchange carrier environment.

Q. On page 17 of the Sprint Term Sheet Matrix (VI.A.8 and VI.A.9), Sprint asserts that ILECs must adopt National Emergency Number Association (NENA) standards for ALI records. Does BellSouth agree?

A. No. BellSouth established database and data exchange standards prior to the development of NENA standards. BellSouth standards were established to meet the needs and accommodate the equipment constraints of BellSouth's E911 customers and public safety answering points (PSAPs), and also are used by each of the independent companies that provide data to the BellSouth E911 database. Therefore, adopting a different format would be disruptive to the existing users of the E911 systems. BellSouth's format also exceeds

the NENA standard in that BellSouth proactively added the capability to accept and display dual telephone numbers to eliminate any possible confusion in handling E911 calls involving interim number portability. NENA is actively working to include dual numbers in standards, but has not yet issued new standards. Nonetheless, the BellSouth standard data exchange format contains all fields currently available in the ALI data stream and made available to the PSAP for display. BellSouth will continue to participate in NENA standards committees and evaluate future data needs. In fact, BellSouth chairs the NENA Study Group that is developing the first standard ALI data stream. Migration to NENA data exchange standards will be considered as PSAP requirements dictate.

Summary

- Q. Please recap the interfaces BellSouth has agreed to provide for ALECs.
- A. BellSouth has agreed to provide the following interfaces:
- Electronic interface for ordering interconnection trunking and most unbundled elements -- available now;
 - Electronic interface via OBF-sanctioned electronic data interchange (EDI) for ordering and local account maintenance for resold services and unbundled elements

such as listings -- scheduled for delivery by December 15, 1996;

- **Electronic interface for pre-ordering information on serving central office and street address validation -- available now, with real-time, interactive enhancements scheduled for April, 1997;**
- **Electronic access to pre-ordering information on product and service availability by serving central office -- available now, with real-time, interactive, enhancements scheduled for April, 1997;**
- **Electronic transfer of telephone numbers reserved for ALECs available October, 1996, with real-time, interactive electronic access to telephone numbers scheduled for April, 1997;**
- **Electronic interface for real-time, interactive due date assignment scheduled for April, 1997;**
- **Electronic interface for maintenance and repair trouble reports -- available now, with enhanced interactive testing capability scheduled for April, 1997; and**
- **Electronic interface for customer usage data transfer -- available now.**

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 has enhanced its original design specifically to accommodate a ALEC request.

Overall, BellSouth's interfaces are consistent with the FCC's requirements. Many of BellSouth's interfaces are already available. Additional interfaces or enhancements will be available by January 1, 1997, as required by the FCC Order. Some work will remain at that time, and is scheduled for completion by April 1, 1997. BellSouth is addressing that date with the FCC.

BellSouth has committed thousands of work hours and millions of dollars to provide effective operational interfaces for Sprint as well as other ALECs, and is operating on accelerated timelines. BellSouth's comprehensive efforts to provide these interfaces demonstrate the strength of BellSouth's commitment to accommodating the local market entry of Sprint as well as all other ALECs.

BellSouth is asking this Commission to do three things:

- **Find that the electronic interfaces and implementation schedule agreed to with AT&T also are appropriate for Sprint;**
- **Support CRIS billing and CRIS format for resold services for Sprint; and**
- **Protect customers' privacy by denying Sprint's request for electronic access to customer service records.**

Q. Does this conclude your testimony?

A. Yes.

Timeline and Estimated Cost for Electronic Interfaces

1995												1996												1997											
M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D		

Pre-Ordering

11/95 Pre-Ordering Initial Solution 5/96
\$ 200K

Evaluate & Design Long Term Pre-Ordering
11/95 4/96 5/96 9/96
\$ 500 K

9/96 Implement Long Term Pre-Ordering 4/97

Ordering

Establish LCSC
6/95 7/95

2/96 EDM Order Communications
Basic & Complex 12/96

Trouble Reporting

Determine Use of Existing LXC Gateway
11/95 2/96

7/19 Interactive Testing Enhancement 4/97

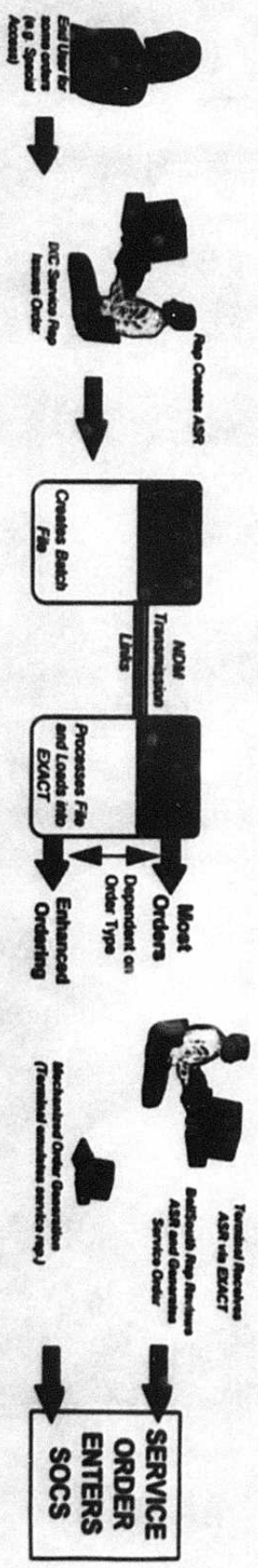
Customer Usage Data Transfer

6/95 Develop daily usage feed for resellers 3/96

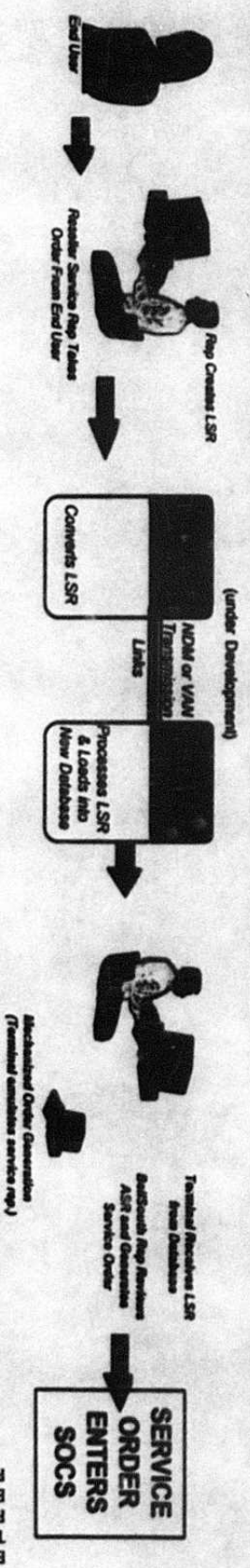
Enhancement
5/96 9/96

Comparison of Access and Resale Electronic Order Communications Processes

Access Process



Resale Process




ASR
EDI
EXACT
NDM

Access Service Request
Exchange Data Interchange
Exchange Access Control and Tracking System
Network Data Mover

LCSC
LSR
SOCS
VAN

Local Center Service Center
Local Service Request
Service Order Control System
Value Added Network

 Electronic communication for resale is comparable to the electronic process for access ordering. In either case, BellSouth service representatives and systems create appropriate service orders.

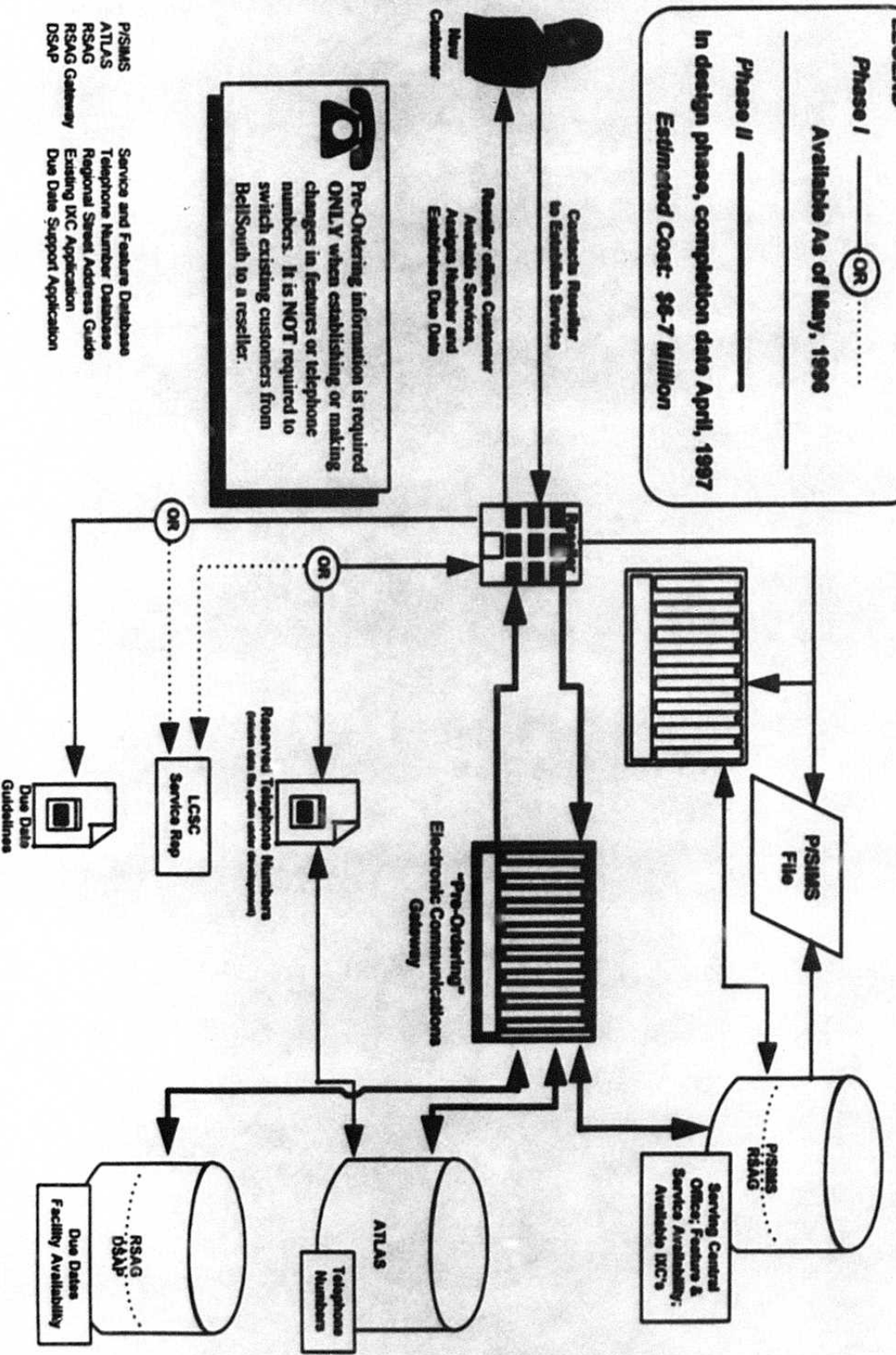
Pre-Ordering Interface for Resellers

- Phase I and Phase II Solutions

LEGEND

Phase I _____ OR _____
 Available As of May, 1996

Phase II _____
 In design phase, completion date April, 1997
 Estimated Cost: \$6-7 Million



- PSIMS
- ATLAS
- RSAG
- RSAG Gateway
- DSAP
- Service and Feature Database
- Telephone Number Database
- Regional Street Address Guide
- Existing DTC Application
- Due Date Support Application

Timeline and Estimated Cost for Electronic Interfaces

1995												1996												1997											
M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D		

Pre-Ordering

11/95 Pre-Ordering Interim Solution 5/96
\$ 200K

Evaluate & Design Long Term Pre-Ordering
11/95 Evaluate 4/96 Design 8/96
\$ 500 K

9/96 Implement Long Term Pre-Ordering 4/97
\$ 4.5 M

Ordering

Establish LCSC
\$ 420 K
6/95 7/95

2/96 EDI Order Communications
Orders \$1.8 Million
Basic & Complex 12/96

Trouble Reporting

Determine Use of Existing IXC Gateway
11/95 2/96

7/19 Interactive Testing Enhancement 4/97
\$ 1.5 M

Customer Usage Data Transfer

6/95 Develop daily usage feed for resellers 3/96

Enhancement 5/96
9/96

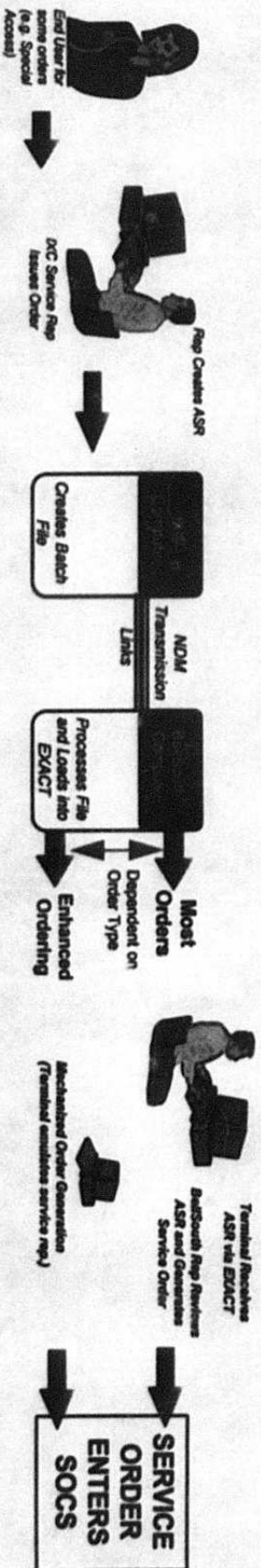
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11034 OCT 15 95

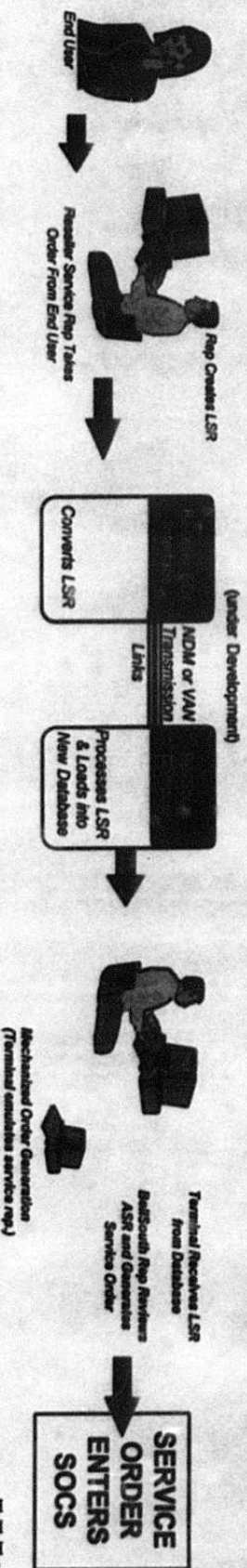
FPSC-RECORDS/REPORTING

Comparison of Access and Resale Electronic Order Communications Processes

Access Process



Resale Process



ASR
EDI
EVACT
NDM

Access Service Request
Electronic Data Interchange
Exchange Access Control and Trading System
Network Data Mover

LCSC
LSR
SOCS
VAN

Local Carrier Service Center
Local Service Request
Service Order Control System
Value Added Network




Electronic communication for resale is comparable to the electronic process for access ordering. In either case, BellSouth service representatives and systems create appropriate service orders.

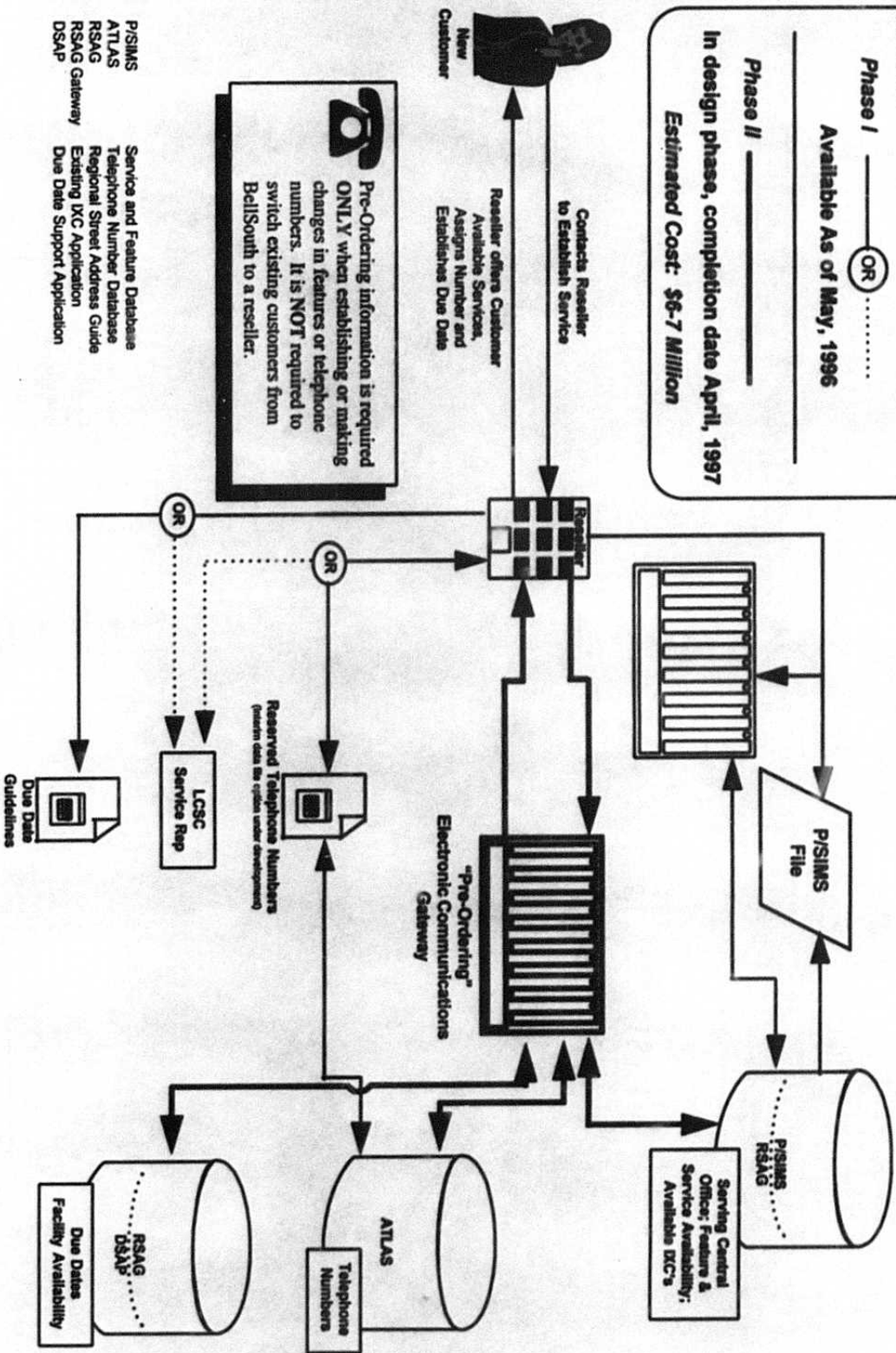
Pre-Ordering Interface for Resellers

- Phase I and Phase II Solutions

LEGEND

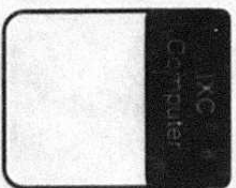
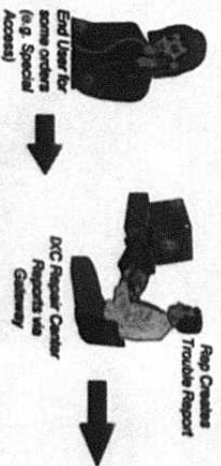
Phase I 
Available As of May, 1996

Phase II 
In design phase, completion date April, 1997
Estimated Cost: \$6-7 Million

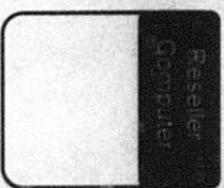


Comparison of Access and Resale Processes for Electronic Trouble Reporting

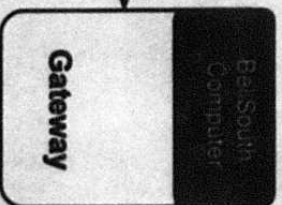
Access Process








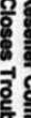
Resale Process



Transmission Links



 Electronic communication for resale trouble reporting is comparable to the electronic process for access trouble reporting. Reseller also has the option to report verbally, just as IXCs do. Either way, resellers' end users are given the same repair appointment interval as BellSouth's end users.

 BellSouth Receives Report and Begins Testing
 Establishes Repair Appointment
 May Do Further Testing
 Dispatches and Repairs Circuits and/or Line
 Advises IXC or Reseller Complete and Closes Trouble Ticket

