

AT&T witness Bradbury testified that BellSouth has done considerable work to develop interfaces this year. BellSouth's work has provided useful incremental improvements over the existing *ad hoc* interim interfaces. According to Mr. Bradbury, however, work remains to be done before the interfaces will allow AT&T to offer high quality service to customers in a timely manner.

Witnesses Gillan, on behalf of AT&T, MCI, CompTel, and WorldCom, and Cabe, on behalf of AT&T and MCI, testified that in their opinion BellSouth has not met checklist item I. Mr. Gillan's testimony concentrated on UNE combinations and problems he perceived with BellSouth's ability and willingness to handle requests and billing for UNEs. Dr. Cabe opined that BellSouth has not satisfied the items of the competitive checklist. His testimony, however, dealt mainly with the issue of whether BellSouth interim rates are cost based.

MCI witness Martinez testified that BellSouth has not yet implemented interconnection in part because BellSouth has not yet fully implemented collocation. He stated that MCI sent applications to BellSouth on June 27, 1997, for physical collocations at five BellSouth switches in North Carolina. These included requests for collocation at three switches in Raleigh, a switch in Cary, and a switch in Chapel Hill. According to Mr. Martinez, BellSouth initially delayed acting on these five requests but now has approved them. Given this delay, Mr. Martinez stated that the jury is still out, in his opinion, on whether BellSouth will meet its collocation obligations.

Sprint witnesses Cloz and Nelson testified that BellSouth has not satisfied the items on the competitive checklist. Ms. Cloz discussed BellSouth's proposed performance measurements filed as Attachment 1 to the SGAT. In Sprint's opinion, BellSouth's performance in providing nondiscriminatory access to network elements can only be properly evaluated through documented results and that publishing a list of performance measurements is fundamentally different from demonstrating that the stated performance targets can be met. Mr. Nelson discussed issues related to BellSouth's OSS—issues that will be discussed under checklist item II.

CaroNet witness Darby testified that CaroNet has not yet reviewed BellSouth's SGAT. He stated that CaroNet does not have an agreement with BellSouth for interconnection, although BellSouth has sent a draft interconnection agreement. He further stated that, while other CLPs and BellSouth have negotiated or arbitrated interconnection agreements for local service, CaroNet is unaware of any CLP currently offering local service or dialtone to residential and business subscribers in North Carolina.

TCG witness Kouroupas stated that BellSouth has not met all of the fourteen point competitive checklist requirements. The first checklist item requires that BellSouth provide interconnection that is at least equal in quality to that provided by BellSouth to itself. According to TCG, BellSouth is not in compliance with this requirement as the parity measurements included in the BellSouth/AT&T agreement are deficient. Moreover, Mr. Kouroupas said there was no assurance that BellSouth would perform similar

measurements for other CLPs operating in North Carolina with respect to performance measures. No performance measures are included in TCG's interconnection agreement with BellSouth, as TCG decided to enter the agreement without the inclusion of these items.

Intermedia offered the testimony of Julia Strow as evidence that BellSouth has not met the competitive checklist. Ms. Strow testified that BellSouth has refused certain interconnection requests by Intermedia and has failed to implement certain tracking and exchange processes in a timely manner. Intermedia has had problems ordering a T1 circuit as well as problems with respect to billing. According to Ms. Strow, Intermedia's persistent and continuing problems with respect to BellSouth's provisioning of unbundled loops, billing, and access to OSS, among other things, indicate that BellSouth has not fully complied with the competitive checklist.

Witnesses Stisher and Menendez agreed with the other intervenor witnesses that BellSouth has not satisfied the competitive checklist. Their testimony focused on OSS concerns which will be discussed under competitive checklist item II.

This Commission is faced with the question of whether BellSouth is offering interconnection to CLPs that is equal in quality to that which BellSouth provides itself. The Commission concludes that BellSouth satisfies the requirements of checklist item I, as it offers through its SGAT and individual interconnection agreements with CLPs interconnection facilities to meet the same technical criteria and service standards that are used with its own network. The SGAT provides for the following: (1) trunk termination points generally at BellSouth tandems or end offices for the reciprocal exchange of local traffic; (2) trunk directionality allowing the routing of traffic over a single one-way trunk group or a two-way trunk group depending upon the type of traffic; (3) trunk termination through virtual collocation, physical collocation, and interconnection via purchase of facilities from either company by the other company; (4) intermediary local tandem switching and transport services for interconnection of CLPs to each other, and (5) interconnection billing.

The intervenors argue the Commission should find that BellSouth has not satisfied competitive checklist item I, citing mainly startup problems. As Mr. Varner pointed out, however, BellSouth has been a leader among ILECs in providing procompetitive policies and actions. Data gathered by the United States Telephone Association ("USTA") shows that BellSouth has negotiated more interconnection agreements than any other Bell operating company. In fact, BellSouth has had over 600 signed agreements in its nine-state area and 79 agreements in North Carolina. Moreover, it must be remembered that the volume of agreements that BellSouth has negotiated necessitates that a myriad of different requirements be put into effect. BellSouth has spent millions of dollars and dedicated hundreds of people solely to the task of putting these interfaces in place in order to assist new CLPs in entering the local market. Mr. Varner estimated that BellSouth will spend approximately \$375 million capital and expense dollars in this process. BellSouth has established new groups dedicated solely to handling competitors' business requests.

Each CLP has an account manager or account team. New systems have been developed and are in place to handle the transactions to open the local market to competition.

Witness Varner went on to testify that BellSouth has 3,816 interconnection trunks in service to competitors in its nine state region and 300 in North Carolina. He stated that BellSouth presently has customers for 19 of its unbundled elements in North Carolina and 134 in its nine state region. While BellSouth presently has no physical collocations in North Carolina, it does have 134 virtual locations. Mr. Varner testified that BellSouth presently does not have any competitor purchasing unbundled loops in North Carolina, but it does have CLP customers taking a total of 3,500 unbundled loops region-wide.

The intervenors offered testimony detailing problems that they have had in ordering certain services from BellSouth. Most of this testimony, however, is about experience in other states and not about actual problems intervenors have encountered in North Carolina. BellSouth admits that there were some start up problems with its systems but asserts that changes have been made to correct those problems. For example, BellSouth has updated its Local Exchange Navigation System ("LENS") and Electronic Data Interchange ("EDI") systems to correct some of the earlier problems with these systems. In addition, some of the problems experienced by the CLPs have been due to their inexperience with BellSouth's interfaces. These are not problems with BellSouth's ordering or provisioning systems but are normal startup problems that occur when any new system is put in place. While BellSouth has the duty to provide interconnection at parity, the CLPs have the responsibility to learn how to use such interfaces.

Based upon the evidence presented, the Commission finds and concludes that BellSouth is providing or generally offering interconnection in accordance with the requirements of Section 251(c)(2) and 252(d)(1) and is in compliance with checklist item I.

ITEM II. BellSouth is providing or generally offering nondiscriminatory access to its network elements in accordance with the requirements of Sections 252(c)(3) and 252(d)(1).

Operation Support Systems

BellSouth witness Calhoun testified as to the interfaces that BellSouth uses for its own ordering and described the interfaces that BellSouth has put into place to provide CLPs with nondiscriminatory access to BellSouth's OSS. She stated that BellSouth provides CLPs electronic interfaces for the pre-ordering, ordering, provisioning, maintenance and repair, and billing functions that provide information in substantially the same time and manner that BellSouth provides such information to its own customer support personnel. Specifically, she described BellSouth's LENS system, which is designed to allow CLPs to obtain pre-ordering information. She also described BellSouth's EDI system, which the CLPs can use for ordering and BellSouth's Trouble Analysis Facilitation Interface ("TAFI"). Ms. Calhoun explained that the systems in-place to provide

nondiscriminatory access provide equivalent, if not better, access for CLPs to BellSouth's OSS than BellSouth's own personnel have to such systems.

BellSouth primarily uses two systems in North Carolina for internal ordering, based on whether the customer is a residence or business subscriber. BellSouth uses a system known as the Regional Negotiation System ("RNS") for most types of residential orders. For business customers in North Carolina, a system known as Direct Order Entry ("DOE") is used. DOE also is used by service representatives for customer transactions not supported by RNS. Each system accesses the necessary operational support systems and databases to obtain most pre-ordering information on a real-time, interactive basis. RNS is a new system that provides more Windows-like, point-and-click capabilities. DOE is an older system that is less user friendly (more "MSDOS" like) and relies on the use of special codes.

BellSouth has developed the LENS interface to provide CLPs with real-time interactive access to BellSouth's pre-ordering information on par with the RNS and DOE systems which BellSouth's retail representatives use to access BellSouth's databases. From a customer's perspective, Ms. Calhoun testified that the pre-ordering interactions with a CLP using LENS are indistinguishable from pre-ordering interactions with BellSouth. LENS provides real-time, interactive access to pre-ordering information, and is available to support any CLP that chooses to enter the North Carolina local market. LENS is designed to be accessed either by a dedicated line or via the Internet.

Ms. Calhoun testified that BellSouth offers the CLPs two ordering systems: EDI and EXACT. The EXACT ordering system is the same industry-standard interface used by BellSouth for processing access service requests from interexchange carriers. This interface also supports CLP "infrastructure" orders, primarily for interconnection trunking and many unbundled network elements. EDI is the electronic interface sanctioned by the National Ordering and Billing Forum ("OBF") for local request communications. Using this interface, the CLP can transmit service requests in OBF standard format to BellSouth. CLPs can purchase commercially available EDI-compatible software to use to interface with the EDI system. This software is available for CLPs of all sizes. Requests received and processed by EDI or LENS are passed to BellSouth's Local Exchange Ordering database ("LEO"), which is the same database that BellSouth, itself, uses. If a request is not properly submitted (e.g., if necessary information is omitted), the system will return error messages similar to those received by BellSouth's service representatives. LEO will pass a complete and correct service request to BellSouth's Local Exchange Service Order Generator ("LESOG") for mechanized order generation, or to a Local Carrier Service Center work list for further handling by a BellSouth service representative.

BellSouth witness Moore testified that BellSouth has organizations and processes in place to ensure service parity in its operations centers and has aggressively developed a process for handling the order, provisioning, maintenance and repair of all resold services provided to CLPs. He stated that these operations centers are established and functional as shown by comparisons of service levels. In addition, Mr. Moore stated,

BellSouth has worked hard to create efficient systems which allow CLPs access to BellSouth OSS required for pre-ordering, ordering, provisioning, maintenance, and billing functions. Interfaces for these systems were designed and developed considering CLP forecasts of work volumes. BellSouth will add capacity as needed to provide for future CLP demand.

Mr. Moore also testified that BellSouth has begun a series of tests to obtain statistically valid data to compare time intervals required for a service representative using LENS to perform certain OSS functions with time intervals required for a service representative using RNS or DOE to perform the comparable function. Specifically, BellSouth will remotely observe the order entry process in each of the systems on random days, collect a sample set of actual orders from the observations, analyze the types of orders received in the typical sample set, track the orders with four data elements (serial or sample number, system order number or telephone number, type of order, and system response time for each pre-ordering section of the order), and analyze the data collected to determine the high and low time frames for pre-ordering system responses while ordering through these systems. He presented data for the first five months of 1997 comparing BellSouth's performance for CLPs with its performance for its own retail customers. The measurements included percent of due dates met in provisioning orders for service, the trouble report rate per 100 access lines in service, the percent trouble reports resolved in less than 24 hours, the average interval from receipt of a trouble report until it is cleared, the percent of missed appointments for maintenance reports, the percent of trouble reports on the same line received within 30 days, and the percent trouble reports within 30 days of installation of new service. He stated that in every category it is clear that CLPs have received service comparable to, and in most cases better than, service received by BellSouth retail customers.

Mr. Milner testified that BellSouth has developed technical service descriptions and ordering, provisioning, and maintenance procedures for 505 of its "top" retail telecommunications services. As of May 15, 1997, more than 4,391 of these services were being resold by CLPs in North Carolina, while more than 88,000 were being resold throughout BellSouth's region. In addition, other resold services are functionally available for resale, including primary rate ISDN, E911, FlexServ, Frame Relay, LightGate service, Off Premises Extensions, optional calling plans, SMARTPath service, and Visual Director. Mr. Milner stated that testing has been conducted to verify that these services can be resold at the applicable discount and that a correct bill can be generated.

AT&T witnesses Hamman and Dailey testified that BellSouth does not meet the requirements of checklist item II. Mr. Hamman questioned whether BellSouth has in place the needed interfaces to provide CLPs with nondiscriminatory access to network elements. Ms. Dailey asserted that BellSouth performance metrics are in many cases inadequate to protect the interest of North Carolina consumers and do not include all the performance measures needed to demonstrate and monitor BellSouth's obligation to provide nondiscriminatory access to its network. She testified that AT&T supports the use of the

Local Competition Users Group ("LCUG") metrics as a starting point for monitoring parity of performance.

Witness Bradbury was AT&T's main witness on the issue of OSS. He testified that BellSouth's proposed interfaces are discriminatory and do not satisfy Section 251 and 271 of the Act. Specifically, it was his testimony that BellSouth's proposed interfaces do not enable new entrants to perform OSS functions in substantially the same time and manner as BellSouth because more human intervention is required for the new entrant to perform OSS functions than for BellSouth. This additional human intervention is a consequence of BellSouth's interfaces being a human-to-machine interface (LENS and TAFI, specifically), lacking the same functional capabilities as BellSouth's OSS, and not providing integrated, industry standard interfaces (EDI, LENS, TAFI, and EBI). In addition, Bradbury testified that BellSouth has not demonstrated that its proposed interfaces have sufficient capacity to meet the combined operational requirements of all new entrants. His major concern, however, did not appear to be that BellSouth's interfaces will not work so much as that such systems are different from the RNS and DOE systems used by BellSouth.

Mr. Bradbury stated that because certain interim interfaces available to AT&T under its interconnection agreement with BellSouth will be available to new entrants under the SGAT as permanent interfaces, new entrants apparently will have to go through the Bona Fide Response ("BFR") process to obtain access to the permanent interfaces required under the agreement. He stated that there are significant difference, however, between the proposed interfaces in the SGAT and the permanent interfaces described in the interconnection agreement. In response to Mr. Bradbury's claim that the interfaces BellSouth currently offers to CLPs are interim, Ms. Calhoun stated that the customized AT&T interfaces, which are still under development, will also be available to other CLPs. In addition, with regard to BellSouth's intent to use LENS as its permanent preordering interface, she stated that BellSouth will implement industry standards for preordering and is contractually required to do so.

AT&T/MCI/CompTel/WorldCom witness Gillan testified that the FCC in its Ameritech Order stated that a BOC must support its application with actual results that demonstrate that its OSS system provides nondiscriminatory access. In this regard, he said that the FCC was unwilling in the Ameritech Order to make a decision of parity based solely on evidence relating to internal testing. He did not, however, offer any compelling evidence that BellSouth's interfaces will not work as designed or point out any weaknesses in BellSouth's testing of its interfaces. Nor did he address how BellSouth could offer anything but in-house testing for those unbundled elements that the CLPs had not yet ordered.

MCI witness Martinez testified that BellSouth cannot be deemed to be making available or providing any checklist item for which any OSS interface is required for preordering, ordering, installation, repair and maintenance, and billing. He stated that there is substantial disparity between the OSS provided to CLPs for resold services and the OSS used by BellSouth customer representatives for its retail customers for preordering and ordering and that this is true for both EDI and LENS. In addition, he stated that there are

numerous issues with processes associated with repair and maintenance of resold service, such as the requirement that MCI call varying BellSouth locations to obtain answers to day-to-day questions instead of a single point of contact or telephone number. He also complained that BellSouth customers will have access to 611 abbreviated dialing to access BellSouth trouble handling centers where available, while MCI customers cannot use the same kind of dialing to contact MCI repair centers. He also complained about the OSS to support orders for complex business services. Furthermore, he stated that there are serious deficiencies in the OSS BellSouth provides for provisioning and cited issues related to FOCs, disconnects, rejects, and jeopardies.

In response to Mr. Martinez's statement that MCI will be required to call in trouble reports to BellSouth's retail service centers, Ms. Calhoun noted that CLPs have the option of using TAFI, which allows them to analyze, test, and clear troubles without "calling" BellSouth.

Sprint offered witnesses Nelson and Closz. Mr. Nelson testified that in his opinion LENS has a number of deficiencies. A CLP must use manual processes to submit orders and receive provisioning information for those services and other products that cannot be ordered via LENS. In addition, CLPs must use manual processes to input LENS information into a CLP's OSS because LENS is a human-to-machine interface. Manual processes are more expensive, slower, and more prone to errors, all of which adversely affect the new entrant's ability to provide its customers with service at the same level of quality as that which BellSouth can provide to its customers. Ms. Closz testified as to operational problems that Sprint's subsidiary SMNI has been having with respect to securing unbundled network elements from BellSouth in Florida. These problems include BellSouth's failure to meet its commitment to provide FOC within 48 hours, customers taken out of service in error in conjunction with the service conversion process, and failure to provide timely notification of facilities issues which has prevented Sprint's subsidiary from meeting its committed due dates for its customers.

Intermedia witness Strow testified that the OSS interfaces provided by BellSouth are inadequate. In her opinion, BellSouth is not providing equivalent access in terms of quality, accuracy, and timeliness. In addition, she raised the question of whether BellSouth's OSS will be able to handle both current and future demand. Specifically, she questioned whether BellSouth has demonstrated that its wholesale support processes are sufficient to make resale services and unbundled network elements practicably and meaningfully available when requested by a competitor. LENS, for instance, does not allow BellSouth's and competing carriers' OSS to interact electronically. In addition, LENS does not automatically send the FOC and due date to BellSouth. She stated that the process for placing an order to BellSouth to make an as-is conversion is complex, cumbersome, and prone to errors that will undermine Intermedia's marketing efforts.

Ms. Strow testified that Intermedia has requested business services such as call waiting and call forwarding as well as more complex business services for resale. She stated that the current OSS systems are manual for the most part and do not facilitate the

support of moves, adds, and changes for complex services. Because the ordering process is not automated, many orders are backlogged each month within BellSouth. She also stated that Intermedia has on many occasions requested automated interfaces for order processing and service request information, but BellSouth has not addressed these requests. In addition, Ms Strow expressed concern about whether, when a customer served under a long-term contract with BellSouth switches to BellSouth service resold by Intermedia, Intermedia assumes the customer's obligations for the remainder of the contract term and no termination liability charges apply.

With regard to BellSouth's interfaces and processes for resale, Ms. Strow stated that Intermedia places two types of resale orders with BellSouth: "switch as-is" and "move, add, or change" or "MAC" orders. Switch as is orders are initial conversion orders to make a BellSouth customer an Intermedia local resale customer with the same features and services. MAC orders are placed after the customer has switched to Intermedia and typically are triggered when a customer requests a change in service like an additional line or a new feature. She stated that the process for placing an order to BellSouth for a switch as is conversion is complex, cumbersome, time-consuming and prone to errors. As a result, Intermedia has experienced delays and other quality of service problems and a high per customer cost for achieving conversions and changes, both of which impede Intermedia's ability to compete with BellSouth. She further stated that problems with MAC orders have harmed Intermedia more than problems with "as is" orders and described an instance when a customer switched back to BellSouth due to frustrations with an order.

Ms. Strow contended that the systems and process used by BellSouth to serve its retail customers are better than those provided to CLPs. When a customer calls BellSouth the preordering and ordering functions are done while the customer is on the phone. When a customer calls Intermedia the preordering information can be obtained via the LENS system but the LSR form must be manually completed and faxed to BellSouth. She stated that although LENS is better than the paper LSR process for switch as-is and switch with changes, it is still limited for MAC orders. She further stated that, although Intermedia has begun testing EDI, it is too early to assess EDI's performance and capabilities. Intermedia does know, however, that EDI is incapable of processing most if not all complex services.

In response to Ms. Strow's statement that many complex business services must be ordered manually, Ms. Calhoun stated that the manual processes BellSouth uses for its own complex retail services customers are substantially the same processes used for the complex retail services offered to CLPs and are therefore competitively neutral. Furthermore, in response to Ms. Strow's description of the method by which Intermedia processes switch as-is and MAC orders, she stated that Intermedia is not required to place orders by facsimile and that the EDI ordering interface supports these order types.

KMC witness Menendez testified that KMC intends to begin providing facilities-based services by mid-1998 and resale services prior to that. He stated, however, that BellSouth has not put in place or perfected the systems necessary so that KMC can obtain

an order from a customer, submit that order, provide the customer with notice of initial service, provide service, and accurately bill for the service. Mr. Menendez referred to problems experienced by KMC in other states. In Alabama, he said, KMC has had orders lost, returned as in error, backlogged, and filled improperly. BellSouth has failed to advise KMC of whether it has received an order, when it expects to fill the order, and when it has filled the order. When KMC has received a FOC providing a start date, BellSouth has consistently missed that date. KMC has been improperly billed for service by being billed the wrong discount rate and being billed for installation charges as if new lines have been installed.

Mr. Menendez further stated that KMC has experienced delays of seven to fourteen days in obtaining access to the customer service record or CSR. Moreover, CSRs obtained from BellSouth are incomplete and do not contain much of the information to which BellSouth has access, such as the service address and the location of the circuits through which services are provided. CSRs provided to KMC also do not provide information on services provided to the customer, such as data service, private line service, and WATS. Then, once the CSR is obtained, KMC must manually prepare an order form for each line, and fax the form to BellSouth where it is keyed into the BellSouth system. He stated that KMC has discussed these and other problems with BellSouth and has been advised that the people overseeing the KMC account have been changed several times. Mr. Menendez also stated that in Alabama BellSouth representatives contacted prospective KMC customers and advised them that they would be subject to substantial termination penalties from BellSouth if they switched to KMC, when no such penalties would apply if KMC was reselling BellSouth agreements.

With regard to BellSouth's OSS arrangements, Mr. Menendez stated his belief, having attended a BellSouth three-day CLEC conference and its LENS training session, that neither LENS nor the other OSS systems will be able to meet KMC's preordering and ordering needs. LENS, he stated, both has a non-standard interface and cannot meet KMC's ordering needs, and EDI is not mechanized and therefore does not represent an economically or operationally viable alternative. With EDI, for example, orders are processed in batches rather than immediately upon placement. With regard to LENS, he explained that KMC connects with all of the RBOC nationwide and BellSouth's use of a different OSS interface makes it that much more difficult for KMC to compete. In addition, LENS does not provide access to information about all of the services provided to a customer. One of the problems he mentioned was that LENS could only be used for pre-ordering thereby requiring the CLP to use another interface for orders. The fact is, however, that it is very easy to electronically copy the LENS information into BellSouth's ordering interfaces, and it is a task that a skilled CLP customer service representative can accomplish in less than a minute

In response to Mr. Menendez's testimony, Ms. Calhoun stated that it does not appear that KMC has implemented BellSouth's currently available options for electronic preordering, ordering, and provisioning such as the industry-standard EDI interface. Instead, KMC is placing its orders manually by facsimile machine. She stated that EDI has

been available since December 1996, and any CLP wishing to develop an EDI-compatible ordering system can communicate electronically with BellSouth's EDI system. The EDI-PC software has been commercially available since March 1997. Furthermore, KMC has the option of obtaining customer service record information electronically through LENS. Ms. Calhoun also stated that BellSouth's present system does not require that KMC manually prepare an order form for each line, as the orders can be placed electronically through EDI, and that BellSouth has adopted industry-standard OBF order forms. Regarding the complaint that EDI processes orders in batches rather than immediately, Ms. Calhoun responded that the batches were initially set to run every 30 minutes but can be adjusted to shorter intervals to accommodate specific market needs. Regarding the criticism that LENS is a non-standard interface for preordering, she noted that there is no industry standard for this function.

Regarding the seven to fourteen days Mr. Menendez said it had taken to obtain the CSR requested by facsimile, Mr. Milner stated that BellSouth's experience is that its average response time is two days. In addition, on switch as-is and switch-as-specified orders, BellSouth has simplified the ordering process once the CSR has been obtained. As noted by Ms. Calhoun, it is not necessary that the order be faxed to BellSouth. KMC can place orders electronically. Mr. Milner stated that FOCs are sent to KMC via the Internet and, if delivery is not confirmed, are sent via facsimile. Although BellSouth is unaware of any complaints of KMC's not receiving FOCs, it has received a few questions recently regarding FOCs and has already responded. Mr. Milner explained that BellSouth formed a special group in June 1997 to handle complex resale orders and that it will provide FOCs on such orders within ten business days of receiving an error free order. In some cases, however, information from KMC had to be clarified and this resulted in delay. Mr. Milner also stated that KMC's account manager has not changed, although the account team has grown over time.

DeltaCom witness Stisher testified that BellSouth has not met the requirement of providing nondiscriminatory access to OSS functions. She described six areas in which DeltaCom has experienced difficulty in attempting to use the LENS system in Alabama. She stated that the customer service record ("CSR") generated by LENS is difficult to read and/or interpret and the format has led to difficulties in filling out the order correctly. Canceled orders cannot be verified except by contacting the LSCS, and BellSouth has actually worked orders that have been canceled. DeltaCom cannot electronically add or delete features to an existing customer, and such changes have to be sent to BellSouth via facsimile. Difficulties in preordering and order have resulted in extraordinary delays, and simple "as is" conversions average four or five days. She stated that DeltaCom and other CLPs have had to resort to facsimile, hard copies by mail, and other manual or human intervention in the electronic processes because LENS is not suitable for obtaining preordering information or for placing orders.

Ms. Stisher testified that when BellSouth first touted its LENS system to DeltaCom it was as both a pre-ordering and an ordering interface. It was only at the Alabama interLATA service hearings that DeltaCom learned that BellSouth intended LENS to be

used only or primarily as a preordering interface. DeltaCom subsequently learned that BellSouth believes its EDI interface should be used primarily for ordering. Therefore, DeltaCom is forced to adopt two systems that are not currently integrated. On cross examination by BellSouth, she agreed that DeltaCom's witness in Alabama stated that because DeltaCom did not have a Windows-based system it could not take advantage of the cut and paste feature of LENS. She also stated that DeltaCom now has a Windows-based system. She stated that DeltaCom plans to place as many orders as possible through LENS. She also stated that DeltaCom plans to use EDI, which will allow it to make switch "as is" conversions of customers and to add or delete features electronically to an existing customer's account.

In response to Ms. Stisher's claim that LENS is not dependable, Ms. Calhoun stated that BellSouth's LENS help desk has received only one report from DeltaCom that LENS was not accessible. Not only was that trouble resolved, it was determined that the cause was the setup of DeltaCom's Windows 95 software. Regarding DeltaCom's ability to add a feature without faxing an order, she stated that this capability is available through EDI.

With regard to whether BellSouth has presented LENS as both a preordering and ordering interface, Ms. Calhoun stated that while LENS does have both real-time preordering and ordering capabilities, BellSouth has never presented LENS as its interface for nondiscriminatory access to ordering OSS.

Ms. Calhoun's testimony and demonstration provides compelling evidence that BellSouth's electronic interfaces provide CLPs with access to BellSouth's OSS for pre-ordering, ordering, maintenance and repair, and billing that is substantially the same as, and in many cases better than, that which BellSouth provides to its own retail personnel. Intervenor's argue that they do not get to use DOE or RNS as these are internal to BellSouth and are hence prejudiced. DOE, however, is an old DOS-like system which requires the operator to enter a multitude of codes and is not user friendly, whereas LENS is an easy to use, Windows-based system that is much easier to use than DOE. The Commission sees no discriminatory treatment here but only that BellSouth has simplified access for the CLPs to its OSS and databases. If anything, BellSouth has gone beyond the requirements set forth in Section 271(c)(2)(B) of the Act.

BellSouth witnesses testified that they have recently made improvements and changes to their electronic interfaces and that they will continue to make changes and updates to these systems. The intervenors argue that these changes indicate that these interfaces do not meet the competitive checklist as they are deficient or otherwise would not need changing. The standard set forth in the Act, however, is not perfection but only that CLPs must have access to the incumbent local exchange carrier's OSS in substantially the same time and manner that an incumbent can for itself and under terms and conditions that would provide an efficient competitor with a meaningful opportunity to compete. BellSouth has testified that it has been modifying its interfaces and software where problems have arisen and/or to better meet the needs of the CLPs. This Commission does not view such updates as evidence that BellSouth's systems did not meet the checklist

items at their inception, as argued by the intervenors, but that such changes have enhanced such interfaces and are evidence of BellSouth's continuing objective to make its interfaces work as seamlessly as possible and meet the needs of the CLPs. In this regard, several of the intervenor witnesses testified that BellSouth had failed to notify them of software changes to the interfaces and had not provided revised training guides reflecting those changes. The Commission would caution BellSouth when making changes to inform all CLPs of the changes as expeditiously as possible.

1. Pre-ordering

Witness Calhoun's testimony establishes that BellSouth's interfaces for pre-ordering comply fully with the requirements of the Act and the FCC Order. The LENS interface permits CLPs to obtain, in substantially the same time and manner as BellSouth, the following:

- (a) address validation;
- (b) telephone number selection, including special number assignment;
- (c) product and service selection;
- (d) due date information; and
- (e) customer record information.

LENS is a graphic "point and click" interface which CLP's may use region-wide for both residence and business support. In contrast, BellSouth personnel must use at least two systems, DOE for business customers, and RNS for residential customers. In addition, BellSouth has agreed to provide AT&T with a customized pre-ordering interface designed to AT&T's specifications, which goes beyond the requirements of the Act. BellSouth's willingness to accommodate AT&T should not be construed as proof that LENS is not-compliant. The Commission recognizes that AT&T criticizes LENS as being a non-industry standard interface, but there is currently no industry standard for pre-ordering. In this regard, AT&T's own customized interface is not an industry standard.

2. Ordering and Provisioning

BellSouth's ordering and provisioning system accumulates and formats the information, such as pre-ordering information, needed to enter an order in BellSouth's Service Order Control System ("SOCS"). Ms. Calhoun testified that BellSouth employs two industry-standard ordering systems, depending on the type of service ordered. The first is the EDI interface for resale orders and simple unbundled network elements, such as unbundled ports. These orders can be entered into SOCS without manual intervention. EDI also can be used to support orders for unbundled local loops, unbundled ports, interim number portability, and local loop/interim number portability combinations. Additionally, EDI allows CLPs to place orders for some complex services such as PBX trunks or SynchroNet® (a private line data service), ISDN-Basic-Rate service, and hunting. Other complex services, such as MultiServ® service, are not currently supported by EDI, but are handled in the same manner for both CLP and BellSouth retail customers.

Ms. Calhoun gave an example of the retail ordering of a complex service, SmartRing®, for which retail ordering is not fully mechanized. SmartRing® service is a private line service available to both retail customers and to resellers. In both cases, the pre-ordering and ordering processes for SmartRing® service are largely manual. Nonetheless, the pre-ordering and ordering processes are virtually identical for both retail and CLP orders, except that retail services are handled primarily by the appropriate business unit for each situation—BellSouth Business Systems ("BBS") personnel for retail services, and InterConnection Services ("ICS") personnel for resale services. The processing of both BellSouth and CLP orders for SmartRing® require substantial manual activity and paper forms for both retail and resale situations. Again, these processes are common to both retail and CLP orders and do not place the CLP at a competitive disadvantage relative to BellSouth.

BellSouth's existing EXACT interface also allows CLPs to order interconnection trunking and other more infrastructure-type orders such as ordering unbundled network elements. The Commission notes that the EXACT ordering system is the same industry-standard interface used by BellSouth for processing access service requests from interchange carriers.

The testimony of witnesses Calhoun and Milner demonstrates that these systems are operational and are capable of processing a sufficient number of orders to permit meaningful competition in North Carolina. BellSouth has tested the capacity of the EDI ordering system, including the mechanized order generation capability and has found that it can handle at least 5,000 local service requests per day, which is the design capacity based on forecasted ordering volumes supplied by the CLPs, themselves, to BellSouth. BellSouth can add additional capacity, as needed, and can readily double the capacity to 10,000. BellSouth made it clear that this system is not inherently limited to a capacity of 5,000 or 10,000 orders per day but can be increased to meet the demand that the CLPs make on the system. To date, the CLPs' peak daily ordering volume over EDI and LENS have been only around 1,100 orders per day.

3. Maintenance and repair.

Ms. Calhoun testified that CLPs may access maintenance and repair information in substantially the same time and manner as BellSouth. For design circuits, BellSouth provides CLPs with the same real-time electronic trouble reporting interface that is available to interexchange carriers. CLPs also have access to the TAFI system — this is the same local exchange service trouble reporting system that BellSouth uses for its retail customers. The TAFI system, which analyzes troubles, initiates testing, and provides CLPs with recommendations for clearing trouble, is the same as the TAFI system used by BellSouth. The only difference is an electronic and nearly instant security check that verifies that a CLP is accessing only its customers' information.

Ms. Calhoun testified that BellSouth tested the CLP TAFI system to ensure it functioned properly before offering it to the CLPs. From March 17 through April 16, 1997,

a group of BellSouth repair attendants used the CLP version of TAFI to process about 10,000 trouble reports from real customers. The CLP version of TAFI worked in the same time and manner as BellSouth's TAFI. TAFI currently will support 130 simultaneous users with a volume of 2,600 troubles per hour. Furthermore, BellSouth has a "hot spare" processor in place for TAFI that can be activated almost immediately to increase capacity by an additional 65 users for a combined total of 195 simultaneous users and 3,900 troubles handled per hour. This greatly exceeds the current forecasted usage of the CLPs for the immediate future and also provides spare capacity to protect against equipment failures should one of the primary processors fail. Ms. Calhoun testified that additional processors could be added within 60 days to continue increasing capacity should that become necessary.

4. Billing

BellSouth uses two billing systems to bill its end user customers. Depending on the services being provided, the same customer will receive two types of bills. For services ordered from the General Subscriber Services Tariff ("GSST") and the Private Line Service Tariff ("PLT"), BellSouth renders bills from its Customer Records Information System ("CRIS"). For services ordered from the Access Service Tariff ("AST"), BellSouth renders bills from the CABS system, even if the access is ordered by and billed to the end user customer. This means that one end user customer with services from both billing systems will receive both CABS and CRIS bills.

In order to give CLPs access to information and functions that are substantially the same in time and manner as BellSouth's access, BellSouth offers the CLPs an electronic interface for customer billing usage transfer, known as the Billing Daily Usage File, which provides CLPs with a daily file including items such as directory assistance or other billable usage associated with a resold line, interim number portability account, or unbundled network element such as an unbundled port. The specific types of data include: interLATA toll, billable local calls, billable feature activations, operator services, and WATS/800 service. The file provides billable call detail records in a BellCore-supported, industry-standard format known as Exchange Message Record ("EMR"), and is offered with several methods of delivery. The billing data provided by this interface is provided in substantially the same time frame and functionality as such information is available to BellSouth. In addition, for CLPs who choose the option of receiving rated usage, the billable call detail records are provided in a manner that adds significant value compared with the original message recording BellSouth receives from its switches.

5. System Training

BellSouth offered testimony that it has provided the CLPs with training and documentation on all of its new interface systems. Ms. Calhoun testified that BellSouth has conducted CLP training sessions that include many aspects of doing business with BellSouth, including systems training. BellSouth also has provided appropriate system user guides and other information.

Ms. Calhoun testified that initial LENS training was held May 13, 1997, at the BellSouth Learning Center in Atlanta. During the training, the CLP representatives sat at computer terminals, and the trainer guided them step-by-step through pre-ordering inquiries and order processing. During training, CLP trainees were provided with a LENS User Guide. BellSouth has also provided LENS technical assistance at the CLPs' premises.

BellSouth has also worked with the CLPs on EDI and TAFI training. EDI is a standard industry interface; consequently, CLPs do not need extensive training from BellSouth on the system. CLPs can purchase commercially available software to use EDI and receive technical assistance from vendors of that software. BellSouth, however, has sought to provide the CLPs with updated implementation guides. Witness Calhoun testified that BellSouth has provided training to CLP personnel at its Birmingham training labs and offers "help desk" support for LENS and TAFI problems from 8:00 a.m. until 5:00 p.m.

The Commission is persuaded that BellSouth's electronic interfaces through which CLPs will access necessary operational support systems permit the CLPs to access those systems in a nondiscriminatory manner. While it is true that the interfaces offered by BellSouth (e.g., LENS, EDI, TAFI) are different from the systems that BellSouth's own customer service personnel use to process orders, this fact does not make the interfaces offered to the CLPs substandard as the CLPs would have this Commission believe. The checklist does not require that systems offered to the CLPs be the same as BellSouth's systems, but that they offer the same functionality, quality, and timeliness as BellSouth offers to itself. The inquiry is not whether LENS and EDI are different from what BellSouth uses internally, but whether these interfaces permit the CLPs to access BellSouth OSS in equivalently the same manner as BellSouth. One of the problems witness Strow and others of the intervenors have had is that they have tried to use LENS for ordering functions when, in fact, LENS is a pre-ordering system. As LENS is a pre-ordering interface, it is not surprising that it fails to provide full ordering capabilities. All that the CLPs have to do is to electronically copy LENS information and electronically paste it into their EDI and EXACT interfaces—a task no more complex than cutting data from one computer program screen and pasting it to another. The Commission is satisfied that BellSouth's interfaces do not put the CLPs at a competitive disadvantage *vis a vis* BellSouth. All of the functionalities needed by the CLPs to order BellSouth services are provided for by BellSouth through its interfaces and allow the CLPs access to BellSouth's OSS in substantially the same time and manner as is available for BellSouth's own personnel.

Other Issues

The intervenor witnesses also raised issues related to network element combinations both in direct testimony and on cross examination. According to Mr. Gillan, local competition requires that CLPs be able to access loop and switch capacity as a combination of network elements sometimes referred to as the "platform configuration." Mr. Gillan stated that network combinations are important to CLPs for three reasons: it allows a large number of customer requests to change local carriers electronically instead by means of a physical change in the network; no competitor can replicate the vast switching

matrix of the ILECs any time soon and even where competitive switches are installed the cost to reconfigure loops will likely limit this form of entry to large customers. He contended that BellSouth is required to provide carriers the preexisting combination of the loop and switch, citing the Eighth Circuit's failure to vacate Section 51.315(b) of the FCC's interconnection rules as well as the Ameritech Order. Mr. Gillan acknowledged this Commission's decision in the arbitration proceedings with regard to the pricing of network element combinations that replicate BellSouth retail services but argued that such combinations are not equivalent to resale. Mr. Hamman also testified that ILECs must provide access to UNEs at cost-based rates under the Eighth Circuit decision, even if they duplicate services offered for resale.

Mr. Varner disagreed with this interpretation of the Court's ruling and asserted that what Mr. Gillan was requesting to purchase was a service rather than a network element, citing the Court's distinction between resale and requiring CLPs to combine elements themselves. In addition, regarding access charges, Mr. Varner stated that BellSouth's position is that, when the CLP orders all the UNEs which replicate an existing retail service and indicates that BellSouth should do the recombining, BellSouth remains the end user's access provider but when the CLP combines the UNEs to provide service, BellSouth would not receive access revenues.

The Commission agrees with BellSouth that unbundled network elements are just that: unbundled. Unlike the AT&T/MCI-BellSouth arbitration agreements, the SGAT states without qualification that "CLPs may combine network elements in any manner to provide telecommunications services." Thus, consistent with the Eighth Circuit's ruling, when the CLP purchases the elements and combines them, it pays the sum of the unbundled element prices. Furthermore, however plausible AT&T's arguments may have been at the time of the hearing, the subsequent order of the Eighth Circuit on October 14, 1997, amending on rehearing its opinion issued July 18, 1997, plainly states that the ILECs are not required to recombine network elements that are purchased on an unbundled basis and vacates the FCC's rule 51.315(b) on which Mr. Gillan relied. Thus the statement in SGAT that "[a]dditional services desired by CLPs to assist in their combining or operating BellSouth unbundled network elements are available as negotiated" is also entirely permissible.

With regard to pricing, Mr. Varner testified that BellSouth used several sources as the bases for the interconnection and network elements included in its SGAT: Commission-ordered rates in the arbitration cases, BellSouth's North Carolina intrastate tariffs, BellSouth's North Carolina interstate tariffs, North Carolina-specific cost studies, cost results in other BellSouth states, and for one item a negotiated price. For example, the prices in the SGAT for end office switching and the recurring 2-wire analog port are the rates established by the Commission in its December 23 arbitration orders, and the nonrecurring rates for all port types are those established by the Commission in its April 11 orders. The recurring rates for the remaining ports are based on North Carolina-specific cost studies. In accordance with the arbitration orders, when local switching is purchased as an unbundled element, vertical services are included in the price at no additional

charge. The SGAT also offers 2-wire analog hunting, which is not a checklist item and was not addressed in the arbitration orders or agreements, at a rate based on a North Carolina-specific cost study. All of the proposed rates are designated as interim and subject to true up.

Ms. Strow asserted that the rates proposed by BellSouth are not consistent with the requirements of the Act because they have not been determined by the Commission to be cost based. To comply with the pricing requirements of the checklist, she said, it is necessary that the Commission first determine the appropriate pricing methodology and then determine the cost of the UNEs by applying that methodology. It would be premature to approve the SGAT, she asserted, without such a determination with participation from interested parties. She also asserted that BellSouth had not demonstrated that these rates comply with the incremental cost standards contemplated by the Act. Furthermore, she stated, the Georgia Public Service Commission rejected BellSouth's interim rates on the grounds that they were interim rates subject to true up. She also cited the FCC's conclusion in the Ameritech Order that rates for interconnection, unbundled elements, and transport and termination must be based on forward-looking economic costs.

Similarly, Dr. Cabe asserted that the requirements for compliance with item II of the competitive checklist have not been met because the rates proposed by BellSouth have not been determined to be cost based pursuant to Section 252(d)(1) of the Act. He noted that in its August 12, 1997, order in Docket No. P-100, Sub 133b, electing to submit a forward looking economic cost study to the FCC, the Commission concluded that it was appropriated to defer the issue of pricing unbundled network elements until a future date. Furthermore, the Commission stated in the AT&T/MCI/BellSouth arbitration orders that the rates it adopted for unbundled network elements should be considered interim, and that final rates would be established based on appropriate cost studies, whereupon the interim rates would be trued up. He stated that interim rates established prior to determination of the cost of providing unbundled network elements cannot by definition satisfy the requirements of Section 252(d)(1). Not only are they not cost based, he asserted, they are not rates for the purpose of permitting competition for local exchange services to develop. He stated that with interim rates subject to true up, new entrants do not know what they are or will be paying BellSouth for these elements. Such rates may permit potential competitors to begin testing their market assumptions, training their employees, and testing the reasonableness and effectiveness of interconnecting with BellSouth, but they represent a real barrier that must be removed before local competition can develop. Dr. Cabe also discussed the Georgia and FCC decisions cited by Ms. Strow.

In response to Ms. Strow's and Dr. Cabe's assertions, Mr. Varner noted that Section 252(d)(1) of the Act requires that rates be based on cost, be nondiscriminatory, and may include a reasonable profit. He stated that the interim rates established by the Commission satisfy these requirements. Mr. Varner cited the April 11, 1997, order in the MCI-BellSouth arbitration case, where the Commission said it was not unreasonable to conclude that the rates were based on cost since they were based on consideration of MCI's cost study, BellSouth's cost studies, or the FCC's cost-based default prices.

Furthermore, he stated, even the FCC in its First Report and Order recognized that states might not have time to review cost studies before rendering pricing decisions in arbitrations and that interim rates might be appropriate. Thus, he asserted, it does not follow that interim rates are not cost based. In addition, the fact that the rates are subject to true up provides further assurance that the rates being charged are cost based.

On cross examination, Mr. Varner stated that the rates approved in the arbitration proceedings are checklist compliant because in each case there was an underlying cost basis for the rates. He further stated that the rates were set on an interim basis subject to a retroactive true up after the Commission has looked at additional information, so there is a kind of double assurance that they are cost based. As to what the rates will be trued up against if they are already cost based, Mr. Varner asserted that the Act does not specify what the cost standard has to be and the Commission may or may not want to use a different standard or means of developing costs on a going forward basis. He agreed that there are many cost standards reflected in the rates as they now exist and that the Commission has not adopted a particular cost standard, although it has generally used incremental cost as a standard for underlying tariff prices.

Mr. Varner also stated that the true up mechanism ordered in the arbitrations is a two-way true up, and that is what is proposed in the SGAT as well. As to whether the true up causes some uncertainty as to what rates will be in the future, he stated that the true up actually arose out of voluntarily negotiated agreements, which seems to belie claims that it is a barrier or problem. He further stated his understanding that the South Carolina Commission believed they capped the true up in the arbitrations so they extended that into the SGAT.

The Commission finds nothing in the Act that requires permanent rates as a condition of checklist compliance. The fact that the FCC itself recognized the appropriateness of interim arbitrated rates and specifically adopted a schedule of interim proxy rates for use by state commissions in their arbitration proceedings further persuades us that permanent rates are not required. The question is whether the rates proposed by BellSouth in the SGAT are cost based as prescribed by Section 252(d)(1) of the Act. We believe that they are.

Although the proposed rates were taken from several sources using a variety of costing methodologies, the Commission is sufficiently familiar with the way the rates were derived to be satisfied that they were based on cost at the time they were established. The fact that we may ultimately review those rates using a different costing methodology does not make them any less cost based for purposes of this proceeding. Contrary to the assertion that the SGAT cannot be found compliant with the Act until we have completed this "fresh look" at costs, we believe the Act's goal of opening all telecommunications markets to competition would be frustrated were we to delay BellSouth's interLATA entry solely because such a review has not been completed.

The Commission is concerned, however, about the competitive impact of the two-way true up mechanism because of the possibility of upward adjustments in the interim rates. To alleviate this concern and to ensure that potential competitors are not deterred from entry on this account, the Commission concludes that BellSouth should amend its SGAT to provide that the price of any interconnection or unbundled network element provided under an interim rate will not be adjusted upward retroactively.

Based on the evidence presented, the Commission finds and concludes that BellSouth is providing or generally offering nondiscriminatory access to its network elements in accordance with the requirements of Sections 252(c)(3) and 252(d)(1) and is in compliance with checklist item II.

ITEM III. BellSouth is providing or generally offering nondiscriminatory access to poles, ducts, conduit, and rights-of-way owned or controlled by BellSouth at just and reasonable rates in accordance with the requirements of Section 224.

Under Section III of the SGAT, a CLP can acquire access to poles, ducts, conduits and rights-of-way by submitting a standard license agreement to BellSouth. A CLP can also reserve, under Section III, capacity for bona fide local telecommunications needs, and can receive access to engineering records by filing a bona fide request for access and agreeing to reasonable terms to protect proprietary information.

Witness Milner testified that, as of the date of the hearing, BellSouth has executed standard license agreements with nine CLPs, allowing these CLPs to attach their facilities to BellSouth's poles and place their facilities in BellSouth's ducts and conduit. Mr. Milner further testified that BellSouth had allowed access to its poles, ducts, conduits and rights-of-way to cable television companies and power companies for many years. It was Mr. Milner's opinion that access to poles, ducts, conduits, and rights-of-way is functionally available from BellSouth.

Witness Varner testified that BellSouth's SGAT compiles with Section 224 of the Act and with the RAO of December 23, 1996 in which the Commission stated that BellSouth could not reserve any spare capacity unless needed for reasons of safety, reliability and generally applicable engineering purposes. Mr. Varner further testified that in the Standard License Agreement, which is attached to the SGAT as Attachment D, the pole attachment rate of \$4.20 per pole per year and the conduit occupancy rate of \$0.56 per foot, per year were developed in accordance with FCC Accounting Rules which are designed to produce cost-based rates. The procedures by which a CLP gains access to poles, ducts, conduits and rights-of-way was also addressed by witness Varner in his testimony. According to Mr. Varner, the CLP sends a license application to BellSouth Right of Way and Joint Use Group, who forwards the request to the geographic area affected by the request. The requests are processed on a first-come, first-serve basis, and the response interval is negotiated with the CLP. It was Mr. Varner's opinion that BellSouth is providing nondiscriminatory access to the poles, ducts, conduits, and rights-of-way owned or

controlled by BellSouth at just and reasonable rates in accordance with the requirements of Section 224 of the Act.

AT&T witness Hamman testified that BellSouth has not met the requirements of checklist item III. He stated that BellSouth has not provided such access to AT&T, and that BellSouth cannot demonstrate compliance with this checklist item until the methods and procedures have been tested and implemented, and BellSouth demonstrates that it can actually provide such access to competitors on a non-discriminatory basis. On cross-examination of by the Attorney General and BellSouth, Mr. Hamman admitted that AT&T is not presently providing local service to any customers in North Carolina and that AT&T has not ordered any of the checklist items for North Carolina and that he has no personal knowledge regarding what CLPs, who have ordered checklist items in North Carolina, are doing with those items or whether those items have, in fact, been implemented.

No other party to this proceeding introduced any evidence to dispute BellSouth's testimony that access to poles, ducts, conduits and rights-of-way is functionally available from BellSouth.

Based on the evidence presented, the Commission finds and concludes that BellSouth is providing or generally offering nondiscriminatory access to poles, ducts, conduits and rights-of-way owned or controlled by BellSouth at just and reasonable rates in accordance with the requirements of section 224 of the Act and is in compliance with checklist item III.

ITEM IV. BellSouth is providing or generally offering local loop transmission from the central office to the customer's premises, unbundled from local switching or other services.

BellSouth witness Varner testified that the local loop is a dedicated facility from the customer's premises to the main distribution frame of the serving central office. In Section IV of its SGAT, BellSouth offers 2-wire and 4-wire voice grade analog, 2-wire ISDN, 2-wire Asymmetrical Digital Subscriber Line ("ASDL"), 2-wire and 4-wire High-bit-rate Digital Subscriber Line ("HDSL"), and 4-wire DS1 digital grade loops to any requesting CLP. BellSouth also offers loop cross connects, loop concentration systems, and network interface devices ("NIDs") as sub-loop elements. With regard to the provision of these additional local loop transmission components, Mr. Varner stated that the SGAT includes the specifications of the December 23 arbitration orders that BellSouth is not required to provide direct connection of an AT&T- or MCI-provided loop to BellSouth's NID but is required to allow an AT&T or MCI loop connection through an adjoining AT&T or MCI NID. Requests for additional loop types may be made through the Bona Fide Request process.

Mr. Varner also testified that the ordering and provisioning of local loop transmission components purchased by a CLP from BellSouth are set forth in the Local Interconnection and Facility Based Ordering Guide. For most unbundled loop requests, a CLP may use

the mechanized EXACT system to transmit the ASR to the LCSC. Due dates are negotiated and most unbundled loops will be billed through CAPS. The process is the same for loop concentration in the central office. Loop cross connects will be considered as collocation and dealt with in the same manner. The LCSC will also handle NID requests.

Mr. Varner was questioned by Intermedia about Intermedia's request for unbundled frame relay loops and unbundled ISDN loops in Florida. Mr. Varner stated that they were not part of the Intermedia interconnection agreement and are not unbundled network elements required by the Commission. He further stated that as far as he knew, the only company that has requested these types of loops is Intermedia. He also stated that his understanding is that BellSouth has found a way to provide the unbundled frame relay capability and that the unbundled ISDN is relatively simple. He was unable to state, however, whether BellSouth has the capability of providing unbundled fifty-six (56) and sixty-four (64) kilobit loops in North Carolina if requested. Mr. Varner agreed that these loops are in the Georgia SGAT and explained that this was because they were included in the arbitration process there. With regard to subloop unbundling, Mr. Varner stated that Intermedia had requested unbundled distribution plant concentrator in Florida, but that subloop unbundling is not included in the North Carolina SGAT because it was not ordered by the Commission in the arbitration proceedings. In response to questioning about Attachment I, Exhibit A, to the SGAT which shows loop concentration as an unbundled element with recommended provisioning targets, Mr. Varner stated that these intervals apply only in states where the unbundled elements are available.

BellSouth witness Milner testified that unbundled local loop transmission is functionally available from BellSouth. Mr. Milner stated that BellSouth has technical descriptions outlining the unbundled loops that are available and has implemented procedures for the ordering, provisioning, and maintaining of unbundled loops. According to Mr. Milner, as of July 1, 1997, BellSouth had provisioned 3,575 unbundled loops to CLPs in its nine-state region, but none in North Carolina. In addition, Mr. Milner stated, BellSouth has tested the availability of 2-wire and 4-wire voice grade loops, 56 Kbps and Basic Rate Interface unbundled digital loops, unbundled DS1 with bundled interoffice transport, ADSL capable loops, and 2-wire and 4-wire HDSL capable loops. An order was generated and flowed through BellSouth's systems in an accurate and timely fashion, and billing records were reviewed to verify that each item had been billed correctly. Mr. Milner also stated that BellSouth has tested the availability of the NID and that during the testing process service orders for a NID flowed properly through BellSouth's systems and accurate bills were generated.

Intermedia witness Strow testified concerning Intermedia's request for unbundled loops and other network elements to support the provision of local frame relay service. She stated that, although some progress has been made, network elements are still not being provided on an unbundled basis. On cross examination by BellSouth, she stated that it is

possible for Intermedia to provide frame relay service to its own customers without ordering anything from BellSouth and they are doing that in many cases in North Carolina. She also stated that BellSouth and Intermedia have been able to negotiate prices for the network components for BellSouth to provide frame relay service for Intermedia and have a meeting set up to talk about how to conduct testing of the service. She further agreed that, while the parties are working toward resolution of what Intermedia needs to provide frame relay service, BellSouth has offered SynchroNet service as an interim solution to Intermedia's need for this type of data transfer. She added, however, that this is basically a pricing type arrangement which gets Intermedia closer to what they could have if they had the unbundled elements but it does not give them the control of their network and components.

In response to Ms. Strow's testimony, Mr. Milner stated that BellSouth has never refused to provide the required elements, although it has taken a good amount of discussion with Intermedia to determine which elements and in what arrangements Intermedia needs to provide its service. He stated that according to his understanding, Intermedia requested BellSouth to provide it with unbundled frame relay loops and line side loop unbundling that supports a multi-host environment which would require a modification of existing industry standards for loop configurations. BellSouth offered SynchroNet service to Intermedia while the technical evaluation of the request progressed. BellSouth concluded its technical analysis and conveyed the results and proposed pricing to Intermedia for incorporation into the interconnection agreement between them.

MCI witness Martinez testified that BellSouth refuses to permit MCI to order NIDs separate and apart from the unbundled loop, although the Commission designated the NID as a UNE and a set price for it is contained in the BellSouth-MCI interconnection agreement. Mr. Martinez recounted MCI's experience in Georgia where BellSouth provisioned loops without NIDs for at least two test customers. He stated that BellSouth first informed MCI that it would not permit MCI to order the NID separately and then said it was trying to work out the methods and procedures. In response, Mr. Milner testified that BellSouth provides NID-to-NID connection pursuant to this Commission's arbitration order. MCI may provide its own loop and NID and connect to BellSouth's NID, it may take a loop from BellSouth (including NID), or it may also provide its own loop and use the BellSouth NID.

AT&T witness Hamman testified that providing unbundled local loops is a new and different process that BellSouth has not yet fully implemented anywhere in its territory. Mr. Hamman asserted that full implementation requires, at a minimum, a fully tested and functioning process for preordering, ordering, provisioning, maintenance and billing. He further stated that this process must be tested and demonstrated to work in a market environment for both new and existing customers. For new customers, providing a loop involves connecting an available loop through the BellSouth office to the CLP's connections. Changing an existing customer from BellSouth to the CLP, however, involves different activities. In order to provide nondiscriminatory access to local loops, Mr.

Hamman stated, BellSouth's preordering, ordering, provisioning, maintenance and billing systems must ensure that the CLPs can obtain loops at the same intervals that BellSouth obtains them for itself. He complained that, while BellSouth has stated its intent to establish intervals for unbundled loops on a customer due date basis, it has not committed to meeting these intervals. In addition, he complained that although BellSouth has agreed to unbundle Integrated Digital Loop Carrier ("IDLC") delivered loops, it has not established or tested the method by which these loops will be provided. He further stated that AT&T's experience with BellSouth providing local loops is limited to four orders placed in Florida for a combination of all 12 unbundled network elements, adding that BellSouth has now stopped the testing begun on these orders and changed its policy on whether or not AT&T can have access to the elements in the form requested. He also noted that carriers in other states have had problems.

In response to Mr. Hamman, Mr. Milner testified that while no CLP in North Carolina has requested BellSouth to provide it with unbundled loops, BellSouth has provided 3,575 unbundled loops to CLPs in its nine-state region as of July 1, 1997. This, he said, is evidence that BellSouth has a workable process for providing unbundled loops to CLPs who request them. Similarly, he stated that while AT&T has not requested unbundled loops served by IDLC, other CLPs have and BellSouth has successfully provided them.

The ability of BellSouth's OSS to provide nondiscriminatory access to unbundled network elements and the pricing of those elements are issues that have already been addressed under checklist item II. Based on the evidence presented, the Commission finds and concludes that BellSouth is providing or generally offering local loop transmission from the central office to the customer's premises, unbundled from local switching or other services and is in compliance with checklist item IV.

ITEM V. BellSouth is providing or generally offering local transport from the trunk side of a wireline local exchange carrier switch unbundled from switching or other services.

BellSouth witness Vamer testified that local transport comprises those elements necessary to connect a CLP location to BellSouth or to connect two BellSouth locations. There are two types of local transport: dedicated and common. Dedicated transport is used exclusively by a single carrier for the transmission of its traffic. For example, a CLP switch can connect directly to a BellSouth switch through the use of dedicated transport. Common transport is used to carry the traffic of more than a single company for the transmission of their aggregate traffic. Common transport can connect a BellSouth end-office to another BellSouth end-office or to a BellSouth tandem.

Mr. Vamer stated that BellSouth offers unbundled local transport in Section V of its SGAT with optional channelization for such local transport from the trunk side of its switch. In addition, BellSouth offers both dedicated and common transport for use by the CLPs. With regard to dedicated transport, voice grade channels might typically be used to

transport an unbundled loop to a CLP's switch. A DS1 channel (24 voice grade channels) could also be used for this purpose and would typically be used in conjunction with central office multiplexing or concentration. Mr. Varner went on to say that DS1 or DS3 (28 DS1 channels) transport can also be used if a CLP wishes to purchase transport facilities from BellSouth rather than provide its own facilities when interconnecting its switch with BellSouth—that is, the transport portion of termination. Mr. Varner stated that BellSouth makes all these possibilities available to CLPs.

BellSouth witness Milner testified that local transport is functionally available from BellSouth. He stated that BellSouth has technical service descriptions outlining both dedicated and shared interoffice transport and has procedures in place for the ordering, provisioning, and maintenance of these services. As of July 1, 1997, BellSouth had 171 dedicated trunks providing interoffice transport to CLPs in North Carolina and 771 dedicated trunks providing interoffice transport in its nine-state region. Because unbundled interoffice transport is very similar to the interoffice transport component of special access services that BellSouth has been providing for years, Mr. Milner stated that BellSouth had concluded that end-to-end testing of its systems and circuits was not necessary. BellSouth did conduct testing which verified that service orders for dedicated transport and unbundled channelization flowed through as planned and that accurate bills were generated.

AT&T witness Hamman, AT&T/MCI witness Cabe, and AT&T/MCI/ CompTel/ WorldCom witness Gillan testified that BellSouth has not satisfied the requirements of checklist item V. They asserted that BellSouth has provided common transport to IXCs but CLPs cannot utilize it without additional work by BellSouth. Further, they stated that BellSouth has not put in place the methods and procedures that provide with certainty that common transport can be provided between end-offices and billed on a non-discriminatory basis. They pointed to Florida where AT&T ordered four test loop combinations but has not been able to confirm receipt of shared transport.

MCI witness Martinez testified that there are a number of areas in which BellSouth fails to meet checklist compliance. In the case of local tandems, the SGAT does not allow CLPs to interconnect at the local tandem even though such interconnection admittedly is technically feasible. Mr. Martinez admitted, however, that BellSouth has recently told MCI that it can begin to interconnect at the local tandems but that the information as to the location of these tandems is just now being finalized. Part of the problem stemmed from MCI's not being aware that BellSouth has local tandems, as most companies have basically done away with local tandems since the 1970's.

Mr. Martinez stated that he does not believe that BellSouth is providing unbundled common transport. He agreed that his position on this issue was contrary to the opinion of BellSouth witness Milner. It was also his testimony that BellSouth does not offer a trunk port that a new entrant could use to connect to the local office switch. Without such a port, he asserted that there would be nothing to which a new entrant could connect the facility piece of the common transport. Mr. Martinez also testified that it was his belief that

BellSouth is not providing common transport, since the only way to measure traffic over a trunk group is to use the measurement capability of the switch.

Mr. Milner responded in rebuttal that Mr. Martinez had gone into a lengthy discussion about problems MCI has had in interconnecting with Southwestern Bell and Vista United—companies over which BellSouth has no control. The simple “bottom line” to this issue, according to Mr. Milner, is that CLPs may interconnect at BellSouth's local tandems or at BellSouth's access tandems, at the election of the CLP.

Mr. Milner also offered rebuttal to Mr. Martinez's opinion that BellSouth is not providing common transport, as it must impose a per minute charge on the CLPs' traffic usage over the trunk. Mr. Milner stated that “minute-by-minute” measurements are needed to allocate the costs of shared facilities, since, at a given moment, all of the facilities might be used for BellSouth's traffic or the traffic of CLPs. Obviously, such “minute-by-minute” usage must be gathered somewhere; and for years, this measurement has been taken at the switch. Mr. Milner also noted that Mr. Martinez left out one critical distinction in defining “common transport.” For there to be “common transport,” the originating switch must be BellSouth's rather than MCI's switch. With common transport, a CLP uses unbundled local switch ports and also uses common transport facilities to carry traffic from those switch ports. It is common transport in that the same facility is used to carry the CLP's traffic to as well as BellSouth's traffic to that same destination. BellSouth does offer common transport to CLPs; the switch merely gathers usage measurements by which the costs of these facilities are allocated.

In Section V of its SGAT BellSouth offers local transport with optional channelization for local transport from the trunk side of its switches. It makes available dedicated transport and common transport, including central office multiplexing, as well as DS1 and DS3 transport.

Based on the evidence presented, the Commission finds and concludes that BellSouth is providing or generally offering local transport from the trunk side of its local exchange carrier switch unbundled from switching or other services and is in compliance with checklist item V.

ITEM VI. BellSouth is providing or generally offering local switching unbundled from transport, local loop transmission, or other services.

BellSouth witness Vamer testified that local switching is the network element that provides the functionality required to connect the appropriate originating lines or trunks wired to the main distribution frame or to the digital cross connect panel to a desired terminating line or trunk. Mr. Vamer explained that the most common local switching capability involves the line termination (port) and the line side switching (dialtone) capability in the central office. The functionality includes all of the features, functions, and capabilities inherent in the switch or provided by the switch software. In Section VI of its