## BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In Re: Request for approval of tariff filing to introduce Integrated Services Digital Network-Alternate Network Serving Arrangement by BELLSOUTH TELECOMMUNICATIONS, INC. d/b/a SOUTHERN BELL TELEPHONE AND TELEGRAPH COMPANY (T-94-501 filed 9/16/94)	) DOCKET NO. 941008-TL ) ORDER NO. PSC-95-0090-FOF-TL ) ISSUED: January 17, 1995 ) )
	)

The following Commissioners participated in the disposition of this matter:

J. TERRY DEASON, Chairman SUSAN F. CLARK JOE GARCIA JULIA L. JOHNSON DIANE K. KIESLING

## ORDER APPROVING TARIFF

## BY THE COMMISSION:

On November 3, 1993, BellSouth Telecommunications, Inc. d/b/a Southern Bell Telephone and Telegraph Company (Southern Bell or the Company) filed a tariff to introduce Integrated Services Digital Network (ISDN)-Individual Residence and ISDN-Individual Business Services into its General Subscriber Services Tariff. ISDN is a telecommunications network architecture that provides for the simultaneous transmission of voice and data over a single access line. On January 12, 1994, the Commission issued Order Number PSC-94-0043-FOF-TL approving ISDN-Individual Business and Individual Residence service.

On September 16, 1994, Southern Bell filed a tariff to introduce ISDN-Alternate Network Serving Arrangement (ISDN-ANSA). ISDN-ANSA provides ISDN service to a customer in a central office that is not ISDN-equipped by trunking the ISDN from a designated ISDN-equipped central office. The Company contends that this is a cost-effective approach to making ISDN available to a greater geographic area without the capital expenditure of equipping all central offices with ISDN.

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FPSC-RECORDS/REPORTING

Integrated Services Digital Network or ISDN is a telecommunications network architecture that provides for the simultaneous transmission of voice and data over a single access line. One can also think of ISDN as an "information pipeline" providing end-to-end digital connectivity between an end-user's premise and a central office. The two primary types of ISDN are Basic Rate Interface (BRI) and Primary Rate Interface (PRI). Choosing one or the other depends on the type of customer and their specific application needs. Voice and data are carried on a bearer channel (B channel) while signaling information is carried on a delta channel (D channel).

BRI consists of two B channels and one D channel (2B+D). The B channel transmits data at 64 Kbps, while the D channel runs at 16 Kbps. BRI can be run over existing twisted pair wiring and is intended to support simple telephone and computer applications such as linking remote users to local area networks (LANS), screen sharing between workstations, and desktop video.

The biggest benefit from BRI is the ability to support simultaneous high-quality voice and interactive computer applications. Examples of what a customer could do with ISDN include the following:

- High Speed File Transfers. Large files can be sent quickly and economically between workstations.
- Desktop Multimedia. Video imaging or "talking head" capability along with screen sharing is possible with ISDN.
- 3. **Telepublishing.** San Francisco-based company MacWorld lets its sister magazines in Tokyo, Paris, and London browse on-screen and download articles and graphics via ISDN. Final magazine pages for output are sent out via ISDN.
- 4. Telecommuting. An employee working from home can plug into her employer's LAN and receive e-mail, transfer files, conduct audio/video conferences and access company data bases.
- 5. Telepresence Learning. Illinois Bell has wired 600 student homes with ISDN links to schools. From San Rafael, California, artist Dave Biedne teaches multimedia in the School of Visual Arts in New York City. This is done, via ISDN, with a two-way video conferencing system.

Lack of availability in certain geographic areas has made ordering ISDN quite difficult. Alternative methods of extending ISDN have been pursued by LECs throughout the United States. Telephone companies such as Ameritech, Southwestern Bell, and Bell Atlantic use modifications of an overlay network that uses one host ISDN switch and remote switching equipment in other central offices. Another option involves the use of basic rate ISDN transmission extension (BRITE) cards. These are used in a serving office to deliver ISDN to customers using three channels of a T1 line. LECs have only recently adopted extension technology as a means of providing ISDN. In the early years of ISDN deployment, LECs perceived ISDN as a service that would be used to replace analog voice service. This meant that LECs would have to install ISDN capability in every central office with subscribers changing the prefixes of their phone numbers. ISDN, however, has not caught on as a voice service. Instead, ISDN subscribers are using the service in addition to their analog voice lines, hence reducing the need to change number prefixes as well as the need to install ISDN capability in each central office.

Through this tariff filing, Southern Bell is proposing to offer ISDN-Alternate Network Serving Arrangement (ISDN-ANSA). ISDN-ANSA provides ISDN-Individual Residence or ISDN-Individual Business service to a customer in a central office that is not ISDN-equipped by trunking the ISDN from a designated ISDN-equipped central office. ISDN-ANSA, which uses the BRITE card method for ISDN extension, will be available from ISDN equipped 5ESS and DMS-100 switches. ISDN equipped offices will be used as the "homing" central offices. Specific offices will be designated as available for trunking from each designated homing central office. Customers furnished with ISDN-ANSA will be provided with a telephone number from the ISDN office. The Company is not proposing any additional charges for this service. Customers that wish to subscribe to ISDN-Individual Business or Individual Residence with the use of ISDN-ANSA will pay only the applicable recurring and nonrecurring rates for either ISDN-Individual Residence or ISDN-Individual Business service. It should be noted that ISDN-ANSA is not a new service, but is an alternate method of providing the network architecture for ISDN.

Southern Bell's proposal is driven by what it perceives as market demand for ISDN in wider geographic areas. The Company contends that extending ISDN to more customers via ISDN-ANSA is more cost-effective than installing ISDN capability in every central office.

The investment required for equipping each of the 42 central offices is \$12,614,844. The investment required for providing ISDN-ANSA to 312 customers is \$1,116,111. According to a comparison submitted by Southern Bell, the investment in ISDN-ANSA assumes all 312 customers purchase the service in year 1. If the actual number of subscribers fell below the estimated 312 customers, the investment for ISDN-ANSA will be less than the estimated \$1,116,111. Additional investment would be made when a customer actually subscribed. With the first alternative, whether or not all 312 potential customers in the 42 central offices subscribed would not change the required level of upfront investment. Placing ISDN in each of the 42 central offices means providing the supply first before realizing the actualization of demand. Southern Bell's proposal falls in line with the trend around the country toward extending ISDN service via some alternative technical method versus installing ISDN capability in every central office.

There will be negative impacts to the Company due to the offering of this service. The Company expects negative contribution per line for ISDN customers using ISDN-ANSA. The Company estimates that the cost for providing ISDN-ANSA is \$76.28 per line for residential customers. This is in addition to the \$40.39 cost per line for providing ISDN-Individual Residence service. The total cost for a customer that subscribes to ISDN-Individual Residence with ISDN-ANSA is \$116.37; however, the monthly rate that the customer will pay is \$42.00.

The Company estimates that the cost for providing ISDN-ANSA to business customers is also \$76.28 per line. When the cost per line for ISDN-Individual Business of \$78.26 is added to the ISDN-ANSA cost, the total cost is \$154.54. The rate that the business customer will be charged is \$99.50.

While the Company expects negative contribution per line for ISDN-ANSA customers, Southern Bell expects positive contribution overall for its ISDN-Individual Business and Residence service. The contribution from ISDN-IRS and ISDN-IBS service is \$209,864 a month. When this contribution is combined with the negative contribution from ISDN-ANSA, the net ISDN contribution totals \$191,200 per month.

Customers that are served from non-ISDN equipped central offices will benefit the most from this tariff. Customers served from such offices will be able to subscribe to ISDN service. There are no additional recurring and nonrecurring rates for ISDN-ANSA. The rates that ISDN-ANSA customers pay will be the same as the rates paid by regular ISDN-Individual Residence and Business

customers. Businesses that encourage telecommuting for their employees will benefit from an expansion of access to ISDN. If, for example, a customer and her employee are provided phone service from different central offices, and the employee's central office is not ISDN capable, ISDN-ANSA will allow the employee to access ISDN services and allow both the employee and the employer to communicate via ISDN.

We recognize the benefits that ISDN service can provide to residential and small business customers. The fact that customers also recognize the benefits of ISDN is evident in the current subscribership for ISDN service. Although actual demand is running below forecasted demand for both ISDN-Individual Residence and Business service, customers are subscribing to this service. As of August 1994 there were 350 lines subscribed to ISDN-Individual Business service and 11 lines subscribed to ISDN-Individual Residence service. The Company originally forecasted that there would be 1,725 lines subscribed to ISDN-Individual Business service and 25 lines subscribed to ISDN-Individual Residence service by January 1995. As we also noted before, ISDN-ANSA is not a new service, per se, but is an alternative network for providing ISDN.

We are concerned with ISDN-ANSA's impact on overall contribution from ISDN. Our analysis shows that there will be an erosion in contribution from ISDN. This erosion in contribution occurs with an expected increase in ISDN subscribers due to the ISDN-ANSA offering. The only way that the erosion in contribution will stop is when a central office begins serving enough customers to warrant the installation of ISDN in that central office. This poses a catch-22, however. Since ISDN's success depends on as great a number of subscribers as possible, LECs that offer ISDN must think of innovative ways of offering the service in as wide a geographic area as possible. ISDN-ANSA is one such method. Therefore, we believe that the Commission cannot look at ISDN-ANSA as a stand alone service, but rather should look at ISDN-ANSA as a network component of current ISDN service.

Upon consideration, we approve Southern Bell's tariff filing to introduce ISDN-ANSA into the General Subscriber Services Tariff, with an effective date of December 20, 1994. In order to monitor the progress of the services, we find that Southern Bell shall file with the Commission, upon request, specific information documenting ISDN-IRS and ISDN-IBS number of customers, revenues, costs, and contribution. The requested information shall also document the number of customers subscribing to ISDN-IRS and ISDN-IBS via the use of ISDN-ANSA, the costs, and the level of contribution.

Based on the foregoing, it is

ORDERED by the Florida Public Service Commission that the tariff to introduce Integrated Services Digital Network-Alternate Network Serving Arrangement, filed by BellSouth Telecommunications, Inc. d/b/a Southern Bell Telephone and Telegraph Company, is hereby approved as set forth in the body of this Order with an effective date of December 20, 1994. It is further

ORDERED that if a protest is filed in accordance with the requirements set forth below, the tariff shall remain in effect with any increase in revenues held subject to refund pending resolution of the protest. It is further

ORDERED that if no protest is filed in accordance with the requirements set forth below, this docket shall be closed.

By ORDER of the Florida Public Service Commission, this 17th day of January, 1995.

BLANCA S. BAYO, Director Division of Records and Reporting

by: Kay Jews Chief, Bareau of Records

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## NOTICE OF FURTHER PROCEEDINGS OR JUDICIAL REVIEW

The Florida Public Service Commission is required by Section 120.59(4), Florida Statutes, to notify parties of any administrative hearing or judicial review of Commission orders that is available under Sections 120.57 or 120.68, Florida Statutes, as well as the procedures and time limits that apply. This notice should not be construed to mean all requests for an administrative hearing or judicial review will be granted or result in the relief sought.

The Commission's decision on this tariff is interim in nature and will become final, unless a person whose substantial interests are affected by the action proposed files a petition for a formal as provided by proceeding, Rule 25-22.036(4), Administrative Code, in the form provided by Rule 25-22.036(7)(a)(d) and (e), Florida Administrative Code. petition must be received by the Director, Division of Records and Reporting, 101 East Gaines Street, Tallahassee, Florida 32399-0870, by the close of business on February 7, 1995.

In the absence of such a petition, this order shall become final on the day subsequent to the above date.

Any objection or protest filed in this docket before the issuance date of this Order is considered abandoned unless it satisfies the foregoing conditions and is renewed within the specified protest period.

If this Order becomes final on the date described above, any party adversely affected may request judicial review by the Florida Supreme Court in the case of an electric, gas or telephone utility or by the First District Court of Appeal in the case of a water or wastewater utility by filing a notice of appeal with the Director, Division of Records and Reporting and filing a copy of the notice of appeal and the filing fee with the appropriate court. This filing must be completed within thirty (30) days of the date this Order becomes final, pursuant to Rule 9.110, Florida Rules of Appellate Procedure. The notice of appeal must be in the form specified in Rule 9.900(a), Florida Rules of Appellate Procedure.