

BELLSOUTH

EX PARTE OR LATE FILED

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EX PARTE

September 15, 1994

DOCKET FILE COPY ORIGINAL

RECEIVED

Mr. William F. Caton
Acting Secretary
Federal Communications Commission
1919 M Street, N.W. Room 222
Washington, D.C. 20554

SEP 15 1994

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

RE: Ex Parte Meeting on CC Docket 94-1

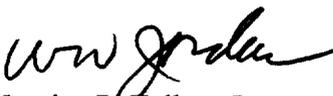
Dear Mr. Caton:

On September 14, 1994, Gary Epstein, James Barker, Ernest Bond and the undersigned met with Donald Gips and Andrew Sinwell of the Office of Plans and Policy on behalf of BellSouth Telecommunications, Inc. (BellSouth) to discuss issues related to the above-referenced proceeding.

The discussion was consistent with points already made on the record of this proceeding by BellSouth. In addition, Messrs. Gips and Sinwell were provided copies of the attached documents.

Pursuant to the requirements of Section 1.1206 of the Commission's Rules, BellSouth is providing the original and one copy of this letter and copies of the attached material for inclusion in the record of this proceeding. Because this meeting concluded late in the day, this ex parte filing is made on the next business day following the meeting.

Sincerely,


for Maurice P. Talbot, Jr.

Executive Director - Federal Regulatory

Attachments

cc: Donald Gips
Andrew Sinwell

No. of Copies rec'd
List ABCDE

021

John L. Clendenin

Educational activities - past and present

U.S. Chamber of Commerce - Past Chairman and current board member. Instrumental in the creation of the Center for Workforce Preparation and Quality Education and serves on its board.

National Alliance of Business - Past Chairman and current board member. Instrumental in the creation of the Center for Excellence in Education at NAB.

Business Roundtable - Member of Education Task Force since its inception in 1989.

Committee for Economic Development - Chairman and member of Research and Policy Committee.

New American Schools Development Corporation - Board of Directors

Council for Aid to Education - Board of Directors

Recruiting New Teachers - Board of Directors

KIDS COUNT - National Advisory Group

Higher Education Boards:

Tuskegee University - Trustee

University of Georgia Foundation - Trustee

Millsaps College - Trustee

BELLSOUTH LEADERSHIP IN EDUCATION

Technology and Education Initiatives

- A public-private partnership in Georgia has helped build the most extensive, far-reaching distance learning network in the world. The Georgia Statewide Academic and Medical System (GSAMS) was introduced in September 1993 by Governor Miller and U. S. Secretary of Education Richard Riley. With more than 100 sites, the GSAMS network provides two way audio and video interaction, allowing students and teachers, doctors, and patients to share knowledge without being in the same room or even in the same county.
- Distance learning began in Tennessee in 1990 when five school systems in Gibson County teamed up to share teaching resources to conduct classes that would not have been possible in each school.
- The Telecommunications Applications Partnership (TAP) between South Central Bell and the Institute for Public Service at the University of Tennessee focuses on helping education, health care and government services increase learning skills and stimulate economic development.
- The Telecommunications Rural Applications Center developed by TAP creates a model for modern enterprise in rural communities to make them attractive to business in the Information Age. The project, located in the Elk River Watershed Area in Middle Tennessee, is funded with a \$1.5 congressional allocation in TVA's budget. It focuses on education, health care, and government services, and the way electronic infrastructures contribute to modernization and job retention and expansion efforts.
- In West Tennessee, educational institutions are involved in a consortium that is developing a shared public/private telecommunications network encompassing compressed video, satellite and VSAT, electronic mail, and remote access to integrated learning systems. Courses include higher education credit classes, K-12 classes, GED, literacy and other basic skills courses, and communications between businesses and schools. The network provides, and will soon offer more, distance learning sites connecting all current and future compressed video units in West Tennessee together in a comprehensive public/private network.
- The Intercampus Interactive Telecommunications System (IITS) is currently the largest interactive distance learning network in Alabama. Ten sites are connected to the IITS network -- the University of Alabama at Tuscaloosa, Birmingham and Huntsville; the Department of Education at UAB; Auburn University; Birmingham/Jefferson Civic Center; Walker College; the Bevill Center for Advanced Manufacturing Technology; and the Alabama Telecommunications Center for Excellence/Jefferson Davis Community College.
- Shelton State Technical College in Alabama has a multipoint distance learning network currently connecting three different campus locations. The college plans to connect to the IITS network in the near future.

BELLSOUTH LEADERSHIP IN EDUCATION

Technology and Education Initiatives (cont.)

- The success of three pilot projects contributed to the decision to proceed with the North Carolina Information Highway.
 - More than two years ago, Southern Bell and Northern Telecom launched Vision Carolina, a public-private partnership that uses fiber optics to link 16 sites, including high schools, community colleges, universities, and a medical center in New Hanover County and in Mecklenburg, Gaston and Lincoln counties. More than 200 distance learning classes are taught each week over the DS3 networks. Offerings also have included medical seminars, government meetings, dramatic plays, surgical grand rounds and sign language.
 - In the mountains of North Carolina, BellSouth and AT&T have joined Appalachian State and public schools in another public-private partnership. The 10-year Impact North Carolina project is demonstrating the value of copper-based distance learning applications by linking Appalachian State University and public schools in six counties. It is the first distance learning project in the country to use basic rate ISDN and focuses on team projects over the network, teacher training and traditional distance-learning.
 - In Chapel Hill, cancer researchers, Southern Bell, Fujitsu and GTE in the VISTAnet project are linking super-computers with fiber optics and an ATM switch to make better cancer treatment plans in seconds, which once took precious hours or days. VISTAnet is being used for basic research and development essential for the future growth of advanced networking, which will affect education, medicine and other key resources.
- Originally trialed in 1990 as a two-point distance learning network between Murray State University and Paducah Community College, the network now includes 20 sites interconnected by 3 multi-point control units and operating at 384 Kbps. Sites include 4 universities, 10 community colleges, 2 high schools, 2 state government locations, a military base and a connection to the Kentucky Educational Television (KET) main location. Instruction offerings include foreign languages, Literature, A.P. English, Masters in Education, Engineering and Nursing courses plus many others.
- The State of Kentucky is also beginning to link all public K-12 schools in the state for local area network bridging purposes. This project, called the Kentucky Educational Technology System (KETS), envisions using T1 connections to network over 1400 locations statewide. Statewide e-mail, real-time attendance tracking, standardized budgeting platform, sharing of resources, university library access, and eventually two-way video interaction are just some of the applications that will ride this network.
- Louisiana State University Medical School in New Orleans is using distance learning for OB/GYN accreditation in support of their residency program. Three sites are included in the network thus far, the school in New Orleans, Earl K. Long Hospital in Baton Rouge and the University Medical Center in Lafayette.

BELLSOUTH LEADERSHIP IN EDUCATION

Technology and Education Initiatives (cont.)

- Louisiana Tech University is implementing a point-to-point distance learning network between its Ruston campus and its Barksdale Air Force base location to teach general course work as well as computer science courses.
- Northwestern State University in Shreveport, LA is implementing a combination distance learning and telemedicine network between seven regional hospitals in northwest Louisiana. The university's three campus sites are also part of the network, which is used primarily for teaching its nursing curriculum. Locations include the Natchitoches campus, Northwestern's School of Nursing in Shreveport and the satellite campus in Alexandria.
- Palm Beach County is the site of a full-motion distance learning trial using an advanced fiber optic network. Participants are the Palm Beach County School Board, Palm Beach Community College and local high schools.
- A project of the Mississippi Rural Health Corps, the Community College Network will connect the state's 15 public community colleges, the Mississippi Cooperative Extension Service and the University of Mississippi Medical Center. It will enable the colleges to teach simultaneously at up to 17 sites statewide. It also will provide Internet to all locations.
- BellSouth TechKNOWLEDGEy '92: An Invitation to Innovation convened over 400 educators, administrators, business representatives and policy makers to share ideas on using technology in the classroom to create student-centered learning environments.
- BellSouth TechKNOWLEDGEy '93: Pathways to Progress capitalized on the success of the '92 conference focusing on planning for technology at local, district and state levels.
- BellSouth TechKNOWLEDGEy '94: Expanding Horizons let teachers, principals, administrators, legislators, parents and business partners see firsthand how telecommunications, computers and cable are converging and expanding horizons to create opportunities for interactive teaching and learning.
- The Principals Leadership Program shares BellSouth's executive leadership training resources with public school principals throughout the region. To date, over 400 principals have attended the seminars.

BELLSOUTH LEADERSHIP IN EDUCATION

Business/Educational Partnerships/Mentoring/Tutoring

- **Partnerships with Schools** - Partnerships have been developed with more than 165 local schools in the BellSouth region to provide needed resources based on schools' requests. Support ranges from contributions of time and money to mentoring programs, to perfect attendance awards to speakers on Career Days.
- **BellSouth sponsors twelve elementary, middle and high schools in the Atlanta area.** More than 600 employees spend volunteer time weekly mentoring, tutoring, and reading to children in these schools.
- **Governor's Study Partners** - BellSouth is the sole corporate sponsor for a school-directed tutoring program called Tennessee's Governor's Study Partner Program. The program has paired more than 4,000 specially trained student tutors and study partners in need of academic help.
- **Junior Achievement** - Company employees participate in Project Business and Applied Economics projects, sponsored by Junior Achievement.
- **CHOICES** - This motivation seminar, delivered by BST managers to 8th and 9th grade students, demonstrates that every decision or non-decision has a consequence. The program stresses self-discipline as a key to success. This program is offered in North Carolina and South Carolina.
- **Cities in Schools** - A dropout prevention program that delivers much-needed social services to at-risk students, Cities in Schools operates with a highly effective coalition of support from educators, business and community groups. The program currently operates in more than 50 cities around the country.

Support for Classroom Teachers

- **Teacher Mini Grant Program** provides up to \$500 to classroom teachers for innovative teaching projects. Since the program began in 1989, over \$650,000 has been awarded to creative teachers in our region.
- **Grant writing seminars** were developed as a natural evolution of the Teacher Mini Grant Program. These one-day classes, provided free, allowed teachers to develop skills in writing grants.
- **Grants provided by South Central Bell, The Hall Thompson Family and AMSouth Bank** sponsored 40 Alabama fifth grade history teachers' attendance at The Colonial Williamsburg Foundations Summer Institute in Early American History. This one-week workshop was designed to enhance the teaching of American history.

BELLSOUTH LEADERSHIP IN EDUCATION

Educational Videos

- "Cyberculture" - This video produced by BellSouth is designed to introduce ethical use of computer technology to middle-school students. As the numbers of computer-literate citizens grow, it is essential to train America's workforce to use technology properly.
- "Discover Your Own Song" Peer help video - This videotape, produced by BellSouth's Corporate TV, explores peer support by adolescents as a strategy in preventing the use of illegal substances.
- "Phone Manners TV" Video - This video tape was produced by BellSouth for kindergarten through 5th graders. Patterned after music videos, it uses music and preteen actors to teach youngsters phone manners and telephone common sense.
- "911 Man" and "E-911 Teen" videos - These music videos produced by BellSouth teaches students about emergencies and the proper use of the 911 system.

Contributions/Scholarships/Financial Aid

- BellSouth Foundation - This foundation awarded over \$4.1 million in grants during 1993 to stimulate far-reaching and lasting improvements in the results achieved for students. BellSouth Corporation and BellSouth Telecommunication contributions to education throughout our region totaled over \$6.1 million in 1993, accounting for one-third of our total contributions budget.
- Matching Gifts - BellSouth provides a two-for-one match of gifts up to \$2,500 made by employees to approved colleges and universities. In 1993, employee gifts, matched by the company, combined with Education Volunteer Service Grants, totaled over \$1.7 million.
- National Merit/National Achievement Scholarships - \$2,000 renewable four-year scholarships are awarded to as many company employees' children who qualify as National Merit or National Achievement Scholarship winners.
- ConSern Loans for Education - Sponsored the U.S. Chamber of Commerce, of which BellSouth is a member, ConSern Loans for Education helps students and their families afford the costs of education. ConSern loans feature high loan limits, long pay back terms and low interest rates.

Parental Involvement

- Two parental involvement booklets were produced by BellSouth to encourage parents to play an active role in supporting their child's educational. The first "Parents Are Teachers, Too" focused on elementary age children, while "Midstream: Navigating the Middle Years With Your Child" centered around early adolescence.

BELLSOUTH LEADERSHIP IN EDUCATION

Minority Education Improvement

- **African-American History Calendar** - Two BellSouth states, South Carolina and Georgia, developed calendars outlining the achievement of famous African-Americans. The calendars, intended to help fill gaps in existing history books about the role of blacks in the state's heritage, are also viewed as a way to help decrease the drop-out rate by pointing out how notable African-Americans overcame obstacles to achieve success.
- **Participation in INROADS** - A program in Georgia, Alabama and North Carolina aimed at providing corporate experience for minority students with workshops and summer employment during their college careers.

**BellSouth Responses to FCC Questions
on Advancing the Goals
of the National Information Infrastructure**

Question 1:

In each state within which your company operates, how many of the following facilities exist:

- (a) Schools K-12
- (b) Community Colleges
- (c) Other colleges and universities

Response:

- (a) Schools K-12

Within the BellSouth operating territory in its nine state region there are approximately 15,264 K-12 institutions. This information is derived from 1992 Dun & Bradstreet data utilizing Standard Industry Classification (SIC) code 8211 (Elementary and Secondary Schools). A state by state breakdown of schools within BellSouth operating territory using this data is not currently available.

Tables 2 through 10 provide the number of K-12 schools by state for the entire state, including schools both within and outside the BellSouth operating territory. This information is provided by LINK Resources.

- (b) Community Colleges

There were 611 colleges and universities in the BellSouth marketplace in 1992 as shown on Table 1. This data is based on the BellSouth Industry Action Plan.

- (c) Other Colleges and Universities

Table 1 provides the number of colleges and universities in the BellSouth marketplace in 1992.

Question 2:

To what extent are the classrooms listed above served by inside wiring? Multiple lines? One-way video? Broadband facilities (DS-3)?

Response:

It is difficult for BellSouth to determine the percentage of classrooms served by inside wiring since services generally terminate at the building and inside wiring is provided by another vendor. In most cases, schools are served by several single business lines. In some states, such as Florida and Georgia, the state requires each school district or school building to have data access for administrative purposes. In addition, some states have retrofit programs in place to facilitate the wiring of schools.

Tables 2 through 10 provide the technological profile of schools by state. This data gives some indication of the amount of interactive video, modems, computer equipment and local area networks used by schools within each state.

Within the BellSouth serving area there are 12 schools being served by DS-3 facilities: eight in North Carolina and four in Mississippi.

Question 3:

Of the facilities listed above, how many and to what extent do they use two way data and voice? Broadband facilities? Other technologies?

Response:

Attachment A provides a list of BellSouth Distance Learning Projects. Since the development of these pilots, an additional 107 K-12 institutions have been installed for interactive video and audio.

It is difficult for BellSouth to determine which services are being used by this market and what applications they have deployed. Traditionally, BellSouth provides connectivity to the building level of the school. Wiring within the schools is provided by another vendor. BellSouth can not interpret the use of the network by private vendors of terminal equipment. We can point out; however, that many issues affecting educational applications will require addressing by the education community, CPE providers and telecommunications providers. These issues include instructional and administrative issues, as well as equipment compatibility standards, copyright and site licensing.

BellSouth has been and will continue to work closely with the education community in exploring and defining the role of telecommunications in learning. BellSouth plans to provide the connectivity necessary to meet the unique needs of all the different schools within its region, and works with education customers at all levels to create solutions to meet current and future demands of the education community. However, restrictions placed on BellSouth regarding delivery areas, information services and future multimedia technologies prohibit it from providing competitive solutions to all education customers.

Question 4:

With respect to hospitals and physicians, how many telemedicine or other medical applications are offered in each state serviced?

Response:

In each state within the region, BellSouth provides various medical applications such as teleradiology, telemedicine, video conferencing, point-of-care, macro surgery, physician access networks and Picture Archiving Communication Systems (PACS). Attachment B is a partial list of healthcare applications and trials provided by BellSouth which represents the various types of healthcare applications we offer.

We are unable to provide additional information on the number of telemedicine or medical applications offered in each state since they involve use of telecommunications transport services by third party equipment vendors. Equipment vendors and system integrators may provide medical applications within a healthcare facility over BellSouth transport services.

Conclusion:

BellSouth is currently working with state governments in the region to develop a statewide strategy addressing emerging technology issues in education, healthcare and economic development through a broadband infrastructure. The advantages of advanced multimedia telecommunications services can best be achieved through creating policies that recognize the rapid convergence of multiple technologies and the increasing level of competition with the telecommunications industry. Creating regulatory parity among all competitors and removing outdated restrictions on local exchange carriers will provide the education and healthcare communities the full benefits of this technology.

Request For Additional Information:

In addition to answers, it might also be helpful if you would provide descriptions of particular demonstrations or experimental projects including videos, brochures, or articles on distance learning, telemedicine, etc. which would assist the FCC in its understanding of these issues.

Response:

Please find enclosed the following:

- BellSouth response to Chairman Edward Markey letter regarding the relationship between education and a multimedia information superhighway. This includes attachments on:
 - BellSouth's Philanthropic and Community Commitment to Education
 - TE&M article on the North Carolina Information Highway
 - Tennessee PSC Order which shows the need for interLATA relief
 - List of BellSouth Distance Learning Activities
 - North Carolina Information Highway tariff
- "The Schoolhouse of the Future" video.
- Southern Bell/South Central Bell "Distance Learning: Teaching through Technology"
- "A Telemedicine Primer" by BellSouth Healthcare Industry Marketing
- "A Brief Overview of Teleradiology and the Radiology Environment"
- USTA Teletimes, Spring 1992, article on Telemedicine
- Roundtable, Spring 1993 article, "Telemedicine: A Key Link for Rural America"
- Diagnostic Imaging article, "Teaching Medicine through Radiology"
- "Heart of Healing, BellSouth's Healthcare Vision" video

Table 1

1992 BELLSOUTH COLLEGE/UNIVERSITY MARKETPLACE

<u>STATE</u>	<u>4-YR</u>	<u>2-YR</u>	<u>Vo-Tech</u>	<u>Total</u>
AL:	30	27	17	74
FL:	45	30	9	84
GA:	42	27	6	75
KY:	26	16	11	53
LA:	21	8	0	29
MS:	17	23	0	40
NC:	51	63	9	123
SC:	29	14	18	61
TN:	43	19	10	72

Source: BellSouth Industry Action Plan

ALABAMA

Number of Schools

	Public		Catholic	Private
All Schools	1,390	All Schools	52	235
Elementary	714	Elementary	46	82
Middle/Junior High	182	Secondary	6	13
Senior High	239	K-12/Other	--	140
K-12/Other	255			

1990-91 Quantity of Personal Computers Installed

	Public		Catholic	Private
Elementary	11,445	Elementary	656	279
Middle/Junior High	3,865	Secondary	140	88
Senior High	6,910	K-12/Other	--	1,217
K-12/Other	5,077			

1990-91 Unit Market Share by Brand

Type	Public	Catholic	Private
Apple	69.2%	41.6%	47.8%
Commodore	1.8%	16.0%	6.6%
IBM	14.6%	4.3%	11.7%
Radio Shack/Tandy	9.6%	30.7%	13.2%
Other	4.8%	7.5%	20.7%

1990-91 Technology Profile

Technology	% of AL Schools	National Average	Index
Local Area Networks	18.2%	21.8%	83.5%
Integrated Learning Systems	21.6%	10.5%	205.7%
Satellite Dishes	14.6%	9.1%	160.4%
Cable Services	39.1%	61.0%	64.1%
Distance Learning	10.7%	5.0%	214.0%
Modems	38.5%	48.4%	79.5%
CD ROM Drives	14.9%	15.5%	96.1%
Videodisc Players	26.6%	18.7%	248.6%

Technology	% of AL Districts	National Average	Index
Administrative Modem Use	37.2%	39.3%	94.7%
Instructional Modem Use	23.3%	27.2%	85.7%
Electronic Bulletin Boards	16.3%	32.6%	50.0%
Interactive Video	13.9%	39.6%	35.1%

FLORIDA

Number of Schools

	Public		Catholic	Private
All Schools	2,324	All Schools	203	832
Elementary	1,401	Elementary	163	435
Middle/Junior High	386	Secondary	30	38
Senior High	313	K-12/Other	10	359
K-12/Other	224			

1990-91 Quantity of Personal Computers Installed

	Public		Catholic	Private
Elementary	42,467	Elementary	3,070	3,243
Middle/Junior High	19,488	Secondary	972	476
Senior High	26,757	K-12/Other	151	3,972
K-12/Other	7,035			

1990-91 Unit Market Share by Brand

Type	Public	Catholic	Private
Apple	50.7%	61.9%	57.2%
Commodore	3.2%	2.8%	7.4%
IBM	17.8%	18.7%	9.0%
Radio Shack/Tandy	20.0%	9.0%	11.3%
Other	8.2%	7.6%	15.1%

1990-91 Technology Profile

Technology	% of FL Schools	National Average	Index
Local Area Networks	31.9%	21.8%	146.3%
Integrated Learning Systems	10.1%	10.5%	96.2%
Satellite Dishes	10.7%	9.1%	117.6%
Cable Services	67.9%	61.0%	111.3%
Distance Learning	2.1%	5.0%	42.0%
Modems	54.8%	48.4%	113.2%
CD ROM Drives	21.4%	15.5%	138.1%
Videodisc Players	19.9%	18.7%	106.4%
Technology	% of FL Districts	National Average	Index
Administrative Modem Use	38.9%	39.3%	98.9%
Instructional Modem Use	15.6%	27.2%	57.4%
Electronic Bulletin Boards	46.8%	32.6%	143.6%
Interactive Video	71.4%	39.6%	180.3%

Sources: LINK Resources

Table 4.4

GEORGIA

Number of Schools

	Public		Catholic	Private
All Schools	1,831	All Schools	35	418
Elementary	1,122	Elementary	28	141
Middle/Junior High	301	Secondary	6	15
Senior High	305	K-12/Other	1	262
K-12/Other	103			

1990-91 Quantity of Personal Computers Installed

	Public		Catholic	Private
Elementary	23,019	Elementary	520	739
Middle/Junior High	8,441	Secondary	162	238
Senior High	15,864	K-12/Other	1	2,660
K-12/Other	2,623			

1990-91 Unit Market Share by Brand

Type	Public	Catholic	Private
Apple	62.6%	47.0%	48.3%
Commodore	4.3%	9.5%	9.4%
IBM	21.2%	17.9%	18.9%
Radio Shack/Tandy	7.2%	19.0%	7.8%
Other	4.7%	6.6%	15.6%

1990-91 Technology Profile

Technology	% of GA Schools	National Average	Index
Local Area Networks	26.8%	21.8%	122.9%
Integrated Learning Systems	18.8%	10.5%	179.0%
Satellite Dishes	4.4%	9.1%	48.3%
Cable Services	51.5%	61.0%	84.4%
Distance Learning	1.8%	5.0%	36.0%
Modems	50.9%	48.4%	105.2%
CD ROM Drives	16.8%	15.5%	108.4%
Videodisc Players	20.5%	18.7%	109.6%

Technology	% of GA Districts	National Average	Index
Administrative Modem Use	44.3%	39.3%	112.7%
Instructional Modem Use	19.7%	27.2%	72.4%
Electronic Bulletin Boards	21.3%	32.6%	65.3%
Interactive Video	27.9%	39.6%	70.5%

Sources: LINK Resources

KENTUCKY

Number of Schools

	Public		Catholic	Private
All Schools	1,433	All Schools	166	117
Elementary	849	Elementary	135	43
Middle/Junior High	185	Secondary	26	4
Senior High	234	K-12/Other	5	70
K-12/Other	165			

1990-91 Quantity of Personal Computers Installed

	Public		Catholic	Private
Elementary	14,979	Elementary	1,710	174
Middle/Junior High	5,239	Secondary	980	20
Senior High	10,602	K-12/Other	119	430
K-12/Other	3,295			

1990-91 Unit Market Share by Brand

Type	Public	Catholic	Private
Apple	43.1%	45.6%	51.2%
Commodore	7.4%	8.5%	13.1%
.BM	24.6%	22.7%	13.1%
Radio Shack/Tandy	18.8%	14.7%	13.2%
Other	6.0%	8.2%	9.4%

1990-91 Technology Profile

Technology	% of KY Schools	National Average	Index
Local Area Networks	27.3%	21.8%	125.2%
Integrated Learning Systems	22.4%	10.5%	213.3%
Satellite Dishes	93.5%	9.1%	1027.5%
Cable Services	72.3%	61.0%	118.5%
Distance Learning	8.6%	5.0%	172.0%
Modems	47.5%	48.4%	98.1%
CD ROM Drives	23.1%	15.5%	149.0%
Videodisc Players	27.6%	18.7%	147.6%

Technology	% of KY Districts	National Average	Index
Administrative Modem Use	21.4%	39.3%	54.5%
Instructional Modem Use	42.9%	27.2%	157.7%
Electronic Bulletin Boards	28.6%	32.6%	87.7%
Interactive Video	28.6%	39.6%	72.2%

Sources: LINK Resources

LOUISIANA

Number of Schools				
	Public		Catholic	Private
All Schools	1,540	All Schools	230	208
Elementary	817	Elementary	171	87
Middle/Junior High	239	Secondary	49	8
Senior High	243	K-12/Other	10	113
K-12/Other	241			

1990-91 Quantity of Personal Computers Installed				
	Public		Catholic	Private
Elementary	10,990	Elementary	2,771	689
Middle/Junior High	4,258	Secondary	1,258	92
Senior High	9,038	K-12/Other	171	1,219
K-12/Other	4,050			

1990-91 Unit Market Share by Brand				
Type	Public		Catholic	Private
Apple	41.5%		49.2%	47.5%
Commodore	2.2%		8.8%	13.3%
IBM	28.6%		13.0%	13.5%
Radio Shack/Tandy	11.9%		17.7%	12.5%
Other	15.8%		11.2%	13.1%

1990-91 Technology Profile				
Technology	% of LA Schools		National Average	Index
Local Area Networks	12.7%		21.8%	58.3%
Integrated Learning Systems	3.1%		10.5%	29.5%
Satellite Dishes	12.4%		9.1%	136.3%
Cable Services	62.7%		61.0%	102.8%
Distance Learning	3.3%		5.0%	66.0%
Modems	16.7%		48.4%	34.5%
CD ROM Drives	2.9%		15.5%	18.7%
Videodisc Players	19.9%		18.7%	106.4%
Technology	% of LA Districts		National Average	Index
Administrative Modem Use	35.5%		39.3%	90.3%
Instructional Modem Use	12.9%		27.2%	47.4%
Electronic Bulletin Boards	32.3%		32.6%	99.1%
Interactive Video	29.0%		39.6%	73.2%

Sources: LINK Resources

MISSISSIPPI

Number of Schools

	Public		Catholic	Private
All Schools	944	All Schools	38	129
Elementary	469	Elementary	28	32
Middle/Junior High	133	Secondary	7	9
Senior High	176	K-12/Other	3	88
K-12/Other	166			

1990-91 Quantity of Personal Computers Installed

	Public		Catholic	Private
Elementary	4,862	Elementary	334	241
Middle/Junior High	1,853	Secondary	117	166
Senior High	3,772	K-12/Other	161	816
K-12/Other	2,539			

1990-91 Unit Market Share by Brand

Type	Public	Catholic	Private
Apple	33.0%	47.1%	47.4%
Commodore	6.6%	1.3%	15.6%
IBM	38.2%	15.8%	11.7%
Radio Shack/Tandy	15.7%	12.9%	12.2%
Other	6.6%	22.9%	13.1%

1990-91 Technology Profile

Technology	% of MS Schools	National Average	Index
Local Area Networks	38.5%	21.8%	176.6%
Integrated Learning Systems	18.9%	10.5%	180.0%
Satellite Dishes	17.6%	9.1%	193.4%
Cable Services	43.9%	61.0%	71.9%
Distance Learning	14.8%	5.0%	296.0%
Modems	20.1%	48.4%	41.5%
CD ROM Drives	9.4%	15.5%	60.6%
Videodisc Players	1.2%	18.7%	6.4%

Technology	% of MS Districts	National Average	Index
Administrative Modem Use	18.2%	39.3%	46.3%
Instructional Modem Use	15.2%	27.2%	55.9%
Electronic Bulletin Boards	6.1%	32.6%	18.7%
Interactive Video	6.1%	39.6%	15.4%

Sources: LINK Resources

NORTH CAROLINA

Number of Schools

	Public		Catholic	Private
All Schools	1,980	All Schools	37	328
Elementary	1,229	Elementary	34	121
Middle/Junior High	358	Secondary	3	14
Senior High	322	K-12/Other	--	193
K-12/Other	71			

1990-91 Quantity of Personal Computers Installed

	Public		Catholic	Private
Elementary	25,377	Elementary	422	393
Middle/Junior High	11,112	Secondary	55	178
Senior High	18,775	K-12/Other	--	1,179
K-12/Other	1,347			

1990-91 Unit Market Share by Brand

Type	Public	Catholic	Private
Apple	61.4%	50.3%	46.7%
Commodore	1.5%	5.8%	8.9%
IBM	20.4%	14.5%	17.1%
Radio Shack/Tandy	14.5%	13.7%	12.1%
Other	2.3%	15.7%	15.2%

1990-91 Technology Profile

Technology	% of NC Schools	National Average	Index
Local Area Networks	18.0%	21.8%	82.6%
Integrated Learning Systems	14.3%	10.5%	136.2%
Satellite Dishes	6.9%	9.1%	75.8%
Cable Services	63.4%	61.0%	103.9%
Distance Learning	10.1%	5.0%	202.0%
Modems	50.1%	48.4%	103.5%
CD ROM Drives	16.8%	15.5%	108.4%
Videodisc Players	19.2%	18.7%	102.7%

Technology	% of NC Districts	National Average	Index
Administrative Modem Use	25.8%	39.3%	65.6%
Instructional Modem Use	51.5%	27.2%	189.3%
Electronic Bulletin Boards	62.1%	32.6%	190.5%
Interactive Video	50.0%	39.6%	126.3%

Sources: LINK Resources

SOUTH CAROLINA

Number of Schools

	Public		Catholic	Private
All Schools	1,126	All Schools	29	222
Elementary	635	Elementary	26	71
Middle/Junior High	201	Secondary	3	5
Senior High	200	K-12/Other	--	146
K-12/Other	90			

1990-91 Quantity of Personal Computers Installed

	Public		Catholic	Private
Elementary	13,753	Elementary	255	282
Middle/Junior High	6,768	Secondary	61	32
Senior High	11,373	K-12/Other	--	1,152
K-12/Other	2,539			

1990-91 Unit Market Share by Brand

Type	Public	Catholic	Private
Apple	60.5%	60.1%	52.3%
Commodore	2.3%	11.7%	9.2%
IBM	17.3%	7.9%	10.4%
Radio	6.9%	5.7%	12.2%
Other	13.0%	14.6%	16.0%

1990-91 Technology Profile

Technology	% of SC Schools	National Average	Index
Local Area Networks	32.4%	21.8%	148.6%
Integrated Learning Systems	29.2%	10.5%	278.1%
Satellite Dishes	3.3%	9.1%	36.3%
Cable Services	36.3%	61.0%	59.5%
Distance Learning	11.4%	5.0%	228.0%
Modems	76.9%	48.4%	158.9%
CD ROM Drives	13.2%	15.5%	85.2%
Videodisc Players	6.7%	18.7%	35.8%

Technology	% of SC Districts	National Average	Index
Administrative Modem Use	91.1%	39.3%	231.8%
Instructional Modem Use	3.6%	27.2%	13.2%
Electronic Bulletin Boards	37.5%	32.6%	155.0%
Interactive Video	32.1%	39.6%	81.1%

Sources: LINK Resources

TENNESSEE

Number of Schools

	Public		Catholic	Private
All Schools	1,592	All Schools	48	273
Elementary	980	Elementary	35	113
Middle/Junior High	218	Secondary	10	23
Senior High	257	K-12/Other	3	137
K-12/Other	137			

1990-91 Quantity of Personal Computers Installed

	Public		Catholic	Private
Elementary	13,033	Elementary	577	764
Middle/Junior High	5,150	Secondary	229	388
Senior High	7,197	K-12/Other	55	1,193
K-12/Other	2,164			

1990-91 Unit Market Share by Brand

Type	Public	Catholic	Private
Apple	72.6%	52.3%	58.7%
Commodore	2.6%	6.9%	6.5%
IBM	8.2%	8.6%	13.3%
RadioShack/Tandy	6.9%	10.0%	13.0%
Other	9.7%	22.3%	8.5%

1990-91 Technology Profile

Technology	% of TN Schools	National Average	Index
Local Area Networks	6.5%	21.8%	29.8%
Integrated Learning Systems	4.1%	10.5%	39.0%
Satellite Dishes	8.8%	9.1%	96.7%
Cable Services	53.2%	61.0%	87.2%
Distance Learning	0.9%	5.0%	18.0%
Modems	28.7%	48.4%	59.3%
CD ROM Drives	3.8%	15.5%	24.5%
Videodisc Players	2.1%	18.7%	11.2%

Technology	% of TN Districts	National Average	Index
Administrative Modem Use	24.4%	39.3%	62.1%
Instructional Modem Use	19.5%	27.2%	71.7%
Electronic Bulletin Boards	12.2%	32.6%	37.4%
Interactive Video	29.3%	39.6%	73.9%

Sources: LINK Resources

BellSouth Distance Learning Activities

- **Appalachian State, North Carolina**
- **Georgia ClassConnect**
- **Gibson County, Tennessee**
- **Mississippi FiberNet 2000**
- **Vision Carolina, North Carolina**
- **West Palm Beach, Florida**

Appalachian State University

- Locations Served:** **Appalachian State University,
Parkway Elementary, Blowing Rock
Elementary,
Watauga High School**
- Services Supported:** **Two way interactive video & audio
ISDN**
- Courses being taught:** **Physics, Music, Tutoring, Teacher
Inservice Training**
- Partners:** **ASU, AT&T Network Systems,
Southern Bell, BellSouth**

GEORGIA CLASSCONNECT

Locations Served: 4 High Schools (Atlanta & Columbus area)
4 College/Universities (UGA, Morris Brown, Georgia Tech, Columbus College)

Services Supported: Multi-point two way interactive video & audio
Business Quality
Teacher can reside at any location

Uses of the Network: French III, Afro-American Studies
High School Debate, Teacher Inservice, high school Journalism

Partners: NEC America, Southern Bell, Vidicom