Legal Department

Meredith E. Mays
Regulatory Counsel

BellSouth Telecommunications, Inc.
150 South Monroe Street
Room 400
Tallahassee, Florida 32301
(404) 335-0750

December 23, 2002

Mrs. Blanca S. Bayó
Division of the Commission Clerk and
Administrative Services
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

Re: Docket No. 020507-TL (FCCA Complaint)

Dear Ms. Bayó:

Enclosed is an original and fifteen copies of BellSouth Telecommunications, Inc.'s Rebuttal Testimony of John A. Ruscilli, Eric Fogle, Bill Smith, W. Keith Milner and William Taylor, which we ask that you file in the captioned docket.

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

Sincerely,

Meredith E. Mays

Meredith E. Mays

Enclosure

cc: All Parties of Record
Marshall M. Criser III
R. Douglas Lackey
Nancy B. White

DNs 13984-02 thru 13988-02

474005

CERTIFICATE OF SERVICE
DOCKET NO. 020507-TL

I HEREBY CERTIFY that a true and correct copy of the foregoing was served via Electronic Mail and FedEx Mail this 23rd day of December 2002 to the following:

Patricia Christensen
Staff Counsel
Florida Public Service
Commission
Division of Legal Services
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850
pchriste@psc.state.fl.us

Vicki Gordon Kaufman (+)*
Joseph A. McGlothlin
McWhirter, Reeves, McGlothlin,
Davidson, Rief & Bakas, P.A.
117 South Gadsden Street
Tallahassee, Florida 32301
Tel. No. (850) 222-2525
Fax. No. (850) 222-5606
Represents FCCA
vkaufman@mac-law.com
jmcglothlin@mac-law.com

Nanette Edwards, Esq.
Director - Regulatory
ITC^DeltaCom
4092 S. Memorial Parkway
Huntsville, AL 35802
nedwards@itcdeltacom.com

Floyd Self, Esq.
Messer, Caparello & Self
215 S. Monroe Street
Suite 701
P.O. Box 1876
Tallahassee, FL 32302
Represents ITC^DeltaCom
fself@lawfla.com

Meredith E. Mays

Meredith E. Mays

(*)via Hand Delivery
(+) Signed Protective Agreement

BELLSOUTH TELECOMMUNICATIONS, INC.

REBUTTAL TESTIMONY OF JOHN A. RUSCILLI

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 020507-TL

DECEMBER 23, 2002

Q. PLEASE STATE YOUR NAME, YOUR POSITION WITH BELLSOUTH TELECOMMUNICATIONS, INC. ("BELLSOUTH") AND YOUR BUSINESS ADDRESS.

A. My name is John A. Ruscilli. I am employed by BellSouth as Senior Director – Policy Implementation and Regulatory Compliance for the nine-state BellSouth region. My business address is 675 West Peachtree Street, Atlanta, Georgia 30375.

Q. HAVE YOU PREVIOUSLY FILED TESTIMONY IN THIS PROCEEDIDNG?

A. Yes. I filed direct testimony, including one exhibit, on November 26, 2002.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my rebuttal testimony is to respond to certain policy aspects of the direct testimony of Mr. Joseph Gillan filed on behalf of the Florida Competitive Carriers Association ("FCCA") on November 26, 2002.

DOCUMENT NUMBER-DATE

13984 DEC 23 02

FPSC-COMMISSION CLERK

Let me begin by making sure that what the FCCA is requesting is clear to everyone. The FCCA is asking that the Commission order BellSouth to provide its unregulated broadband service to any requesting end user – regardless of whether the end user has ever purchased broadband services from BellSouth or for that matter, has ever been a customer of BellSouth at all. For instance, under the FCCA's scheme, an ALEC in Florida could purchase unbundled network elements from BellSouth (at rates below cost in BellSouth's view) to provide its subscribers with local telephone service. The law currently allows that and the ALEC's ability to do so is not in question. However, the FCCA and the ALECs don't stop there. Even though an ALEC can voluntarily contract with other carriers to provide broadband service to the ALEC's customer using the unbundled network elements the ALEC has purchased from BellSouth, the FCCA wants this Commission to force BellSouth to provide its unregulated broadband service to the ALEC's customer anytime the ALEC demands that BellSouth do so. The fact that Mr. Gillan evidently views this as "competition" demonstrates the problem that BellSouth has with most of his positions. Taken to its logical conclusion, if the Commission can force BellSouth to provide its unregulated broadband services to ALEC subscribers, can the Commission use those same powers to force other broadband providers, such as Covad, to provide that service against Covad's wishes? That is the logical place that Mr. Gillan's testimony takes this Commission, even though everyone ought to agree that the notion is nonsensical. The Commission has already addressed the issue of what occurs when a BellSouth customer that uses BellSouth's broadband service moves to another voice provider. BellSouth has objected to the Commission's conclusion in those instances where the Commission has addressed the matter, and would point out that this is where those decisions have brought us. Now evidently the FCCA believes that the Commission should feel free to just order BellSouth to do whatever the FCCA wants, irrespective of

whether the service involved is regulated or unregulated. Evidently all that matters is that the FCCA and the ALECs want something that BellSouth has, and that the ALECs are not willing to provide at their own cost.

Issue 1: Does the Commission have jurisdiction to grant the relief requested in the Complaint?

Q. ON PAGE 3, MR. GILLAN OPINES THAT BELLSOUTH'S POLICY IS CONTRARY TO THE BASIC INTENT OF FLORIDA LAW. DO YOU AGREE?

A. No. The FCCA's request that the Commission ***force*** BellSouth to provide an unregulated broadband service to end users, when no other provider has a similar obligation, seems to directly contract the policy behind Florida Statutes, Chapter 364.01(4)(g), which seeks to "ensure that all providers of telecommunications services are treated fairly, by preventing anticompetitive behavior and eliminating unnecessary regulatory restraint." It is a mystery to BellSouth how, under Mr.Gillan's view, it is fair to require BellSouth alone (since this docket does not include any consideration of all carriers) to provide an unregulated broadband service to ***any*** requesting end user. Entering such an order would hardly be treating BellSouth fairly; and more fundamentally would chill future broadband deployment in Florida.

While I acknowledge that neither Mr. Gillan nor I are lawyers, it is the positions advocated by FCCA and not the positions advocated by BellSouth that are contrary to the policy and intent of the Florida Statutes For example, Chapter 364.01(3), cited by Mr. Gillan, provides that:

364.01(3) "The Legislature finds that the competitive provision of telecommunications services, including local exchange telecommunications service, is in the public interest and will provide customers with freedom of choice, encourage the introduction of new telecommunications service, encourage technological innovation, and encourage investment in telecommunications infrastructure." (Emphasis added.)

The statute cited above addresses the competitive provision of telecommunications services. Mr. Gillan's approach requires the Commission to exert regulatory authority over an enhanced non-telecommunications information service provided by BellSouth. Further, although state law makes clear the Legislature's intent for the Commission to "encourage competition through flexible regulatory treatment among providers of telecommunications services in order to ensure the availability of the widest possible range of consumer choice in the provision of all telecommunications services" (364.01(4)(b)) (emphasis added), that is the polar opposite of what Mr. Gillan wants. Mr. Gillan and the FCCA want government-controlled competition to be driven by an ALEC's business model such that, if BellSouth finds new products and invests in them, BellSouth is not allowed to benefit from such innovation. From a policy perspective, this seems flatly contradictory to subsection (e) of 364.01(4), which seeks to "encourage all providers of telecommunications services to introduce new or experimental telecommunications services free of unnecessary regulatory restraints." The FCCA also wants to excuse ALECs from investing in new technologies, since, in Mr. Gillan's world, ALECs could readily take advantage of such investments by BellSouth.

Q. MR. GILLAN STATES THAT THIS COMMISSION HAS ALREADY RULED ON ITS AUTHORITY OVER THE ISSUES PRESENTED IN THIS DOCKET (P. 5). IS THIS CORRECT?

A. Not entirely. Mr. Gillan conveniently ignores that this Commission agreed that BellSouth's FastAccess service was "an 'enhanced, nonregulated, nontelecommunications Internet access service.'" Mr. Gillan also ignored the fact that the Commission exercised jurisdiction only in the context of considering "BellSouth's practice of ***disconnecting*** customers' FastAccess Internet Service" when customers ***switched voice service*** to another provider.[1] While BellSouth respectfully disagrees that the Commission has ***any*** authority over the issues presented in this docket, it is abundantly clear that the Commission itself distinguished between exercising authority over BellSouth's existing customers as compared to exercising authority to require BellSouth to provide an enhanced, nonregulated, nontelecommunications Internet Access service to customers that have never had such service.

Q. ON PAGE 3, MR. GILLAN POSTULATES THAT BELLSOUTH'S FASTACCESS POLICY DENIES CUSTOMERS THE OPPORTUNITY TO MAKE A CHOICE OF PROVIDERS. DO YOU AGREE?

A. No. BellSouth's approach is simply to offer a customer an overlay DSL service to meet that customer's broadband needs. Customers choose products and providers based on the best fit for their needs. It seems that Mr. Gillan feels that any competitor that offers a

[1] *In re: Petition by Florida Digital Network, Inc. for arbitration of certain terms and conditions of proposed interconnection and resale agreement with BellSouth Telecommunications, Inc. under the Telecommunications Act of 1996,* Docket No. 010098-TP, Final Order on Arbitration, Order No. PSC-02-0765-FOF-TP, issued June 5, 2002 ("FDN Arbitration Order").

better product is trying to keep the market for itself. A more appropriate view is that providers of products in a free marketplace should be able to differentiate their offerings to encourage customers to buy them.

As an example, Cadillac is known for its luxury. Mercedes-Benz is known, among other things, for its reliability and durability. Volkswagen is known for its lower price and fuel efficiency. Customers would probably prefer to have a car built with the durability of a Benz, the luxurious appointments of a Cadillac, but at a Volkswagen price and with a Volkswagen's fuel economy. However, to my knowledge, such a vehicle does not exist; so customers must make choices that best fit their needs. The same is true in the telecommunications market in Florida. As an example, MCI offers its Neighborhood plan that includes local and nationwide long distance in one package at a discounted rate. BellSouth does not currently have a similar offering nor does it have switches deployed nationwide to do so. BellSouth currently offers its customers the opportunity to purchase FastAccess as an overlay to voice service (regardless of whether the voice provider is BellSouth or a CLEC reselling BellSouth's local exchange service).

Consumers can choose which arrangement best suits their needs. For some consumers, it appears that long distance is more important, which may make a plan such as MCI's Neighborhood Plan attractive (assuming the consumer is eligible). For other customers, FastAccess may be more important. This is consistent with free market choice, and there is nothing evil in allowing customers to have different choices. In Mr. Gillan's world of competition, if BellSouth develops a better product or service for consumers, BellSouth must make that choice available for all consumers, including those served by BellSouth's competitors. In a sense, he is recommending that all telecommunications services are

commodity products provided by and subsidized by BellSouth that should be available to all players, except that the ALECs get the choice of providing the product only to the elite customers they choose to serve and generate the most profit,

Issue 2: What are BellSouth's practices regarding the provisioning of its FastAccess Internet service to: (a) a FastAccess customer who migrates from BellSouth to a competitive voice service provider, and (b) to all other ALEC customers.

Q. IS MR. GILLAN'S DESCRIPTION (PAGES 5-6) OF BELLSOUTH'S CURRENT PRACTICES ACCURATE?

A. No. Mr. Gillan ignores the fact that BellSouth provides FastAccess to customers that receive voice service from an ALEC over resold lines. BellSouth's policy is to provide its FastAccess services (an investment BellSouth chose to deploy) over BellSouth exchange lines, whether they are retail or resold lines. Mr. Gillan's statement that BellSouth refuses to provide its service to "any consumer . . . that obtains voice service from a provider other than BellSouth" is incorrect.

Issue 3: Do any of the practices identified in Issue 2 violate state or federal law?

Q. MR. GILLAN STATES BELLSOUTH'S POLICIES VIOLATE STATE AND FEDERAL LAW, AND SUPPORTS THIS ALLEGATION BY CLAIMING THAT BELLSOUTH'S POLICIES ARE: (1) COMPETITIVELY SIGNIFICANT; (2) PROBLEMATIC, AND LIKELY TO INCREASE; (3) INCONSISTENT WITH A COMPETITIVE ENVIRONMENT; (4) CONTRARY TO THE GOAL OF INCREASED

BROADBAND PENETRATION; (5) DISCRIMINATORY; AND (6) CREATES A BARRIER TO COMPETITION. DO THESE CONTENTIONS HAVE ANY BASIS IN REALITY?

A. Absolutely not. All of Mr. Gillan's unfounded contentions completely ignore the entire broadband market, and instead focus on only a subset of that market, which is DSL service. Attached as Exhibit JAR-2 is the FCC's December 2002 Report on High-Speed Services for Internet Access, which is the same report that was attached to my direct testimony as Exhibit JAR-1, but with the most recent FCC data. Exhibit JAR-2 includes information through June 30, 2002. Cable modem service continued to increase faster (30%) than high-speed ADSL service (29%). Overall the state of Florida experienced an increase of 23%, less than the overall increase. If positions such as those advocated by Mr. Gillan are adopted, it is likely that the overall increase in high-speed lines in Florida will lag behind states that encourage rather than discourage the deployment of broadband technology.

Q. ON PAGE 8 OF HIS TESTIMONY, MR. GILLAN OPINES ON CONSUMER EMPOWERMENT AND HOW IT IS THE CONSUMER WHO PUNISHES UNRESPONSIVE BEHAVIOR. HE ALLEGES BELLSOUTH'S POLICY TURNS THIS RELATIONSHIP ON ITS HEAD. IS HE CORRECT?

A. No. BellSouth's policy is not turning this relationship on its head. Rather, it appears that Mr. Gillan and the FCCA's members may be feeling the heat from customers who may seek to punish ALECs' unresponsive behavior. As I discussed, both BellSouth and the ALECs have different product sets, and customers are choosing between the companies

for their services. An ALEC could provide DSL service in Florida by investing in its own DSL equipment, engaging in a line splitting arrangement with another DSL provider, or offering BellSouth's FastAccess service by reselling BellSouth's voice service. ALECs have chosen not to avail themselves of these alternatives, and, to the extent customers decide not to purchase voice service from an ALEC, the ALEC is being "punished," as well it should, for its lack of responsiveness to customer needs.

Q. MR. GILLAN, ON PAGES 9-10, REITERATES HIS ALLEGATION THAT BELLSOUTH'S POLICY IS CONTRARY TO THE POLICY GOAL OF INCREASED BROADBAND PENETRATION. DO YOU AGREE?

A. No. Mr. Gillan mischaracterizes the requirements of section 706 in the 1996 Act. I agree that section 706 charges the FCC and each state commission with the responsibility to encourage the deployment of advanced services. Consistent with the intent of this legislation, BellSouth has significantly deployed broadband services in the marketplace as discussed in Mr. Smith's direct testimony. By contrast, Florida ALECs have done little to demonstrate their commitment to deploy advanced services. Instead, FCCA is asking the Commission to require BellSouth to share its investment in new technology in Florida, not just with BellSouth's customers, but, a day-late and a dollar short, with ALEC customers too. Such a requirement does not represent encouraging the deployment of advanced services. Rather, it would represent moving the advantage from one competitor's deployment of advanced services to the balance sheet of another. Further, as Mr. Smith explains in his direct and rebuttal testimony, granting the FCCA's request would provide a disincentive to further deployment of advanced services by BellSouth.

Q. IS COMPETITION IN THE ADVANCED SERVICES MARKET WHAT FCCA IS COMPLAINING ABOUT?

A. No. In its Complaint in this case (p. 2), the FCCA's allegation is that, "It has been, and continues to be, BellSouth's practice to refuse to provide its FastAccess service to customers who exercise their right in the market place to choose a carrier other than BellSouth for voice service." (Emphasis added.) Section 706 of the Act states as follows:

> The Commission and each State commission with regulatory jurisdiction over telecommunications services shall encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans ... by utilizing, in a manner consistent with the public interest, convenience, and necessity, price cap regulation, regulatory forbearance, measures that promote competition in the local telecommunications market, or other regulating methods that remove barriers to infrastructure investment." (Emphases added)

Section 706 directs State commissions to take measures that promote competition for the express purpose of "encourag[ing] the deployment on a reasonable and timely basis of advanced telecommunications capability..." (Emphasis added.) FCCA's request purports to remedy BellSouth's alleged anticompetitive behavior (which BellSouth denies) toward the provision of voice service, not advanced services. Accordingly, Section 706 of the Act does not support the decision that FCCA is requesting.

Q. WOULD GRANTING FCCA'S REQUEST RESULT IN COMMISSION REGULATION OF BELLSOUTH'S PROVISION OF DSL SERVICE?

A. Yes it would. This Commission acknowledged in the FDN Arbitration Order, p. 11 that its decision was not designed to regulate the deployment of advanced services. Instead, the Commission's decision was designed to remove what is erroneously perceived to be a "competitive barrier in the voice market." (*Id.* at 8) (emphasis added). However, as explained in detail in the rebuttal testimony of Mr. Fogle, the steps that BellSouth must take to comply with the Commission's order in the FDN Arbitration undeniably amount to regulation of BellSouth's provision of unregulated advanced services.

Q. ON WHAT BASIS DOES SECTION 706 AUTHORIZE THE FCC AND STATE COMMISSIONS TO TAKE ACTION TO ACCELERATE DEPLOYMENT OF ADVANCED SERVICES?

A. Section 706 states:

> "[T]he commission shall determine whether advanced telecommunications capability is being deployed to all Americans in a reasonable and timely fashion. If the Commission's determination is negative, it shall take immediate action to accelerate deployment of such capability by removing barriers to infrastructure investment and by promoting competition in the telecommunications market."

Thus, section 706 gives the FCC and State commissions the authority to remove barriers to advanced services infrastructure investment, *if* there is a finding that advanced services

capability is not being deployed in a reasonable and timely fashion. This Commission did not make such a finding in the FDN case, and is not being asked to make such a finding in this case. Further, rather than removing barriers to investment to promote advanced services, granting FCCA's request would effectively create a barrier to, and discourage BellSouth from, deploying advanced services infrastructure in the future.

Finally, section 706 of the Act states that the FCC and State Commissions are to use "regulatory forbearance" in taking measures that promote competition for the deployment of advanced telecommunications capability. Rather than using regulatory forbearance[2], granting FCCA's request would result in increased regulation, not restraint of regulation of non-telecommunications services.

Q. IS BELLSOUTH THREATENING CUSTOMERS WITH DISCONNECTION OF FASTACCESS IF THEY LEAVE BELLSOUTH? (GILLAN, P. 10). IS BELLSOUTH PUNISHING CUSTOMERS WHO LEAVE BELLSOUTH?

A. No. Contrary to Mr. Gillan's accusation on p. 10, BellSouth does not threaten its customers. BellSouth will continue to provide its FastAccess service over a resold line from an ALEC. If customers choose to leave BellSouth, the ALECs must provision service for them over their facilities. At that point, the choice is that of the ALECs. ALECs that choose not to offer a DSL solution to their customers are doing so in spite of the variety of existing options from which to do so.

[2] Webster's Ninth New Collegiate Dictionary defines "forbearance" as a refraining from the enforcement of something; patience; leniency.

Q. AT PAGE 10, MR. GILLAN ALLEGES THAT BELLSOUTH'S POLICY IS INHERENTLY DISCRIMINATORY, EVEN CLAIMING "NO CLEARER EXAMPLE OF DISCRIMINATION CAN BE FOUND." (P. 11) DO YOU AGREE?

A. Absolutely not. In BellSouth's recent section 271 applications, the FCC considered and rejected, not once but three times, the argument that BellSouth's policy is discriminatory. Specifically, in the recent Florida/Tennessee 271 decision, CC Docket No. 02-307, Rel. December 19, 2002, the FCC stated:

"Network Telephone claims that BellSouth is 'tying' its DSL-based high-speed Internet access service to BellSouth local exchange service. As BellSouth points out, the Commission has repeatedly reviewed this same BellSouth policy and determined that it is not a bar to section 271 compliance . . . . BellSouth is correct that we have previously ***rejected this argument.***" (¶ 178).

In the Georgia/Louisiana 271 application, CC Docket No. 02-35, AT&T submitted the Supplemental Declaration of Bernadette Seigler, in which she claimed (¶ 26) that BellSouth's DSL policy "is clearly anticompetitive and inconsistent with its obligations under the Act to make unbundled network elements available on a nondiscriminatory basis." The FCC disagreed (¶ 157), noting, "we cannot agree with commenters that BellSouth's policy is discriminatory." Surprisingly, Mr. Gillan never mentions the FCC's decision. Apparently, it is so clear that BellSouth's policy is discriminatory that only Mr. Gillan can see it.

Q. ON PAGE 11, MR. GILLAN STATES THAT BELLSOUTH'S POLICY EFFECTIVELY FORECLOSES VOICE COMPETITION FOR THOSE CUSTOMERS DESIRING FASTACCESS SERVICE. DO YOU AGREE WITH HIS ALLEGATIONS?

A. I disagree completely. FCCA appears be willing to plead with this Commission that its members just cannot compete unless they are given even more than what is required by the law or the Act. This is contrary to the ALECs' own testimony and to the realities of the competitive world. ALECs in Florida have been extremely successful in competing in the voice market, serving more than 581,000 residential customers in Florida. *See* Ruscilli Direct Testimony at page 16. BellSouth's FastAccess policy has had no demonstrable impact on competition in the voice market, particularly given the significant share of the local market the ALECs have been able to garner in Florida. To the extent ALECs are "foreclosed" from serving a segment of the voice market that demands DSL service, ALECs have only themselves to blame.

Q. AT PAGES 12-13, MR. GILLAN ASSERTS THAT THERE IS NO DISTINCTION BETWEEN EXISTING BELLSOUTH FASTACCESS CUSTOMERS THAT ARE CHANGING VOICE PROVIDERS AND OTHER CUSTOMERS. IS THIS TRUE?

A. No. Although BellSouth disagrees with most provisions of the Commission's order in the FDN Arbitration Case, the Commission squarely addressed this issue and concluded:

> BellSouth believes that the Commission did not intend to require BellSouth to provide retail FastAccess service to any and every FDN end

user that may want to order FastAccess. Rather, BellSouth was to provide FastAccess only to those BellSouth end users who decided to change their voice provider. We agree.

. . .

We believe that we were clear in our decision requiring BellSouth to continue to provide FastAccess Service to those BellSouth customers who choose to switch their voice provider. The Order clearly demonstrates that we considered the arguments raised by FDN. (Emphasis added.)[3]

Gillan readily points to the FPSC's jurisdiction but completely ignores that the Commission has addressed this very question already.

Despite Mr. Gillan's contentions, there is a difference between existing FastAccess customers and customers that have never had FastAccess. A customer that has never had FastAccess service and establishes voice service with an ALEC selects that provider with knowledge of the ALEC's available offerings. If the ALEC does not provide DSL service, the customer accepts service anyway, presumably because the availability of DSL service is not important to that customer. A customer that has FastAccess service and that desires to change providers has evidenced an interest in broadband service prior to deciding to switch voice providers. From BellSouth's perspective, both customers have sufficient flexibility to choose from available voice and broadband service

[3] *In re: Petition by Florida Digital Network, Inc. for arbitration of certain terms and conditions of proposed interconnection and resale agreement with BellSouth Telecommunications, Inc. under the Telecommunications Act of 1996,* Docket No. 010098-TP, Order Denying Motions for Reconsideration, Cross-Motion for Reconsideration and Motion to Strike, Order No. PSC-02-1453-FOF-TP, issued October 21, 2002 ("FDN Reconsideration Order").

providers. However, Mr. Gillan's position requires the provision of a new broadband service to a customer that never had a broadband service relationship with BellSouth. Mr. Gillan seeks to impose on BellSouth a new, rather than a continued, obligation that did not previously exist. This Commission recognized this distinction previously, and should reject Mr. Gillan's attempt to burden BellSouth with newly created obligations that are not shared by other broadband providers.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

#471841

High Speed Services for Internet Access: Status as of June 30, 2002

Industry Analysis and Technology Division
Wireline Competition Bureau
December 2002

This report is available for reference in the FCC's Information Center at 445 12th Street, S.W., Courtyard Level. Copies may be purchased by calling Qualex International, Portals II, 445 12th Street, S.W., Room CY-B402, Washington, DC 20554, telephone 202-863-2893, facsimile 202-863-2898, or via e-mail qualexint@aol.com. The report can also be downloaded from the **FCC-State Link** Internet site at www.fcc.gov/wcb/stats.

High-Speed Services for Internet Access: Subscribership as of June 30, 2002

Congress directed the Commission and the states, in section 706 of the Telecommunications Act of 1996, to encourage deployment of advanced telecommunications capability in the United States on a reasonable and timely basis.[1] To assist in its evaluation of such deployment, the Commission instituted a formal data collection program to gather standardized information about subscribership to high-speed services, including advanced services, from wireline telephone companies, cable providers, terrestrial wireless providers, satellite providers, and any other facilities-based providers of advanced telecommunications capability.[2]

We summarize here information from the sixth data collection, thereby presenting a snapshot of subscribership as of June 30, 2002.[3] Subscribership to high-speed services for Internet access increased by 27% during the first half of 2002, to a total of 16.2 million lines in service. The presence of high-speed service subscribers was reported in all fifty states, the District of Columbia, Puerto Rico, and the Virgin Islands, and in 84% of the zip codes in the United States.

Before presenting the most recent information in some detail, a brief description of the Commission's data collection program is in order to enable the reader to better understand how the nationwide information presented here may compare to similar information derived from other sources. First, a facilities-based provider of high-speed service in a given state reports to the Commission basic information about its service offerings and customers if the provider has at least 250 high-speed lines (or wireless channels) in service in that state.[4] While providers not meeting the reporting threshold may

---

[1] *See* §706, Pub.L. 104-104, Title VII, Feb. 8, 1996, 110 Stat. 153, reproduced in the notes under 47 U.S.C. §157. We use the term "high-speed" to describe services that provide the subscriber with transmissions at a speed in excess of 200 kilobits per second (kbps) in at least one direction. "Advanced services," which provide the subscriber with transmission speeds in excess of 200 kbps in each direction, are a subset of high-speed services.

[2] *Local Competition and Broadband Reporting*, CC Docket No. 99-301, Report and Order, 15 FCC Rcd 7717 (2000) (*Data Gathering Order*). During this data gathering program, qualifying providers file FCC Form 477 each year on March 1 (reporting data for the preceding December 31) and September 1 (reporting data for June 30 of the same year). An updated FCC Form 477, and Instructions for that particular form, for each specific round of the data collection may be downloaded from the FCC Forms website at www.fcc.gov/formpage.html. Previously, the Common Carrier Bureau collected information on a voluntary basis. *See Local Competition and Broadband Reporting*, CC Docket No. 99-301, Notice of Proposed Rulemaking, 14 FCC Rcd 18106 (1999).

[3] Earlier FCC Form 477 filings reported data as of December 31, 1999, June 30, 2000, December 31, 2000, June 30, 2001, and December 31, 2001. *See Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, CC Docket No. 98-146, Second Report, 15 FCC Rcd 20913 (2000) (*Second 706 Report*) available at www.fcc.gov/broadband/706.html, Industry Analysis Division, Common Carrier Bureau, *High-Speed Services for Internet Access: Status as of June 30, 2000* (October 2000) and *High-Speed Services for Internet Access: Status as of December 31, 2000* (August 2001) available at www.fcc.gov/wcb/stats, *Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, CC Docket No. 98-146, Third Report, 17 FCC Rcd 2844 (2002) available at www.fcc.gov/broadband/706.html, and Industry Analysis and Technology Division, Wireline Competition Bureau, *High-Speed Services for Internet Access: Status as of December 31, 2001* (July 2002) available at www.fcc.gov/wcb/stats.

[4] The reporting threshold of 250 high-speed lines (or wireless channels) is calculated based collectively on all commonly-owned and commonly-controlled affiliates operating in a given state, with a 10% equity interest as indicia of ownership. For reporting purposes, an entity is a facilities-based provider of high-speed service if it provides the (continued....)

provide information on a voluntary basis, as some have done, it is likely that not all such providers have reported data.[5] In particular, we do not know how comprehensively small providers, many of which serve rural areas with relatively small populations, are represented in the data summarized here. Second, lines (or wireless channels) that are not "high-speed" (i.e., delivering transmissions to the subscriber at a speed in excess of 200 kbps in at least one direction) are not reported. Some asymmetric digital subscriber line (ADSL) services and Integrated Services Digital Network (ISDN) services provided by telephone companies and some services that connect subscribers to the Internet over cable systems do not meet this criterion, but may nevertheless meet the needs of the subscribers who select them.

Based on the latest information now available, readers can draw the following broad conclusions:

- Subscribership to high-speed services increased by 27% during the first half of 2002, to a total of 16.2 million lines (or wireless channels) in service. The rate of growth during the second half of 2001 was 33%. See Table 1.

- High-speed lines in service over coaxial cable systems (cable modem service) increased 30% during the first half of 2002, to 9.2 million lines. High-speed ADSL lines in service increased 29%, to 5.1 million lines.[6] See Table 1.

- Reported high-speed connections to end-user customers by means of satellite or fixed wireless technologies increased by 4% during the first half of 2002, and reported fiber optic connections to end-user customer premises increased by 5%. These technologies, together, accounted for about 0.7 million high-speed connections at the end of June 2002. See Table 1.

(Continued from previous page)
service over its own "local loop" facilities connecting to end users, or over unbundled network elements (UNEs), special access lines, and other leased lines and wireless channels that it obtains from other entities and equips to provide high-speed service. Non-facilities-based Internet Service Providers (ISPs), as such, have no reporting obligation. End-user lines equipped as high-speed service by, for example, an incumbent LEC must be reported by the incumbent LEC or an affiliate (assuming the LEC and its affiliates collectively have at least 250 such lines in service in a given state) irrespective of whether the end user of the retail high-speed Internet-access service is billed by the incumbent LEC, its ISP affiliate, another affiliate, or its billing agent, or by an unaffiliated ISP that has incorporated the incumbent LEC's high-speed service into a premium Internet-access service marketed under the ISP's own name.

[5] High-speed lines reported in recent voluntary submissions represent less than 0.1% of total high-speed lines reported.

[6] Providers are instructed to report a high-speed subscriber in the (mutually exclusive) technology category that characterizes the last few feet of distribution plant to the subscriber's premises, e.g., coaxial cable in the case of the hybrid fiber-coax (HFC) architecture of upgraded cable systems. As noted above, ADSL services that do not deliver over 200 kbps in at least one direction are not included in the data reported here. Symmetric DSL services at speeds exceeding 200 kbps are included in the "other wireline" category because they are typically used to provide data services that are functionally equivalent to the T-1 and other data services that wireline telephone companies have offered to business customers for some time.

- Subscribership to the subset of high-speed services that are described as advanced services (i.e., delivering to subscribers transmission speeds in excess of 200 kbps in each direction) increased by 41% during the first half of 2002, to a total of 10.4 million lines (or wireless channels) in service. Advanced services lines provided over coaxial cable systems increased by 55%, and advanced services lines provided by means of ADSL technology increased by 35%.[7] See Table 2.

- As of June 30, 2002, there were about 14.0 million residential and small business subscribers to high-speed services. By contrast, there were about 11.0 million such subscribers six months earlier, and about 7.8 million a year earlier. See Table 3.

- Of the 14.0 million high-speed lines in service to residential and small business subscribers at the end of June 2002, we estimate that about 8.7 million lines provide advanced services.[8] See Table 4.

- Among entities that reported facilities-based ADSL high-speed lines in service as of June 30, 2002, about 96% of such lines were reported by incumbent local exchange carriers (ILECs). ILECs claimed a smaller share, about 77%, of high-speed lines delivered over other traditional wireline facilities.[9] When all technologies are considered, ILECs provided about 36% of high-speed connections to end-user customers. See Table 5.

- Providers of high-speed services over coaxial cable systems report serving subscribers in all 50 states and the District of Columbia. Providers of high-speed ADSL services report serving subscribers in all 50 states, the District of Columbia, Puerto Rico, and the Virgin Islands, as do providers who use wireline technologies other than ADSL, or who use optical carrier (i.e., fiber), satellite, or fixed wireless technologies in the last few feet to the subscriber's premises.[10] See Table 6.

- The Commission's data collection program gathers from providers information about the number of high-speed lines in service in individual states, in total and by technology deployed in the last few feet to the subscriber's premises. Relatively large numbers of total high-speed lines in service are

[7] Providers also estimate the percentage of high-speed connections that are faster than 2 mbps in both directions. About 0.4 million such connections were reported as of June 30, 2002. Over 50% of these connections were reported in the other traditional wireline category and nearly 40% were reported in the optical carrier category.

[8] Filers of FCC Form 477 do not directly report the number of advanced services lines provided to residential and small business end users, as opposed to other end users. In estimating the number of advanced services lines serving residential and small business end users, we assume that reported advanced service lines were more likely to be delivered to large business users first and to residential and small business users second. *See also Second 706 Report*, 15 FCC Rcd 20943.

[9] Symmetric forms of DSL services, which are typically purchased by business customers, are included in this category.

[10] Information about providers of high-speed services other than ADSL and cable modem is reported in a single category, for the individual states, to honor requests for nondisclosure of information that reporting entities assert is competitively sensitive. In the *Data Gathering Order*, the Commission stated it would publish high-speed data only once it has been aggregated in a manner that does not reveal individual company data. *See Data Gathering Order*, 15 FCC Rcd 7760.

associated with the more populous states. The most populous state, California, has the largest reported number of high-speed lines. The second, third, and fourth largest numbers of high-speed lines are reported for New York, Florida, and Texas, which are the third, fourth, and second most populous states, respectively. See Table 7.

- Reporting entities estimate the percentage of their high-speed lines in service that connect to residential and small business end-user customers (as opposed to connecting to medium and large business, institutional, or government end-user customers).[11] These percentages allow us to derive approximate numbers of residential and small-business high-speed lines in service by state. See Table 8.

- The Commission's data collection program also requires service providers to identify each zip code in which the provider has at least one high-speed subscriber. As of June 30, 2002, subscribers to high-speed services were reported in 84% of the nation's zip codes. Multiple providers reported having subscribers in 65% of the nation's zip codes.[12] See Table 9.

- Our analysis indicates that 98% of the country's population lives in the 84% of zip codes where a provider reports having at least one high-speed service subscriber. Moreover, numerous competing providers report serving high-speed subscribers in the major population centers of the country. See the map that follows Table 9.

- States vary widely with respect to the percentage of zip codes in the state in which no high-speed lines are reported to be in service. See Table 10.

- High population density has a positive association with reports that high-speed subscribers are present, and low population density has an inverse association. For example, as of June 30, 2002, high-speed subscribers are reported to be present in 99% of the most densely populated zip codes and in 50% of zip codes with the lowest population densities.[13] However, the comparable figure for the lowest-density zip codes was 37% a year earlier. See Table 11.

- High median household income also has a positive association with reports that high-speed subscribers are present. In the top one-tenth of zip codes ranked by median household income, high-speed subscribers are reported in 98% of zip codes. By contrast, high-speed subscribers are reported in 69% of zip codes with the lowest median household income, compared to 59% a year earlier. See Table 12.

---

[11] Reporting entities are instructed to consider a high-speed line as being provided to an end-user customer in the "residential and small business" category if that customer orders high-speed service of a type that is normally associated with residential customers.

[12] Lists of zip codes with number of service providers as reported in the FCC Form 477 filings are made available at www.fcc.gov/wcb/stats in a format that honors requests for nondisclosure of information the reporting entities assert is competitively sensitive.

[13] For this comparison, we consider the most densely populated zip codes to be those with more than 3,147 persons per square mile (the top decile of zip codes) and the least densely populated zip codes to be those with fewer than 6 persons per square mile (the bottom decile).

As other information from the Commission's data collection program (FCC Form 477) becomes available, it will be included in future reports on the deployment of advanced telecommunications capability and in publications such as this one.

We invite users of this information to provide suggestions for improved data collection and analysis by:

- Using the attached customer response form,
- E-mailing comments to jeisner@fcc.gov,
- Calling the Industry Analysis and Technology Division of the Wireline Competition Bureau at (202) 418-0940, or
- Participating in any formal proceedings undertaken by the Commission to solicit comments for improvement of FCC Form 477.

Table 1
High-Speed Lines [1]
(Over 200 kbps in at Least One Direction)

Types of Technology [2]	December 1999	June 2000	December 2000	June 2001	December 2001	June 2002	Percent Change	
							June 2001 - Dec 2001	Dec 2001 - Jun 2002
ADSL	369,792	951,583	1,977,101	2,693,834	3,947,808	5,101,493	47 %	29 %
Other Wireline	609,909	758,594	1,021,291	1,088,066	1,078,597	1,186,680	-1	10
Coaxial Cable	1,411,977	2,284,491	3,582,874	5,184,141	7,059,598	9,172,895	36	30
Fiber	312,204	307,151	376,203	455,593	494,199	520,884	8	5
Satellite or Fixed Wireless	50,404	65,615	112,405	194,707	212,610	220,588	9	4
Total Lines	2,754,286	4,367,434	7,069,874	9,616,341	12,792,812	16,202,540	33 %	27 %

Table 2
Advanced Services Lines [1]
(Over 200 kbps in Both Directions)

Types of Technology [2]	December 1999	June 2000	December 2000	June 2001	December 2001	June 2002	Percent Change	
							June 2001 - Dec 2001	Dec 2001 - Jun 2002
ADSL	185,950	326,816	675,366	998,883	1,369,143	1,852,879	37 %	35 %
Other Wireline	609,909	758,594	1,021,291	1,088,066	1,078,597	1,186,680	-1	10
Coaxial Cable	877,465	1,469,130	2,193,609	3,329,976	4,394,778	6,819,395	32	55
Fiber	307,315	301,143	376,197	455,549	486,483	518,908	7	7
Satellite or Fixed Wireless	7,816	3,649	26,906	73,476	75,341	66,073	3	-12
Total Lines	1,988,455	2,859,332	4,293,369	5,945,950	7,404,343	10,443,935	25 %	41 %

[1] A high-speed line is a connection to an end-user customer that is faster than 200 kbps in at least one direction. Advanced services lines, which are a subset of high-speed lines, are connections to end-user customers that are faster than 200 kbps in both directions. The speed of the purchased service varies among end-user customers. For example, a high-speed service delivered to the end-user customer over other traditional wireline technology, such as DS1 or DS3 service, or over optical fiber to the end user's premises may be much faster than the ADSL or cable modem service purchased by a different, or by the same, end user. Numbers of lines reported here are not adjusted for the speed of the service delivered over the line or the number of end users able to utilize the lines.

[2] The mutually exclusive types of technology are, respectively: Asymmetric digital subscriber line (ADSL) technologies, which provide speeds in one direction greater than speeds in the other direction; wireline technologies "other" than ADSL, including traditional telephone company high-speed services and symmetric DSL services that provide equivalent functionality; coaxial cable, including the typical hybrid fiber-coax (HFC) architecture of upgraded cable TV systems; optical fiber to the subscriber's premises (e.g., Fiber-to-the-Home, or FTTH); and satellite and (terrestrial) fixed wireless systems, which use radio spectrum to communicate with a radio transmitter at the subscriber's premises.

Table 3
Residential and Small Business High-Speed Lines [1]
(Over 200 kbps in at Least One Direction)

Types of Technology [2]	December 1999	June 2000	December 2000	June 2001	December 2001	June 2002	Percent Change Jun 2001 - Dec 2001	Percent Change Dec 2001 - Jun 2002
ADSL	291,757	772,272	1,594,879	2,490,740	3,615,989	4,395,033	45 %	22 %
Other Wireline	46,856	111,490	176,520	138,307	139,660	223,599	1	60
Coaxial Cable	1,402,394	2,215,259	3,294,546	4,998,540	7,050,709	9,157,285	41	30
Fiber	1,023	325	1,994	2,623	4,139	6,120	NM	NM
Satellite or Fixed Wireless	50,189	64,320	102,432	182,165	194,897	202,251	7	4
Total Lines	1,792,219	3,163,666	5,170,371	7,812,375	11,005,396	13,984,287	41 %	27 %

Table 4
Residential and Small Business Advanced Services Lines [1]
(Over 200 kbps in Both Directions)

Types of Technology [2]	December 1999	June 2000	December 2000	June 2001	December 2001	June 2002	Percent Change Jun 2001 - Dec 2001	Percent Change Dec 2001 - Jun 2002
ADSL	116,994	195,324	393,246	916,364	1,243,996	1,580,575	36 %	27 %
Other Wireline	46,856	111,490	176,520	138,307	139,660	223,599	1	60
Coaxial Cable	872,024	1,401,434	2,177,328	3,146,953	4,388,967	6,809,170	39	55
Fiber	138	325	1,992	2,617	3,523	5,118	NM	NM
Satellite or Fixed Wireless	7,682	2,916	17,043	60,988	58,113	47,787	-5	-18
Total Lines	1,043,694	1,711,488	2,766,130	4,265,229	5,834,258	8,666,249	37 %	49 %

Note: Residential and small business advanced services lines are estimated based on data from FCC Form 477.

NM - Not meaningful due to small number of lines.

[1] A high-speed line is a connection to an end-user customer that is faster than 200 kbps in at least one direction. Advanced services lines, which are a subset of high-speed lines, are connections to end-user customers that are faster than 200 kbps in both directions. The speed of the purchased service varies among end-user customers. For example, a high-speed service delivered to the end-user customer over other traditional wireline technology, such as DS1 or DS3 service, or over optical fiber to the end user's premises may be much faster than the ADSL or cable modem service purchased by a different, or by the same, end user. Numbers of lines reported here are not adjusted for the speed of the service delivered over the line or the number of end users able to utilize the lines.

[2] The mutually exclusive types of technology are, respectively: Asymmetric digital subscriber line (ADSL) technologies, which provide speeds in one direction greater than speeds in the other direction; wireline technologies "other" than ADSL, including traditional telephone company high-speed services and symmetric DSL services that provide equivalent functionality; coaxial cable, including the typical hybrid fiber-coax (HFC) architecture of upgraded cable TV systems; optical fiber to the subscriber's premises (e.g., Fiber-to-the-Home, or FTTH); and satellite and (terrestrial) fixed wireless systems, which use radio spectrum to communicate with a radio transmitter at the subscriber's premises.

Table 5
High-Speed Lines by Type of Provider as of June 30, 2002
(Over 200 kbps in at Least One Direction)

Types of Technology [1]	Lines				Percent of Lines		
	RBOC [2]	Other ILEC	Non-ILEC [3]	Total	RBOC [2]	Other ILEC	Non-ILEC [3]
ADSL	4,467,366	407,878	226,249	5,101,493	87.6 %	8.0 %	4.4 %
Other Wireline	796,120	121,431	269,129	1,186,680	67.1	10.2	22.7
Coaxial Cable	*	*	9,153,819	9,172,895	*	*	99.8
Other	*	*	682,823	741,472	*	*	92.1
Total Lines	5,324,511	546,009	10,332,020	16,202,540	32.9 %	3.4 %	63.8 %

* Data withheld to maintain firm confidentiality.

[1] The mutually exclusive types of technology are, respectively: Asymmetric digital subscriber line (ADSL) technologies, which provide speeds in one direction greater than speeds in the other direction; wireline technologies "other" than ADSL, including traditional telephone company high-speed services and symmetric DSL services that provide equivalent functionality; coaxial cable, including the typical hybrid fiber-coax (HFC) architecture of upgraded cable TV systems; optical fiber to the subscriber's premises (e.g., Fiber-to-the-Home, or FTTH); and satellite and (terrestrial) fixed wireless systems, which use radio spectrum to communicate with a radio transmitter at the subscriber's premises.

[2] RBOC lines include all high-speed lines reported by BellSouth, Qwest, SBC, and Verizon.

[3] High-speed lines reported by competitive local exchange carrier (CLEC) or cable TV operations that are affiliated with a local exchange carrier are included in "Non-ILEC" lines, except that any such lines reported by an RBOC are included in "RBOC" lines.

Table 6
Providers of High-Speed Lines by Technology as of June 30, 2002
(Over 200 kbps in at Least One Direction)

	ADSL	Coaxial Cable	Other [1]	Total (Unduplicated)
Alabama	5	8	10	18
Alaska	4	*	6	7
Arizona	6	5	10	16
Arkansas	4	*	6	10
California	11	9	21	30
Colorado	6	*	11	14
Connecticut	6	5	12	15
Delaware	*	*	4	6
District of Columbia	4	*	7	8
Florida	11	9	23	29
Georgia	14	9	23	31
Hawaii	*	*	*	*
Idaho	5	*	5	10
Illinois	13	5	17	25
Indiana	10	8	13	22
Iowa	9	7	15	20
Kansas	6	10	12	21
Kentucky	8	5	10	17
Louisiana	7	4	10	16
Maine	*	*	6	10
Maryland	5	10	12	21
Massachusetts	6	6	13	18
Michigan	12	7	17	27
Minnesota	14	10	18	28
Mississippi	*	5	5	11
Missouri	10	7	14	22
Montana	6	*	5	11
Nebraska	5	6	8	12
Nevada	6	*	11	15
New Hampshire	7	*	10	12
New Jersey	7	4	15	17
New Mexico	5	*	7	10
New York	12	7	19	25
North Carolina	14	7	15	27
North Dakota	7	*	6	12
Ohio	15	11	23	30
Oklahoma	7	*	13	18
Oregon	11	*	13	17
Pennsylvania	12	9	20	29
Puerto Rico	*	0	*	*
Rhode Island	*	*	7	7
South Carolina	12	7	13	19
South Dakota	6	*	4	10
Tennessee	12	6	13	23
Texas	20	7	26	36
Utah	6	*	12	14
Vermont	4	*	5	7
Virgin Islands	*	0	*	*
Virginia	8	6	17	21
Washington	9	4	14	19
West Virginia	*	4	5	10
Wisconsin	9	4	13	19
Wyoming	*	*	4	6
Nationwide (Unduplicated) Jun 2002	141	68	137	237
Nationwide (Unduplicated) Dec 2001	117	59	122	203
Nationwide (Unduplicated) Jun 2001	86	47	98	160
Nationwide (Unduplicated) Dec 2000	68	39	87	136
Nationwide (Unduplicated) Jun 2000	47	36	75	116
Nationwide (Unduplicated) Dec 1999	28	43	65	105

* Data withheld to maintain firm confidentiality. In this table, an asterisk also indicates 1-3 providers reporting.

[1] Other includes wireline technologies other than asymmetric digital subscriber line (ADSL), optical fiber to the subscriber's premises, satellite, and (terrestrial) fixed wireless systems.

Table 7
High-Speed Lines by Technology
(Over 200 kbps in at Least One Direction)

	Dec 1999	Jun 2000	Dec 2000	Jun 2001	Dec 2001	Jun 2002				Percentage Change	
	Total	Total	Total	Total	Total	ADSL	Coaxial Cable	Other [1]	Total	Jun 2001 - Dec 2001	Dec 2001 - Jun 2002
Alabama	19,796	32,756	63,334	86,234	138,979	45,350	104,990	22,025	172,365	61 %	24 %
Alaska	*	*	934	20,906	50,277	11,337	*	*	46,791	140	-7
Arizona	58,825	111,678	153,500	158,122	251,709	68,280	194,431	45,910	308,621	59	23
Arkansas	8,155	15,539	28,968	40,803	66,537	28,477	*	*	84,235	63	27
California	547,179	910,006	1,386,625	1,705,814	2,041,276	1,214,543	1,013,503	370,445	2,598,491	20	27
Colorado	36,726	64,033	104,534	147,220	177,419	100,197	*	*	243,810	21	37
Connecticut	36,488	63,772	111,792	149,057	191,257	61,093	160,913	14,484	236,490	28	24
Delaware	1,558	3,660	7,492	12,771	26,601	*	*	2,462	36,619	108	38
Dist. of Columbia	13,288	16,926	27,757	39,101	43,278	28,723	*	*	55,197	11	28
Florida	190,700	244,678	460,795	651,167	911,261	391,188	595,806	132,699	1,119,693	40	23
Georgia	75,870	130,292	203,855	302,598	420,206	237,922	183,886	90,327	512,135	39	22
Hawaii	*	*	*	*	*	*	*	*	*	NA	NA
Idaho	•	8,070	15,908	20,233	18,445	16,108	*	*	43,119	-9	134
Illinois	77,672	166,933	242,239	350,241	422,706	195,560	242,394	115,488	553,442	21	31
Indiana	20,059	49,702	60,494	80,364	123,704	36,685	98,414	24,293	159,392	54	29
Iowa	19,258	49,159	58,199	72,583	82,024	18,751	77,592	6,589	102,932	13	25
Kansas	26,179	42,679	68,743	101,734	125,963	28,713	111,615	9,405	149,733	24	19
Kentucky	23,570	24,237	32,731	39,297	67,870	55,454	12,867	21,963	90,284	73	33
Louisiana	28,133	43,294	74,950	121,685	164,760	73,120	115,198	18,939	207,257	35	26
Maine	19,878	17,864	26,266	38,149	49,523	*	*	3,075	61,406	30	24
Maryland	52,749	71,005	124,465	181,021	260,634	95,439	181,864	39,363	316,666	44	21
Massachusetts	114,116	185,365	289,447	357,256	505,819	147,139	391,391	45,097	583,627	42	15
Michigan	81,223	135,318	198,230	395,583	433,858	80,588	402,642	55,186	538,416	10	24
Minnesota	38,268	65,272	117,283	148,012	199,856	86,184	166,323	21,400	273,907	35	37
Mississippi	*	6,514	12,305	21,517	35,586	*	27,872	*	57,595	65	62
Missouri	23,347	46,903	100,403	123,915	181,794	84,642	110,026	29,614	224,282	47	23
Montana	*	*	7,378	10,446	13,037	7,108	*	*	17,969	25	38
Nebraska	36,748	44,188	54,085	55,188	71,451	11,547	73,306	7,996	92,849	29	30
Nevada	23,514	40,582	59,879	78,535	109,850	24,073	*	*	138,042	40	26
New Hampshire	22,807	33,045	42,364	55,658	71,200	11,781	*	*	86,200	28	21
New Jersey	101,832	144,203	285,311	428,514	590,192	172,472	454,750	65,814	693,036	38	17
New Mexico	*	2,929	28,497	20,482	31,940	18,224	*	*	44,942	56	41
New York	186,504	342,743	603,487	893,032	1,199,159	338,229	967,949	154,716	1,460,894	34	22
North Carolina	57,881	81,998	136,703	205,616	357,906	89,680	313,884	58,172	461,736	74	29
North Dakota	*	2,437	4,227	6,277	6,082	6,575	*	*	14,164	-3	133
Ohio	160,792	156,980	230,525	358,965	436,766	151,612	363,675	64,791	580,078	22	33
Oklahoma	96,730	163,703	95,138	92,947	114,931	50,617	*	*	151,213	24	32
Oregon	27,062	44,186	76,839	93,242	158,048	68,747	*	*	199,549	70	26
Pennsylvania	71,926	79,892	176,670	263,236	376,439	162,258	300,840	53,390	516,488	43	37
Puerto Rico	•	*	*	*	*	*	0	*	*	NA	NA
Rhode Island	*	20,628	30,919	49,215	64,293	*	*	3,726	72,553	31	13
South Carolina	25,229	32,824	63,914	96,839	135,165	26,184	126,598	22,306	175,088	40	30
South Dakota	*	3,516	2,839	5,448	9,585	4,389	*	*	12,555	76	31
Tennessee	66,307	87,317	122,391	152,510	237,401	57,984	199,121	37,468	294,573	56	24
Texas	152,518	276,087	522,538	646,839	840,665	368,796	577,233	104,482	1,050,511	30	25
Utah	11,635	19,612	35,970	55,103	72,977	47,637	*	*	93,928	32	29
Vermont	*	1,551	7,773	16,230	21,795	9,409	*	*	29,990	34	38
Virgin Islands	0	*	*	*	*	*	0	*	*	NA	NA
Virginia	51,305	72,436	139,915	212,808	292,772	75,524	238,300	46,898	360,722	38	23
Washington	71,930	118,723	195,628	227,066	335,667	172,652	217,644	32,052	422,348	48	26
West Virginia	*	1,835	6,498	16,697	32,848	*	48,858	*	58,209	97	77
Wisconsin	18,599	34,262	76,257	127,755	182,395	42,052	189,585	25,462	257,099	43	41
Wyoming	*	*	*	*	7,856	*	*	1,687	10,990	NA	40
Reported Total	2,754,286	4,367,434	7,069,874	9,616,341	12,792,812	5,101,493	9,172,895	1,928,152	16,202,540	33 %	27 %

NA - Not available.

NM - Not meaningful due to inconsistencies in reported data.

* Data withheld to maintain firm confidentiality.

[1] Other includes wireline technologies other than asymmetric digital subscriber line (ADSL), optical fiber to the subscriber's premises, satellite, and (terrestrial) fixed wireless systems.

Table 8
High-Speed Lines by Type of User as of June 30, 2002
(Over 200 kbps in at Least One Direction)

	Residential & Small Business	Other [1]	Total
Alabama	152,425	19,940	172,365
Alaska	43,046	3,745	46,791
Arizona	287,954	20,667	308,621
Arkansas	80,444	3,791	84,235
California	2,193,137	405,354	2,598,491
Colorado	217,903	25,907	243,810
Connecticut	223,128	13,362	236,490
Delaware	32,501	4,118	36,619
District of Columbia	31,690	23,507	55,197
Florida	958,937	160,756	1,119,693
Georgia	426,944	85,191	512,135
Hawaii	*	*	*
Idaho	37,631	5,488	43,119
Illinois	454,577	98,865	553,442
Indiana	127,595	31,797	159,392
Iowa	98,306	4,626	102,932
Kansas	143,271	6,462	149,733
Kentucky	64,034	26,250	90,284
Louisiana	189,850	17,407	207,257
Maine	56,317	5,089	61,406
Maryland	259,394	57,272	316,666
Massachusetts	493,882	89,745	583,627
Michigan	490,624	47,792	538,416
Minnesota	252,225	21,682	273,907
Mississippi	50,064	7,531	57,595
Missouri	205,716	18,566	224,282
Montana	15,644	2,325	17,969
Nebraska	90,301	2,548	92,849
Nevada	118,453	19,589	138,042
New Hampshire	75,580	10,620	86,200
New Jersey	578,039	114,997	693,036
New Mexico	39,577	5,365	44,942
New York	1,217,818	243,076	1,460,894
North Carolina	405,618	56,118	461,736
North Dakota	13,105	1,059	14,164
Ohio	509,733	70,345	580,078
Oklahoma	140,430	10,783	151,213
Oregon	173,314	26,235	199,549
Pennsylvania	425,676	90,812	516,488
Puerto Rico	*	*	*
Rhode Island	64,820	7,733	72,553
South Carolina	155,778	19,310	175,088
South Dakota	11,309	1,246	12,555
Tennessee	259,493	35,080	294,573
Texas	940,185	110,326	1,050,511
Utah	83,306	10,622	93,928
Vermont	26,669	3,321	29,990
Virgin Islands	*	*	*
Virginia	301,448	59,274	360,722
Washington	360,522	61,826	422,348
West Virginia	54,004	4,205	58,209
Wisconsin	235,542	21,557	257,099
Wyoming	9,786	1,204	10,990
Reported Total	13,984,287	2,218,253	16,202,540

* Data witheld to maintain firm confidentiality.

[1] Other includes medium and large business, institutional, and government customers.

Table 9
Percentage of Zip Codes with High-Speed Lines in Service

Number of Providers	December 1999	June 2000	December 2000	June 2001	December 2001	June 2002
Zero	40.3 %	33.0 %	26.8 %	22.2 %	20.6 %	16.1 %
One	26.0	25.9	22.7	20.3	19.3	18.4
Two	15.5	17.8	18.4	16.7	15.7	16.2
Three	8.2	9.2	10.9	13.2	13.1	13.3
Four	4.3	4.9	6.1	8.2	9.1	9.6
Five	2.7	3.4	4.0	4.9	6.1	6.9
Six	1.7	2.5	3.0	3.6	4.2	4.6
Seven	0.8	1.7	2.3	2.8	3.2	3.2
Eight	0.3	0.8	2.0	2.2	2.5	2.8
Nine	0.2	0.4	1.6	1.9	2.0	2.4
Ten or More	0.0	0.4	2.4	3.9	4.0	6.4

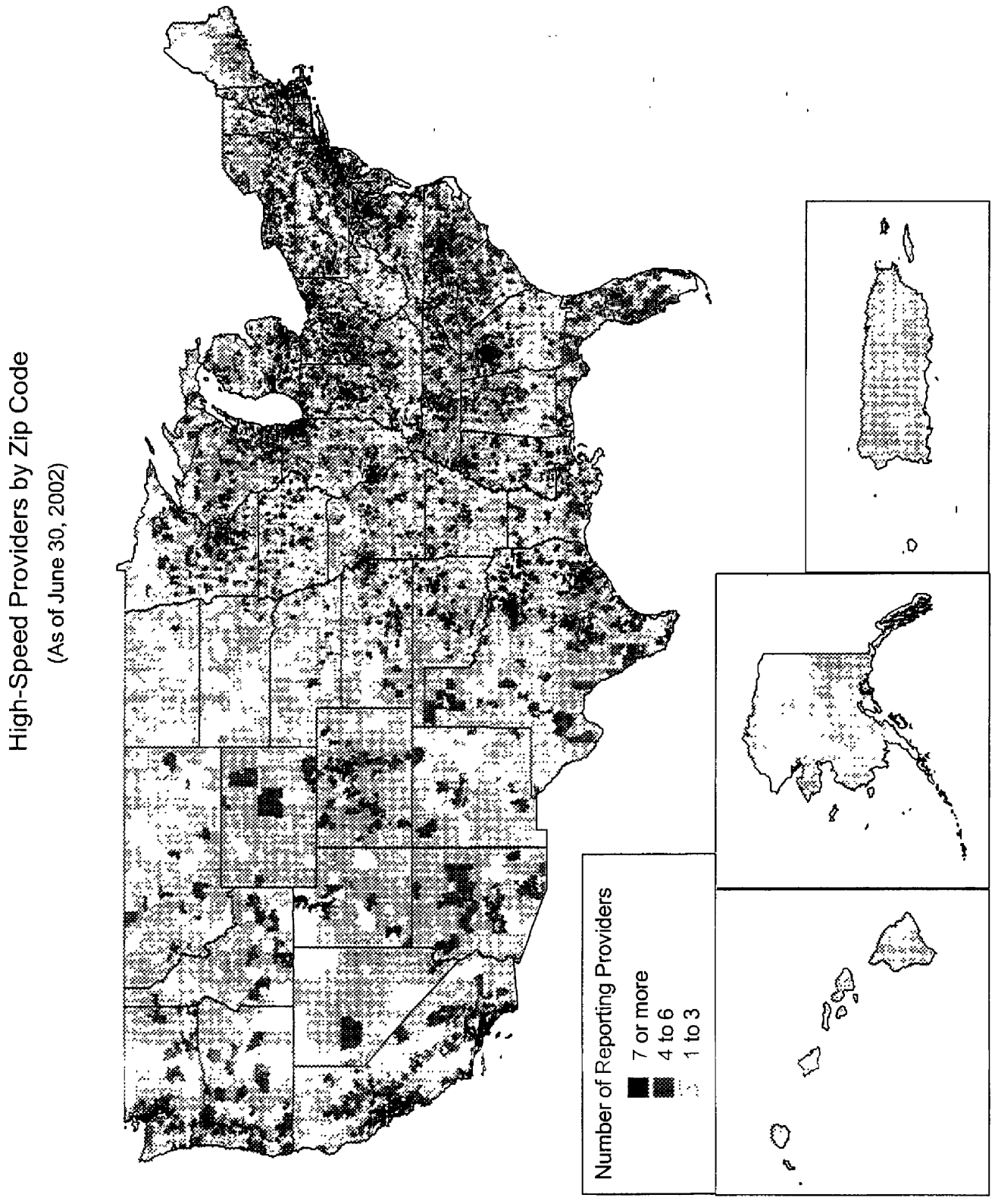
High-Speed Providers by Zip Code
(As of June 30, 2002)
Number of Reporting Providers
7 or more
4 to 6
1 to 3

Table 10
Percentage of Zip Codes with High-Speed Lines in Service as of June 30, 2002
(Over 200 kbps in at Least One Direction)

	Number of Providers										
	Zero	One	Two	Three	Four	Five	Six	Seven	Eight	Nine	Ten or More
Alabama	13 %	18 %	22 %	20 %	16 %	7 %	3 %	1 %	0 %	0 %	0 %
Alaska	32	48	9	9	1	0	0	0	0	0	0
Arizona	4	8	14	18	9	9	8	6	10	13	1
Arkansas	30	27	21	11	5	2	3	1	0	0	0
California	4	10	13	10	7	7	6	5	4	5	29
Colorado	9	15	18	17	9	6	5	4	5	7	7
Connecticut	1	11	18	15	13	9	5	7	9	7	5
Delaware	2	5	19	35	26	12	0	0	0	0	0
District of Columbia	7	0	7	4	7	0	15	22	37	0	0
Florida	2	4	8	14	16	16	9	6	6	4	15
Georgia	10	18	18	18	12	6	3	2	2	1	11
Hawaii	19	36	40	5	0	0	0	0	0	0	0
Idaho	26	22	20	13	9	9	0	0	0	0	0
Illinois	18	21	18	11	6	5	3	2	2	2	13
Indiana	13	22	18	15	11	8	5	1	1	1	5
Iowa	35	29	15	7	5	5	3	0	0	0	0
Kansas	38	22	15	6	5	5	5	3	1	1	0
Kentucky	29	26	19	14	7	4	1	0	0	0	0
Louisiana	12	23	16	17	12	9	8	2	1	0	0
Maine	18	27	26	24	5	0	0	0	0	0	0
Maryland	5	11	12	14	11	8	6	4	5	4	18
Massachusetts	2	4	9	14	19	12	9	6	4	6	14
Michigan	8	17	16	16	12	6	5	4	3	3	11
Minnesota	27	21	13	10	7	5	4	5	5	2	1
Mississippi	16	22	20	19	15	6	1	0	0	0	0
Missouri	24	24	18	13	5	4	3	2	4	3	0
Montana	38	25	16	12	7	2	0	0	0	0	0
Nebraska	41	32	13	7	5	2	0	0	0	0	0
Nevada	11	19	21	7	16	8	9	6	3	0	0
New Hampshire	5	9	18	23	20	10	8	5	4	0	0
New Jersey	0	4	8	10	14	15	9	9	12	9	12
New Mexico	31	27	18	10	5	2	4	4	0	0	0
New York	5	13	15	15	13	10	8	5	5	4	7
North Carolina	3	12	20	21	17	11	5	4	3	2	3
North Dakota	51	36	10	2	1	0	0	0	0	0	0
Ohio	5	11	16	16	16	12	7	5	4	3	7
Oklahoma	21	28	18	9	4	5	4	5	4	1	0
Oregon	12	15	20	17	12	7	9	7	2	0	0
Pennsylvania	15	16	15	12	9	9	5	3	3	2	9
Puerto Rico	5	41	47	8	0	0	0	0	0	0	0
Rhode Island	3	4	13	22	39	13	7	0	0	0	0
South Carolina	10	16	18	20	18	10	6	2	0	0	0
South Dakota	48	28	15	7	2	0	0	0	0	0	0
Tennessee	9	19	18	18	14	9	5	3	3	1	1
Texas	13	15	15	11	8	7	6	4	3	3	15
Utah	22	16	17	11	5	4	2	3	5	13	1
Vermont	18	33	23	16	8	2	0	0	0	0	0
Virginia	15	18	17	17	9	5	3	3	2	3	8
Washington	8	15	18	15	8	8	9	6	5	5	3
West Virginia	42	26	14	11	6	1	0	0	0	0	0
Wisconsin	11	18	19	16	10	8	6	7	2	2	1
Wyoming	23	##	##	##	##	##	##	##	##	##	##
Nationwide	16 %	18 %	16 %	13 %	10 %	7 %	5 %	3 %	3 %	2 %	## %

Table 11
High-Speed Subscribership
Ranked by Population Density
(Over 200 kbps in at Least One Direction)

Deciles (Blocks of Zip Codes Grouped by Density)	Persons per Square Mile (In Each Decile of Zip Codes)	Percent of Zip Codes in Decile with at Least One High-Speed Subscriber			Percent of Population in Decile that Resides in Zip Codes with High-Speed Service		
		Jun 2000	Jun 2001	Jun 2002	Jun 2000	Jun 2001	Jun 2002
90-100	More Than 3,147	97.3 %	98.1 %	98.7 %	99.7 %	99.9 %	99.8 %
80-90	947-3,147	95.8	97.1	98.2	99.4	99.8	99.9
70-80	268-947	93.4	95.6	97 5	98.4	99.5	99.9
60-70	118-268	86.7	92.3	95.2	95.9	98.8	99.5
50-60	67-118	77.9	87.5	93.0	90.2	96.8	98.5
40-50	41-67	65.4	80.9	88.0	81.2	93.0	96.3
30-40	25-41	54.5	72.8	81.0	71.4	87.3	92.2
20-30	15-25	39.2	58.9	70.0	59.9	78.4	86.5
10-20	6-15	31.3	51.1	60.9	56.6	74.6	81.9
0-10	Fewer Than 6	23.0	36.8	49.6	43.9	60.7	72.6

Table 12
High-Speed Subscribership
Ranked by Household Income
(Over 200 kbps in at Least One Direction)

Deciles (Blocks of Zip Codes Grouped by Median Household Income)	Median Household Income (In Each Decile of Zip Codes)	Percent of Zip Codes in Decile with at Least One High-Speed Subscriber			Percent of Population in Decile that Resides in Zip Codes with High-Speed Service		
		Jun 2000	Jun 2001	Jun 2002	Jun 2000	Jun 2001	Jun 2002
90-100	$53,494 to $291,938	94.9 %	96.4 %	97.9 %	99.5 %	99.8 %	99.9 %
80-90	$43,617 to $53,478	85.0	90.7	93.5	98.1	99.3	99.7
70-80	$38,396 to $43,614	74.1	83.8	89.0	96.4	98.5	99.0
60-70	$34,744 to $38,395	68.1	80.0	85.0	94.8	97.9	98.7
50-60	$32,122 to $34,743	64.3	77.3	83.3	93.5	97.4	98.4
40-50	$29,893 to $32,121	61.3	73.4	80.4	92.2	96.3	97.7
30-40	$27,542 to $29,892	58.7	73.5	79.7	90.5	95.9	97.5
20-30	$24,855 to $27,541	56.8	69.6	77.2	89.8	95.2	97.0
10-20	$21,645 to $24,855	53.3	67.4	76.9	87.5	93.9	96.5
0-10	$0 to $21,644	47.9	59.1	69.2	88.7	94.1	96.3

Note: Some previously published data for June 2000 have been revised.

Customer Response

Publication: *High Speed Services for Internet Access: Status as of June 30, 2002.*

You can help us provide the best possible information to the public by completing this form and returning it to the Industry Analysis and Technology Division of the FCC's Wireline Competition Bureau.

1. Please check the category that best describes you:
   - _____ press
   - _____ current telecommunications carrier
   - _____ potential telecommunications carrier
   - _____ business customer evaluating vendors/service options
   - _____ consultant, law firm, lobbyist
   - _____ other business customer
   - _____ academic/student
   - _____ residential customer
   - _____ FCC employee
   - _____ other federal government employee
   - _____ state or local government employee
   - _____ Other (please specify)

2.

Please rate the report:	Excellent	Good	Satisfactory	Poor	No opinion
Data accuracy	(_)	(_)	(_)	(_)	(_)
Data presentation	(_)	(_)	(_)	(_)	(_)
Timeliness of data	(_)	(_)	(_)	(_)	(_)
Completeness of data	(_)	(_)	(_)	(_)	(_)
Text clarity	(_)	(_)	(_)	(_)	(_)
Completeness of text	(_)	(_)	(_)	(_)	(_)

3.

Overall, how do you rate this report?	Excellent	Good	Satisfactory	Poor	No opinion
	(_)	(_)	(_)	(_)	(_)

4. How can this report be improved?

5. May we contact you to discuss possible improvements?
   Name:
   Telephone #:

To discuss the information in this report, contact: 202-418-0940 or for users of TTY equipment, call 202-418-0484		
Fax this response to	or	Mail this response to
202-418-0520		FCC/WCB/IATD Mail Stop 1600 F Washington, DC 20554