September 17, 2002
New York

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JPMorgan

Industry Update

Industries Face Off

Bundling, UNE Economics, and the Law

- **Bundling is expected to transform the way carriers compete for the $75 billion local and long-distance consumer voice market**. s271 relief and lower UNE-P rates are spurring increased competition between the ILECs and IXCs. Attempts to leverage their large existing customer bases to penetrate each other's respective historical core markets will likely transform the consumer market, with over 50% of customers purchasing multiple services from a single carrier by 2006.

- **UNE-P provides a lifeline for the IXCs.** We think UNE-P economics are attractive enough to enable the IXCs to manage through a period of significant market share erosion in the consumer long-distance voice market, as the ILECs gain s271 relief. Our expectation is for the IXCs to retrench and focus on preserving their core base of high-value customers. We believe that even with fewer customers, the IXCs should be able to achieve a 34% EBITDA margin on a reduced core base of subscribers.

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- **Local for long distance customer swap is a net positive for the IXCs, in our view.** Exchange of long distance versus local customers results in 3:1 exchange in favor of the ILECs. However, declining long distance revenues and lower profit margins translate into a net loss for the ILECs on the exchange. The market-share swap benefits the IXCs, which end up with higher value, more stable local voice revenues to offset lost long distance revenues.

- **The impact of bundling is a positive for the overall industry, in our view.** Increased customer stickiness and productivity of sales channel and order provisioning improves the economics of driving subscriber growth both in terms of market share gains and penetration of new services. Cost savings from lower customer acquisitions costs could theoretically reach well over $1 billion a year. The deflationary element of bundling is negligible, with up-selling of customers and incremental market penetration likely to offset the impact of price discounts.

- **We do not expect the FCC to significantly change the status quo through the triennial review process.** AT&T will likely continue to be able to use UNE-P to take share from the Bells in the residential local voice market. The FCC may make some concessions to the Bells by further limiting switching in the business market, tightening the definition of the "impaired" standard and adopting a sunset provision transitioning to UNE-L at some point in the future.

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REDEFINING THE CONSUMER MARKET

The Consumer Market—A Growing Pie

We expect the consumer market overall to grow at a low single-digit rate over the next several years, as increased market penetration of wireless and broadband services offset declines in wireline voice revenues (see Figure 1). Excluding wireless, consumer revenues are expected to remain essentially flat, with roughly $8 billion of incremental annual revenues from increased broadband penetration, offsetting declines in local and long distance voice. Providers of wireless and broadband services have the most to gain from incremental consumer spending, in our view.

Wireless
Greater wireless penetration should continue to be able to offset the impact of a highly competitive pricing environment for wireless services. Revenue growth for the industry is expected to slow from 25-30% in previous years to a mid-teens rate for 2002, continuing to slow thereafter. We estimate market penetration, currently at 50%, is likely to reach 60% by the end of 2006. The ILECs, through their interests in Verizon Wireless and Cingular, have exposure to this expected growth. The two wireless carriers currently hold a 50% collective market share position in the industry.

Internet Access
The market for broadband Internet access is expected to balloon over the next several years, as customers continue to migrate from dial-up service and first-time users sign up for Internet service. We estimate that current penetration, at 10% of households, is expected to rise steadily to roughly 30% by 2006, with DSL capturing roughly a third of this growing market. This represents a significant incremental revenue stream opportunity for the ILECs, which already have invested heavily in upgrading their networks for DSL service.

Local Voice
While we expect pricing for local voice services to remain fairly stable, we do expect to see some overall implied pricing declines due to increased competition from wholesale competition and facilities-based competitors such as cable. While the price for basic monthly access is likely to remain fairly stable, pricing on minutes of use and vertical features is expected to come down as new competitors such as MCI offer lower pricing through a bundled package offering. Currently, the majority of consumers purchase vertical features on an a la carte basis. Hence, we would expect to see some element of deflationary pricing pressure as feature-rich, heavy-use customers migrate to cheaper, bundled unlimited calling plans. In addition, we also expect to see declines in the overall volume of access lines, driven access line losses to wireless substitution, and DSL cannibalization of additional lines. Wireless substitution of primary and additional lines is expected to reach 2.4% and 9.5%, respectively, by the end of 2006. At the same time, additional line losses due to DSL cannibalization is expected to reach 20% by the end of 2006. Offsetting some of these negative trends is the growth in overall total households, which we expect will continue to grow at roughly 1% a year. The net result is a projected 1% annual decline in local voice revenues for the industry.

Long-Distance Voice
Lower volumes coupled with continued pricing pressure are expected to drive annual declines in total long distance voice revenues. The impact of e-mail and free long-distance wireless pricing plans continue to eat into minutes of use (MOUs) for long distance voice. In terms of pricing, we haven seen a stabilization of lead offers for "1+" direct dial calling. The major competitors have all converged at the $0.07 per minute level and appear to be holding prices at that level. However, similar to pricing trends seen on the wireless side, the migration of high-use customers to effective lower-cost plans is bringing down overall average pricing per customer. An example of this is the proliferation of unlimited long distance calling plans being offered by almost every major competitor. We expect that, over time, heavy users of

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Table 2: AT&T Market Penetration in Selected States

	2002E	2003E	2004E	2005E	2006E	CAGR
Bundled subscribers						
California	460	749	1,040	1,145	1,257	29%
% penetration	*4%*	*7%*	*9%*	*10%*	*11%*	
Texas	395	432	471	510	549	9%
% penetration	*5%*	*6%*	*6%*	*7%*	*7%*	
New York	1,282	1,311	1,340	1,370	1,401	2%
% penetration	*18%*	*19%*	*19%*	*19%*	*20%*	
Pennsylvania	116	292	414	480	547	48%
% penetration	*2%*	*6%*	*9%*	*10%*	*11%*	
Illinois	184	371	490	609	672	38%
% penetration	*4%*	*8%*	*11%*	*13%*	*15%*	
Ohio	178	359	474	590	651	38%
% penetration	*4%*	*8%*	*11%*	*13%*	*15%*	
Michigan	284	430	492	553	586	20%
% penetration	*8%*	*11%*	*13%*	*15%*	*15%*	
New Jersey	74	187	266	308	351	48%
% penetration	*2%*	*6%*	*9%*	*10%*	*11%*	
Georgia	73	184	261	302	344	47%
% penetration	*2%*	*6%*	*9%*	*10%*	*11%*	
Massachusetts	0	91	125	144	163	--
% penetration	*0%*	*4%*	*5%*	*6%*	*7%*	
Sub-total	3,047	4,407	5,373	6,012	6,521	21%
Standalone subscribers						
California	3,897	2,917	1,952	1,454	971	-29%
Texas	1,309	1,124	940	738	503	-21%
New York	823	639	469	304	142	-36%
Pennsylvania	1,475	1,093	812	625	432	-26%
Illinois	1,668	1,482	1,153	809	521	-25%
Ohio	1,663	1,460	1,172	874	631	-22%
Michigan	1,543	1,374	1,110	848	677	-19%
New Jersey	1,336	1,013	782	639	497	-22%
Georgia	1,133	814	581	406	204	-35%
Massachusetts	753	460	309	189	64	-46%
Sub-total	15,580	12,376	9,280	6,887	4,644	-26%
Grand Total	**18,626**	**16,783**	**14,653**	**12,899**	**11,165**	**-12%**

Source: JPMorgan estimates.

The company is constantly evaluating developments in terms of wholesale pricing. Hence, we would not be surprised to see the eventual number of states in which AT&T enters the local market to grow to 14-17 states, potentially reaching 70% of the total population. States with rate cases currently awaiting decision or in the process of revising existing UNE rates are Arizona, Maryland, Minnesota, Virginia, Colorado, Indiana, and Wisconsin (see Appendix 4 for a summary of rate cases by state).

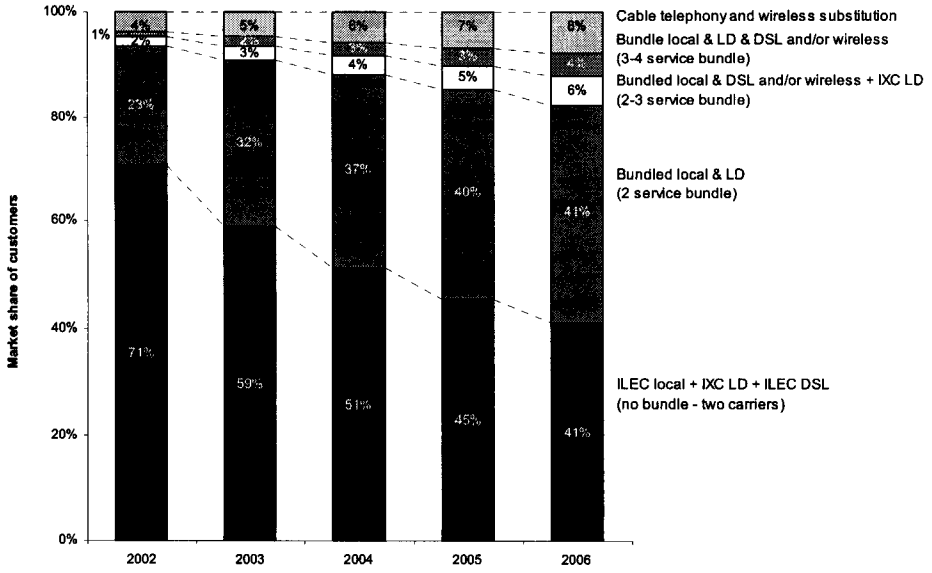
ILECs Bundle to Defend Their Crown Jewels—Local Voice

The ILECs are reciprocating by bundling their local and long distance services together with DSL and wireless in an effort to both drive greater penetration of these services, but more importantly, defend their market share of the large and highly profitable local voice segment of the industry. The average local voice customer generates 2.5 times the revenue and 3.5 times the EBITDA of the average long distance voice customer. Hence, the ILECs face an uphill battle to maintain their share of revenues and EBITDA relative to the IXCs. Initially, we believe the ILECs will have little difficultly achieving this requisite level of long distance subscriber growth relative to local subscriber losses. Over time, however, it will become harder to take incremental market share once they reach a certain point. Exacerbating the situation is that revenues in the long distance voice market are declining at a much faster rate than local voice. Hence, over time, the number of long distance subscribers that ILECs need to add to offset revenue declines increases as the gap between local and long distance economics widens over time with disproportionate price erosion and wireless substitution.

Segmentation of the Consumer marketplace

By 2006, we expect that half of all consumers will be taking a bundle in some form or another, from either an ILEC or IXC, with approximately 40% of customers choosing to continue to purchase services separately (see Figure 3).

Figure 3: Bundled Product Mix Shift, 2002E-2006E



Source: JPMorgan estimates.

No Bundle

While a large portion of consumers will likely migrate to bundled services over the next several years, we believe just as significant a portion of customers—a little more than 40—will likely continue to purchase separate services on a standalone basis. First, only a certain portion of existing customers qualifies for bundled services under current calling plans. A customer would need to subscribe to certain minimum levels of local service in order to be able to participate in certain bundled service offerings. Second, many customers will likely continue to purchase long distance on a standalone basis to preserve flexibility and to take advantage of the most aggressive pricing plans available. Bundled service offerings do not provide every customer with a better value on a standalone product. Depending on usage patterns, we suspect that many customers can and will find more attractive alternatives outside of a bundle to meet their telecommunications needs. For instance, customers currently are able to purchase long distance service at $0.03 per minute from alternative carriers, less than half the $0.07 per minute rate with many bundled calling plans.

Local and Long Distance

With nearly 100% market penetration of local and long distance voice service, with combined revenues of $75 billion, this will serve as the main battleground in the fight for the residential consumer. This bundle represents a zero-sum game of market share, with one group gaining customers and one group losing customers. Hence, we believe this process will be the core focus of bundling efforts for both IXCs and ILECs. While the ILECs are favored to win the battle for subscribers, they also have more at stake, with roughly $1.7 billion of local revenues for every $1 of long distance. Bundling of local and long distance voice is, we believe, the most natural bundle offered and the one we expect will receive the greatest attention from consumers.

DSL

The market for broadband Internet access is expected to balloon over the next several years, as customers continue to migrate from dial-up service and first-time users sign up for Internet service. We estimate that current penetration, at 10% of households, is expected to rise steadily to roughly 30% by 2006, with DSL capturing roughly a third of this growing market. The ILECs, which have already make very heavy investments in upgrading their networks to enable DSL service, see bundling as a attractive way to drive increased penetration and retain local access customers. Earlier this year, ILECs began offering heavy discounts ($20 per month off on the first three months of service) to entice new users to try the service. Bundling and the discounts implicit in the pricing plans may well prove an effective tool to retaining customers once they come off promotional rates. However, a limiting factor near term could be the calling plan minimum requirements needed in order for a customer to qualify for bundled services. We believe that currently only 15-20% of the ILEC customers are taking calling plans that would qualify them for bundled services. However, roughly 40% have monthly spending levels on local service that are either equal to or greater than the cost of a qualifying local calling plan and roughly 45% of DSL customers use their ILEC for long distance service. Hence, while most DSL subscribers are currently on standalone service plans, over the next several years, we expect the penetration of bundled offerings for DSL customers to rise significantly (see Table 3).

Table 3: Composition of DSL Net Adds

(thousands of subscribers)

	2002E	2003E	2004E	2005E	2006E
Standalone	1,152	1,076	801	628	497
% total	*70.0%*	*60.0%*	*55.0%*	*50.0%*	*45.0%*
Bundled with Local/Wireless	247	359	328	314	304
% total	*15.0%*	*20.0%*	*22.5%*	*25.0%*	*27.5%*
Bundled with Local & LD	165	224	219	220	221
% total	*10.0%*	*12.5%*	*15.0%*	*17.5%*	*20.0%*
Bundled with Local & LD & Wireless	82	135	109	94	83
% total	*5.0%*	*7.5%*	*7.5%*	*7.5%*	*7.5%*
Total	1,645	1,794	1,457	1,256	1,104
DSL penetration of households	4.7%	6.4%	7.7%	8.8%	9.6%

Source: Company reports and JPMorgan estimates.

Wireless

Wireless represents a potentially substantial opportunity for the ILECs to leverage their position, given that most IXCs and wireless competitors lack the combination of both wireless and wireline service offerings. We believe that there is likely a high level of consumer interest in phone services that provide inter-exchangeable minutes between wireless and wireline service. Other features, such as integrated voicemail and automated call forwarding, are those that could provide real differentiation of ILEC services from those of the IXCs and pure-play wireless competitors. However, it is unclear to us whether when or if some of these services will become available, given what are likely significant technical hurdles and capital investments required to enable such service. In addition, the shared ownership of both Verizon Wireless and Cingular provide additional obstacles. In the case of Verizon Wireless, it is unclear to us how Vodafone (VOD/$14.25/Buy) would react to a greater integration of the wireless business into the core telecom business, particularly when the pricing and economics of the wireless business become blurred together with the wireless business. While Verizon maintains voting control over Verizon Wireless, Vodafone could simply choose to exit the business and put some or its entire stake back to Verizon if it felt that the move was unfavorable. In the case of Cingular, the joint venture would need to be able provide integrated service in both SBC's and BellSouth's regions. The fact that the wireless service is sold under a different brand further complicates any effort to further integrate it with the wireline business.

Given that we see wireless continuing to be marketed and operated as a separate business from the core domestic business, we expect bundling penetration of residential wireless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Positioning for the Future: Consumer

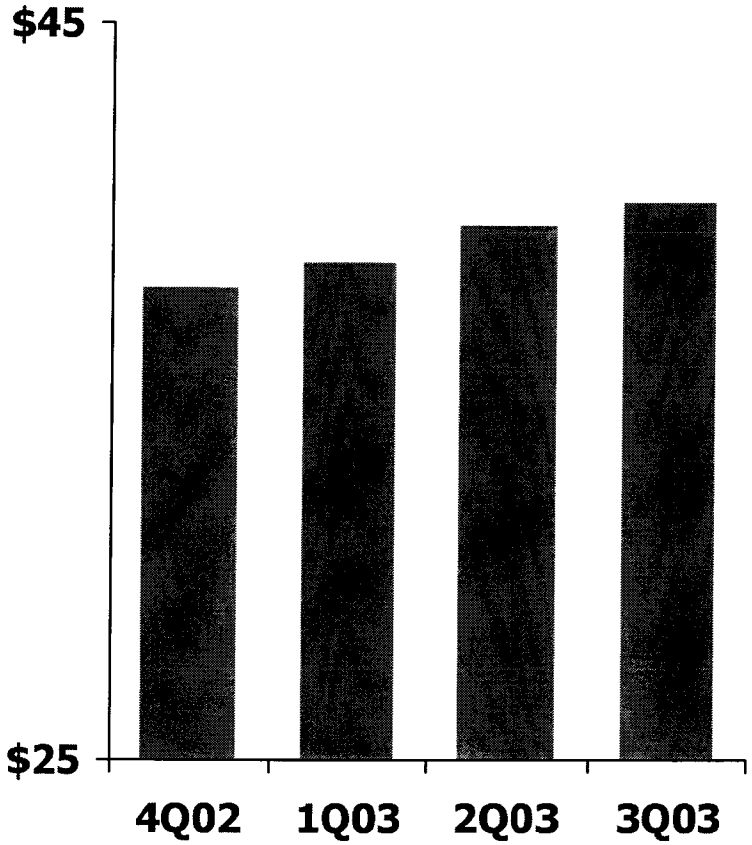
Compelling Offers | **Market Stimulation** | **Increased Sales Coverage** | **Unmatched Service**

- "Nobody beats our bundles"
  - Unlimited LD, $20
  - SBC Yahoo! DSL: $26.95
  - Cingular Wireless 20% discount
- Doubled ad spend '03 over '02
- Best-in-class customer satisfaction

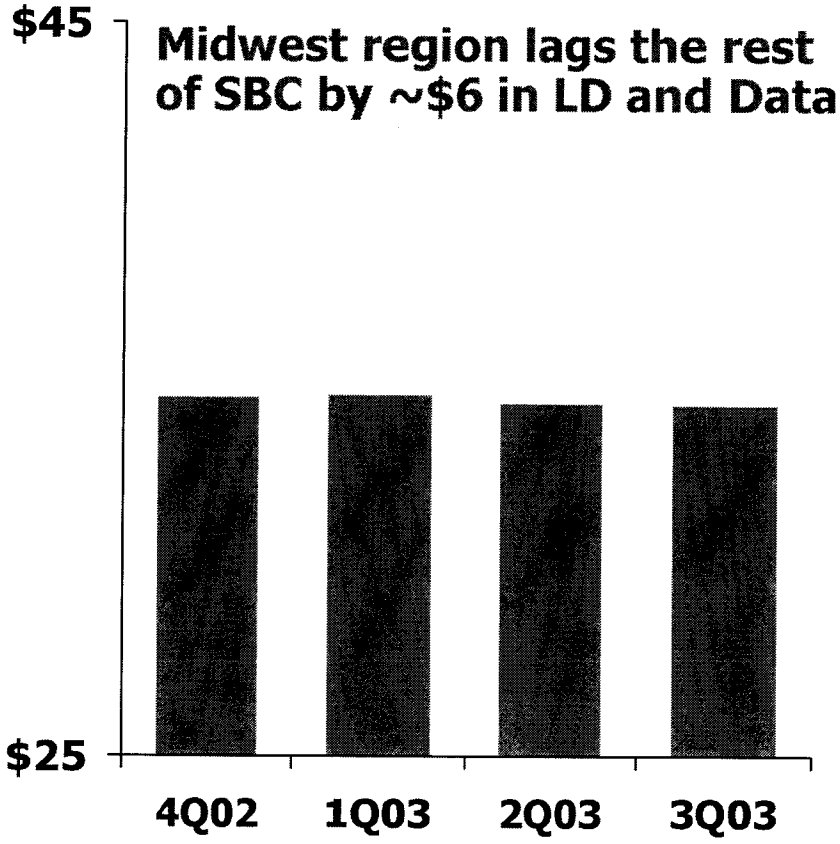
Bundling Drives Higher ARPU

Consumer Revenue per Retail Access Line

SBC Without Midwest



Midwest Region



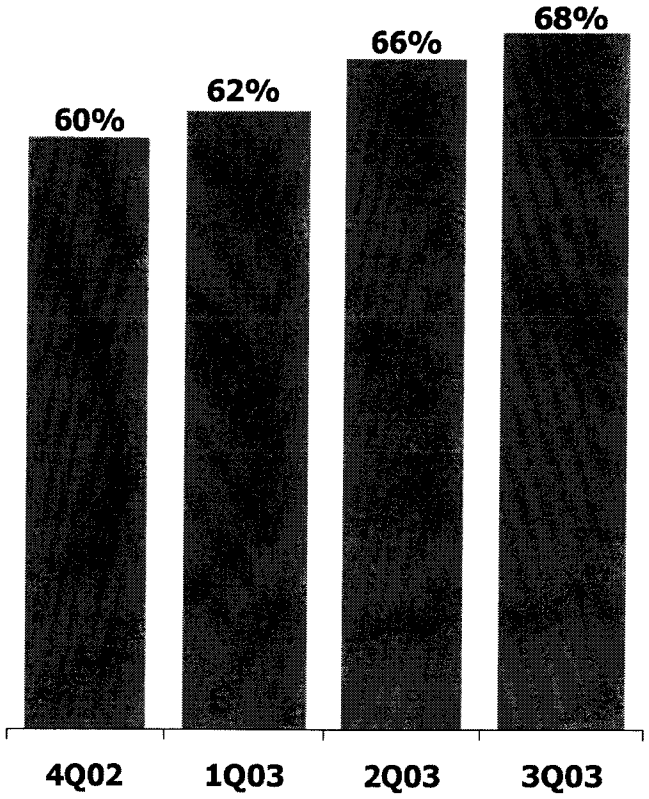
Midwest region lags the rest of SBC by ~$6 in LD and Data

Broadband Strategy: Multiple Impacts

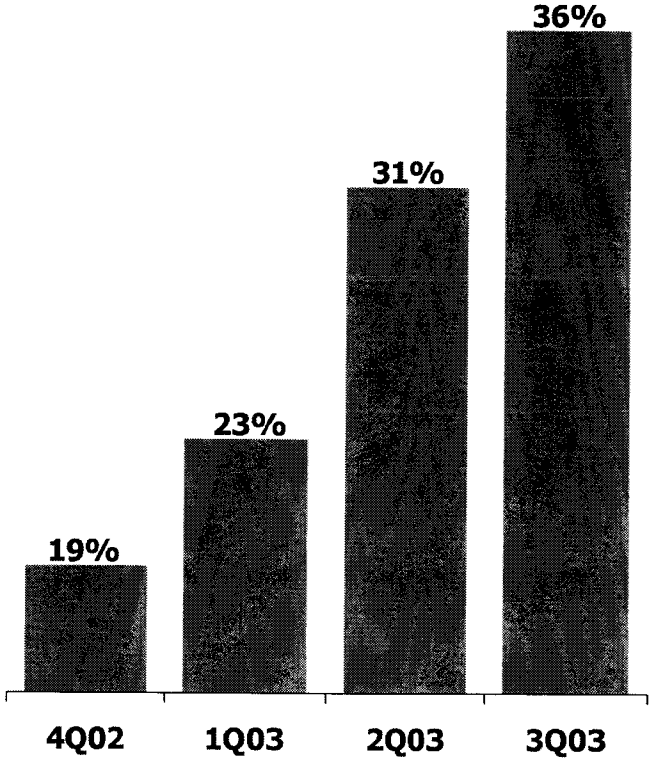
- Drives even **lower access-line churn** and **higher ARPU** as share increases
- Positions us to compete in **VoIP**
- Allows us to **leverage portal** with premium content
- Positions us for today's and tomorrow's **applications and speeds**
  - **1.5 Mbps accommodates** today's users
  - **4 – 6 Mbps available** to ~50% of locations passed today
  - **Compression** technologies deliver greater throughput

Executing Bundling Strategy

Customers With Bundles



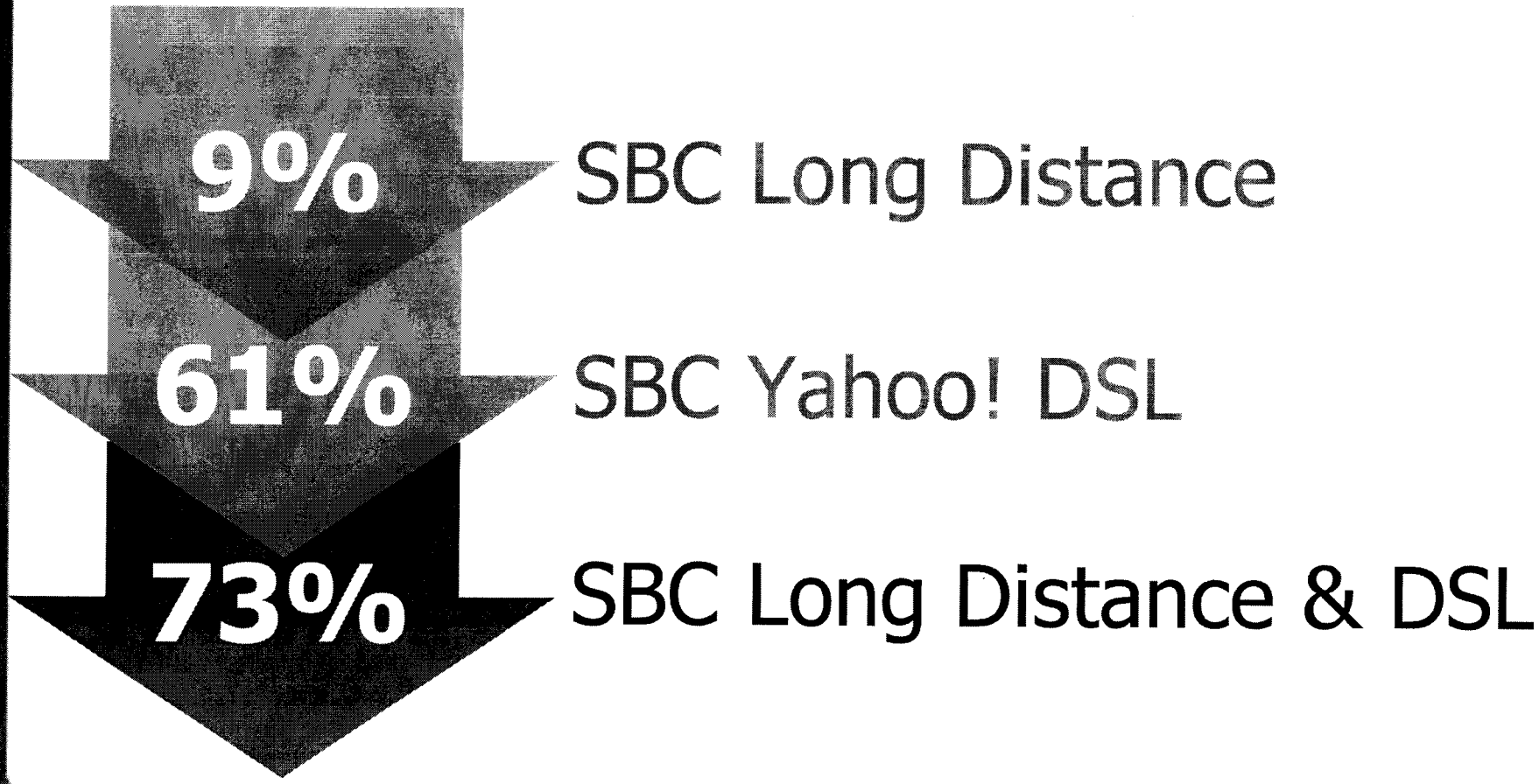
Customers With Key Product Bundles



SBC Long Distance SBC YAHOO! DSL cingular WIRELESS FreedomLink SBC dish NETWORK

Key Bundles Drive Down Churn Rate

Consumer Churn vs. Basic Bundle (Line + 2 or More Verticals)
September 2003



NEWS

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Internet: http://www.fcc.gov
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This is an unofficial announcement of Commission action. Release of the full text of a Commission order constitutes official action.
See MCI v. FCC. 515 F 2d 385 (D.C. Circ 1974).

FOR IMMEDIATE RELEASE
December 22, 2003

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FEDERAL COMMUNICATIONS COMMISSION RELEASES DATA ON HIGH-SPEED SERVICES FOR INTERNET ACCESS

High-Speed Connections to the Internet Increased 18% During the First Half of 2003 for a Total of 23.5 Million Lines in Service

Washington, D.C. – The Federal Communications Commission (FCC) today released summary statistics of its latest data on the deployment of high-speed connections to the Internet in the United States. Facilities-based service providers file data with the FCC on the amount of high-speed connections in service twice a year pursuant to the FCC's local competition and broadband data gathering program (FCC Form 477).

The FCC adopted the local competition and broadband data gathering program in March 2000 to assist the FCC in its efforts to monitor and further implement the pro-competitive, deregulatory provisions of the Telecommunications Act of 1996. The FCC uses data from this effort to evaluate the deployment of advanced telecommunications capability.

For reporting purposes, ***high-speed lines*** are defined as those that provide services at speeds exceeding 200 kilobits per second (kbps) in at least one direction, while ***advanced services lines*** are those that provide services at speeds exceeding 200 kbps in both directions. Reporting of state-level data is required for providers with at least 250 high-speed connections in service in a state. Statistics released today summarize FCC Form 477 filings due from qualifying providers on September 1, 2003, and reflect data as of June 30, 2003.

1) High-Speed Lines

- High-speed lines connecting homes and businesses to the Internet increased by 18% during the first half of 2003, from 19.9 million to 23.5 million lines, compared to a 23% increase, from 16.2 million to 19.9 million lines, during the second half of 2002. For the full twelve month period ending June 30, 2003, high-speed lines increased by 45%.

- Of the 23.5 million high-speed lines in service, 20.6 million served residential and small business subscribers, a 19% increase from the 17.4 million residential and small business high-speed lines reported six months earlier. For the full twelve month

period ending June 30, 2003, high-speed lines for residential and small business subscribers increased by 48%.

2) **Advanced Services Lines**

- Of the 23.5 million high-speed lines, 16.3 million provided advanced services, i.e., services at speeds exceeding 200 kbps in both directions. Advanced services lines increased 32% during the first half of 2003, from 12.4 million to 16.3 million lines. For the full twelve month period ending June 30, 2003, advanced services lines of all technology types increased by 56%.

- About 14.3 million of the 16.3 million advanced services lines served residential and small business subscribers.

3) **Technology Type**

- High-speed connections in service over asymmetric digital subscriber line (ADSL) technologies increased by 19% during the first half of 2003, from 6.5 million to 7.7 million lines, compared to a 27% increase, from over 5.1 million to 6.5 million lines, during the preceding six months. For the full twelve month period ending June 30, 2003, high-speed ADSL increased by 50%.

- High-speed coaxial cable connections (cable modem service) increased by 20% during the first six months of 2003, from 11.4 million to 13.7 million lines, compared to a 24% increase, from 9.2 million to 11.4 million lines, during the second half of 2002. For the full twelve month period ending June 30, 2003, high-speed cable modem connections increased by 49%.

- Among ***advanced services lines***, ADSL lines increased by 16% during the first six months of 2003, compared to a 43% increase for cable modem service. During the preceding six-month period, the rate of growth of ADSL (18%) was slightly lower than cable modem service (22%). For the full twelve month period ending June 30, 2003, advanced services lines – service lines provided in excess of 200 kbps in both directions – for ADSL increased by 37% and cable modem connections increased by 75%.

The summary statistics released today also include state-by-state, population density, and household income information, ranked by zip codes. As additional information becomes available, it will be routinely posted on the Commission's Internet site.

The report is available for reference in the FCC's Reference Information Center, Courtyard Level, 445 12th Street, SW, Washington, DC. Copies may be purchased by calling Qualex International at (202) 863-2893. The report can also be downloaded from the **FCC-State Link** Internet site at www.fcc.gov/wcb/stats.

- FCC -

Wireline Competition Bureau contacts: Industry Analysis and Technology Division at (202) 418-0940, TTY (202) 418-0484.

High-Speed Services for Internet Access: Status as of June 30, 2003

Industry Analysis and Technology Division
Wireline Competition Bureau
December 2003

This report is available for reference in the FCC's Reference Information Center, Courtyard Level, 445 12th Street, SW, Washington, DC. Copies may be purchased by contacting Qualex International, 445 12th Street, SW, 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: Status as of June 30, 2003

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 eighth data collection, thereby presenting a snapshot of subscribership as of June 30, 2003.[3] Subscribership to high-speed services for Internet access increased by 18% during the first half of 2003, to a total of 23.5 million lines in service. The presence of high-speed service subscribers was reported in all 50 states, the District of Columbia, Puerto Rico, and the Virgin Islands, and in 91% 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 connections to end users 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

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[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] Statistical summaries of the earlier Form 477 data collections appeared in *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, and in previous releases of the *High-Speed Services for Internet Access* report, 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 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 unaffiliated 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 (continued....)

providers not meeting the reporting threshold may 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 18% during the first half of 2003, to a total of 23.5 million lines (or wireless channels) in service. The rate of growth during the second half of 2002 was 23%. See Table 1.

- High-speed ADSL lines in service increased by 19% during the first half of 2003, to 7.7 million lines. High-speed connections over coaxial cable systems (cable modem service) increased by 20%, to 13.7 million lines.[6] See Table 1.

- Reported high-speed connections to end users by means of satellite or fixed wireless technologies increased by 12% during the first half of 2003, and reported fiber optic connections to end-user premises increased by 5%. These technologies, together, accounted for about 0.9 million high-speed connections at the end of June 2003. See Table 1.

(Continued from previous page)
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 0.05% 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 32% during the first half of 2003, to a total of 16.3 million lines (or wireless channels) in service. Advanced services lines provided by means of ADSL technology increased by 16%, and advanced services lines provided over coaxial cable systems increased by 43%.[7] See Table 2.

- As of June 30, 2003, there were about 20.6 million high-speed lines serving residential and small business subscribers. By contrast, there were about 17.4 million such lines six months earlier, and about 14.0 million a year earlier. See Table 3.

- Of the 20.6 million high-speed lines in service to residential and small business subscribers at the end of June 2003, we estimate that about 14.3 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, 2003, about 95% of such lines were reported by incumbent local exchange carriers (ILECs). ILECs claimed a smaller share, about 71%, of high-speed lines delivered over other traditional wireline facilities.[9] When all technologies are considered, ILECs provided about 35% 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, the District of Columbia, and Puerto Rico. 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.

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[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, 2003. About 54% of these connections were reported in the other traditional wireline category and about 39% 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.

- 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 associated with the more populous states. As of June 30, 2003, 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 and, for historical data, see Tables 8 - 10.

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

- 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 service subscriber. As of June 30, 2003, subscribers to high-speed services were reported in 91% of the nation's zip codes. In 75% of the nation's zip codes more than one provider reported having subscribers.[12] See Table 12.

- Our analysis indicates that 99% of the country's population lives in the 91% 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 12.

- 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 13.

- 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, 2003, high-speed subscribers are reported to be present in 99% of the most densely populated zip codes and in 69% of zip codes with the lowest population densities.[13] The comparable figure for the lowest-density zip codes was 50% a year earlier. See Table 14.

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[11] Reporting entities are instructed to consider a high-speed line as being provided to a "residential and small business" end user if that end user has a high-speed connection of a type (*e.g.*, speed and price) that is normally associated with residential end users.

[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).

- 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 78% of zip codes with the lowest median household income, compared to 69% a year earlier. See Table 15.

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 James.Eisner@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]	Dec 1999	Jun 2000	Dec 2000	Jun 2001	Dec 2001	Jun 2002	Dec 2002	Jun 2003	Percent Change June 2002 - Dec 2002	Percent Change Dec 2002 - Jun 2003
ADSL	369,792	951,583	1,977,101	2,693,834	3,947,808	5,101,493	6,471,716	7,675,114	27 %	19 %
Other Wireline	609,909	758,594	1,021,291	1,088,066	1,078,597	1,186,680	1,216,208	1,215,713	2	0
Coaxial Cable	1,411,977	2,284,491	3,582,874	5,184,141	7,059,598	9,172,895	11,369,087	13,684,225	24	20
Fiber	312,204	307,151	376,203	455,593	494,199	520,884	548,471	575,613	5	5
Satellite or Fixed Wireless	50,404	65,615	112,405	194,707	212,610	220,588	276,067	309,006	25	12
Total Lines	2,754,286	4,367,434	7,069,874	9,616,341	12,792,812	16,202,540	19,881,549	23,459,671	23 %	18 %

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

Types of Technology [2]	Dec 1999	Jun 2000	Dec 2000	Jun 2001	Dec 2001	Jun 2002	Dec 2002	Jun 2003	Percent Change June 2002 - Dec 2002	Percent Change Dec 2002 - Jun 2003
ADSL	185,950	326,816	675,366	998,883	1,369,143	1,852,879	2,178,394	2,536,368	18 %	16 %
Other Wireline	609,909	758,594	1,021,291	1,088,066	1,078,597	1,186,680	1,216,208	1,215,713	2	0
Coaxial Cable	877,465	1,469,130	2,193,609	3,329,976	4,394,778	6,819,395	8,342,234	11,935,866	22	43
Fiber	307,315	301,143	376,197	455,549	486,483	518,908	548,123	575,057	6	5
Satellite or Fixed Wireless	7,816	3,649	26,906	73,476	75,341	66,073	65,929	64,393	0	-2
Total Lines	1,988,455	2,859,332	4,293,369	5,945,950	7,404,343	10,443,935	12,350,888	16,327,396	18 %	32 %

Note: Some previously published data for December 2002 have been revised.

[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]	Dec 1999	Jun 2000	Dec 2000	Jun 2001	Dec 2001	Jun 2002	Dec 2002	Jun 2003	Percent Change June 2002 - Dec 2002	Percent Change Dec 2002 - Jun 2003
ADSL	291,757	772,272	1,594,879	2,490,740	3,615,989	4,395,033	5,529,241	6,429,938	26 %	16 %
Other Wireline	46,856	111,490	176,520	138,307	139,660	223,599	213,489	250,372	-5	17
Coaxial Cable	1,402,394	2,215,259	3,294,546	4,998,540	7,050,709	9,157,285	11,342,512	13,660,541	24	20
Fiber	1,023	325	1,994	2,623	4,139	6,120	14,692	16,132	NM	NM
Satellite or Fixed Wireless	50,189	64,320	102,432	182,165	194,897	202,251	256,978	288,786	27	12
Total Lines	1,792,219	3,163,666	5,170,371	7,812,375	11,005,396	13,984,287	17,356,912	20,645,769	24 %	19 %

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

Types of Technology [2]	Dec 1999	Jun 2000	Dec 2000	Jun 2001	Dec 2001	Jun 2002	Dec 2002	Jun 2003	Percent Change Dec 2001 - Jun 2002	Percent Change Jun 2002 - Dec 2002
ADSL	116,994	195,324	393,246	916,364	1,243,996	1,580,575	1,827,547	2,071,779	16 %	13 %
Other Wireline	46,856	111,490	176,520	138,307	139,660	223,599	213,489	250,372	-5	17
Coaxial Cable	872,024	1,401,434	2,177,328	3,146,953	4,388,967	6,809,170	8,322,157	11,920,207	22	43
Fiber	138	325	1,992	2,617	3,523	5,118	14,408	15,751	NM	NM
Satellite or Fixed Wireless	7,682	2,916	17,043	60,988	58,113	47,787	47,903	46,407	0	-3
Total Lines	1,043,694	1,711,488	2,766,130	4,265,229	5,834,258	8,666,249	10,425,505	14,304,515	20 %	37 %

Notes: Some previously published data for December 2002 have been revised. 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 purchase 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, 2003
(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	6,490,190	774,223	410,701	7,675,114	84.6 %	10.1 %	5.4 %
Other Wireline	710,451	153,590	351,672	1,215,713	58.4	12.6	28.9
Coaxial Cable	*	*	13,661,872	13,684,225	*	*	99.6
Other	*	*	819,833	884,619	*	*	92.7
Total Lines	7,266,765	948,828	15,244,078	23,459,671	31.0 %	4.0 %	65.0 %

* 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, SBC, and Verizon, and all high-speed lines reported by Qwest in states in which Qwest has ILEC operations.

[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 for any such lines that are included in "RBOC" lines.

Table 6
Providers of High-Speed Lines by Technology as of June 30, 2003
(Over 200 kbps in at Least One Direction)

	ADSL	Coaxial Cable	Other [1]	Total (Unduplicated)
Alabama	7	10	13	22
Alaska	6	*	5	9
Arizona	7	5	14	21
Arkansas	7	*	8	14
California	16	10	24	37
Colorado	6	4	13	18
Connecticut	5	5	12	17
Delaware	*	*	4	7
District of Columbia	5	*	8	9
Florida	11	9	25	33
Georgia	14	8	28	35
Hawaii	*	*	*	*
Idaho	6	*	6	11
Illinois	17	4	22	32
Indiana	12	8	17	26
Iowa	18	13	24	36
Kansas	14	14	22	34
Kentucky	9	6	11	21
Louisiana	8	4	12	18
Maine	4	*	7	12
Maryland	6	9	10	20
Massachusetts	7	7	15	22
Michigan	14	8	20	32
Minnesota	20	11	25	41
Mississippi	5	6	8	16
Missouri	11	9	15	25
Montana	9	*	7	17
Nebraska	10	6	13	20
Nevada	7	*	9	13
New Hampshire	5	4	9	14
New Jersey	5	5	13	17
New Mexico	6	4	7	13
New York	16	8	22	33
North Carolina	16	7	18	29
North Dakota	16	4	16	22
Ohio	16	12	23	32
Oklahoma	9	*	15	20
Oregon	13	5	15	24
Pennsylvania	16	9	19	32
Puerto Rico	*	*	*	4
Rhode Island	*	*	7	7
South Carolina	13	9	14	23
South Dakota	11	4	9	19
Tennessee	16	8	18	33
Texas	27	9	32	47
Utah	9	*	14	18
Vermont	6	*	8	11
Virgin Islands	*	0	*	*
Virginia	9	5	16	22
Washington	12	6	18	24
West Virginia	*	5	5	11
Wisconsin	13	5	16	25
Wyoming	5	*	5	8
Nationwide (Unduplicated) Jun 2003	235	98	217	378
Nationwide (Unduplicated) Dec 2002	178	87	169	299
Nationwide (Unduplicated) Jun 2002	142	68	138	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 as of June 30, 2003
(Over 200 kbps in at Least One Direction)

	ADSL	Coaxial Cable	Other [1]	Total
Alabama	70,639	181,338	31,969	283,946
Alaska	14,013	*	*	61,121
Arizona	77,368	319,272	48,539	445,179
Arkansas	44,801	*	*	128,311
California	1,715,998	1,395,435	345,248	3,456,681
Colorado	126,189	181,766	36,199	344,154
Connecticut	124,742	227,658	15,786	368,186
Delaware	*	*	3,386	55,030
District. of Columbia	39,471	*	*	70,715
Florida	644,621	867,513	141,403	1,653,537
Georgia	368,372	289,922	109,766	768,060
Hawaii	*	*	*	*
Idaho	19,382	*	*	64,353
Illinois	363,733	383,069	124,667	871,469
Indiana	85,968	122,338	28,724	237,030
Iowa	39,386	111,748	11,123	162,257
Kansas	50,839	181,437	16,520	248,796
Kentucky	75,316	23,672	22,606	121,594
Louisiana	100,919	189,920	24,851	315,690
Maine	11,052	*	*	85,615
Maryland	126,873	306,442	36,511	469,826
Massachusetts	207,344	564,961	48,830	821,135
Michigan	135,360	543,336	58,059	736,755
Minnesota	115,244	255,988	29,138	400,370
Mississippi	33,650	50,234	12,227	96,111
Missouri	138,046	191,658	37,274	366,978
Montana	13,119	*	*	28,023
Nebraska	18,285	111,903	10,984	141,172
Nevada	47,934	*	*	209,732
New Hampshire	17,823	95,612	5,444	118,879
New Jersey	211,540	690,620	65,680	967,840
New Mexico	26,948	38,004	7,017	71,969
New York	438,241	1,401,322	157,777	1,997,340
North Carolina	161,642	454,272	65,390	681,304
North Dakota	11,593	10,066	3,815	25,474
Ohio	243,689	508,458	69,788	821,935
Oklahoma	78,248	*	*	234,823
Oregon	95,654	197,794	25,012	318,460
Pennsylvania	230,322	482,471	59,483	772,276
Puerto Rico	*	*	*	32,063
Rhode Island	*	*	4,391	105,610
South Carolina	52,667	185,083	25,118	262,868
South Dakota	8,637	9,156	4,223	22,016
Tennessee	92,777	277,579	44,357	414,713
Texas	597,447	888,595	124,893	1,610,935
Utah	65,648	*	*	135,007
Vermont	15,072	*	*	39,773
Virgin Islands	*	0	*	*
Virginia	114,797	404,616	48,100	567,513
Washington	225,377	313,915	38,086	577,378
West Virginia	*	73,263	*	90,173
Wisconsin	84,100	287,519	30,376	401,995
Wyoming	5,503	*	*	17,507
Nationwide	7,675,114	13,684,225	2,100,332	23,459,671

* 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 State
(Over 200 kbps in at Least One Direction)

	Dec 1999	Jun 2000	Dec 2000	Jun 2001	Dec 2001	Jun 2002	Dec 2002	Jun 2003
Alabama	19,796	32,756	63,334	86,234	138,979	172,365	227,888	283,946
Alaska	*	*	934	20,906	50,277	46,791	55,975	61,121
Arizona	58,825	111,678	153,500	158,122	251,709	308,621	370,939	445,179
Arkansas	8,155	15,539	28,968	40,803	66,537	84,235	100,280	128,311
California	547,179	910,006	1,386,625	1,705,814	2,041,276	2,598,491	3,035,756	3,456,681
Colorado	36,726	64,033	104,534	147,220	177,419	243,810	298,265	344,154
Connecticut	36,488	63,772	111,792	149,057	191,257	236,490	307,860	368,186
Delaware	1,558	3,660	7,492	12,771	26,601	36,619	51,100	55,030
District of Columbia	13,288	16,926	27,757	39,101	43,278	55,197	64,310	70,715
Florida	190,700	244,678	460,795	651,167	911,261	1,119,693	1,405,976	1,653,537
Georgia	75,870	130,292	203,855	302,598	420,206	512,135	654,833	768,060
Hawaii	*	*	*	*	*	*	*	*
Idaho	*	8,070	15,908	20,233	18,445	43,119	54,963	64,353
Illinois	77,672	166,933	242,239	350,241	422,706	553,442	734,171	871,469
Indiana	20,059	49,702	60,494	80,364	123,704	159,392	205,946	237,030
Iowa	19,258	49,159	58,199	72,583	82,024	102,932	121,053	162,257
Kansas	26,179	42,679	68,743	101,734	125,963	149,733	193,568	248,796
Kentucky	23,570	24,237	32,731	39,297	67,870	90,284	99,265	121,594
Louisiana	28,133	43,294	74,950	121,685	164,760	207,257	262,093	315,690
Maine	19,878	17,864	26,266	38,149	49,523	61,406	73,061	85,615
Maryland	52,749	71,005	124,465	181,021	260,634	316,666	391,397	469,826
Massachusetts	114,116	185,365	289,447	357,256	505,819	583,627	679,084	821,135
Michigan	81,223	135,318	198,230	395,583	433,858	538,416	640,766	736,755
Minnesota	38,268	65,272	117,283	148,012	199,856	273,907	335,562	400,370
Mississippi	*	6,514	12,305	21,517	35,586	57,595	80,922	96,111
Missouri	23,347	46,903	100,403	123,915	181,794	224,282	260,752	366,978
Montana	*	*	7,378	10,446	13,037	17,969	20,090	28,023
Nebraska	36,748	44,188	54,085	55,188	71,451	92,849	117,219	141,172
Nevada	23,514	40,582	59,879	78,535	109,850	138,042	159,179	209,732
New Hampshire	22,807	33,045	42,364	55,658	71,200	86,200	102,590	118,879
New Jersey	101,832	144,203	285,311	428,514	590,192	693,036	839,095	967,840
New Mexico	*	2,929	28,497	20,482	31,940	44,942	57,956	71,969
New York	186,504	342,743	603,487	893,032	1,199,159	1,460,894	1,725,296	1,997,340
North Carolina	57,881	81,998	136,703	205,616	357,906	461,736	594,039	681,304
North Dakota	*	2,437	4,227	6,277	6,082	14,164	20,024	25,474
Ohio	160,792	156,980	230,525	358,965	436,766	580,078	710,355	821,935
Oklahoma	96,730	163,703	95,138	92,947	114,931	151,213	196,556	234,823
Oregon	27,062	44,186	76,839	93,242	158,048	199,549	275,449	318,460
Pennsylvania	71,926	79,892	176,670	263,236	376,439	516,488	631,717	772,276
Puerto Rico	*	*	*	*	*	*	22,732	32,063
Rhode Island	*	20,628	30,919	49,215	64,293	72,553	89,821	105,610
South Carolina	25,229	32,824	63,914	96,839	135,165	175,088	222,980	262,868
South Dakota	*	3,516	2,839	5,448	9,585	12,555	18,060	22,016
Tennessee	66,307	87,317	122,391	152,510	237,401	294,573	369,370	414,713
Texas	152,518	276,087	522,538	646,839	840,665	1,050,511	1,349,628	1,610,935
Utah	11,635	19,612	35,970	55,103	72,977	93,928	121,744	135,007
Vermont	*	1,551	7,773	16,230	21,795	29,990	32,814	39,773
Virgin Islands	0	*	*	*	*	*	*	*
Virginia	51,305	72,436	139,915	212,808	292,772	360,722	463,455	567,513
Washington	71,930	118,723	195,628	227,066	335,667	422,348	485,063	577,378
West Virginia	*	1,835	6,498	16,697	32,848	58,209	78,980	90,173
Wisconsin	18,599	34,262	76,257	127,755	182,395	257,099	335,991	401,995
Wyoming	*	*	*	*	7,856	10,990	14,696	17,507
Nationwide	2,754,286	4,367,434	7,069,874	9,616,341	12,792,812	16,202,540	19,881,549	23,459,671

* Data withheld to maintain firm confidentiality.

Table 9
ADSL High-Speed Lines by State
(Over 200 kbps in at Least One Direction)

	Dec 1999	Jun 2000	Dec 2000	Jun 2001	Dec 2001	Jun 2002	Dec 2002	Jun 2003
Alabama	*	*	12,320	*	34,785	45,350	56,860	70,639
Alaska	0	0	0	*	7,975	11,337	14,295	14,013
Arizona	*	*	32,395	39,828	53,489	68,280	72,324	77,368
Arkansas	*	*	*	*	22,240	28,477	35,594	44,801
California	122,855	373,574	622,894	735,677	928,345	1,214,543	1,485,309	1,715,998
Colorado	*	*	42,810	52,617	70,615	100,197	113,040	126,189
Connecticut	*	*	22,348	30,142	41,261	61,093	100,722	124,742
Delaware	*	*	*	*	*	*	*	*
District of Columbia	*	*	*	16,313	*	28,723	35,466	39,471
Florida	*	37,806	115,133	170,702	306,015	391,188	521,623	644,621
Georgia	*	*	56,588	106,649	172,556	237,922	305,004	368,372
Hawaii	*	*	*	*	*	*	*	*
Idaho	*	*	*	*	13,643	16,108	17,930	19,382
Illinois	3,150	12,812	48,278	89,080	110,448	195,560	300,497	363,733
Indiana	*	*	6,442	2,375	22,385	36,685	63,463	85,968
Iowa	*	*	*	9,532	13,193	18,751	29,161	39,386
Kansas	0	*	14,281	*	23,564	28,713	39,315	50,839
Kentucky	5,690	*	16,327	20,256	43,191	55,454	55,254	75,316
Louisiana	*	*	22,788	37,444	58,019	73,120	86,359	100,919
Maine	0	*	*	6,877	*	*	8,432	11,052
Maryland	*	*	*	51,051	79,997	95,439	115,687	126,873
Massachusetts	*	15,802	53,700	82,699	125,630	147,139	181,426	207,344
Michigan	786	*	25,482	41,428	52,505	80,588	111,182	135,360
Minnesota	*	25,975	40,870	51,640	67,527	86,184	98,316	115,244
Mississippi	*	*	*	*	*	*	*	33,650
Missouri	*	*	38,759	53,250	68,186	84,642	114,861	138,046
Montana	*	*	1,760	2,842	4,272	7,108	6,549	13,119
Nebraska	*	*	*	9,293	13,637	11,547	16,117	18,285
Nevada	*	*	10,023	*	17,598	24,073	36,662	47,934
New Hampshire	*	*	3,339	5,651	9,618	11,781	14,630	17,823
New Jersey	*	*	59,332	102,430	151,829	172,472	197,615	211,540
New Mexico	*	*	*	7,578	*	18,224	22,607	26,948
New York	9,307	41,656	124,146	197,135	285,814	338,229	391,686	438,241
North Carolina	*	8,662	23,815	41,332	65,582	89,680	124,031	161,642
North Dakota	*	*	*	*	4,849	6,575	8,826	11,593
Ohio	*	33,603	55,046	87,567	112,527	151,612	205,140	243,689
Oklahoma	*	*	*	31,321	39,978	50,617	65,378	78,248
Oregon	*	19,989	31,644	25,877	57,899	68,747	82,555	95,654
Pennsylvania	7,377	18,313	60,083	89,595	136,829	162,258	200,501	230,322
Puerto Rico	0	0	0	*	*	*	*	*
Rhode Island	0	*	*	*	*	*	*	*
South Carolina	*	*	5,168	9,704	18,686	26,184	38,293	52,667
South Dakota	*	*	*	1,652	2,869	4,389	6,308	8,637
Tennessee	*	*	13,705	22,902	42,571	57,984	74,034	92,777
Texas	*	73,117	158,513	197,668	300,752	368,796	486,833	597,447
Utah	*	*	17,352	23,476	33,306	47,637	57,025	65,648
Vermont	0	*	*	*	*	9,409	12,062	15,072
Virgin Islands	0	0	0	*	*	*	*	*
Virginia	7,425	9,510	26,750	39,114	65,298	75,524	96,805	114,797
Washington	*	52,345	79,130	64,812	140,273	172,652	200,189	225,377
West Virginia	0	*	*	*	*	*	*	*
Wisconsin	*	1,063	8,623	17,800	28,233	42,052	64,521	84,100
Wyoming	*	*	*	*	*	*	*	5,503
Nationwide	369,792	951,583	1,977,101	2,693,834	3,947,808	5,101,493	6,471,716	7,675,114

* Data withheld to maintain firm confidentiality.

Table 10
Coaxial Cable High-Speed Lines by State
(Over 200 kbps in at Least One Direction)

	Dec 1999	Jun 2000	Dec 2000	Jun 2001	Dec 2001	June 2002	Dec 2002	Jun 2003
Alabama	8,415	17,164	36,432	47,325	83,933	104,990	144,259	181,338
Alaska	0	0	0	0	*	*	*	*
Arizona	*	*	*	*	151,916	194,431	251,373	319,272
Arkansas	*	*	*	*	*	*	*	*
California	221,472	297,415	476,544	609,174	786,789	1,013,503	1,179,204	1,395,435
Colorado	*	*	*	*	*	*	*	181,766
Connecticut	28,702	47,127	78,234	106,019	137,003	160,913	192,155	227,658
Delaware	*	*	*	*	*	*	*	*
District of Columbia	*	*	*	*	*	*	*	*
Florida	110,000	129,830	255,978	372,190	486,977	595,806	741,426	867,513
Georgia	18,114	48,947	75,474	109,922	156,142	183,886	243,142	289,922
Hawaii	*	*	*	*	0	*	*	*
Idaho	0	*	*	*	*	*	*	*
Illinois	*	83,737	126,490	144,872	204,202	242,394	316,169	383,069
Indiana	7,412	33,431	37,052	56,441	78,837	98,414	114,237	122,338
Iowa	14,027	42,081	48,008	59,253	63,788	77,592	83,994	111,748
Kansas	*	*	48,541	74,337	94,047	111,615	142,563	181,437
Kentucky	*	*	*	*	*	12,867	22,113	23,672
Louisiana	*	*	*	64,219	88,851	115,198	*	189,920
Maine	*	*	*	*	*	*	*	*
Maryland	*	42,412	65,668	97,466	143,174	181,864	241,264	306,442
Massachusetts	*	148,233	210,019	243,670	339,244	391,391	453,473	564,961
Michigan	51,111	94,586	130,296	301,842	329,697	402,642	472,405	543,336
Minnesota	14,346	30,485	64,215	80,259	113,900	166,323	212,126	255,988
Mississippi	*	*	*	*	12,998	27,872	40,276	50,234
Missouri	*	16,482	42,255	51,733	89,370	110,026	117,403	191,658
Montana	0	*	*	*	*	*	*	*
Nebraska	*	*	*	37,168	49,939	73,306	92,261	111,903
Nevada	*	*	*	*	*	*	*	*
New Hampshire	*	*	*	*	*	*	*	95,612
New Jersey	*	*	*	*	375,362	454,750	578,337	690,620
New Mexico	0	0	*	*	*	*	*	38,004
New York	110,382	*	377,521	564,423	780,473	967,949	1,185,233	1,401,322
North Carolina	24,200	42,713	73,092	115,949	239,107	313,884	406,024	454,272
North Dakota	0	*	*	*	*	*	*	10,066
Ohio	*	*	127,692	213,606	264,031	363,675	435,404	508,458
Oklahoma	*	*	*	*	*	*	*	*
Oregon	*	*	*	*	*	*	165,343	197,794
Pennsylvania	34,878	38,340	85,104	131,119	190,915	300,840	376,611	482,471
Puerto Rico	0	0	0	0	0	0	*	*
Rhode Island	*	*	*	*	*	*	*	*
South Carolina	15,176	20,190	44,812	68,487	96,559	126,598	159,944	185,083
South Dakota	0	*	*	*	*	*	7,916	9,156
Tennessee	*	*	77,760	96,119	158,120	199,121	252,596	277,579
Texas	76,520	137,670	227,070	328,900	427,324	577,233	740,469	888,595
Utah	*	*	*	*	*	*	*	*
Vermont	*	*	*	*	*	*	*	*
Virgin Islands	0	0	0	0	0	0	0	0
Virginia	23,140	40,337	78,585	131,553	182,591	238,300	320,154	404,616
Washington	*	*	*	*	*	217,644	246,627	313,915
West Virginia	*	*	*	*	*	48,858	65,542	73,263
Wisconsin	*	*	*	*	*	189,585	243,043	287,519
Wyoming	0	0	*	*	*	*	*	*
Nationwide	1,411,977	2,284,491	3,582,874	5,184,141	7,059,598	9,172,895	11,369,087	13,684,225

* Data withheld to maintain firm confidentiality.

Table 11
High-Speed Lines by Type of User as of June 30, 2003
(Over 200 kbps in at Least One Direction)

	Residential & Small Business	Other [1]	Total
Alabama	246,373	37,573	283,946
Alaska	56,018	5,103	61,121
Arizona	427,448	17,731	445,179
Arkansas	123,138	5,173	128,311
California	2,994,812	461,869	3,456,681
Colorado	316,730	27,424	344,154
Connecticut	350,622	17,564	368,186
Delaware	47,712	7,318	55,030
District of Columbia	44,865	25,850	70,715
Florida	1,387,008	266,529	1,653,537
Georgia	601,791	166,269	768,060
Hawaii	*	*	*
Idaho	61,076	3,277	64,353
Illinois	758,891	112,578	871,469
Indiana	194,239	42,791	237,030
Iowa	154,371	7,886	162,257
Kansas	236,543	12,253	248,796
Kentucky	93,951	27,643	121,594
Louisiana	277,481	38,209	315,690
Maine	76,964	8,651	85,615
Maryland	401,976	67,850	469,826
Massachusetts	725,018	96,117	821,135
Michigan	683,706	53,049	736,755
Minnesota	377,701	22,669	400,370
Mississippi	80,297	15,814	96,111
Missouri	331,679	35,299	366,978
Montana	26,128	1,895	28,023
Nebraska	137,508	3,664	141,172
Nevada	189,378	20,354	209,732
New Hampshire	107,244	11,635	118,879
New Jersey	838,225	129,615	967,840
New Mexico	66,540	5,429	71,969
New York	1,728,124	269,216	1,997,340
North Carolina	596,289	85,015	681,304
North Dakota	24,411	1,063	25,474
Ohio	742,970	78,965	821,935
Oklahoma	220,584	14,239	234,823
Oregon	290,128	28,332	318,460
Pennsylvania	652,903	119,373	772,276
Puerto Rico	20,495	11,568	32,063
Rhode Island	95,900	9,710	105,610
South Carolina	233,556	29,312	262,868
South Dakota	20,985	1,031	22,016
Tennessee	361,510	53,203	414,713
Texas	1,464,934	146,001	1,610,935
Utah	125,890	9,117	135,007
Vermont	35,118	4,655	39,773
Virgin Islands	*	*	*
Virginia	492,714	74,799	567,513
Washington	509,981	67,397	577,378
West Virginia	82,005	8,168	90,173
Wisconsin	373,205	28,790	401,995
Wyoming	16,435	1,072	17,507
Nationwide	20,645,769	2,813,902	23,459,671

* Data witheld to maintain firm confidentiality.

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

Table 12
Percentage of Zip Codes with High-Speed Lines in Service

Number of Providers	Dec 1999	Jun 2000	Dec 2000	Jun 2001	Dec 2001	Jun 2002	Dec 2002	Jun 2003
Zero	40.3 %	33.0 %	26.8 %	22.2 %	20.6 %	16.1 %	12.0 %	9.0 %
One	26.0	25.9	22.7	20.3	19.3	18.4	17.3	16.4
Two	15.5	17.8	18.4	16.7	15.7	16.2	16.8	16.9
Three	8.2	9.2	10.9	13.2	13.1	13.3	14.4	14.0
Four	4.3	4.9	6.1	8.2	9.1	9.6	10.3	10.6
Five	2.7	3.4	4.0	4.9	6.1	6.9	7.3	7.7
Six	1.7	2.5	3.0	3.6	4.2	4.6	5.0	5.3
Seven	0.8	1.7	2.3	2.8	3.2	3.2	3.9	4.0
Eight	0.3	0.8	2.0	2.2	2.5	2.8	2.7	3.1
Nine	0.2	0.4	1.6	1.9	2.0	2.4	2.2	2.5
Ten or More	0.0	0.4	2.4	3.9	4.0	6.4	8.0	10.5

High-Speed Providers by Zip Code

(As of June 30, 2003)

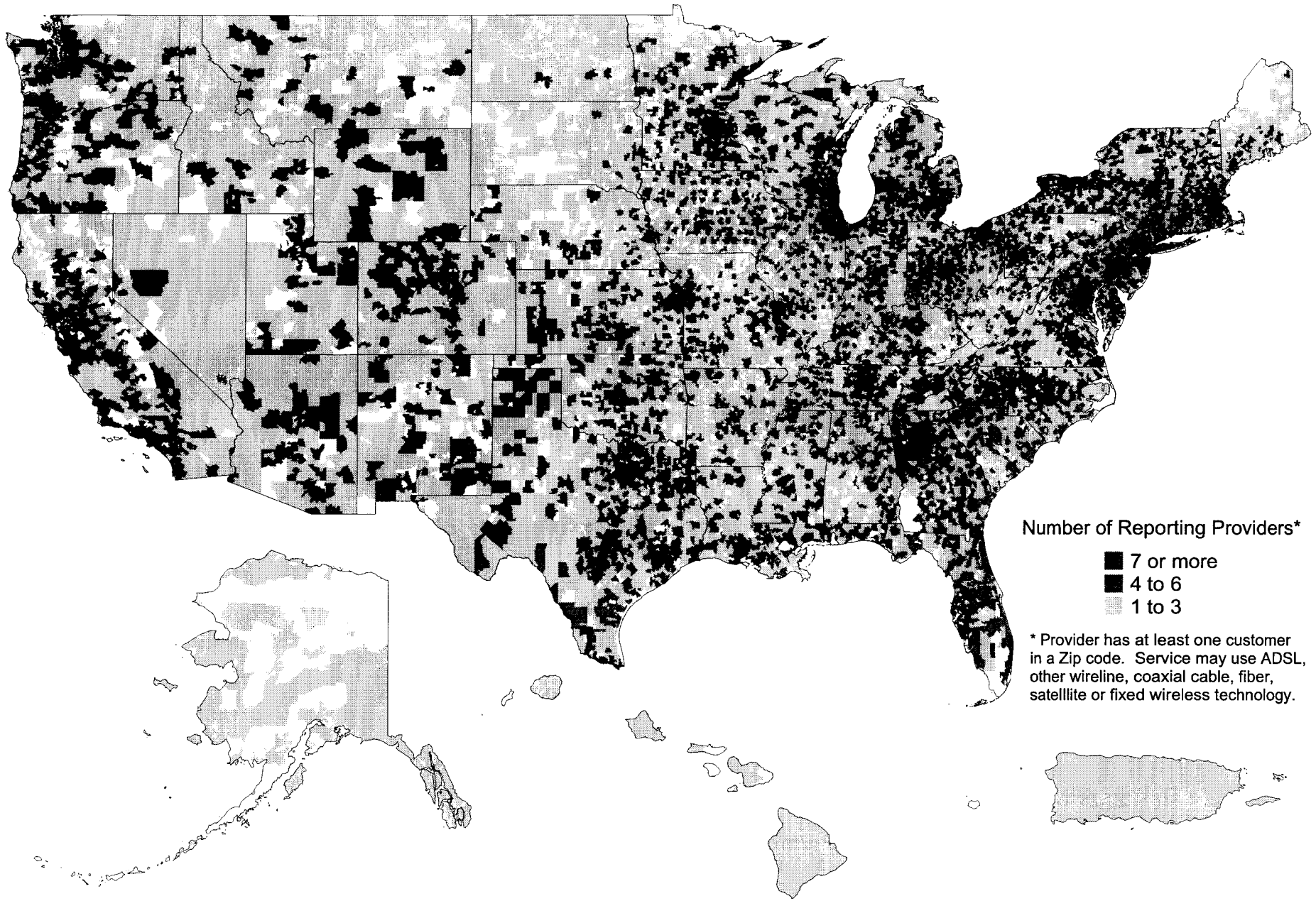


Table 13
Percentage of Zip Codes with High-Speed Lines in Service as of June 30, 2003
(Over 200 kbps in at Least One Direction)

	Number of Providers										
	Zero	One	Two	Three	Four	Five	Six	Seven	Eight	Nine	Ten or More
Alabama	10 %	15 %	20 %	21 %	17 %	9 %	4 %	3 %	1 %	0 %	0 %
Alaska	17	60	16	6	1	0	0	0	0	0	0
Arizona	2	6	13	18	7	8	6	5	3	6	25
Arkansas	20	27	23	13	7	4	3	2	0	0	0
California	3	6	11	11	8	6	5	5	5	5	36
Colorado	4	14	18	15	10	5	5	3	3	3	19
Connecticut	0	3	12	14	10	8	10	6	5	7	23
Delaware	0	0	4	18	32	33	14	0	0	0	0
District of Columbia	4	0	11	4	0	7	7	4	15	48	0
Florida	1	2	6	10	12	11	9	8	5	6	28
Georgia	5	9	11	14	18	13	6	5	2	1	17
Hawaii	13	44	27	15	0	0	0	0	0	0	0
Idaho	14	30	20	17	8	10	0	0	0	0	0
Illinois	10	19	20	12	7	5	4	3	2	2	17
Indiana	7	20	19	16	11	8	7	4	2	1	5
Iowa	24	24	20	11	9	7	3	1	0	0	0
Kansas	10	22	23	15	10	6	4	4	4	1	1
Kentucky	22	26	18	13	10	6	4	1	0	0	0
Louisiana	8	17	20	17	12	12	7	4	2	0	0
Maine	14	23	30	16	11	3	2	0	0	0	0
Maryland	2	7	12	12	13	9	7	5	4	3	25
Massachusetts	0	2	8	10	15	11	9	6	7	4	27
Michigan	2	10	16	18	12	8	8	4	4	3	15
Minnesota	17	21	14	12	10	5	3	3	2	2	10
Mississippi	7	23	22	20	16	6	4	1	1	0	0
Missouri	16	22	20	13	7	5	2	4	4	4	3
Montana	25	30	20	13	5	5	2	0	0	0	0
Nebraska	22	29	22	11	9	4	3	0	0	0	0
Nevada	7	29	15	9	22	4	9	5	0	0	0
New Hampshire	2	12	14	19	18	14	7	5	8	0	1
New Jersey	0	3	5	10	12	15	10	12	13	11	10
New Mexico	19	26	24	8	11	3	4	5	0	0	0
New York	2	10	12	13	13	10	7	6	6	4	16
North Carolina	2	11	14	19	18	13	7	4	3	2	8
North Dakota	20	54	21	3	2	1	0	0	0	0	0
Ohio	3	10	16	18	14	13	8	4	3	4	8
Oklahoma	9	21	20	16	9	6	6	7	5	1	0
Oregon	6	11	20	15	14	7	7	4	3	5	7
Pennsylvania	10	15	15	13	10	8	6	5	3	3	13
Puerto Rico	0	8	62	30	0	0	0	0	0	0	0
Rhode Island	0	6	6	15	15	15	24	19	0	0	0
South Carolina	7	15	16	18	15	15	8	4	2	0	0
South Dakota	32	30	24	10	3	2	0	0	0	0	0
Tennessee	3	12	19	16	15	12	5	5	4	2	6
Texas	6	12	15	12	9	8	7	5	5	4	17
Utah	10	18	15	13	9	5	1	3	2	3	21
Vermont	7	25	28	19	9	7	4	0	0	0	0
Virginia	10	17	19	18	9	6	4	2	3	2	12
Washington	5	10	16	16	8	6	7	6	6	4	16
West Virginia	23	32	18	14	8	4	1	0	0	0	0
Wisconsin	5	14	21	19	13	8	7	8	4	1	0
Wyoming	13	28	25	20	5	8	1	0	0	0	0
Nationwide	9 %	16 %	17 %	14 %	11 %	8 %	5 %	4 %	3 %	3 %	11 %

Table 14
High-Speed Subscribership
Ranked by Population Density

Persons per Square Mile [1]	Percent of Zip Codes with at Least One High-Speed Subscriber				Percent of Population that Resides in Zip Codes with High-Speed Service			
	Jun 2000	Jun 2001	Jun 2002	Jun 2003	Jun 2000	Jun 2001	Jun 2002	Jun 2003 [2]
More Than 3,147	97.3 %	98.1 %	98.7 %	98.9 %	99.7 %	99.9 %	99.8 %	100.0 %
947-3,147	95.8	97.1	98.2	98.2	99.4	99.8	99.9	99.9
268-947	93.4	95.6	97.5	98.4	98.4	99.5	99.9	99.9
118-268	86.7	92.3	95.2	96.9	95.9	98.8	99.5	99.7
67-118	77.9	87.5	93.0	96.4	90.2	96.8	98.5	99.4
41-67	65.4	80.9	88.0	93.8	81.2	93.0	96.3	98.5
25-41	54.5	72.8	81.0	90.4	71.4	87.3	92.2	96.9
15-25	39.2	58.9	70.0	83.3	59.9	78.4	86.5	93.3
6-15	31.3	51.1	60.9	77.3	56.6	74.6	81.9	90.3
Fewer Than 6	23.0	36.8	49.6	68.5	43.9	60.7	72.6	85.7

Table 15
High-Speed Subscribership
Ranked by Household Income

Median Household Income [1]	Percent of Zip Codes with at Least One High-Speed Subscriber				Percent of Population that Resides in Zip Codes with High-Speed Service			
	Jun 2000	Jun 2001	Jun 2002	Jun 2003	Jun 2000	Jun 2001	Jun 2002	Jun 2003
$53,494 to $291,938	94.9 %	96.4 %	97.9 %	98.5 %	99.5 %	99.8 %	99.9 %	99.9 %
$43,617 to $53,478	85.0	90.7	93.5	96.2	98.1	99.3	99.7	99.8
$38,396 to $43,614	74.1	83.8	89.0	94.0	96.4	98.5	99.0	99.6
$34,744 to $38,395	68.1	80.0	85.0	91.5	94.8	97.9	98.7	99.3
$32,122 to $34,743	64.3	77.3	83.3	90.2	93.5	97.4	98.4	99.2
$29,893 to $32,121	61.3	73.4	80.4	89.9	92.2	96.3	97.7	99.1
$27,542 to $29,892	58.7	73.5	79.7	89.2	90.5	95.9	97.5	98.9
$24,855 to $27,541	56.8	69.6	77.2	87.1	89.8	95.2	97.0	98.5
$21,645 to $24,855	53.3	67.4	76.9	87.4	87.5	93.9	96.5	98.5
$0 to $21,644	47.9	59.1	69.2	78.3	88.7	94.1	96.3	98.1

[1] Persons per square mile and median household income are in decile groups. Each groups contains 10% of the zip codes.
[2] The percent of population residing in Zip Codes with more than 3,147 person per square mile and with High-speed Service is 99.7% which rounds to 100%.

Customer Response

Publication: *High-Speed Services for Internet Access: Status as of June 30, 2003.*

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.

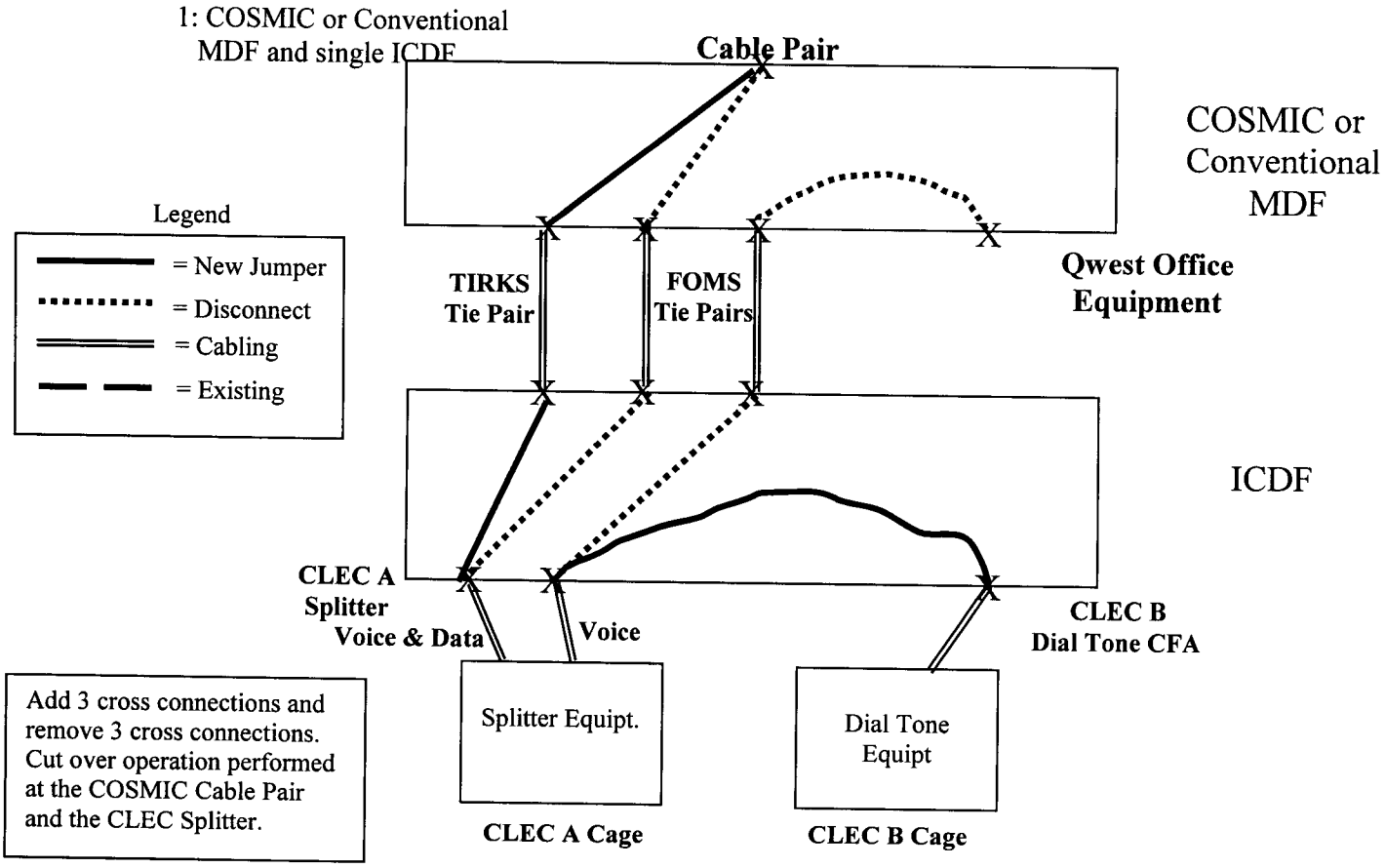
Overall, how do you rate this report?	Excellent	Good	Satisfactory	Poor	No opinion
	❍	❍	❍	❍	❍

4. How can this report be improved?

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

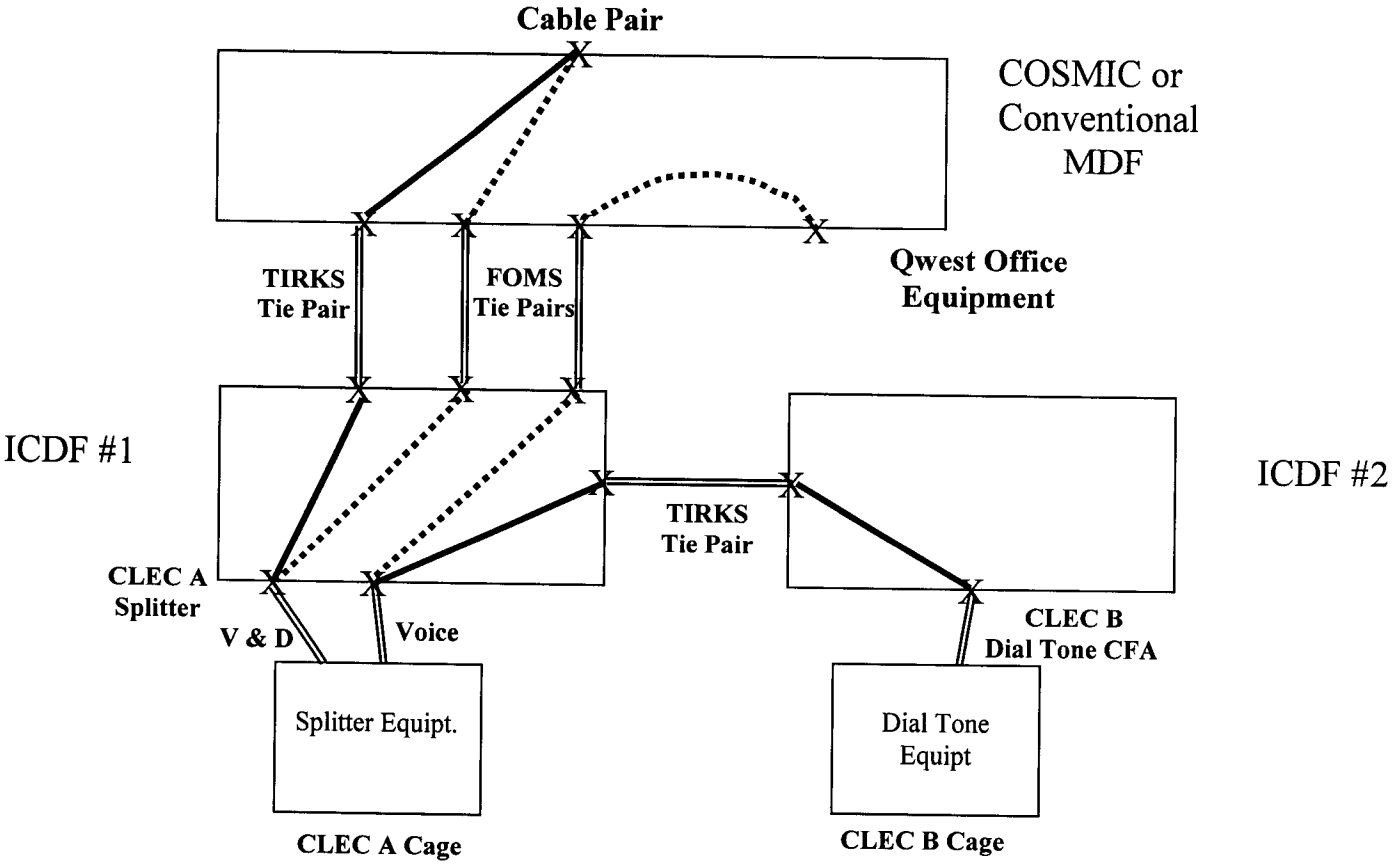
To discuss the information in this report, contact: 202-418-0940 or for users of TTY equipment, call 202-418-0484		
Fax this response to	or	Mail this response to
202-418-0520		FCC/WCB/IATD Mail Stop 1600 F Washington, DC 20554

Examples of Line Splitting to Loop Splitting Scenarios



Examples of Line Splitting to Loop Splitting Scenarios

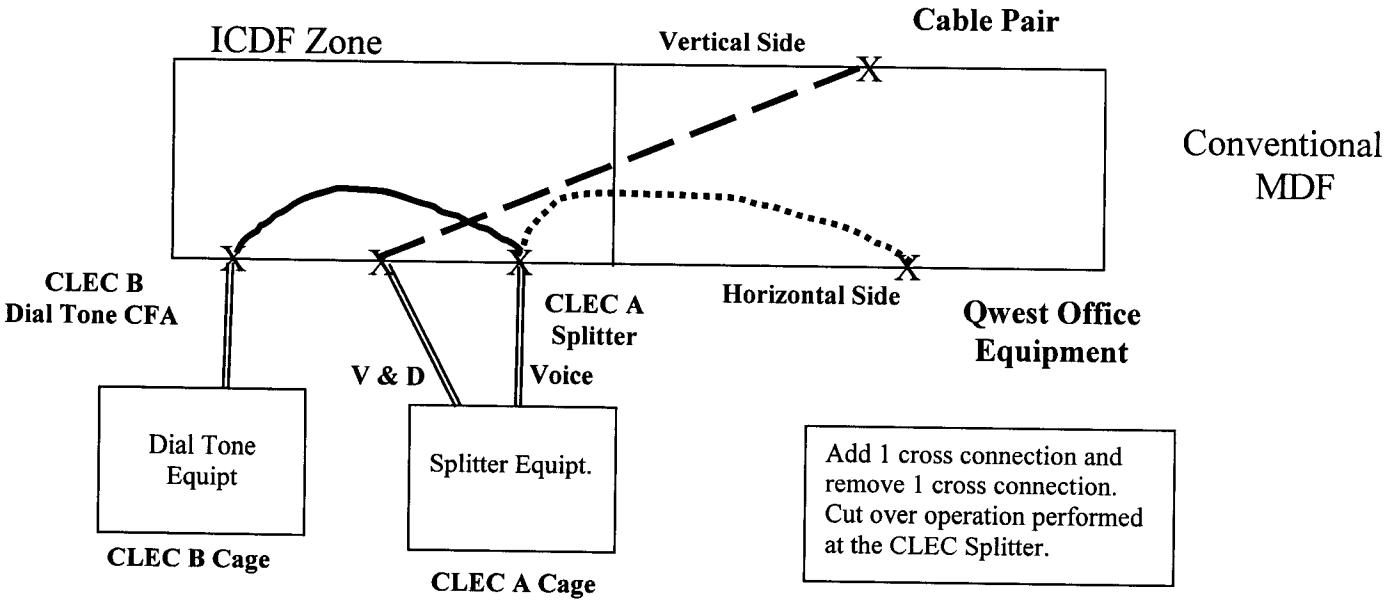
2: COSMIC or Conventional MDF with Two ICDFs



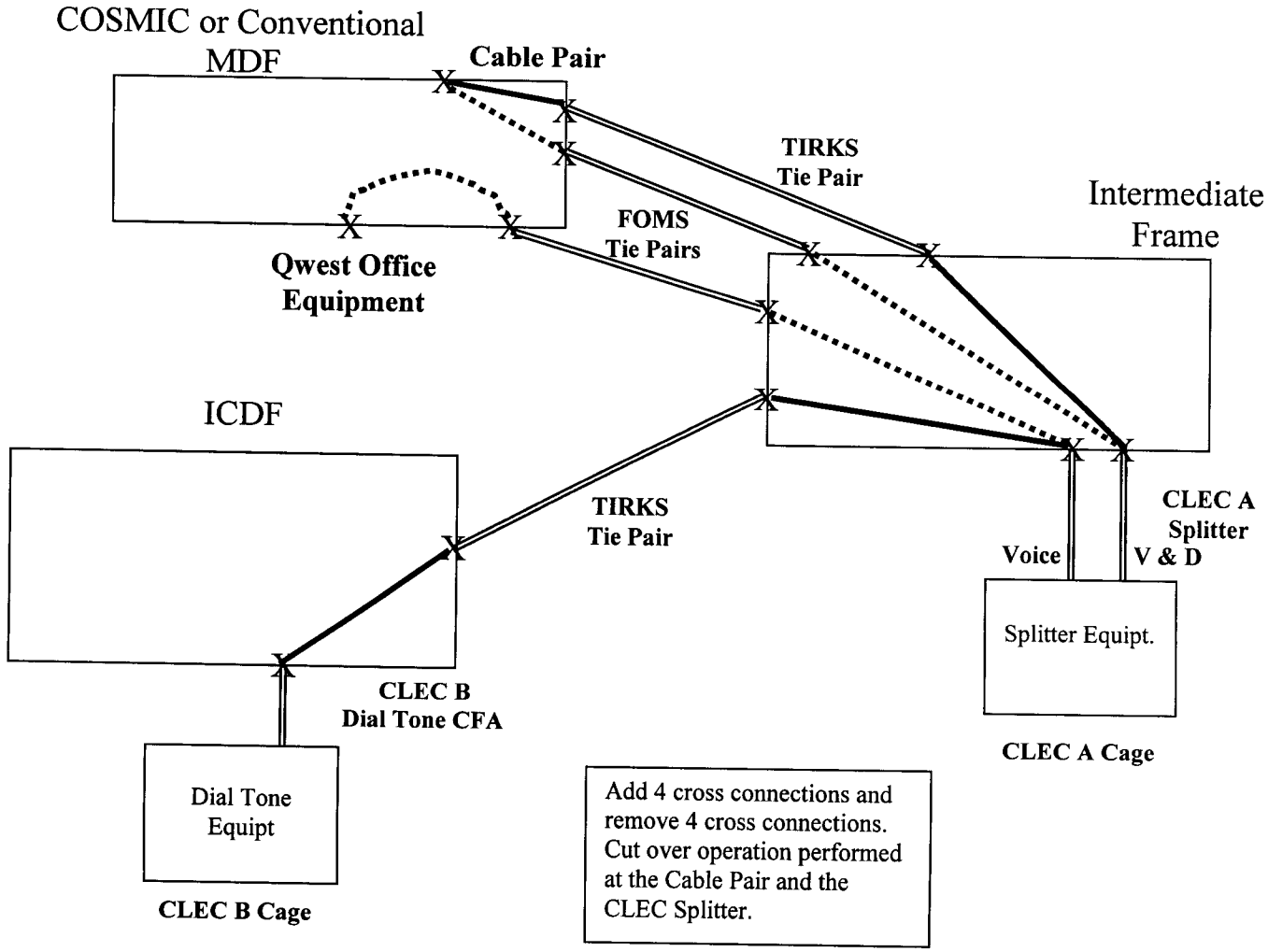
Add 4 cross connections and remove 3 cross connections. Cut over operation performed at the Cable Pair and the CLEC Splitter.

Examples of Line Splitting to Loop Splitting Scenarios

3: Conventional MDF with ICDF Zone:



4: COSMIC or Conventional MDF with ICDF and Intermediate Distributing Frame



OSS CHANGES ASSOCIATED WITH QWEST'S PROPOSED BATCH HOT CUT ENHANCEMENTS

Summary

Qwest will offer new and modified OSS functions that will enhance the existing pre-ordering, ordering and provisioning interfaces. These modifications will provide CLECs scheduling functionality during the ordering process and real time status information during the provisioning process. These modifications will result in an economically and procedurally efficient method for placing and processing Batch Hot Cut orders in all 14 states.

The OSS changes outlined below are still in the conceptual-design phase. The details have not been finalized and the functionality discussed below may be modified as a result of further analysis and investigation. It is Qwest's intent that these OSS enhancements will be available in the final quarter of 2004, barring unforeseen circumstances such as conflicting regulatory rulings. Similarly, all changes proposed in this attachment are subject to the Qwest Wholesale Change Management Process. This process allows Qwest and CLECs to collaboratively discuss and develop process and systems solutions.

Pre-Ordering

Qwest will modify the existing Appointment Scheduler functionality to allow CLECs to mechanically schedule Batch Hot Cuts. CLECs will be able to view available dates and volumes and schedule Batch Hot Cuts. In addition, CLECs will be able to "accumulate" LSRs in pending status until they reach the minimum required for a batch hot cut.

Prior to scheduling and ordering batch hot cut conversions, CLECs may use the IMA pre-order functionality, Raw Loop Data Query to determine if the line to be converted is provisioned over IDLC. The Raw Loop Data Query returns the pair gain type over which the line in question is provisioned. CLECs can then refer to Appendix B of the Loop Qualification CLEC Job Aid for an interpretation of the pair gain type.

Ordering

During the ordering of a Batch Hot Cut, CLECs complete an accurate LSR via either EDI or IMA GUI in the same manner they do for a Basic Hot Cut request today. Batch Hot Cut requests, however, must include the confirmation number for the batch and the frame due date returned from Appointment Scheduler.

Qwest will design additional IMA validations to be performed such as determining that the CLEC has appropriately populated LSR fields designating the order as a Batch Hot Cut These validations will take the form of new edits or error messages. Once an LSR passes these validations, a Batch Hot Cut (BHC) USOC will be assigned to the Qwest service order. The BHC USOC drives the utilization of the new BHC process

and the corresponding new, lower non-recurring charge for each line associated in the BHC.

Billing

Qwest does not anticipate any changes to its billing systems other than those associated with the creation of the USOC described above.

Provisioning Status

Qwest will provide a secure, CLEC-specific, mechanically updated, web-based reporting tool. This tool will allow each CLEC to review the status of their Batch Hot Cut orders following order submission. Information provided on the tool will include:

- Due Date
- Customer Identification (ZCID)
- State
- Common Language Location Identifier (CLLI)
- Complete with Related Order (CRO) field
- Circuit Facilities Assignment (CFA) Location
- Circuit Facilities Assignment (CFA) Number
- Job Identifier
- Circuit Layout Order (CLO) number
- Purchase Order Number (PON)
- Order Number
- Telephone Number (TN)
- Order status
- Completion Date
- Required Response Date/Time

The website will also provide a page that tracks the CLEC's order submissions against the total embedded base of UNE-P lines. As batch orders are completed, the tracking page will reflect the completed orders and update the number of orders a CLEC has left to complete. This will facilitate the process of ensuring compliance with the TRO's requirements.