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April 3, 2001

Magalie Roman Salas, Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street, S.W.  
Washington, D.C. 20554

**ORIGINAL**

Re: Ex Parte: Inquiry Concerning High-Speed Access to the Internet Over  
Cable Facilities, GEN Docket No. 00-185

Dear Ms. Salas:

On behalf of our client, Comcast Corporation ("Comcast"), we wish to provide additional information for the record in the above-captioned proceeding. Developments subsequent to the submission of comments and reply comments cast new light on the facts and analysis Comcast presented during the initial pleading cycle. These developments further strengthen Comcast's main points, and make the case against regulation of cable Internet services even more compelling.

The ever-intensifying competition in broadband services is reflected in numerous articles and studies. One article in *Red Herring* expresses this particularly well:

"It's no wonder there's so much confusion when it comes to broadband access: *there's a slew of options for consumers to gain high-speed access to the Internet.* Just consider, for example, a consumer walking into a Best Buy consumer electronics store. He or she would find DSL from MSN HighSpeed and Flashcom; cable television and high-speed cable Internet access from AT&T Broadband; satellite from DirecPC; and fixed wireless from Sprint . . ." R. Recinto, "Last Milestones," *Red Herring* (Jan. 30, 2001) (emphasis added), <http://www.redherring.com/industries/2001/0201/ind-mag-91-broadband020101.html> (viewed Feb. 1, 2001) (hereinafter "*Last Milestones*").

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Magalie Roman Salas, Secretary

April 3, 2001

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Additional proof of this accelerating competition can be found in an analysis of recent growth by Telecommunications Reports International. The most remarkable fact reported here is that, *during the fourth quarter of 2000*, cable modem services grew by 19.21 percent, while *Digital Subscriber Line services grew by 86.47%*. “TR Online Census -- Free ISPs Fade from the Scene as High-Speed DSL Installations Finally Draw Promised Subscribership,” Press Release, *TR's Online Census* (Feb. 2, 2001)(emphasis added), [http://biz.yahoo.com/prnews/010202/dc\\_tr\\_s\\_on.html](http://biz.yahoo.com/prnews/010202/dc_tr_s_on.html) (viewed Feb. 6, 2001). The managing editor of the organization that performed this research also noted -- consistent with Comcast's previously filed comments -- that “the online industry is still relatively young and the technology continues to evolve.” *Id.*

Comcast's observation that “the market is working” is further strengthened by other developments and reports. A report on the fifth anniversary of the Telecommunications Act notes that the 1996 law “did not create the notion or the technology behind high-speed Internet lines. But it effectively set in motion a series of market-driven events that accelerated development of cable, DSL, and other technologies that could have taken years longer to reach the consuming public in any significant numbers.” “How the Telecom Act Created a New Breed of Speed,” C. Grice, *CNET News.com* (Feb. 1, 2001), <http://news.cnet.com/news/0-1004-201-4654991-0.html> (viewed Feb. 9, 2001). That article goes on to note that, “[a]s a result of the intensifying rivalry between cable and DSL, *about 70 percent of the nation's households can subscribe to a broadband service today, up from about 20 percent as recently as 1998. . . . Even some of the country's most remote regions are getting fast Internet access*, places where regular phone service once took years to reach.” *Id.* (emphasis added). This article concludes by reporting that analysts anticipate that neither DSL nor cable will dominate the high-speed Internet market. *See id.*

Another notable development is the determination -- by two separate analysts -- that more consumers who have a choice are opting for DSL over cable modems, *even though subscribers have a higher satisfaction rate with cable modems*. *Communications Daily*, at 7 (Feb. 2, 2001) (study by Strategis Group); *Communications Daily*, at 10 (Mar. 14, 2001) (“*CD 3/14/01*”) (research results from Harris Interactive). Stated another way, DSL's growth rate has been so rapid that, in a single year, the ratio of cable modem subscribers to DSL subscribers shrank from 5-1 to 2-1. “Strike Up the Broadband,” *TheStandard.com* (Feb. 2, 2001), <http://biz.yahoo.com/st/010202/21892.html> (viewed Feb. 9, 2001); *see also CD 3/14/01* (despite provisioning and customer service problems, DSL share of broadband users rose from 24% last April to 39% in January, while cable modems' share shrank from 65% to 51%). These developments seriously discredit concerns that cable will “dominate” the market for high-speed Internet services, and they refute any alleged risk of consumers “tipping” toward a single technology or service provider.

Still more evidence of growing competition in high-speed services is available. Fixed wireless, in particular, is receiving growing attention as a viable alternative for the delivery of high-speed Internet services. One typical report includes a prediction by Forrester Research Inc. that “fixed wireless is expected to claim a 9 percent share of the 46.7 million broadband households by 2005 . . . .” “Fixed Wireless Challenges Cable Modem, DSL Net Access,” J.

Kwan, *Silicon Valley.com*, *San Jose Mercury News* (Jan. 23, 2001). That article reports on research currently underway to eliminate line-of-sight limitations on high-speed fixed wireless services and also on efforts to drive down technology costs and simplify installation. *Id.* The CEO of BeamReach predicts that the rate of deployment for fixed wireless will “go up very rapidly, and it’ll be a really viable alternative to DSL or cable.” *Id.* Other reports are even more bullish on wireless alternatives. *See, e.g.*, “Fixed Wireless Broadband Will Challenge the Dominance of Cable Modem and DSL Technologies, Says Allied Business Intelligence,” ABI Press Release (Mar. 15, 2001), <http://biz.yahoo.com/prnews/010315/nyth055.html> (viewed Mar. 15, 2001) (fixed-wireless broadband “poised for exponential growth” and could grab 20-30% of worldwide broadband market).

Satellites, too, show great promise. One article cited above reports on predictions that satellites will capture between 10 percent (Roland Van der Meer, at Comventures) to 30 percent (Pioneer Consulting) of the broadband access market. *Last Milestones*. Satellites are especially well suited for “rural areas of the United States that are not yet equipped with cable or telephone infrastructure.” *Id.* The same article discusses the plans of Hughes Network Systems to convert its DirecPC system, this year, from one using a phone line for upstream traffic to one using satellite for both upstream and downstream traffic. *Id.* The article also mentions plans for broadband satellite offerings from Hughes’s Spaceway, Lockheed Martin, Astrolink, Teledesic, and Cyberstar. *Id.*

All of these developments are consistent with Comcast’s previously expressed views. They provide powerful support for the propositions that:

- the market for high-speed services is still in its early stages;
- broadband technology is continuing to develop;
- multiple pathways to the home are emerging;
- DSL services in particular are growing at a breakneck pace; and
- there is no basis for a finding -- or even a prediction -- that operators of cable systems will be able to exercise market power in the provision of high-speed services.

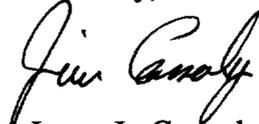
Finally, and consistent with all of the foregoing, cable operators have continued to explore the technical, commercial, and consumer issues associated with providing competing ISP services to cable Internet subscribers. Comcast previously informed the Commission of its intention to conduct a technical trial involving Juno Online Services. Now, Comcast has reached an agreement with Earthlink under which the latter’s broadband Internet services will be included in a technical trial, planned for the second quarter of 2001, over a Comcast cable system in the Philadelphia area. “Comcast, Earthlink sign high-speed services pact,” *Reuters* (Mar. 27, 2001), [http://dailynews.yahoo.com/htx/nm/20010327/en/television-comcast\\_1.html](http://dailynews.yahoo.com/htx/nm/20010327/en/television-comcast_1.html) (viewed Mar. 30, 2001). Other cable companies are likewise moving forward with technical and operational trials and laying plans for marketing trials as well. *E.g.*, “AT&T Spells Out Plans for Multiple-ISP Market Trials,” *Communications Daily*, at 4-5 (Mar. 16, 2001).

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April 3, 2001  
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Thus, the record is more compelling than ever. The circumstances of the marketplace provide no justification for regulation of cable companies' Internet services -- even if such regulation were permitted by the statute, which it is not.

Copies of all of the articles cited above are enclosed. We ask that you treat this letter as a written *ex parte* communication pursuant to Section 1.1206(b) of the Commission's rules. Please let me know if you have any questions.

Sincerely,



James L. Casserly

JLC:paj

Enclosures

cc: Johanna Mikes  
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## INDUSTRIES

### Last milestones

By **Ron Recinto**

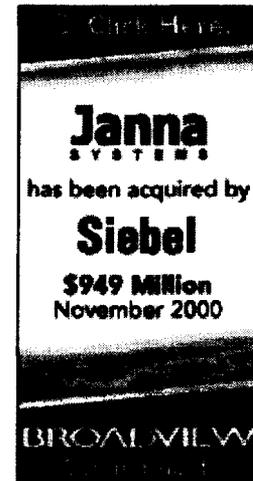
*Redherring.com, February 01, 2001*

*This article appears in the January 30, 2001, issue of Red Herring magazine.*

It's no wonder there's so much confusion when it comes to broadband access: there's a slew of options for consumers to gain high-speed access to the Internet. Just consider, for example, a consumer walking into a Best Buy consumer electronics retail store. He or she would find DSL from MSN HighSpeed and Flashcom; cable television and high-speed cable Internet access from AT&T Broadband; satellite from DirecPC; and fixed wireless from Sprint (NYSE: FON). Choice is great, but it does have downsides, especially when it's hard to decipher the pros and cons.

And there are plenty of points to keep in mind when trying to determine whether a satellite dish is a better choice than DSL or a cable modem. As a last-mile solution, satellites bring the ability to reach areas outside the normal range of terrestrial landlines. Satellites also have a track record for proven security, but much of the technology is still considered young when it comes to delivering data.

With that mix of strengths and weaknesses, some analysts are projecting big growth for satellites over the next few years. Broadband satellites are expected to garner 30 percent of the Internet-access market by 2007, with 50 million users generating \$15 billion in annual revenue by the end of the decade, according to Pioneer Consulting, a market research firm in Cambridge, Massachusetts.



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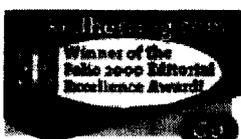
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Currently about 50 percent of broadband users get service through DSL, 25 percent through cable modems, and about 10 to 15 percent through fixed wireless technology, says Roland Van der Meer, a general partner at Comventures, a Palo Alto, California, venture capital firm that invests exclusively in communication technologies.

The remainder, about 10 percent, is expected to be filled by satellites, primarily due to their accessibility in the last mile. (For a definition of "last mile" and other high-speed-Internet-access terms, see "Special delivery.") Satellites offer the best solution for rural areas of the United States that are not yet equipped with cable or telephone infrastructure; it's not economical to run landlines to the majority of end users in nonmetropolitan areas.

**PIE IN THE SKY**

Satellites can reach areas that do not have existing infrastructure. Cable is limited by where the cable company has placed wire. DSL is limited to 12,000 to 18,000 feet from the phone company's central switching office. "Those who live beyond terrestrial access provide a strong customer base for the satellite industry," says Edward Slood, a partner with the venture capital firm Sofinov. "We see it as a strong, dynamic industry with good science."

His company has explored backing at least three satellite startups, and the recurring challenge he encounters is finding a way for the satellite system to fit into the current terrestrial system. "The business model must come from a commercial perspective," says Mr. Slood. "They need to look first at what a community needs and then how satellites can provide it."

Satellite companies have also fought to overcome the perception that they are a solution solely for rural markets. Most analysts consider satellite delivery a good match for urban and suburban settings, not just remote areas.

In the early days of dish TV, satellite was thought of as strictly for rural communities. Now it is prevalent in more densely populated areas. "This 'rural market only' perception is one that satellite companies must shrug off to earn a stake in the larger markets," says Sam Baumel, senior director of marketing for Hughes Network Systems's Consumer Division.

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And much of the excitement surrounding satellites delivering last-mile Internet access can be attributed to the success over the past 25 years of very small aperture terminal (VSAT) satellite technology used in gas stations for verifying credit cards.

### **SKYROCKETING COSTS**

But there are concerns about using satellites as the last-mile technology -- chiefly cost, but also technical issues like weather interfering with signal transmission. Consumers pay \$600 to \$1,000 to install a satellite dish and other equipment, says Mr. Van der Meer, adding that he doesn't believe the market for satellite Internet access is large enough to lower the price point to that of cable or DSL.

But those cost economics might be changing soon. A recent study by the Phillips Group, based in London, says new two-way satellite technology could boost the potential for satellite services being widely accepted. But the time lag in entering the market will prevent satellite technology from dominating, as both cable TV and DSL will already be well entrenched, with cable having captured the residential users, and DSL the business users.

Launch costs are yet another large expense that figures into the economics of satellite delivery, but companies like Skybridge are willing to shoulder these costs to develop their broadband distribution network. Skybridge, a company led by Alcatel (NYSE: ALA) that has headquarters in Bethesda, Maryland, is trying to deploy 80 satellites by 2003, at a cost of \$6.1 billion. Of that, \$2.9 billion is for the space segment, while \$1.4 billion is for satellite launch services and insurance. The remaining \$1.8 billion is earmarked for ground and system integration.

Critics and competitors say satellite transmissions suffer from rain fade, snow load, and wind conditions. In severe snowstorms and heavy rain, for example, users may experience signal fade. What's more, heavy winds can also damage rooftop dishes.

### **COMMUNICATION BREAKDOWN?**

Besides the day-to-day technical risks in operating a satellite network, there's also the likelihood that satellites could go offline completely or burn up in the atmosphere. In November 2000, a PanAmSat (Nasdaq: SPOT) Galaxy 7 backup satellite valued at

\$130 million permanently ceased transmission after an onboard system failed. That happened just days after the November 21 launch failure of a \$60 million Quickbird 1 satellite, which would have provided images for the Pentagon's National Imagery and Mapping Agency and other customers. The launch was conducted by the Russian Space Agency.

Another downside of satellite technology is the inherent latency built into the transmission and reception of data signals. This is the same delay often heard when phone calls are patched through satellites, and this delay can slow data-transmission speeds.

"Whoever wins the last mile -- if they get it right -- wow, will they have the ability to sell multiple services," says Eric Hartley, founder and CEO of SatcomX, an Atlanta company that provides broadband IP content delivery and application-service-provider connectivity by satellite.

Mr. Hartley should know. The 30-year-old onetime Aspen River guide has two desktop computers, one that accesses the Internet over Asymmetrical DSL (ADSL), and the other over satellite connections. This arrangement also provides him with a lablike environment for determining what these technologies can actually deliver. Mr. Hartley says he uses the StarBand system, which began operations last April, with the assistance of strategic partners Gilat Satellite Networks (Nasdaq: GILTF), Microsoft (Nasdaq: MSFT), and Echostar Communications (Nasdaq: DISH). StarBand beams data continuously back and forth from Mr. Hartley's 36-by-24-inch rooftop dish to a satellite orbiting 22,300 miles in space. His other computer brings in broadband through a MindSpring ADSL connection. Keeping tabs on speed through simple AnalogX software, Mr. Hartley says the systems are comparable.

He has seen StarBand upstream speeds as high as 90 Kbps, with an average of 20 to 50 Kbps. Downstream speeds, Mr. Hartley says, have been as high as 1.1 Mbps, with an average of 400 to 500 Kbps. As for his ADSL line, it runs consistently at 1.2 Mbps in each direction.

By the end of 2000, Hughes Network Systems was expected to release fourth-generation technology that offers broadband return through satellites, Mr. Baumel says. It builds on the company's DirecPC system, which delivers downstream broadband by satellite and upstream broadband through phone

lines. Other satellite companies that are aiming to deliver broadband include Hughes's Spaceway, Lockheed Martin (NYSE: LMT)'s Astrolink, Teledesic, and Cyberstar.

Make no mistake, demand for broadband will continue to grow. But in order to compete, satellite companies must continue to drive price points downward so the technology is as fast and affordable as DSL.

Write to [ronald.recinto@redherring.com](mailto:ronald.recinto@redherring.com).

#### **ADDITIONAL RESOURCES**

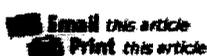
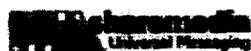
A Columbia University professor's class on "last mile" technologies and a basic primer on broadband delivery.

Links to a trade organization that supports space technology.

Links to other trade magazine stories about satellites and the "last mile."

*Discuss this story, and satellite trends, in the Satellite discussion forum, or check out forums, video, and events at the Discussions home page.*

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**Press Release**

*SOURCE: TR's Online Census*

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# TR's Online Census -- Free ISPs Fade from the Scene as High-Speed DSL Installations Finally Draw Promised Subscribership

## 68.7 Million Consumers Now Online, 52 Percent More Than Year-End 1999

WASHINGTON, Feb. 2 /PRNewswire/ -- The tide turned in the online access market in 2000, according to Telecommunications Reports International (TRI), the leading telecommunications information publisher and a unit of CCH INCORPORATED (CCH). While digital subscriber line (DSL) access was slow to take off, it ended the year with tremendous strength, according to fourth quarter 2000 results from TR's Online Census. On the other hand, free Internet service providers (ISPs) started the year on a high and now seem to be bottoming out.

In 2000, the overall online market showed a healthy 52-percent growth with 68.7 million consumers now subscribing to one of the major ISPs via paid or free dial-up access, Internet television, digital subscriber line (DSL) or cable modem services. That compares to 45.2 million online customers a year ago. While growth during 2000 was strong overall, less than 9 percent of the new subscribership came online during the last three months of the year, according the TR's Online Census.

The main area of growth in the fourth quarter comes in DSL access, with more than 2.3 million consumers now subscribing to DSL, nearly twice as many as at the end of the third quarter. Consumers using cable-modem access also increased during the last quarter, bringing the total number of subscribers now connecting via high-speed access (cable-modem or DSL) to nearly 10 percent of the overall online market, according to the study. TR's Online Census, conducted quarterly since 1980, is the definitive survey of online access methods and trends.

On the flip side, just as fast as the free, ad-supported Internet service providers (ISPs) captured the attention of consumers earlier in the year, by the end of 2000 consumers seemed to have lost interest, with many looking at the high-speed alternatives.

"The online industry is still relatively young and the technology continues to evolve," said Amy Fickling, managing editor of TR's Online Census. "As a result, we can expect it will be a continuous challenge for ISPs to figure out what features and access methods attract customers and at what price points."

Online Growth by Category

Service Category	Number of Customers	Growth During 4Q 2000
Paid Dial-Up ISP	46,097,054	9.15%
Free ISPs (active subscribers)	14,850,000	1.36%
Cable Modems	4,178,550	<u>19.21%</u>
Internet TV	1,200,000	5%
Digital Subscriber Line	2,357,500	<u>86.47%</u>
Total	68,683,104	8.59%

Source: TR's Online Census,  
Telecommunications Reports International

**Free-Falling ISPs**

Free ISPs enjoyed strong growth in the number of subscribers signing on during the first half of the year. However, a market shakeout late in the year has left all but a few viable free ISPs remaining. In the fourth quarter, free ISPs did see a very slight gain of 1 percent in the number of active subscribers. However, late in the quarter, the market took a turn, with major free ISPs like Alta Vista and 1stUp.com announcing they would shut down their free ISP operations by the end of the year. Others, like NetZero and BlueLight.com (which acquired Spinway), are revamping their services and will be charging subscribers that exceed a monthly usage limit.

"Most of the free ISPs have acknowledged that only about 40 to 50 percent of their registered subscribers are active users, making it apparent that while there were no barriers to sign up for free access, there were also no real incentives to use the service regularly," said Fickling. "As these services were ad-supported, it's certainly a problem for advertisers if the consumers aren't online viewing their ads."

**Paid Dial-Up ISPs Hold Their Own, But Price War May Be Imminent**

While paid dial-up ISP remains the most popular access method, the category only reported modest growth of about 9 percent during the fourth quarter, reaching more than 46 million consumers.

Leading the paid dial-up ISP pack is America Online (AOL), with 26.5 million customers registered by the end of the year making it the dominant ISP with a 39-percent share of the overall consumer base. EarthLink, MSN Internet Access, CompuServe and Prodigy round out the top five paid dial-up ISPs.

How consumers and competitors will react to AOL's anticipated 8-percent price increase will be closely watched this year. It may be that not only is free ISP service going away, but that paid dial-up service will get more expensive, as it is likely that AOL competitors would follow its lead, according to the study.

**High-Speed Access Outpaces the Rest**

Those consumers who aren't price conscious seem to be heading for high-speed alternatives. TR's Online Census finds this growth comes despite cutbacks and financial failings among some of the major DSL providers.

During the fourth quarter, the DSL market, again, captured the greatest growth among all categories, with an 86-percent increase in new customers. SBC, realizing a 95-percent growth rate in the fourth quarter, further strengthened its position as the dominant DSL provider with 800,000 subscribers.

Verizon, Qwest, Covad and EarthLink round out the top-five providers, according to TR's Online Census.

While paling in comparison to the DSL growth rate, cable-modem still reported a 19-percent growth rate for the fourth quarter. Cable-modem also remains the most popular high-speed access method, with nearly 4.2 million customers, compared to DSL, with fewer than 2.4 million customers.

According to the survey, @home, carried by TCI, Comcast and Cox, and Road Runner, carried by Time Warner/AT&T, have a virtual duopoly with nearly 97 percent of the cable-modem customer base.

However, among the stipulations of the AOL-Time Warner (TW) merger were that Time Warner Cable systems be open to alternative ISPs, in addition to Road Runner, which AOL-TW owns in part. As a result, Time Warner Cable customers using high-speed cable access will have a choice of either AOL or EarthLink as their ISP by the second half of this year. Also, Time Warner is required to restructure its exclusive agreement with Road Runner and has announced that Road Runner will be offered on AT&T Broadband's cable lines starting in April 2001, according to TR's Online Census.

#### Internet TV Still Around ... For Those Who Are Interested

While the move to high-speed access is more like running, the move to Internet TV remains a leisurely walk. The first half of 2000 was marked by no measurable change in the number of subscribers.

During the third quarter, Internet TV reported a 2.5-percent increase in subscribers, and for the fourth quarter a 5-percent increase. However, with only 1.2 million subscribers, Internet TV remains the least common access method, according to TR's Online Census. The Internet TV space remains dominated by Microsoft's WebTV, which commands nearly the entire market.

#### To Obtain TR's Online Census

Annual subscriptions to the quarterly online census are available for an introductory price of \$149 by calling 1-800-822-6338.

#### About TRI and CCH INCORPORATED

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*SOURCE: TR's Online Census*

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NEWS.COM SPECIAL REPORT

# DIGITAL Darwinism

## How the Telecom Act created a new breed of speed

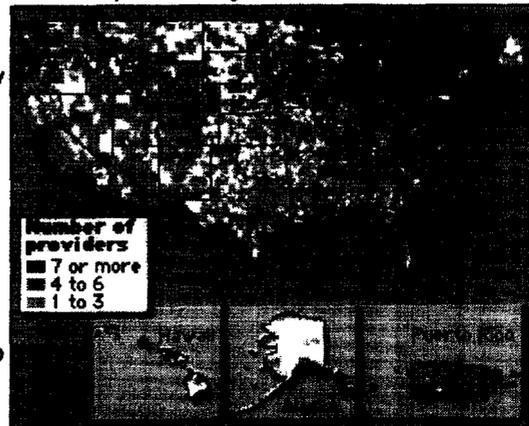
By **Corey Grice**  
 Staff Writer, CNET News.com  
 February 1, 2001, 3:30 a.m. PT

**As the historic Telecommunications Act reaches its five-year anniversary this month, its most tangible accomplishment may be something not even known to many legislators who drafted the landmark law: broadband technology.**

The sweeping legislation, originally designed to allow local and long-distance phone companies to get into each other's businesses, did not create the notion or the technology behind high-speed Internet lines. But it effectively set in motion a series of market-driven events that accelerated development of cable, DSL and other technologies that could have taken years longer to reach the consuming public in any significant numbers.

### Broadband across America

In 1996, high-speed Net access was a new technology not yet widely available, but broadband services are now offered in about two-thirds of the country. Click on map to view larger version.



Source: FCC

"Without the Act you'd probably still have Excite@Home and the cable guys, but they wouldn't be facing the same price competition from DSL," said Joe Laszlo, a broadband industry analyst at Jupiter Research. "Overall there would probably be far fewer households with a broadband connection."

As a result of the intensifying rivalry between cable and DSL, about 70 percent of the nation's households can subscribe to a broadband service today, up from about 20 percent as recently as 1998, according to industry estimates. Even some of the country's most remote regions are getting fast Internet access, places where regular phone service once took years to reach.

And as the gap narrows between the two leading high-speed Net technologies, the fate of the race may rest with a player that is neither the kind of local phone company nor long-distance carrier targeted by the telecom law: AOL Time Warner. With interests in both camps, the media conglomerate will have vast influence over the future of the entire broadband industry as it decides which technology to back in coming months.

"Did the Telecom Act have any value? It put some framework together," said Mark Peden, a DSL industry technologist, board member of the DSL Forum and vice president

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for technology marketing at Simpler Networks. "The cable guys and, to a lesser degree, the CLECs helped light a fire under the Baby Bells."

So how, exactly, did a law aimed primarily at telephones end up as a major catalyst for today's multibillion-dollar broadband Internet industry?

As with so many other industries that have faced regulation and deregulation, the answer lies in a complicated series of events involving political interests, corporate strategies, technological progress and, most important in this case, the American consumer.

The Telecom Act was mainly designed for Baby Bells to offer long-distance phone service and for long-distance companies such as AT&T to offer local phone lines. Communications providers could offer new services and expand beyond their geographic fiefdoms, provided they open their networks and businesses to competitors.

For all its rhetoric, the law has largely been noted more for its failures and continued bureaucracy than for improvement of competition and services. What did make enormous strides, however, was the unstoppable growth of Internet usage worldwide.



At the time the Telecom Act was signed into law, most long-distance and local phone customers in the United States were signed up with AT&T and the Baby Bells that were created in a preceding round of deregulation, the breakup of Ma Bell a decade earlier. Not surprisingly, these telecom veterans were largely thought to have a tremendous advantage over anything else carried over their phone lines, including Internet access.

But while these companies were locked in fierce battles over local and long-distance service, a spate of broadband upstarts began to offer high-speed Internet connections to businesses—threatening to take away a key source of income for phone companies that had gone hitherto unchallenged in this arena.

AT&T responded with a bombshell, the \$48 billion purchase of cable giant Tele-Communications Inc. in 1998, a deal that provided an entry to the cable broadband market as well as the primary goal of breaking into local phone service. The Baby Bells, in turn, were inspired by the most powerful motivator of all: fear.

"It's the fear of losing their customer base," said Norm Bogen, director of broadband research at Cahners In-Stat Group. "Once (the customer) has cable, the chances of them switching to DSL are slim."

That wasn't all. Suddenly, the Bells found themselves in a classic squeeze between a behemoth cable operator and a band of aggressive DSL upstarts armed with a seemingly endless supply of venture capital fed by the booming economy. Among them were Covad Communications, NorthPoint Communications, Rhythms NetConnections and other cable modem and satellite competitors.

These challengers forced action by the notoriously sluggish Bells, which had been characteristically slow to expand broadband Net access—a pace that some critics charge was intentional to preserve their high-priced lock on the market at that time.

"The Telecom Act of 1996 opened up a wave of funding dollars that went into both the developers and manufacturers of these DSL technologies and infrastructure, so it was an opportunity that presented itself only based on this new legislation," said Ed Pinkham, president of Getspeed.com, an online database of broadband availability. "The Bells are being driven in large part by a defensive stance vs. cable modems. And the (wholesale competitors) certainly drove market awareness."

The renewed commitment by the Baby Bells such as Verizon Communications and SBC Communications, in addition to price cuts, encouraged cable operators to continue their arduous network upgrades, necessary before offering high-speed Net access.

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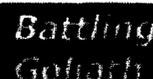
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The astronomical stakes of this competition are directly reflected in the bottom lines of all companies involved. Just this week, for example, AT&T reported lackluster numbers for its long-distance phone business but higher growth projections for its broadband and wireless divisions.

Even so, recent government figures indicate that the cable industry's lead may be slipping. As of June 30, DSL connections increased by 157 percent from the end of 1999 to nearly 1 million, while cable connections rose 59 percent to about 2.2 million, according to the Federal Communications Commission.

By various estimates cable today claims more than 4 million U.S. customers, while DSL claims about 2.4 million customers. Jupiter Research, a technology market research firm, projects that 11.8 million households will have DSL service and 13.8 million households will have cable-modem service by 2005.

Both cable and DSL lines provide "always on" connections, meaning that subscribers don't need to dial in once their computers are turned on. Cable modems can offer faster downloads but, as part of a shared network, their speeds can decline as more people log on. DSL lines are not shared, but their speeds can vary widely and are limited by distance, making the connections available only to about 60 percent of the nation that lives within roughly 3 miles of the phone company's facilities.



#### **Small providers left struggling**

Still, some industry critics say deregulation has helped expand broadband access only for businesses, not consumers, and has encouraged consolidation.

"We do not see tremendous competition developing in the residential broadband market. The Act has emboldened the Bells to go into data for business customers," said Andrew Schwartzman, president of Media Access Project, a public-interest law firm. "We've seen very little of the promised competition and a lot of the feared consolidation."

Although smaller competitors have signed up their share of customers, SBC and Verizon, both products of megamergers, have led the way in recruiting DSL subscribers, according to various totals. Many of the broadband competitors and small ISPs are in serious financial peril.

Covad has laid off many workers, and NorthPoint filed for Chapter 11 bankruptcy protection. Others, such as PSINet and Flashcom, have sold off assets or warned of dire funding situations. Flashcom also had layoffs, and Telocity was acquired recently. Others are also hurting.

Some analysts suggest DSL won't surpass cable modems anytime soon, but few are willing to speculate whether one will be significantly more dominant than the other. In addition, they contend, growth rates for both technologies are held back only by infrastructure limitations.

"I have trouble thinking of any good reasons why both technologies won't continue to exist," Jupiter's Laszlo said. "I have trouble seeing either technology being driven out, and I think the competition is good." ■

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Qwest's costs were so high solely because it outsourced its OSS management rather than doing job in-house, and CLECs shouldn't bear burden of Qwest's business decision. WUTC said Qwest could impose same cost recovery charge per line as Verizon. Order also settled 19 pricing issues associated with CLEC colocation in Qwest and Verizon central offices, including freeing Qwest from requirement that it must offer CLECs DSL loop splitters. Qwest now has option of offering splitters if it so chooses.

### MASS MEDIA

TiVo reported much wider net loss for 4th quarter and year ending Dec. 31 despite rising revenue and growing customer base. TiVo said it had net loss expanded to \$89.2 million in quarter from \$63.6 million in 3rd quarter on 40% increase in revenue to \$1.4 million. For year, TiVo said loss deepened to \$206.4 million from \$66.6 million on revenue of \$3.6 million. TiVo said it sold more than 80,000 PVRs in 4th quarter and activated 63,000 subscribers, nearly doubling its customer base to 136,000. It forecast adding 180,000-220,000 new subscribers this year and said it expected to generate \$20-\$24 million revenue.

Wink Communications posted significantly heavier net losses for 4th quarter and year ending Dec. 31 despite increases in revenue, distributors, viewers, participating programmers and advertisers. Interactive TV service provider said it lost \$14.6 million in quarter, vs. \$4.5 million year earlier, on \$1.7 million in revenue, up from \$512,000. In year, Wink said it lost \$33.3 million, compared with \$18.2 million loss in 1999, on revenue of \$4.3 million. Wink said DirecTV and 7 cable systems introduced its service in 4th quarter, quintupling its customer base to 2.5 million cable and satellite homes. It said it also added 7 programming channels and 8 new advertisers in quarter. Wink predicted that its revenue would approach \$15 million this year, with continued large losses.

Classic Communications said it retained Waller Capital Corp. to explore potential sale or exchange of its smaller cable systems and possibly limited number of other systems. In brief statement, Classic stressed that it might not sell or trade any systems.

Sonicblue said it planned to buy ReplayTV for undisclosed amount. Sonicblue said letter of intent called for it to issue 16 million shares of common stock, options and warrants to purchase ReplayTV, which competes against TiVo and Microsoft in nascent personal video recorder (PVR) market. With deal, still subject to regulatory and ReplayTV stockholder approvals, Sonicblue said it would incorporate ReplayTV's PVR technology into its "networked home entertainment" business.

Viacom said it plans to buy back up to \$2 billion of its own stock "from time to time." Viacom, which recently consummated its \$3 billion acquisition of BET Holdings and completed repurchase of \$1 billion in Viacom stock, said it would begin new buyback program immediately.

Faced with choice between DSL and cable modems, more consumers are picking DSL, new Strategis Group study reported. Consulting group found that 60% of broadband users with choice of 2 rival services were going with DSL. But study also said cable modem subscribers were happier with their service, with 48% calling themselves "extremely satisfied" vs. 43% of DSL customers. Cable modems also had lower churn rate than DSL, 15% vs. 8%. Strategis Group analyst Keith Kennebeck attributed that seeming contradiction to superior marketing of DSL.

Conference on public access to digital content is planned March 6 at Renaissance Mayflower Hotel in Washington, according to organizer CEA. CEA said conference would focus on Internet, copyright and digital content. Speakers are expected from CEA, Digital Future Coalition, Digital Media Assn., DivXNetworks, Napster, National Assn. of Recording Merchandisers, Natikonal Consumers League, RIAA, Webnoize, academics, lawyers — [www.ce.org/events](http://www.ce.org/events).

### SATELLITE

DirecTV Pres. Odie Donald disputed charges by Pegasus and National Rural Telecom Cooperative (NRTC) that his company had made "misleading statements concerning the tentative order" issued Mon. (CD Jan 31 p7) by U.S. Dist. Court, L.A. Donald said charges "were baseless." Contrary to NRTC claim, DirecTV said its "characterization of the tentative ruling is accurate." Pegasus and NRTC each reported motion had been denied. DirecTV said ruling was tentative and subject to change, but "substantially narrowed the legal issues" in case that revolved around NRTC's right of first refusal in 1992 Distribution Agreement. NRTC and Pegasus believe contract include rights to programming. Tentative order made clear that DirecTV would be permitted to have its claims proceed to trial in near term. Pegasus also

sure to level playing field for private cable operators: Cal., Conn., Fla., Ga., Ill., Minn., Nev., N.H., Ohio, Okla., R.I., Tenn., Vt. Similar measure was in works in Wis., he said. — **DK**

Road Runner customers suffered e-mail outages in Tex. and parts of La. and Miss. last week following failure of server in company's Austin data center. Outages lasted several days, Time Warner spokesman said, declining to specify number of customers affected. He said problem had been fixed. "We are discussing remedies," he said when asked whether company had refund plans.

Despite provisioning and customer service problems, DSL continues to gain market share on cable modems, Harris Interactive said. Harris said its Consumer TechPoll study showed that DSL's share of broadband users market rose to 39% in Jan. from 24% last April, while cable modems' share shrank to 51% from 65% in same period. Study found that DSL connections accounted for 75% of all new broadband subscribers over 9 months, but cable modems for just one in 6 new customers. Harris researchers said cable modem subscribers generally were more satisfied with their service but DSL was gaining ground because of its greater marketing and improving service area coverage. Survey found that number of U.S. broadband households reached 5.1 million in Jan., up from 3.6 million last April.

Only 40% of consumers have heard term "broadband" and even 45% of that group can't define word, CTAM said in its latest study. In its continuing poll of consumer attitudes on cable and telecom issues, CTAM found that consumers were most aware of high-speed Internet access features and benefits, including choice of ISPs; constant online connection; much faster Web access; ability to be online and on phone at same time with one phone line. Study said younger and high-income consumers were more aware than others. CTAM said: (1) At least 40% of surveyed consumers found high-speed Internet access very desirable. (2) 25% were interested in remote Internet access while traveling. (3) 45% were interested in streaming some type of programming to their PCs. (4) 25% were interested in watching full-length movies, film clips and news clips on PCs. (5) 63% of African-Americans and 54% of Hispanics were interested in at least one type of streamed programming.

Teens and younger kids now watch more ad-supported cable programming during prime time than shows from Big 4 broadcast networks, Cable Ad Bureau (CAB) said in its latest analysis of Nielsen Media Research data. CAB study said basic cable networks had averaged 11 prime-time rating and 38 share of teen TV viewers through first 21 weeks of TV season, compared with 10.4 rating and 35.9 share for combination of ABC, CBS, NBC, Fox. Similarly, CAB said, basic cable networks had averaged 10.5 prime-time rating and 44.1 share of kids 2-11, as opposed to 7.2 rating and 30.3 share for 4 major broadcast networks. Both sets of figures were sharp reversals from 8 years ago, when broadcasters still commanded lion's share of both markets, CAB said.

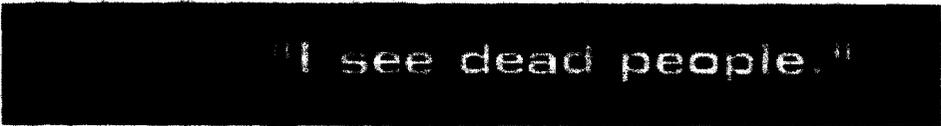
U.S. music licensing group BMI said it signed Internet rights agreements with 15 more performing rights organizations. Deals, in addition to those signed last fall, represent "the substantial majority of the world's repertoire," BMI said. It said deals meant BMI-licensed Web sites would have rights coverage among 19 countries and it would start offering international rights clearance retroactive to Jan. 1. "This agreement is the first step toward achieving global synergy in the area of digital licensing," BMI Pres. Frances Preston said.

IBlast said it would begin testing local emergency alert system in April for its broadcast datacasting system. IBlast is testing its overall service in 5 cities and will add emergency alert in several, it said. Service will deliver alert messages directly to PCs accessing service.

European Bcstg. Union (EBU) will meet in Geneva Fri. to select next chief executive of group, which operates Eurovision network. Current Secy. Gen. Bernard Munch leaves this summer after 11 years as top executive.

## COMMUNICATIONS PERSONALS

New partners at Ropes & Gray: **Edward Kelly** and **Matthew Vincent**, ex-Foley, Hoag & Eliot; and **Marc Rubenstein**, ex-Palmer & Dodge, join Boston office; **Kathleen Delaney**, ex-kinkos.com; and **James Spears**, ex-FTC, join Washington office... **Tori Clarke**, former NCTA vp-public affairs, nominated to be Asst. Defense Secy.-Public Affairs... N.M. Public Regulation Comr. **William Pope** resigns, citing policy differences with other members; Gov. **Gary Johnson** (R) may appoint replacement to fill out remainder of Pope's term, which expires next year... **Scott Tagliarino**, ex-Edelman Public Relations, named vp-corp. and mktg. communications, PanAmSat... **Stephen Lubniewski**, senior vp-systems solutions, Lockheed Martin's Systems Integrations-Owego, moves to pres.-gen. mgr., Lockheed Martin Global Telecommunications enterprise solutions-U.S. business unit.



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Friday February 2, 10:16 am Eastern Time

**TheStandard.com**  
**Strike Up the Broadband**  
 By David Lake

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High-speed Internet access in U.S. homes doubled in the year 2000, and though dialup Internet access is still growing steadily, a total of 6.5 million households - or 1 in 10 - subscribed to a broadband provider by the fourth quarter of last year, according to Telecommunications Reports International.

But last year's rampant growth in broadband adoption may not be an indication of the future for high-speed Internet access. TRI estimates that slightly less than one-quarter of online households will be using broadband connections by 2003.

"Largely, early adopters have already moved to broadband, and there's not a huge untapped demand, given current broadband costs," says Jupiter analyst Dylan Brooks.

The most popular technology as Net users make the transition to broadband is cable modems, which account for about two-thirds of subscribers to high-speed access. In the fourth quarter of 2000, cable-modem providers watched their subscriber base increase 19 percent to 4.2 million users.

Still, the adoption of DSL is happening at a faster pace. At the beginning of last year, the number of cable-modem subscribers outnumbered DSL subscribers 5 to 1. Now that ratio hovers at almost 2 to 1, in favor of cable-modem access.

Nevertheless, cable modems are expected to retain an edge. In 2003, 51 percent of broadband subscribers will use cable modems, while DSL is expected to account for only 37 percent of the high-speed market, according to Jupiter Research. Currently, DSL reaches 2.4 million households, up 1.1 million in the fourth quarter - an 87 percent spike over the third quarter.

"But we see a resurgence in cable modem access," says Brooks.

Broadband's growth last year didn't seem to take a bite out of the growth of dialup online services. A total of 24 million new households signed up for online services in the fourth quarter - a 52 percent increase over 1999, according to TRI.

Currently, 9 out of 10 subscribers access the Web through dialup connections. America Online is dialup's undisputed king of service providers, with almost 27 million subscribers, or 39 percent of total online households. AOL added more than 2 million new subscribers in its fourth quarter.

But dialup AOL access might be just a stepping stone to faster service. "The huge chunk of the access market that AOL owns is the biggest untapped opportunity for consumers transitioning to broadband," says Brooks. "Expect them to make a big broadband play."

Not all ISPs fared well in the fourth quarter. Free ad-supported ISPs were hit particularly hard. Two CMGI-owned service providers - 1stUp.com and AltaVista - closed down their ISP operations, and Kmart-backed BlueLight.com swallowed up Spinway, another free ISP. With those ISPs folding, more than 15 million free ISP users were scrambling for new providers during the fourth quarter, according to TRI.

**Broadband's Tug of War**  
**Broadband Access Hits 1 Million**

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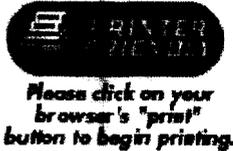
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San Jose Mercury News

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## Fixed wireless challenges cable modem, DSL Net access

Posted at 9:25 p.m. PST Tuesday, Jan. 23, 2001

BY JOSHUA L. KWAN

Mercury News

The race to provide high-speed Internet access to consumers amounts to a battle between two entrenched technologies: the copper networks of cable companies and the phone lines of telecom giants.

But now many experts point to a rookie contender, predicting that new "fixed wireless" technology, which sends Internet data via radio towers and roof-mounted receivers, will emerge as the biggest competitor to the cable-phone establishment.

Major carriers such as Sprint Corp., AT&T Corp. and WorldCom Inc. are rolling out the wireless service in select cities. A bevy of upstarts, including at least two in Silicon Valley, are developing technology that would make fixed wireless more competitive with cable modems and digital subscriber line, or DSL, technology over phone lines.

For people who live outside the range of DSL service or whose cable network hasn't been upgraded for Internet data, fixed wireless can be a glimmer of hope for speedy downloads of Web sites and music files.

Forrester Research Inc. estimates that 74.8 percent of U.S. households with high-speed Net access are connected through cable modems, and 25 percent through DSL, which requires the consumer to live near a facility with DSL equipment. As the number of broadband connections explodes in coming years, fixed wireless is expected to claim a 9 percent share of the 46.7 million broadband households by 2005, Forrester forecasts, while cable and DSL account for 86 percent. U

### Drawbacks

But several hurdles prevent fixed wireless providers from claiming the role of white knight to consumers frustrated with DSL or cable modem service -- the relatively high cost of equipment, the less-than-reliable connection and the need for a line-of-sight connection between the transmission tower and roof-mounted receivers.

James Mendelson of the Strategis Group in Washington, D.C., estimates that service providers pay more than \$1,000 per connection for the equipment it resells to customers. Providers generally absorb most of the cost and offer installation rebates if customers sign long-term contracts. To make inroads against cable and DSL, Mendelson says, fixed wireless equipment costs must fall below \$500, which is still more expensive than cable or DSL equipment.

Sprint, the only fixed wireless provider in the Bay Area, has been offering the service locally since

Sprint, the only fixed wireless provider in the Bay Area, has been offering the service locally since October. Its service costs \$49.95 per month, with a one-time charge of \$199 for equipment. Sprint offers the service in 11 other markets. AT&T and WorldCom are also rolling out service in select cities.

In a fixed wireless system, a handful of tall towers broadcast radio signals carrying Internet data. Customers mount a receiver about the size of a large pizza box on their roofs, pointing to the tower for a line-of-sight connection.

One of the biggest drawbacks of the technology is that a home or business shielded by tall buildings, hills or trees can't get a clear signal and are left without service.

A number of start-ups are developing equipment that circumvents the line-of-sight problem at a price that is competitive with wired networks like cable and DSL. They are pushing into trials this fall, with a goal of having their technology in carriers' networks by the end of this year or early next.

Iospan Wireless Inc., founded two years ago by a Stanford University engineering professor, is using multiple-antenna technology to improve the quality of signal reception. While many companies are putting more antennas on the tower, Iospan hopes to add antennas to the customer's equipment. The benefit is similar to using two ears to hear.

If the connection is strong, the multiple antennas can be used to transmit more data.

Iospan, of San Jose, plans to offer data rates to the consumer of 4.5 megabits per second for residential users, several times faster than typical cable or DSL connections.

Another approach to improving signal quality is to chop up the Internet data into small chunks and then send multiple signals to the customer's antenna. Imagine shipping a bundle of gifts to Grandma's house, says Liz Hervatic, director of technical business development at start-up Malibu Networks. Instead of sending the presents in one gigantic box and risk losing them all at once, why not separate the delivery into many smaller boxes?

Malibu Networks, based in Calabasas, is writing software that can sort through the packages and reassemble the data.

In another twist, the engineers at BeamReach Networks Inc. are using that method in combination with controlling the radio signals sent from the tower. BeamReach, in Mountain View, is trying to aim the radio signals at customers so that it makes better use of the frequencies on which the signals travel. "We form beams of energy and point the hose directly at specific users," says CEO Bob Kelsch. The tower can then reuse frequencies without creating interference among their signals, leading to a 10-fold increase in capacity, according to Kelsch.

### **Major hurdles**

The challenges for fixed wireless, beyond technical hurdles, will be driving down costs and making installation simple.

Ideally, she says, a customer can buy a box from Radio Shack, attach the device to the house and start surfing the Web. "If we can get the cost of installation below \$200 and the time for installation to less than two hours, this market will explode."

Service providers are "all looking for the new generation of technology to provide higher speed, higher capacity, and non-line-of-sight capability -- at a lower cost," says Kelsch at BeamReach Networks. "As that technology becomes available, you'll see the rate of deployment go up very

rapidly and it'll really be a viable alternative to DSL or cable."

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*Contact Joshua L. Kwan at [jkwan@sjmercury.com](mailto:jkwan@sjmercury.com) or (408) 920-5232.*

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Thursday March 15, 10:56 am Eastern Time

**Press Release**

*SOURCE: Allied Business Intelligence*

**Fixed Wireless Broadband Will Challenge the Dominance of Cable Modem and DSL Technologies, Says Allied Business Intelligence**

OYSTER BAY, N.Y., March 15 /PRNewswire/ -- While the small office/home office (SOHO) world is getting wired mainly through cable modems and DSL connections, a strong challenger to this duopoly is emerging from the fixed broadband space, according to a new study from Allied Business Intelligence (ABI). Multichannel multipoint distribution service (MMDS) and broadband wireless access (BWA) manufacturers and service providers are poised for exponential growth; subscribers to fixed broadband services will exceed 13 million in 2006.

Broadband wireless access technologies, such as MMDS and 3.5 GHz applications, are in the midst of a massive technological shift. Technologies that are optimized for non line-of-sight environments, a key issue for growth, are now being introduced. In doing so, they are potentially redefining the value and the capabilities of MMDS/BWA platforms. They are also boosting wireless' ability to become a legitimate competitor to cable modem and DSL technologies, potentially grabbing between 20% and 30% of the world's broadband subscribers.

"The fact remains that DSL and cable modems globally have not met the high demand for broadband services," said ABI VP of Communication Technologies Andy Fuertes, the author of the report.

The BWA community is left with considerable uncertainty. In particular, US MMDS operators are threatened by potential relocation by the FCC for third generation (3G) cellular technologies. Non line-of-sight (N-LoS) equipment, though appealing, is technically unavailable in mass quantities and is untested. There are about a dozen different N-LoS solutions, and it is not clear which solution

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The study, "MMDS & Broadband Wireless Access: Market & Opportunities for Data Subscribers," looks at licensed broadband wireless technologies that operate beneath 10 GHz, which are mainly, though not exclusively, MMDS (2.5 GHz), 2.1 GHz to 2.3 GHz and 3.5 GHz. It considers the risks and opportunities for these technologies in both the, service and equipment markets and provides numerical estimates for these. World regional perspectives and breakdowns are also provided. This new MMDS study from ABI also compares MMDS and other BWA technologies to higher frequency LMDS, DSL and cable modem technologies.

Allied Business Intelligence Inc is an Oyster Bay, NY-based technology research think tank publishing strategic research on the broadband, wireless, electronics, networking and energy industries. Details can be found at <http://www.alliedworld.com> or by calling 516-624-3113.

*SOURCE: Allied Business Intelligence*

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Tuesday March 27 9:21 PM ET

# Comcast, EarthLink sign high-speed services pact

By Reshma Kapadia

NEW YORK (Reuters) - EarthLink Inc. said Tuesday it struck a pact with Comcast Corp. to offer high-speed Internet service over the No. 3 cable provider's system in a trial in the Philadelphia area, setting the groundwork for more such deals in the near future.

The pact is another step by EarthLink to offer high-speed Internet services that provide faster connections to the Web and enable the digital delivery of music and interactive television. As the U.S. dial-up market matures, more companies are focusing on high-speed, or broadband, services.

Atlanta-based EarthLink struck a pact with AOL Time Warner Inc. to offer high-speed services over Time Warner Cable's lines in November. The pact helped the approval of the merger between Time Warner and AOL.

EarthLink has similar deals with AT&T Corp. and Charter Communications .

Many of those pacts were questioned by some people, who wondered if they were struck under government pressure to make sure market giants AT&T and Time Warner committed to open access, enabling different parties access to their vast cable pipelines, said Tom Andrus, vice president of emerging technologies at EarthLink.

However, few can peg an ulterior motive to the Comcast deal other than that cable companies are beginning to see the arrangements as a viable way to make money and realize that offering high-speed service is not much different than selling premium channels, he added.

"I think this will make (other similar) deals happen quicker. Most cable companies see this as the way things should be in the future so I think this is just another step on that and we will have more (deals) to come," Andrus said. He added that EarthLink is in talks with other cable companies for similar deals.

Andrus said EarthLink has not yet received notice of when its service will start on the Time Warner cable system. But he believes the service will first be available in Time Warner's high-speed trial in Columbus, Ohio.

Under the terms of the pact between EarthLink and Comcast's cable unit, the companies will work together to develop and deploy a technical trial planned for the second quarter that will offer some Comcast customers in the Philadelphia area the option of using EarthLink's broadband Internet services through Comcast's cable connection.

Andrus said it has not yet finalized with Comcast how many people would be part of the trial, nor its length.

Financial terms were not disclosed.

"We just agreed to do it until it makes sense to move to the next level," Andrus said.

Comcast signed a similar ISP agreement in November with Internet services provider Juno Online Services Inc.

"Based on what we learn from this and other trials, we are eager to move ahead with plans to offer our high-speed Internet customers a choice, which ultimately can benefit our business and that of our ISP partners," said Steve Burke, president of Comcast Cable.

Shares of EarthLink closed down more than 5 percent, or 5/8, at \$11-7/16, but still more than double their near-term low of \$5-1/4 hit in early January. Comcast shares were up nearly 4 percent, or \$1-9/16, at \$41-13/16.

Reuters/Variety REUTERS

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Speaking at CableLabs press briefing here Wed., Somers also confirmed that MSO would slow down its aggressive rebuild program this year to target its capital spending better and boost its cash flow, margins and customer service operation. Most dramatically, Somers tried to downplay recent reports that AT&T Chmn. Michael Armstrong wanted to take his place once broadband unit was spun off as independent company. "I've got one hell of a job," Somers said. "I'm still here in Denver. I'll be here as long as they and I want me here. Everything else is bullshit. I'm glad he wants my job but so do 400 other people."

While acknowledging that AT&T Broadband's cash flow was down in 2000, Somers disputed notion that MSO had performed poorly or even worse than expected last year. Arguing that MSO "did a lot of investment spending" to upgrade its plant and sign up digital video, high-speed data and cable telephony subscribers, he stressed that it added 2.4 million new revenue-generating units (RGUs) among those 3 new services last year. He particularly emphasized AT&T's drive to sign up cable telephony customers, contending that company expanded its customer base "faster than many of our people thought" and "created the largest telephone company not on copper in the history of mankind... We had a good year. We met our subscriber target growth."

Somers dismissed widespread speculation that AT&T Broadband would weaken, or even abandon, its commitment to cable telephony this year because of high cost and steep operational hurdles. Disputing idea that AT&T would wait for potentially cheaper IP-based telephony service to develop, he said cable telephony was too lucrative to neglect, even temporarily: "Telephony is a hard business but boy, it's one hell of a good business. Why would I walk away from a customer paying over \$50 a month?"

Somers said AT&T Broadband, like other leading MSOs, was testing IP-based telephony and saw great promise in it. But, asserting that technology wasn't ready for commercial rollout yet, he said MSO wouldn't rush to market with it. "Nobody's rolling it, lots of people are testing it," he said. "We think the boat is still in the shipyard being built. In the meantime, we're building a significant telephone customer base."

Despite his defense of AT&T Broadband's heavy capital spending over last 2 years, Somers said MSO would take bit of break this year to focus its capital on cable systems with most potential and beef up its financial strength. While he said company still was "investing very heavily" in plant upgrades and new service rollouts, he declined to disclose how much. "We're trying to target our capital a little bit better," he said, arguing against urgency to introduce interactive TV or any other new digital services this year: "I don't need to jump the engine anymore."

Even with capital slowdown, Somers said AT&T Broadband expected to add 25% more RGUs in 2001 than it did last year. He said he expected MSO's take rates for 3 new services to match pace set in 2nd half of 2000. "This year will be a better year for our company," he said, predicting higher margins. "We'll end this year much stronger and much healthier financially."

Somers said recent U.S. Appeals Court, D.C., decision striking down FCC's cable ownership limits wouldn't alter AT&T Broadband's plans at all. He said he was "hopeful" that Commission, instead of appealing ruling, would review it carefully and "put in more intelligent measures." — *Alan Breznick*

### **Broader Rollout in 2002**

#### **AT&T SPELLS OUT PLANS FOR MULTIPLE-ISP MARKET TRIALS**

WESTMINSTER, Colo. — Looking beyond its limited technical and operational test of multiple-ISP choice in Boulder, Colo., AT&T Broadband plans to start larger marketing trial in Boulder in May and much bigger marketing trial in Boston area in fall. Speaking at CableLabs media briefing here Wed., AT&T Broadband Senior Vp Susan Marshall said MSO would test carriage of up to 10 ISPs in each market as it prepared for commercial rollout of service in major cable markets, starting in mid-2002. She said company also would test choice of transmission speeds and prices, as well as choice of various additional services. "We are very, very committed to this," she said, saying that company had spent \$20 million getting ready for its trial in nearby Boulder and was likely to spend another \$20 million preparing for its Boston pilot.

AT&T's unveiling of its ramp-up plans came as FCC continued to weigh responses to its cable open access notice of inquiry last fall. It also came as AOL Time Warner continued to conduct its similar trial of multiple-ISP choice in Columbus, O., and Comcast and Cox prepared to begin their own small tests. Marshall said AT&T officials hoped that trials "will convince the government not to get involved" in regulating open access: "We think that left to our own devices, market forces are going to work."

Marshall said AT&T Broadband, which is testing its "broadband choice" service in more than 300 Boulder homes after first promoting it to 9,000 households, would extend its marketing reach to as many as 18,000 Boulder households in 2nd phase. In Boston area, she said, MSO will greatly increase that number, offering service to tens of thousands of homes. "Boulder is not really giving us a lot of scale information," she said. "That's why Boston is important to us."

Marshall said AT&T Broadband engineers would limit number of ISPs in each market to no more than 10 for now because of concerns about overloading company's policy-based routing technology. "If we get over 10 in a geographic area, we will have performance degradation," she said. However, she said 10 ISPs was "probably a good number" because most of nation's 7,000 ISPs were very small, local players.

Currently in Boulder, AT&T Broadband is testing carriage of 4 ISPs — AT&T WorldNet, EarthLink, Excite@Home and Juno Online Services — with 4 others preparing to begin service. AOL Time Warner, while invited to participate by AT&T, is not among those 8. "I think they just had a lot going on in the last year," Marshall quipped, referring to grueling year-long approval battle over AOL's takeover of Time Warner.

In Boulder and Boston, Marshall said, AT&T Broadband will offer 3 types of connections to ISPs — connecting at local point of presence, riding on AT&T's backbone or bringing their own backbone and going "peer-to-peer" with AT&T's backbone. She said MSO would offer subscribers choice of 3 or 4 differently priced "speed tiers," similar to DSL providers, as well as parental control, personalization, other features. Customers will be able to choose more than one ISP, and ISPs will be able to bill their subscribers directly. Marshall, while declining to discuss wholesale price that AT&T Broadband will charge outside ISPs for using its network, said she expected they would bill subscribers about same \$39.95 per month as AT&T charged customers for its Excite@Home house brand.

In near future, AT&T officials said they saw further revenue possibilities from charging subscribers and ISPs for other advanced services, such as home networking, firewall, home monitoring, videophone, home security, antivirus protection. They also saw potential in charging for "quality of service" feature, which would give higher network priority to such urgent data streams as voice messages. They are counting on signing up undisclosed number of extra high-speed data subscribers, thanks to marketing efforts of participating ISPs. "We think it's a really fabulous opportunity for AT&T," Marshall said. — Alan Breznick

## Company Denies Warehousing

### **PEGASUS ACCUSES WILDBLUE OF MISLEADING FCC**

Differing filings with SEC and FCC on same proposed service by WildBlue (WB) Communications are being challenged by rival Pegasus. In FCC filing, Pegasus accused company of "willful misrepresentation" to gain "milestone deferrals" and valuable Ka-band spectrum allocation. WB said in 2000 SEC filing that it wouldn't build satellite equipped with intersatellite links (ISLs), but in later FCC filing received milestone waivers for ISLs based on premise that satellites would have them.

WB denies any wrongdoing or spectrum warehousing. Frequencies for ISLs "weren't assigned and it was not possible to get them," company attorney Dave Brown told us on SEC filing: "It was too late for us to do anything about it. You couldn't wait for the Commission to assign frequencies to build. Of all the first round licensees, we plan to be the first one to launch."

WB told FCC in Jan. 2000 filing it would need at least 1,000 MHz of spectrum for ISLs for each of its satellites at 109.2° W and 73° W, but in S-2 filing at SEC in Oct. 2000, WB indicated it had signed contract with Loral in Nov. 1999 to use "proven bent-pipe satellite technology which doesn't use on-board digital signal processing or data switching capabilities." Instead, it said, equipment performing functions would be located on ground, significantly reducing development time, technology risk and manufacturing cost and enabling it to modify and upgrade system.

Company is planning to use 3 satellites for proposed service, according to SEC filing that indicated Loral was manufacturing WildBlue 1. WildBlue 2 is owned by Telesat, and company has contracted exclusive rights to use up to 90% of Ka-band capacity on satellite scheduled for launch in 4th quarter 2002. WildBlue 3 is dedicated Ka-band satellite that will be built by manufacturer to be selected by June and launched during 2nd half of 2003, company said.