Telecoms and the Internet

The changing landscape

Since the passage of the 1996 Telecommunications Act, discussion has focused primarily on cracking the barriers to the $90 billion local phone market or jumping into the $70 billion long-distance game. But as plans are laid, talk immediately turns to Internet Service Providers: Do they pose a threat to voice and video markets? Will Phone and cable move into their space? Should they be looking to hold their ground or share it? With renewed interest in mega-mergers, it is clear that no matter how the new alliances shape up, ISPs will be an integral part of any successful telecommunications strategy. In this month's edition of "Sounding Board," industry experts share their thoughts on how the Telecom Bill will affect ISPs and offer a glimpse of what tomorrow's world may have in store.

Interviews

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For Whom the Bells Toll
Dr. Lee Selwyn
President, Economics and Technology, Inc.

Q: What would your advice be for Internet Service Providers at this stage?

A: They need to become active and aggressive at the state regulatory level in pursuing and challenging rates for Integrated Services Digital Network (ISDN) service. There was a successful challenge in Massachusetts spearheaded by Prodigy in 1991. You can now use ISDN in Massachusetts for the same price as an ordinary analog voice call, and the service will support speech, low- and high-speed data, and video traffic on a single system. In fact, it is one of the lowest priced ISDN services in the country.

The major ISPs ought to be using the machinery of the regulatory process which is still very much in place, notwithstanding what you might read in the newspapers: to urge state public utility commissions to direct their telephone companies to make ISDN available at the same rates as voice services. That would give the ISPs an opportunity to introduce a whole new grade of service that they otherwise might have to wait a long time to achieve.

Q: Given the Internet's capability to provide voice and video transmissions, how do you see that affecting the telecommunications industry?

A: There may still be some technological impediments to using the Internet. It is my understanding that the packet technology in an interactive voice application will still have delays that are comparable to satellite transmissions in a circuit-switch environment. If that is the case and it isn't overcome, the delays will not be acceptable for local services. Clearly, it will be an acceptable alternative for international services where the price differential would be dramatic.

As long as the ultimate access connection is via the Regional Bells, they are in a position to dictate and control the price of that access. The issue of whether or not ISPs can be accessed via calls that are categorized as local calls versus calls that are categorized as toll calls, in terms of access charges, is fairly significant.

With the proliferation of demands for network access, I think there is certainly a possibility that this issue will get a lot more attention over the next 12 to 24 months. It means that if phone companies are successful in introducing access-type pricing for any connection to an online service, it could result in a usage charge of anywhere from about - round numbers now - 50 cents at the low end to $2 an hour for access.

Q: You've been quoted as saying, "Whoever can figure out how to exploit the Internet best really has some potential." Which industry do you think is in a better position to do that: phone or cable?

A: I'm not sure either one of them is. But cable, perhaps, has a better opportunity than phone to exploit broadband technology in the near term. Telephone companies don't seem to understand what they have to do to create a platform conductive to Internet and other networked applications. Even though they have a plant in place that would be more than capable of supporting ISDN, they haven't come up with a product or a pricing structure that makes sense to anybody. Judging by their current behavior, there's certainly cause for concern that they're just not going to be able to make this transition from a voice world to a data world.

Whether or not cable is going to be able to make the transition depends on whether they focus on supporting, in some economically efficient way, network access requirements that the phone companies don't seem very interested in.

The Need for Speed

Thomas Kalil
Senior Director
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The growth of the Internet is mind-boggling. This global “network of networks” connects 9.4 million computers, tens of millions of users, and more than 100 countries. One recent survey discovered 135,000 World Wide Web servers! Our ability to store and process information is also exploding: today’s $300 videogames have more computing power than a $20 million, 1976-vintage supercomputer; semiconductor companies are already working on the development of a “gigabit” memory chip.

Unfortunately, we are not making nearly as much progress on bandwidth to homes and businesses. Part of this is due to the nature of the telecommunications industry. Telephone and cable companies aren't going to dig up the streets every 12 to 18 months. The telecommunications industry also faces a "chick-egg" dilemma. They are reluctant to upgrade their networks until they know what consumers are willing to pay for new services, but they won't know what new services consumers want until they build out their networks.

Progress has also been hampered by the lack of competition in the market for local telephone and cable service. Consumers can choose between AT&T, MCI, and Sprint for long-distance service, but generally have no choice when it comes to their local telephone or cable company.

This is why the Telecommunications Act of 1996 is so important. In a nutshell, the legislation will unleash competition between local and long distance phone companies, cable companies, competitive access providers, and even electric utilities.

Why is this so important for Internet users and service providers? Well, if your local telephone company has been reluctant to invest in a residential broadband network capable of supporting 10 megabit/second Internet access, they now have to worry that your cable company (or some other telecommunications company) will provide high-speed data service and offer you phone service as well. The Clinton Administration believes that this competition will eventually lead to lower prices, more customer choice, and faster deployment of an advanced telecommunications infrastructure capable of supporting high-speed Internet access.

Internet users and service providers have been understandably concerned about the provisions of the Telecommunications Act which regulate "indecent" content on the Internet. But the Internet community should also monitor provisions of the telecommunications legislation that have the potential to increase the availability of high-speed, competitively-priced digital services to homes and businesses. The continued evolution of the Net depends on it.

Marriages of Convenience

Peter J. Pratt
Director, Telecommunications Group
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Q: How do you think the Telecommunications Act is going to affect the relationship between Internet Service Providers (ISPs) and the regional Bell operating companies (RBOCs)?

A: Over time, the telecommunications reform legislation will drive that relationship in two opposite directions. In the near term, I see ISPs able to enter into the networking business faster as the barriers to entry, rewritten by the bill, are lowered for all kinds of competitive carriers. I realize that the ISPs and RBOCs are not necessarily in a competitive position today, but I see the RBOCs eventually moving into the ISP space. Through the most recent bill and through a series of other decisions in the Federal Courts and the FCC over the last decade, RBOCs have been increasingly able to get into content provision and enhanced service provision - this is where I would put ISPs: outside the space of just being a common carrier. Over time, I see the number if ISPs greatly decreasing under the economic drivers of consolidation and specialization, and I see the RBOCs as having a major role in that.

Q: How is the Internet's capacity to carry voice and video transmissions going to impact the industry as a whole?

A: People who believe that the Internet, in the short to mid-range, will fiercely compete for voice traffic against the major local exchange and long-distance carriers, don't really understand the first thing about telecommunications traffic engineering. We here at BRG are big fans of the Internet - we think it is a near revolutionary adjunct to telecommunications and to enterprise networking and business information strategies. That being said, however, there are inherent service quality problems with the Internet: until the carriers seriously look to the Internet to provide circuit-switched grades of service, it will not be a substantial competitive service for the carriage of voice.

For video, I see a completely different scenario. I believe that on a market-by-market basis, new entrant carriers will compete against the RBOCs, Cable TV, and long-distance carriers, bringing robust competition to the residential market. On a market-by-market basis, based on the distinctions of demographics, I see the Internet as the primary driver of greater and greater bandwidth-capable networks to the home.

Q: What is your advice to ISPs at this point?

A: Form an alliance with a carrier or a series of carriers to leverage their particular expertise with the Internet, and marry that to the carrier's expertise in the management and operation of large, ubiquitous public networks. I think there can be a very profitable and productive series of marriages that work well for both incumbent ISPs and incumbent carriers. Several carriers like AT&T have already started to move into those types of alliances. I think the day of the mom-and-pop ISPs is coming to an end.

One-Stop Shopping on the Infobahn

Steve Franco
Data Communications Analyst
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In a narrow sense, the recently passed telecommunications deregulation bill will have a marginal short-term effect on the Internet Service Provider (ISP) industry. The only players immediately affected are the regional Bell operating companies (RBOCs), who have thus far been restricted from providing "long-distance" Internet access.

As with the long-distance voice market, if an Internet user in California wants to access a server residing in New York, Pacific Bell can only carry the transmission to the local access and transport area (LATA) boundary, where it is then handed off to the "long-distance" ISP of the user's choice. The problem, of course, is that no other ISPs have to tolerate similar restrictions so they can offer customers more flexible, cost-effective access solutions. Lifting this restriction allows RBOCs to become meaningful competitors in the ISP market, a feat that they have yet to accomplish.

In a broader sense, the bill will have a significant impact on both voice and data communications markets, leading to the inevitable rise of the Super Carrier. In a nutshell, the Super Carrier of tomorrow will be able to provide business customers with a single source for all of their communications needs: transport, voice, data, billing, wireless, equipment procurement and management, hosting services, security services, and consulting.

Yankee Group research shows that the typical Fortune 1000 company is trying to reduce the number of suppliers they contract with by 10 to 15 percent. Implementing an aggressive Internet strategy can easily ass 20 new suppliers to an already lengthy list, so the ability of would-be ISPs to serve as a one-stop shop is critical. The recent legislation certainly makes it easier for carriers and RBOCs to provide a comprehensive suite of products and services to offer large companies.

An analysis of the consumer market reveals a similar story. Over 30% of households in a recent Yankee Group Technologically Advanced Family survey indicated that they would prefer to receive a single bill for their Internet access and long-distance phone service. AT&T's recent dial-up announcement, followed closely by MCI, attempts to capitalize on this sentiment. Providing AT&T customers with free Internet access for 5 hours a month or unlimited access for $19.95 a month is more of an overall customer retention strategy than a pure Internet play.

The carriers know all too well how expensive it is to retain their current base of customers while trying to attract new business. They have also learned from banks that the more services customers use, the less likely they are to switch to a competitor. Thus AT&T will try to tie customers up with a suite of services that (for now) includes long distance, credit card, Internet access, and cellular phone service.

What does this mean for business and residential customers? Highly integrated, competitively priced services from a handful of Super Carriers. What does this mean for the rest of the ISP industry? Consolidation. The Yankee Group predicts that there will be only 50 to 60 ISPs by the year 2000, down from 1,525 today. There will be continual opportunities for ISPs who specialize in providing value-added services (such as security or legacy system integration) or who can succeed in building a community atmosphere by providing local content (movie listings, restaurant reviews, etc.). Finally, ISPs that have allied themselves with tomorrow's Super Carriers to provide a high value-added piece to an integrated solution should thrive in the emerging competitive landscape.