Introduction

The communication revolution we've been waiting for is almost here. New technological advances and an enlightened policy framework will soon enable Americans to enjoy a plethora of communications services. These services will make our work more productive; our leisure more rewarding; our relationships at once deeper and more extensive; and our world a more accessible, understandable place.

One of those technological advances is broadband cable. Most of us know cable, the technology, by the familiar service it currently offers, "cable television," the simultaneous one-way transmission of hundreds of television channels.

But newer, enhanced broadband cable can and is doing more: in a growing number of localities, broadband cable provides local telephone service and high-speed access to the Internet. These services are the subject of the policy controversy which this white paper addresses.

This paper is divided into four sections:

1. The current policy controversy
2. A closer look at the contenders' positions
3. Environmental factors: law, regulation, technology, and markets
4. Policy recommendations

NetAction's position is that the current controversy will prove short-lived, based as it is on largely hypothetical positions. As broadband cable technology continues to evolve, it is increasingly important to agree on a popularly-shared vision for the future, one that provides a sound basis for long-term communications and information policy.
1. The Current Policy Controversy

The heavy black cable snaking across telephone polls or buried in the ground is an unlikely candidate for making headlines. For more than 20 years, cable has delivered to subscribers an ever-increasing number of television channels. The biggest issues for most subscribers have been the monthly rates charged by cable operators and the quality of their services. Responding to FCC regulations imposed in the 1970s, most cable operators also make available to subscribers and programmers public, educational, community, and access channels. These efforts have frequently been criticized as inadequate or unresponsive to community needs. By federal law, telephone companies in most locations have been prohibited from operating cable systems.

Cable service traditionally has been regulated by local municipalities operating under legal and regulatory guidelines propounded by Congress, the FCC, and state legislatures. Municipalities award "franchises," licenses to use local rights-of-way, in exchange for cable service that is universally available and meets specified quality standards. These franchises must be renewed periodically, as well as whenever ownership changes.

Broadband cable operates as a carrier of television signals. The peculiar construction of cable -- usually a coaxial arrangement of a central wire surrounded by a reflective shield -- permits the transmission of many extremely "wide-frequency" signals (like television channels). By comparison, most telephone lines can only transmit a few "narrow" voice signals.

But the telephone operates in two directions, while cable, until recently, has been one-way. Today, however, enhanced broadband cable technology -- new switches and modems -- permit cable to accommodate the transmission of two-way signals. This advance in technology is the source of the current controversy.

For the first time, broadband cable can provide telephone service. In the near-future, cable systems that serve as many as 60 to 70 percent of all households will be able to offer telephone service in competition with traditional local telephone companies. This has thrown the local telephone companies, which to date have managed to preserve their local monopolies, into a panic. Most Americans would welcome competition in the local telephone service market, where prices have increased while service quality has declined. Even more disturbing from the vantage of the local telephone companies is the distinct
possibility that cable systems will leapfrog the telephone companies' capabilities. Cable systems are beginning to offer access to powerful networks of communication, including the Internet, that the telephone companies have been slow to provide.

The local telephone companies, in an attempt to forestall competition from cable systems, have launched a two-pronged campaign.

First, they have accelerated the roll out of their own high-speed data service, Digital Subscriber Line (DSL), to compete head-on with cable. DSL prices have dropped dramatically wherever cable service offers a competitive alternative. ¹

Second, the telcos are conducting a public-relations campaign to deflect attention from the absence of local telephone competition. Led by regional monopolies like SBC Communications and GTE, the local telephone companies are asking policy makers to impose onerous carriage conditions on cable broadband service. The local telephone monopolies want policy makers to force cable systems to "open" themselves to any and all information providers, at prices and under regulations that remain conveniently mysterious.

Were cable systems to comply with this demand, it would vitiate any serious planning for the future of cable and could eliminate the cable operators' incentive to upgrade their systems. Why renovate existing cable infrastructure, at an estimated cost of hundreds of billions of dollars, if this infrastructure will immediately benefit your competitors?

There are two pernicious aspects to the local telephone companies' campaign.

First, the telcos have aligned themselves with AOL, the largest online information provider. Joining AOL in the anti-cable camp are several smaller ISPs, companies that manage switches which make possible access to the Internet. The involvement of these entities is premature. They have almost no current dealings with cable operators. Moreover, other technologies are either available now or will be soon to provide ISPs with multiple options for high-speed Internet access. Creating animosity between cable operators and ISPs serves no useful purpose.

Secondly, the local telephone companies have stirred up local municipalities' unrealistic fear that cable operators will deny their citizens unfettered access to the Internet at reasonable prices. The City of Portland and surrounding Multnomah County, and Broward County in Florida, have responded to this campaign of fear with cable ordinances that require cable systems to open their facilities to all information providers, even their competitors. For reasons I discuss below, cable operators are unlikely to restrict access to the Internet. But Portland's and Broward's reactive, knee-jerk policies portend the disturbing imposition of new and complex regulations on the provision of Internet service.

2. A Closer Look at the Parties’ Positions

The “open” access and forced access positions bear a closer examination, beneath the headlines.

The cable industry's position. Consolidation in the cable industry has resulted in fewer and larger cable operators. By far the largest operator is AT&T, the provider of long-distance and wireless telephone services, which recently acquired the cable properties of TCI (formerly the largest cable operator) and MediaOne. Other large cable operators include Cox Cable, Time-Warner, and Cablevision. All of these cable operators are engaged in substantial efforts to upgrade their cable systems, not only to carry more television channels, but also to accommodate two-way communications and data services. The National Cable Television Association (NCTA), which represents the cable industry's collective interests, openly touts the industry's intention to move into competitive local telephone markets and provide high-speed access to the Internet.

AT&T reportedly purchased TCI in order to gain access to local rights-of-way that would enable it to provide competitive local telephone service. In the process it discovered two things: (1) cable has the potential to become the conduit of choice for most communication services and (2) getting there isn't easy.

AT&T, which must apply for regulatory approval in each of the many municipalities formerly served by TCI, has borne the brunt of the local telephone companies' policy onslaught. It has had to reckon, unexpectedly and simultaneously, with both the arguments

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2 NCTA's web site is located at http://www.ncta.com/
raised by its opponents and a legacy of local discontent attributable to the business practices of TCI's former owner. Also, when it purchased TCI, AT&T acquired a major interest in @Home, an ISP and online content provider partly owned by TCI. @Home, which pioneered high-speed cable access to the Internet, has been more successful as a technological innovator than as a provider of service. AT&T faces the additional challenge of improving @Home's service, which has attracted negative attention; and mitigating concern that AT&T will use @Home as its exclusive portal to the Internet, to the exclusion of other content providers.

AT&T's position, which has been seconded to a greater or lesser degree by other cable operators, has been, "Give us time. We will improve." Indeed, many former TCI subscribers (including the author of this white paper) have already noted an improvement in their conventional cable service. Moreover, AT&T has waived monthly fees for @Home subscribers while it labors to improve @Home's quality of service. An innovative new offering from AT&T, just announced, will package long-distance, local, and wireless telephone service with cable service as a one-stop-shopping opportunity for time-scarce consumers.

As an immediate counter to OpenNet and the AOL-sponsored No Gatekeepers coalition, AT&T has organized Hands Off the Internet\(^3\), an eclectic coalition of interest groups, including NetAction. Hands Off the Internet's position is that AT&T and the other cable operators should be allowed to develop business strategies and policies that respond to market demand, thus achieving the goal of rebuilding the nation's cable networks to accommodate two-way communications. AT&T in its own right further argues that the cable network is incapable of supporting service for every ISP and information provider that might apply for carriage. Moreover, it is not required to do so by law or tradition.

AT&T makes a reasonable request: that it be given a chance to catch its corporate breath and enunciate business policies that are proactive and not reactive to its competitors' initiatives. It has been estimated that upgrading AT&T's cable network will cost almost as much as the $120 billion AT&T paid for TCI's and MediaOne's properties; the process will take many years. Quicker deployment of other new technologies, like the telcos’ DSL service, may diminish cable’s status as the preferred delivery vehicle for high-speed data service.

\(^3\) Hands Off the Internet is at http://www.handsofftheinternet.org/
The local telephone companies. The local telephone industry is also consolidating. The seven regional "Baby Bells" have now condensed into five: SBC Communications, Ameritech, Southern Bell, Atlantic Bell, and U S West (recently acquired by the long-distance carrier, Qwest). Their number will be further reduced if SBC and Ameritech receive regulatory approval to merge, forming a mighty communications conglomerate serving nearly half of the former Bell System's customers. GTE, a continental collection of local telephone companies, is currently discussing a merger with Bell Atlantic.

The 1996 Telecommunications Act was supposed to spur competition in the local telephone market, but its results so far have been disappointing. As an incentive to opening their systems to competition, the Act offered the local telephone companies entry to the long-distance market. Shunning the offer, the local telephone companies have sought other means of entering the long-distance market (as extreme as being acquired by a long-distance provider, in U S West's case). Meanwhile, they have assiduously resisted local competition in every way possible.

The local telephone companies fear that cable systems will compete with them head-to-head in the local telephone market and perhaps even surpass them in the high-speed data communications market, including access to the Internet. Cox Cable has demonstrated that it can provide economical, price-competitive local telephone service. The local telephone companies' initial reluctance to rapidly roll out their own high-speed DSL services betrayed an unwillingness on the part of the local telephone companies to effectively serve their customers.

Now, in addition to rapidly rolling out DSL service wherever it can be provided, the local telephone companies have adopted a complementary strategy: slow down the competition. While waging a war against competition before the FCC, state utility commissions, and the courts, the local telephone companies have emerged as the principal supporters of an initiative to embarrass and forestall AT&T in municipal hearings, where the transfer of cable franchises must be approved. Their advocacy organization, OpenNet, is led by AOL and the larger ISPs. OpenNet argues that AT&T must be required by local municipalities to carry the content for any ISP or information provider seeking access to the cable network. What sort of regulation this will be and its public policy consequences are disturbingly large questions that OpenNet leaves unanswered.4

4 At the national level, the telephone companies are handling their own advocacy. So far, three bills have
ISPs and information providers. There is no unanimity among the thousands of ISPs and millions of information providers currently serving the Internet population. AOL, which practices its own form of customer ghettoization, and a few large ISPs, have taken the cudgel to AT&T in the press and before city councils. In New York, a venture investor in an ISP has threatened to sponsor an initiative seeking public endorsement of the anti-cable line, and in California there is speculation that the OpenNet interests will sponsor a statewide ballot initiative. Other ISPs, however, have taken a wait and see attitude, content to let AT&T first settle its affairs.

AOL’s role in the debate is ironic. Its much-excoriated interface prevents AOL’s customers from easily exploring the Internet. Recently, when Microsoft attempted to link its electronic messaging service to AOL’s for the mutual convenience of their respective users, AOL repeatedly changed its software code to prevent this connection and keep its customers imprisoned within its own system. Although AOL’s "churn rate" -- the number of customers it loses -- is rumored to be high, too many customers find it easier to pay their monthly fees than to go through AOL’s arduous and often unreliable unsubscription process.

If local governments succeed in imposing open-access requirements on cable operators, it’s likely that AOL and the other large ISPs would use whatever means necessary to obtain a dominant position on the cable: paying high rents, buying multiple channels, etc. Were AOL to obtain dominant access to cable systems, it could extend its repressive regime to AT&T’s cable subscribers. But the proliferation of DSL and wireless Internet customers makes it questionable whether the cable operators will achieve a dominant position as an ISP platform. In the competitive market of the future, ISPs, like their customers, will have a bounty of new infrastructural suppliers.

Local municipalities. Still smarting from past experiences with the former TCI, a few municipalities view AT&T’s acquisition of TCI as an opportunity to even the score. Among them, Portland/Multnomah County and Broward County have taken decisive action. In the

been introduced in the Congress that support the telcos’ position:
- HR 2367, Blumenauer et al, Community Choice in Access to Internet providers
- H.Con.Res. 173 Markey et al, FCC should exercise authority nondiscriminatory access to the Internet over cable systems
- HR 2420 Tauzin, The Internet Freedom and Broadband Deployment Act
This last is a bold pitch to deregulate all telephone company high-speed data services on the pretense that broadband cable today is a competitive medium.
case of Portland, a federal judge upheld the City's right to impose open-access rules on AT&T as a condition of the franchise transfer. 5 This case is currently being appealed by AT&T and will be joined by the FCC. Other cities and counties are taking a wait-and-see attitude. San Francisco, for example, recently voted to approve the unconditional transfer of TCI's franchise to AT&T, with the caveat that the Supervisors will reexamine the access issue later this year.

State legislatures and public utilities commissions. With the exception of scattered bills introduced in various state legislatures, states have so far taken a hands-off approach to the cable issue. This may not always be the case, as discussed below.

Congress and the FCC. Despite the introduction in Congress of various bills to force the open-access issue, the general mood in Congress is to allow current regulatory initiatives to play themselves out before taking additional action. In part, this is because the 1996 Act did not achieve its policy aims. Similar congressional actions might have equally deleterious results.

The FCC’s Chairman Kennard advocates against additional regulation of the cable industry. Chairman Kennard's position, which enjoys the support of the Clinton Administration, is that the cable industry is restructuring itself in a more capable and consumer-responsive form. In its Amicus Curiae Brief6 in AT&T’s appeal of the Portland decision, Re: AT&T v. Portland (cable access case), U.S.C.A., Ninth Circuit, Appeal No. 99-35609 (August 16, 1999), the FCC argues that its national policy of forbearance regarding the regulation of broadband services – because such services are developing in a rapid, timely fashion, leading to a competitive market – effectively preempts local regulation of broadband services.7

5 The Broward County (FL) Cable Ordinance can be found at http://www.co.broward.fl.us/cgi-bin/AT-anchor.pl?cable%20&/usr/lpp/internet/server_root/pub/cri03000.htm#cable 1
The issues introduced in the Portland/Multnomah County cable controversy, including the local ordinance and the decision of the federal judge upholding this ordinance, can be found at http://www.ci.portland.or.us/mhcre/, the website of the Mt. Hood Cable Regulatory Commission.
6 The Amicus Brief is found at http://www.techlawjournal.com/courts/portland/19990816fcc.htm
7 A critical interpretation of the FCC’s reticence to regulate access can be found in "Open Access" on Internet High Seas: Where the FCC is Loathe to Sail, David C. Olson, Journal of Municipal Telecommunications, Vol. 1., No. 1, April 1999. Posted on its website by the Mt. Hood Cable Regulatory Commission, http://www.co.broward.fl.us/cgi-bin/AT-anchor.pl?cable%20&/usr/lpp/internet/server_root/pub/cri03000.htm#cable 1
According to Chairman Kennard, cable will bring competition to the local telephone market as well as to the emerging high-speed data communications market. Individual commissioners have voiced cautious support for the Chairman’s position, hoping that the cable industry will take the bull by the horns and proclaim an unambiguously proactive policy.

**Consumer groups.** An unfortunate consequence of the open-access debate is the split it has induced among consumer advocates. Based on their past experiences with cable operators who were recalcitrant (to say the least) regarding transmitting independent channels and public service programming, some public interest groups are espousing alarmist predictions that unregulated deployment of cable broadband threatens the openness and diversity of the Internet. Others, including NetAction, argue that the potential benefits of local phone competition far outweigh such speculative concerns.

3. Environmental Factors: Law, Regulation, Technology, and Markets

Despite the heated opinions of all involved, NetAction believes that the current controversy will prove short-lived. Several factors conspire to make this case.

**Legal and regulatory factors.** Much of the current debate evolves from the conflicts that characterized an earlier period of cable's growth, when it was solely a one-way transmitter of television signals. In the 1970s, for example, the FCC imposed a series of rules pertaining to cable television and how it could be regulated by local municipalities, in the interest of national policy. These limited the over-reaching of local governments, which heretofore had engaged in stupendous (and often scandalous) negotiations with cable operators as a condition of approving local franchises for use of rights-of-way. A casualty of the FCC's action was local governments' ability to impose content requirements on cable operators. The operators characterized themselves (like Internet information providers today) as publishers immune from content requirements. Local governments went along, wanting little to do with potential Constitutional conflicts.

In 1981, in California, a bill was introduced to release the state's cable operators from onerous franchise requirements in return for a form of common-carriage designation, overseen by a Cable Commission. The bill was soundly trounced by the cable industry, which instead championed and passed its own more freewheeling law. This law eventual
became the model for the federal Cable Communications Act. The cable industry enjoyed the cooperation of the cities and counties, who accepted cable revenue fees as sufficient compensation for granting cable franchises. From that point forward, common carriage became a bete noire within the cable industry, to be avoided at all costs. Regulation by the public utilities commissions was more feared by the cable industry than municipal regulation, which has tended to be weak and spotty.

That was then and this is now. The early cable laws and those propounding them never considered cable a two-way medium, despite reports from RAND Corporation8 and elsewhere predicting an expansive future for cable. A closer examination of the cable laws reveals that all of the many expressive freedoms enjoyed by cable operators -- freedoms upheld by the U.S. Supreme Court -- do not take into account two-way cable service.

It can be argued that under state laws, the Communications Act of 1934, and the 1996 Act, two-way cable communications may be regulated as telephone or data service. When cable is used for voice communications, it is telephone service; when it is used for data communications, it meets the definition for data service. Cable operators may resist state-level regulation, but in fact state regulation would impose on cable operators several desirable conditions:

• Two-way cable cannot be regulated by local municipalities.

• Two-way cable enjoys all of the indemnities enjoyed by conventional telephone utilities (who cannot be sued for service interruption, for example).

• Two-way cable immediately is entitled to provide service under state-regulated conditions that grant it the same privileges -- like indemnity in the case of service failure -- enjoyed by local telephone companies.

The potential down sides of state regulation of cable include:

8 Cable Television: A Handbook for Decisionmaking, W.S. Baer, R-1133-NSF. In the 1970s, Dr. Walter Baer led a team at RAND that produced a series of reports on the state of cable television in America. These reports were highly influential in national policy circles.
• Rates for this service can be determined by state regulatory commissions (PUCs).

• Two-way cable must operate as a common carrier under the PUCs’ supervision.

• PUC decision-making is notoriously slow.

Whether regulation is or is not applied will vary by jurisdiction. Even if cable is not regulated at the state level, it is still unlikely that local jurisdictions can successfully impose an open-access policy. The cable industry has been very busy in past decades bolstering its legal position. State laws, federal laws, and court decisions insulate cable operators from local carriage requirements except for minimal access-channel requirements (public, educational, governmental, and leased).

Local regulation of cable has generally been ineffective and local regulation of broadband access would effectively splinter regulation of the Internet, leading to conflicts and confusion. Historically, local government oversight of cable has been passive, limited to wrist-slapping the worst operators for minor malfaisance. Local governments are inexperienced in making decisions regarding access and content -- nor are they legally empowered to make these decisions.

A case can be made that the regulation of local rights-of-way is a basic element of common law that can be extended to include access requirements. This argument is a weak one. In a similar situation, the U.S. Supreme Court affirmed cities’ power to regulate the location of newspaper dispensers for reasons of public safety and convenience, but specifically prohibited them from determining what is put into the boxes for sale. Piecemeal regulation at the local level is simply bad public policy.

**Technological factors.** The notion that cable systems can impose a communications monopoly is a chimera. Local telephone companies serve over 95 percent of American households and nearly all small businesses. At least theoretically, the local telephone companies' infrastructure is ubiquitous and capable of supporting telecommunication services that are equal or superior to what cable can manage. That cable presents a clear and present danger in terms of competition for local telephone customers is (a) not cable's fault and (b) in the national interest, as expressed in the 1996 Act.
Wireless telephony, too, serves tens of millions of Americans and is in the process of transforming itself into a data-capable service. Satellite data services exist and are getting faster, more capable, and globally pervasive. These services are competitive not only with local telephone companies but also with cable systems. Infrastructure competition is emerging everywhere. While it is impossible to predict "The Next Big Thing," the new communication technology that will radically revamp the playing field, it is certain to appear. Telecommunications is a highly volatile industry. Overnight, new "ultra-broadband services" could make today's cable and high-speed data services obsolete. Acting as if cable operators are guaranteed success is both unfair and bad policy.

**Market Factors.** Regarding competitive choice, consumers are fickle. In California, competitive energy production has proven a bust. Most utility customers remain with their accustomed providers, the big utilities. On the other hand, Internet users (with the exception of AOL's captive customers) are known for their momentary fascination with online information services, flitting from one to another. How will these customers react in a crowded telecommunications marketplace? Ultimately, which technology will the consumers favor? No one can say for sure.

Regarding telephone service, the long-distance market is not merely competitive but wildly so. Even the players are changing. AT&T's dominance has gradually diminished and it now competes vigorously with MCI Worldcom, Qwest, and other companies not on the telecommunications map a decade ago. Local telephone service largely remains a monopoly, although there are indications of change as competition comes to the intra-LATA market. Cable telephone service could challenge this complacency.

There is no consistency of consumer behavior within the markets in which local telephone companies and cable systems will compete. Perhaps customers will pick and choose, mixing and matching services provided by telephone companies and cable systems. Perhaps they will choose an entirely alternative communication medium. Once online, how will they go about selecting an ISP or online content provider? Billions have been staked on this question without achieving a satisfying answer. To impose rules and regulations given the great uncertainty inherent to popular preferences and consumer behavior is premature.

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best and potentially threatening to future telecommunications users' genuine freedom of choice.

4. Policy Recommendations: A Scenario for Progress

Before considering policy recommendations, we must be clear about our goals and purposes. If our goal is to advance abstract principles, the place to debate these issues is in the press and before the courts, which are equipped to deal in abstract principles. If our goal is to obtain the very best telecommunications and information services — most flexible, most responsive, and most economical — then we must be more pragmatic.

NetAction's recommendations are pragmatic. They are intended to meet goals which can be achieved in the next 12 months; at most, by the end of the year 2000. Beyond 2000, legal, regulatory, technological, and market factors create unmanageable uncertainty — a gamble best left to investors who can afford risks.

NetAction supports the availability of richer and more diverse communication opportunities that result from the introduction of new technologies. The information market may work itself out in many ways. NetAction believes that we as a society must not prematurely constrain or determine the shape of this market without clear evidence that political intervention is (a) necessary and (b) will not create even tougher problems. The case for intervention that meets these conditions has not yet been made. Instead, NetAction advocates:

1. Regulatory forbearance. Regulators at all levels of government must resist prematurely regulating the development of new media of communications. It is too early to impose on new technologies a regulatory girdle that may unnecessarily constrain the growth and development of a rapidly changing industry.

2. Policy convergence. When policy is required — for example, regarding the development of telecommunications infrastructure — federal, state, and local regulators must act in concert. The days of infighting among government agencies will be difficult to maintain in light of the Internet and other networked media that defy traditional jurisdictional boundaries and allegiances.
3. **Inspiring, socially rewarding policy goals.** One of Franklin Roosevelt’s Brain Trusters, Rexford Tugwell, said it best: "Make no small plans, for they have not the power to move men’s souls.” The FCC, state regulators, and local governments must create incentives that encourage and inspire the private sector to work with the public to ensure the successful deployment of diverse technologies. If we start by identifying a common vision for a knowledge-driver, 21st Century United States, we can work backwards to develop the policy goals that will make that vision a reality.

The national renaissance accompanying the networking of America is remarkable. Parochial interests must not be permitted to throw a wrench in the works, merely to serve coarse self-interests. The future of our nation, our culture, and ourselves as citizens is at stake. Policy makers, take heed.

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