

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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Federal Communications Commission
Office of the Secretary

In the Matter of)
)
Tariff Filing Requirements for)
Interstate Common Carriers)

CC Docket No. 92-13

REPLY COMMENTS OF THE AMERITECH OPERATING COMPANIES

The Ameritech Operating Companies¹ file these Reply Comments in response to the Commission's Notice of Proposed Rulemaking.² Unlike most of the commenting parties, the Companies do not take a specific position on the lawfulness of the forbearance doctrine. Instead, the Companies urge the Commission to go beyond the question of the need for rate schedules, to an examination of the appropriate regulation for competitive services, regardless of the type of carrier offering that competitive service. The Commission should use this docket to begin to change its regulatory efforts from the handicapping of one carrier or group of carriers, to the identification of competitive services and the adoption of similar regulation for all carriers offering those services.

As part of its examination of competitive services, the Commission must have available to it reliable and accurate data concerning competition for services. In the local exchange marketplace, this type of information can only be obtained from those carriers who provide services in competition with local exchange carriers (LECs). The Companies do not advocate full regulation of

¹The Ameritech Operating Companies are: Illinois Bell Telephone Company, Indiana Bell Telephone, Incorporated, Michigan Bell Telephone Company, The Ohio Bell Telephone Company, and Wisconsin Bell, Inc. (sometimes referred to as the "Companies").

²In the Matter of Tariff Filing Requirements for Interstate Common Carriers, Notice of Proposed Rulemaking, CC Docket No. 92-13, 7 FCC Rcd 804 (released January 28, 1992).

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competitive carriers, such as competitive access providers (CAPs). However, the public interest would be greatly served by a requirement that all carriers report aggregate data concerning services. With this data the Commission can determine whether services are competitive and the extent of competition. If the service is found to be competitive, the Commission should adopt similar regulation for all carriers offering that service. Only with similar regulation for all carriers will consumers enjoy the benefits of true competition.

I. The Commission Should Abandon Its Handicapping Approach for Competitive Services.

The Commission has relied on, for some time, an asymmetrical form of regulation for interexchange and local exchange carriers. Under this system of regulation, one carrier or group of carriers has been deliberately handicapped through regulation. This handicapping takes the form of detailed cost and pricing rules, lengthy tariff proceedings, earnings restrictions, strict depreciation practices and information reporting requirements.

In the case of LECs, the Commission fully regulates a LEC as a whole, regardless of the existence of viable competitive alternatives for many services offered by the LEC. In contrast, CAPs are not regulated in any respect, whether in the form of pricing constraints, tariff filing and review procedures, depreciation rules or earnings limits.

The Commission's current regulatory scheme is based on the premise that LECs are the only providers of all the services they offer. This approach has not changed as competition has developed and expanded for many LEC services. Clearly, no one can dispute that CAPs are offering services in direct competition with LECs. Although the Commission is examining issues, such as expanded interconnection, it has not yet begun to examine the appropriate form of

regulation for all competitors. In reality, the Commission's one-sided approach to regulation no longer supports its objective of fostering the type of true market-based competition which will further the public interest. Instead, the Commission's handicapping approach is inhibiting true competition and is encouraging an artificial form of competition. This artificial competition has not only failed to bring the benefits of true competition to consumers, it has been detrimental in several respects.³

The approach of handicapping LECs also results in a subsidy that flows from end users to CAPs. LEC rates for many competitive services are the product of arbitrary cost allocations and pricing rules, rather than the marketplace or the LEC's economic costs. As a result, LEC rates for competitive services may be artificially high or low in relation to the marketplace and the LEC's economic costs. Since LEC rates are required to be tariffed, CAPs are provided with the information they need to always price under the LEC. LECs have no flexibility to adjust their rates in response to the marketplace, since they are subject to lengthy tariff proceedings, restrictive pricing rules and the requirement to average rates across wide geographic areas, regardless of the competitive marketplace. The by-product is that CAP pricing decisions are not based on true competition or on the CAP's economic costs, but on LEC rate levels resulting from arbitrary costing and pricing rules. In effect, a subsidy from the end user is created to the CAP since its rates are higher than effective competition would permit.

The handicapping approach also disincentivizes strictly regulated carriers from investing in innovative technologies to support new services. Carriers are less likely to make investments in a competitive market when the ability to recover

³Regulatory handicapping is inconsistent with legal precedent. The Commission may not, for example issue a rule solely for the purpose of equalizing competition among competitors. See Hawaiian Telephone Company v. FCC, 498 F.2d 771, 776 (D. C. Cir. 1974).

that investment is subject to severe pricing rules, earnings restrictions and outdated depreciation practices.

Consumers are also harmed by uneconomic competition between LECs and CAPs when it results in customers leaving the LEC network -- even when the LEC is the low cost provider. When customers make uneconomic choices in selecting CAP services, less contribution for overheads is available. The remaining LEC customers must then pay higher rates to enable the LEC to recover its overheads.

The cable/telco crossownership rules also raise the issue of selective handicapping. The Commission has not yet ruled that its crossownership rules do not apply to CAPs. The attached article, however -- detailing the affiliation among Teleport, TCI and Cox Enterprises and their inroads in providing services traditionally thought of as LEC services -- demonstrates why the ban does not make any sense for either LECs or CAPs. Such barriers only inhibit the market from efficiently allocating resources, and work to the ultimate detriment of the consumer.

The need for a change in the Commission's handicapping approach and its impact on customers is illustrated by the requirement that LECs average their rates for competitive services over large geographic areas. This averaging requirement applies even when there may be large cost differences within that area. As a result, customers in lower cost areas are forced to pay higher rates than economic costs would indicate.

Clearly, the regulatory requirements imposed on LECs create significant additional costs, which must be recovered from consumers in rates. Artificial pricing rules and arbitrary cost rules create rates that do not reflect a carrier's economic cost of providing a service. Thus, many end users are required to pay higher rates than they would without regulation.

Competing carriers, such as CAPs, are not bound by any averaging requirement. CAPs are also not burdened by any universal service obligation or carrier of last resort duty. Without any form of service obligation, CAPs are free to compete only for high volume customers which can be served at a low cost. They also have the ability to adopt depreciation practices based on the actual economic life of their equipment. In setting prices, CAPs have the ability to tailor their rates to the specific geographic marketplace for individual customers, with the only pricing constraint being the price umbrella created by LEC rates. The result is that rates for many LEC and CAP customers are higher, as a direct result of LEC regulation, than true competition based on economic costs would dictate.

II. The Initial Step In Examining Whether Services Are Competitive Should Be To Obtain Reliable And Accurate Information.

In order to make a determination regarding the competitive nature of services, the Commission must have available the most reliable and accurate data concerning such services. When considering competitive alternatives to LEC services, the only source of this information are competing carriers, such as CAPs. Today, CAPs, even though they are common carriers, are not required to provide the Commission with quantitative information concerning the extent of their activities. Although LECs have attempted to provide information concerning competitive alternatives, that information has not been detailed. The reason that more detailed information has not been provided is that LECs simply do not have precise information on the extent of CAP services. This lack of detailed information was evident in the bypass reports filed by LECs. Those reports were based on broad assumptions concerning changes in LEC demand. The bypass reports were of limited value since they were attempting to quantify the level of

competition through data provided by only one of many participants in the competitive marketplace.

In order to gain a true picture of the competitive marketplace the Commission must obtain information from all participants in that marketplace. The only source of reliable data concerning the level of competition provided by CAPs is from the CAPs themselves. As a result, the Commission must obtain information directly from the CAPs. This does not mean that CAPs must be regulated, but rather that the Commission should assert its jurisdiction to obtain aggregate data concerning CAP services. Aggregate data concerning revenues, serving areas, services offered, and number of lines would provide the Commission with reliable data on which to base decisions. Such information would also assist consumers by supplying them with easily obtainable information about the types of telecommunication services available from alternative providers.

III. Similar Regulation Of All Providers Should Be Imposed For Competitive Services.

Once the Commission has determined that a service is competitive, the regulation of that service should be similar, regardless of the carrier offering the service. This should include similar rate filing requirements, review procedures, pricing flexibility, depreciation practices and earnings treatment. The removal of unnecessary and disparate regulation would permit competition to develop based on the marketplace and ultimately on the provider's economic costs of providing the service. Consumers will benefit since both LEC and CAP prices will be based on the competitive marketplace, without artificial constraints or subsidies.

Concerns over the potential for a LEC to subsidize competitive with non-competitive services can be addressed through a net revenue test. Services that

pass a net revenue test cannot be subsidized by any other service. The current net revenue test, which includes the impact from cross-elastic services, more than satisfies this requirement, since it demonstrates that the entire company will benefit from the service and price levels.

The concern that LECs will impose rates on consumers that are too high is inconsistent with the fundamental nature of a competitive marketplace. If rates are set too high, then customers will purchase other competitive offerings. Thus, the finding that a service is competitive combined with a net revenue test should fully satisfy concerns over LEC pricing practices.

IV. Conclusion.

The Commission should change its approach to regulating competitive services. The current handicapping of one carrier or group of carriers results in uneconomic competition which does not benefit consumers. The Commission should use this docket to begin analyzing the competitive nature of LEC services. An integral part of any such analysis must be data supplied by all competitive service providers, whether LEC, IXC or CAP. For services which are found to be competitive, the Commission should adopt similar regulation for all providers.

Only with the abandonment of handicapping and the adoption of similar regulation of all providers will consumers fully benefit from true competition.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Mark R. Ortlieb", written over a horizontal line.

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The Milken interview: Readers respond

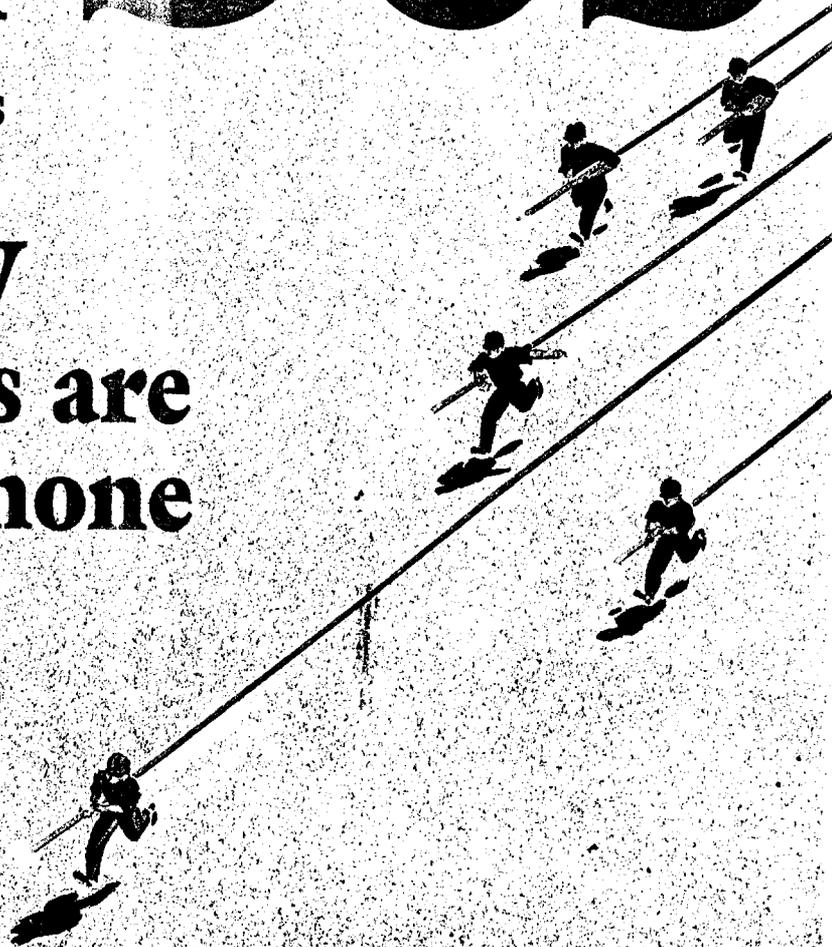
Toys "R" Us: The growing gets tough

April 13, 1992 Four Dollars

Forbes

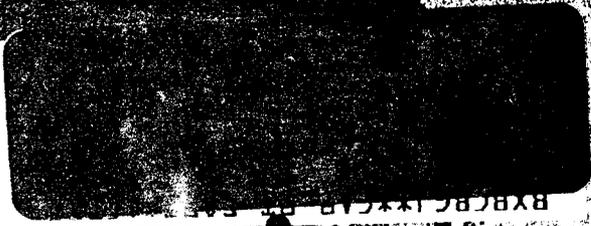
The race to wire homes
for the digital age

How cable TV
entrepreneurs are
beating the phone
companies



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Lots of smart telecommunications people thought the cable companies were dinosaurs that would be overrun by the telephone companies. But look who's overrunning whom.

Cable's secret weapon

By George Gilder

IMAGINE that you're watching a film just ordered up over one of a cable television system's dozens of pay-per-view channels. The phone rings, but you don't reach for the phone. You reach for the TV remote control unit. Hitting the pause/mute button to stop and silence the film, you take the call through the remote unit, which has become a wireless portable phone. Your phone bill next month bears the name not of the local phone company but of your local cable company.

The CATV companies taking on the phone companies? Wasn't it supposed to be the other way around? Weren't the well-heeled telephone companies going to be the innovators that would lay fiber-optic wires and deliver movies, newspapers, bill paying, banking and other two-way video services to American homes, and drive the cable companies to the wall?

So a lot of people, this writer included, thought. We were wrong.

One of the most significant telecommunications deals occurred on Feb. 18. That's when Tele-Communications Inc., the country's largest cable operator (*see table, p. 84*), agreed to buy 49% of Teleport Communications Group, Inc. from Merrill Lynch; the balance will be held by another cable firm, privately owned Cox Enterprises, Inc. Teleport has built up a \$100-million-a-year business by interconnecting major buildings and corporations with fiber-optic cable and linking customers to other phone networks—thereby often bypassing the local telephone companies and their exorbitant switching charges.

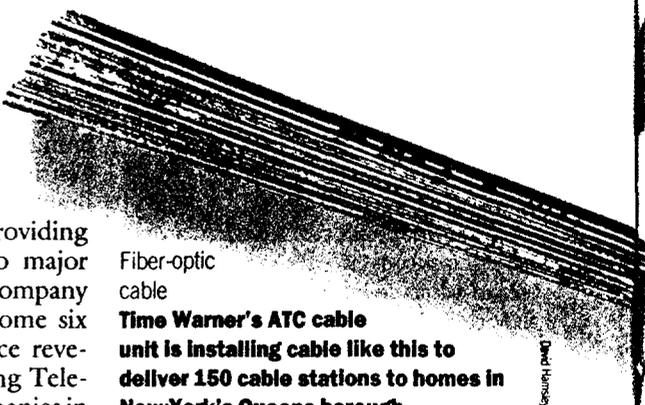
Teleport, in short, brings TCI and Cox into direct competition with lo-

cal phone companies in providing data transmission services to major corporations. With phone company data service revenue rising some six times faster than voice service revenue, TCI and Cox will be using Teleport to attack the phone companies in one of their most profitable areas.

This wasn't the first incursion by a CATV company onto telephone company turf, and it certainly won't be the last. As TV market development manager of fiber-optic cabling maker Corning Inc., Jon Chester knows something about the strategies and ambitions of the various telecommunications competitors. "The cable TV industry," says Chester, "is changing from being a video entertainment source to being a full-service telecommunications supplier."

The cable TV companies already enjoy a substantial lead over the telephone companies in the race to put smart wires into U.S. households. Currently, 60 out of every 100 American homes are hooked up to cable TV; another 33 can easily be hooked up. By contrast, the telephone companies have pushed their wires into 93% of U.S. households.

But those penetration figures are misleading. What matters is not the quantity of wire but its quality—how much data can be passed through the wires, and how easily. On this score, the cable TV companies are far out in



Fiber-optic cable

Time Warner's ATC cable unit is installing cable like this to deliver 150 cable stations to homes in New York's Queens borough.

front of the telephone companies.

The arteries of a cable TV system are the coaxial cables that run from the center of the system, the so-called headend, out to subscribers' homes. Over long distances, coaxial cable is not a very efficient conduit of electronic impulses; it is far inferior to fiber-optic cable. About every quarter-mile, coaxial cable requires an amplifier to boost the signal and compensate for resistance on the line. These amplifiers create electronic noise and virtually prohibit efficient two-way communications on coaxial cable. Because of this limitation, most pay-per-view CATV systems and the various shopping channels depend upon both cable and telephone companies: Customers see the video programming via cable, but they order films or merchandise over the phone.

Over short distances, however, coaxial cable is a highly efficient data conduit. Over stretches of 300 feet or less into the home, coaxial cable requires no amplifiers. Thus, across the so-called drop—the distance from the

General Instrument's Remote 'N Phone

This wireless phone/remote control unit will allow couch potatoes to take and make calls through their cable system without leaving the couch.



tems have a potential bandwidth of 1 billion hertz (1 gigahertz). Compare this with the 4,000 hertz (4 kilohertz) capacity of current twisted-pair phone company wires.

The point is this: The telephone companies' existing narrowband copper wire links to homes can normally hold only voice and data. But CATV's coaxial broadband links to the home can act as conduits for billions of bits of full-motion digital video, high-resolution medical images, vivid educational simulations and lifelike videoconferences. Comparing the two wires is like comparing a five-car ferry with an eight-lane bridge.

Here's an example of what consumers can already receive through the cable operators' broadband pipes:

Through a service called X*press, from TCI spinoff Liberty Media Inc., cable subscribers can plug their personal computers into their CATV system's coaxial cable outlet and receive a huge flow of digitized data. Suppose, for example, you want to know what is being written about IBM and where the stock closed. Using software from X*press, you set your com-

database services like Dow Jones or Dialog at a fraction of the price.

Haven't the telephone companies installed much more fiber-optic cable than the cable companies? Yes, they have. But the cable companies are increasing their base more rapidly. CATV fiber mileage has doubled every year since 1988, and will hit 22,000 miles by year-end. While telephone companies today devote around 7% of their investment budget to fiber optics, the cable industry invests more like 15% of its capital budget in fiber.

More important, the cable companies get more bang for every mile of fiber they lay. Look at the diagram on page 82. Traditionally, CATV systems have expanded using a tree-and-branch structure: A single coaxial trunk cable is laid starting at the head-end; tributary cables run off this trunk line into neighborhoods.

Recently, however, the most advanced cable operators have been breaking up their tree-and-branch systems into what are called "star" configurations. In a star configuration, the operator installs separate fiber-optic lines from the cable head-end at the center of the star to neighborhood A. Once there, the broadband fiber-optic cable can connect into the existing broadband coaxial pipes serving a few hundred of

curbside cable into the living room—coaxial cable can now handle as much data as fiber-optic cable, and far more than phone companies' conventional twisted-pair copper wires can transmit.

In telecommunications industry jargon, coaxial cable over short distances is what is called a "broadband pipe"—a conduit through which huge amounts of data can flow at enormous speed. Through a broadband pipe, for example, the entire contents of the Library of Congress could flow in under eight hours. To send the same quantity of information by modem over a conventional telephone line would require 500 years.

To get a bit technical, information moves through air or through metal or glass cables in waves. Cable capacity is measured in frequency or bandwidth: the number of waves (or hertz) passing through the line per second. Current, in-place coaxial cable sys-

tem to tune in this news from a data flood pouring in over your cable line from 35 news wires. Likewise for stock quotes, movie reviews, weather reports, horoscopes and a great deal else.

Gerald Bennington, president of X*press, says the service is designed primarily for computer users in the home, not office, and is priced accordingly: from \$4.95 per month for a Prodigy-like service, with weather reports and stock quotes, to around \$25 per month for a wider variety of services, including more sophisticated investment news. Ultimately, some experts believe X*press will be able to keep pace with centralized on-line

neighborhood A's homes. Then the operator moves on to neighborhood B and so on, financing each phase of the upgrading as he proceeds, without serious interruption to the existing service.

Remember coaxial cable's Achilles' heel—all those amplifiers needed to boost the signal over long distances? By installing fiber-optic cables from the cable headend to clusters of homes and tying the fiber into the neighborhood coaxial system, the ca-

ble operator can deliver a data-rich 1-gigahertz signal using just a few—or even no—amplifiers. Eliminating those amplifiers opens the network for two-way traffic that can be switched at the cable system's headend, like a phone system.

Now compare the cable operator's position with that of the telephone companies. To achieve the same level of service upgrade, the telephone company would have to make the same investment in fiber trunk lines—and it would have to make an additional, and heavy, investment in replacing its 4-kilohertz copper wire links into customers' homes and offices. As long as the twisted-pair copper connections remain, phone company fiber does not substantially improve the bandwidth of service to the home. To put it another way: There's no point in sending a tidal wave of information down a broadband fiber

line and into the neck of a tiny bottle.

In short, a cable system can turn itself into a supplier of a wide range of broadband services, including wireless phone and computer video, at relatively light cost. According to American Television & Communications Corp., Time Warner's primary (4.6 million subscribers) cable operation, the trunks-and-feeders part of a cable network makes up only 19% of the financial value of cable-installed base. Remaining in place are the most expensive parts of the cable system—those broadband coaxial pipelines from neighborhood hub to home. These lines comprise 75% of the dollar value of CATV plant. (The other 6% is the headend or the central community organization point.) This high cost of installing new broadband links to the home is why ATC Senior Vice President James Chiddix says: "We [in the U.S. cable industry] have spent

the last four decades putting a broadband transmission medium into the local loop. That is an exceedingly difficult thing for potential competitors to replicate."

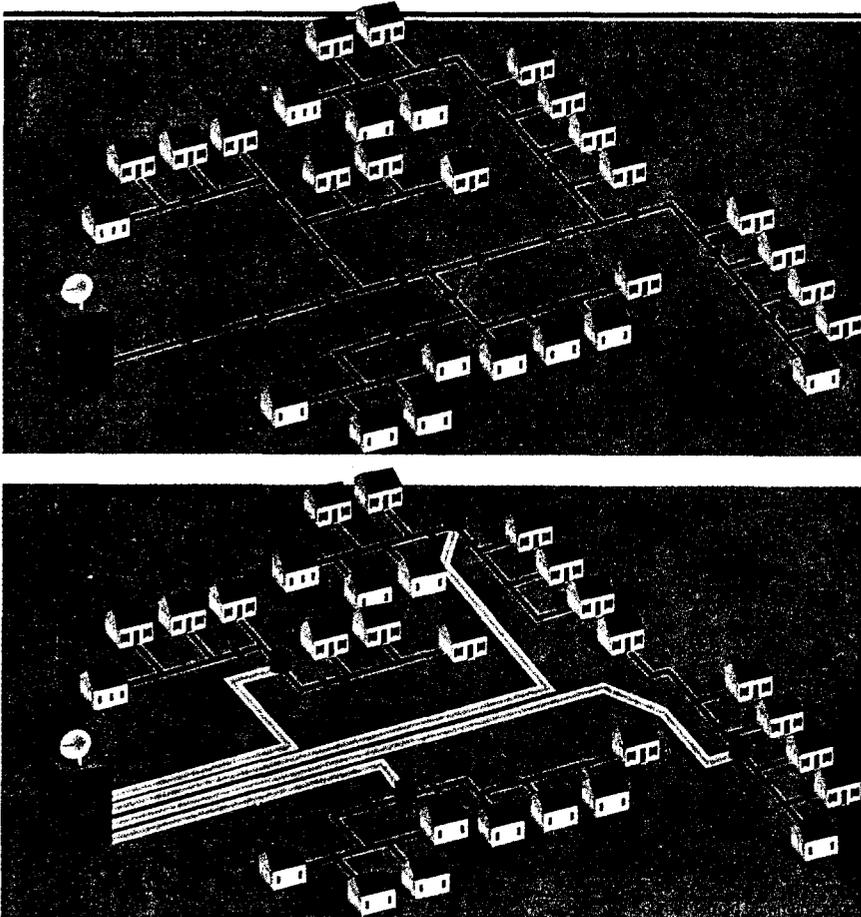
In December ATC rolled out the country's most ambitious fiber-based cable system, in Queens, in New York. In the first phase, available now to some 10,000 Queens households served by new fiber-optic trunk lines, Time Warner offers 150 channels. These include 90 conventional cable channels—MTV, Discovery, ESPN and the like—and 60 pay-per-view movie channels over which it sells films at prices from \$1.95 to \$4.95 each. Price for this greatly expanded standard service: \$23.95 a month—no more than basic cable.

But this is merely a first step. Time Warner plans to push its fiber-optic cables still deeper into the neighborhood, and to transform the system from one based on the flow of information in analog form—like the waves found in nature—to one based on digitized information bits.

What will that mean for ATC and its subscribers? More choice for subscribers, more revenues for Time Warner. Says Chiddix: "We'll be able to provide a different mix of 200 digital channels to each group of 500 homes. This should be sufficient capacity, when combined with 75 channels of basic 'broadcast' services, to allow us to provide individually switched video to individual homes."

When that happens, probably within the next four years, the age of narrowcast information will have truly arrived. "Individually switched video" means the individual viewer tells the programming vendor what he or she wants to see and when, rather than tuning in based on a vendor's schedule. With individually switched video in place, one parent, say, might participate in an interactive college reunion teleconference; another parent might watch a basketball game between her alma mater and an obscure rival; a teenager might study physics with a Caltech professor, while another undergoes diagnostic tests for a torn knee with a specialist across the country. All simultaneously.

Science fiction? Based on Time Warner's work, other cable company ventures and scores of phone compa-



By using fiber-optic cable to reconfigure their tree-and-branch coaxial cable architectures (above) into "star" networks (below), cable operators can do away with most of a system's noisy amplifiers while leaving costly links to the homes in place.

American
Television &
Communication's
James Chiddix
**Working on
individually
switched video:
Interactive pro-
gramming when
the consumer
wants it, not
when the vendor
schedules it.**

Alan David Brown



ny experiments across the country, individually switched video for millions of Americans will be widely available before the end of the decade.

As they move closer toward outright competition with the telephone companies, the relatively lightly regulated cable companies enjoy another advantage over the rich-but-regulated phone companies: They are still mostly run by the innovative entrepreneurs who built most of the big CATV firms, people like TCI's John Malone and Cablevision Systems' Charles Dolan. Indeed, it was because these entrepreneurs responded quickly to competitive threats like direct broadcast satellite television and video stores in the 1980s that the CATV industry has invested so heavily in upgrading its systems.

Congress and the courts continue to hobble the telephone companies on the grounds that they are local monopolies. Thus the phone companies generally cannot own cable franchises in their own service areas, nor have they been allowed, until recently, to get into electronic publishing. This plays nicely into the cable entrepreneurs' hands, giving them time to explore parts of the telephone business before the companies can get into their business.

For example, TCI is partnering with McCaw Cellular to develop wireless phone service using cable. Using TCI's

Bernie Spitzer

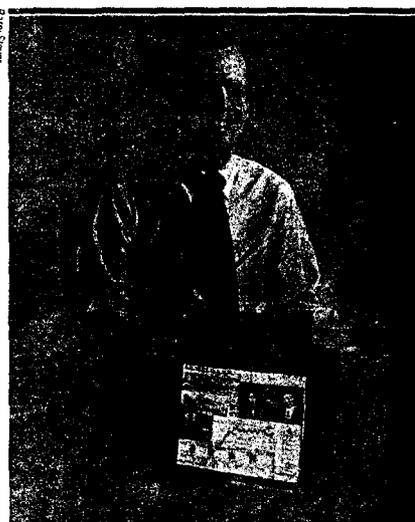


LEFT:
John Malone of TCI
BELOW:
X*press' Gerald
Bennington
**TCI spinoff
Liberty Media's
X*press: using
coaxial cables
to feed home
computers with
investor and other
information for
\$25 monthly.**

broadband links, McCaw can connect lightweight cordless phones to the cellular hub and from there to the local and long distance phone networks. It's a nifty sharing of resources. McCaw, which used to be in cable, provides the phone service, marketing and billing; TCI (whose John Malone is on McCaw's board) supplies the vital broadband connections necessary to carry the signals from scores of wireless phones possibly clustering at unpredictable places.

Another big cable company, Ralph Roberts' Comcast Corp., has been investing in cellular telephones since 1988. On Mar. 5 this year, Comcast plunked down another \$1 billion to

Bernie Spitzer



Who's who in cable: the public top five

Name	Number of subscribers (millions)	Operating profit (1991) (\$mil)	Cable as % of operating profit (1991)	Cash flow per share (1991)	EPS (1991)	Employees	Dividend yield (%)	Dividend per share (1991)	Other related investments
Tele-Communications Inc ¹	11.3	\$1540E	95%	\$3.67E	\$9.7	16	22	8	Turner Broadcasting, Discovery Channel, UK cable systems
Time Warner Inc	6.7	2630	39	24.50	8.8	106	193	66	Turner Broadcasting, Whittle Communications, E! Entertainment Channel
Comcast Corporation ¹	2.8	309	92	2.40	1.7	16	19	7	QVC, Turner Broadcasting, UK cable systems
Jones Intercable ²	1.7	49	100	4.00	0.3	12	17	6	None
Cablevision Systems Corp	1.6	269	100	12.00	2.2	30	47	9	Rainbow Programming Enterprises

¹Includes subscribers to E! Entertainment Channel, owned 50% by Comcast, 42% by TCI. ²May 1991 financials for 1991. E—Estimate.
Source: Morin & Associates

These companies serve half the 55 million cable subscribers in the U.S.

buy Philadelphia's nonwireline cellular franchise, thus becoming the first U.S. company to own cable and cellular systems in the same market.

There is cooperation as well as competition between the cable and telephone companies. Examples:

- TCI is joining US West and AT&T in a Denver test of video-on-demand, supplying the viewer's choice of 2,000 movies within minutes.

- U.S. phone and cable companies are combining to provide a variety of communications services all over Europe, where cross-ownership prohibitions do not apply. US West, for example, has invested in cable in France, Hungary, Sweden and Norway, and has teamed up with TCI to supply joint cable and phone service in the U.K. to 2.9 million homes.

- In Washington's Virginia suburbs, Cablevision of Loudoun is linking with Bell Atlantic and innovative BroadBand Technologies, Inc. of Raleigh, N.C. in an ambitious digital video trial resembling Time Warner's plans for Queens. This joint venture enhances picture quality, provides on-screen menus and automatically reports line trouble.

Through its fiber and coaxial lines, the cable industry is also becoming a force in computer networks, the fastest-growing part of the computer industry. As the computer industry moves from simple text communications to images and multimedia, the telephone companies have often failed to keep up by offering lines of sufficient bandwidth to transmit large amounts of digital data required by video and graphics.

Digital Equipment Corp. senior consultant James Albrycht tells a revealing story. DEC wanted to link its headquarters with employees' personal computers at home. DEC decided to use Ethernet, a fast local area network system normally confined to individual buildings. But DEC's local phone company, Nynex Corp., was unable to provide the broadband digital lines Ethernet required.

Stymied by Nynex, Albrycht turned to his local cable provider, Cablevision Systems. He discovered not only that Cablevision's fiber/coaxial cable network could supply ample bandwidth between DEC's offices and employees' homes but also that Cablevision's switching structure was more suitable for Ethernet than the telephone company's switching systems were. "It was a simple overlay," Albrycht recalls. "We had Ethernet up and running [on Cablevision's network] in four days."

Under the name of Community Multimedia Networking, Digital is planning other networking systems across the country, using CATV systems for videoconferencing, video store-and-forward, file transfers, video mail and other value-added telecommunications services.

Curiously, Wall Street is unimpressed by the CATV companies' technological lead and enormous commercial opportunities. Despite the strong stock market, most of the publicly owned cable companies are trading at sizable discounts from their 1989 highs (see table). Perhaps this is because investors fear Congress will decide to re-regulate cable. Or per-

haps it is because the entrepreneurs who run the cable companies are less interested in reported earnings than in maximizing asset values by borrowing and investing heavily and paying minimal taxes.

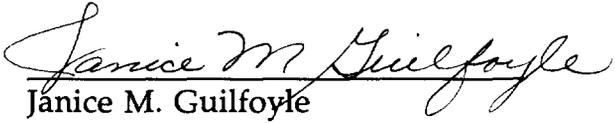
Still, some smart money has been flowing quietly into cable. In 1990 Forstmann Little & Co. and its limited partners paid approximately \$1.6 billion for General Instrument, the cable industry's chief supplier of capital equipment. And last month the partners at investment bankers Lazard Frères paid \$400 million for 19% of heavily indebted Continental Cablevision Inc., a Boston-based operator with 2.9 million subscribers.

Are the partners at Forstmann and Lazard right about cable? Impossible to know. Telecommunications technology is changing with incredible speed. The heavily capitalized telephone companies could make a fast comeback, especially if Congress and the courts deregulated them. But Congress first seems inclined to add to cable's regulatory burdens. And the computer companies—where entrepreneurial vitality is high and there is no regulation—will also arise as serious competitors in creating digital information networks.

One thing, however, is already clear. The telephone, television and computer are rapidly merging into a single, very intelligent box—a telecomputer. This telecomputer will be linked to the rest of the world by high-capacity smart wires. As things now stand, the cable companies have moved these broadband wires closer to homes and offices than anyone else. ■

CERTIFICATE OF SERVICE

I, Janice M. Guilfoyle, do hereby certify that a copy of the foregoing pleading has been served on all parties by first class mail, postage prepaid, on this 29th day of April, 1992.


Janice M. Guilfoyle