

# Reflections on a Deal Gone Bad: Bell Atlantic and TCI

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Was the sum of their weaknesses greater than the sum of their strengths? And how much was really at stake?

Prior to February 23, 1994, most observers expected Bell Atlantic's purchase of Tele-Communications (TCI), announced in October of last year, to be completed before January, 1995. It was believed that they could successfully adjust and agree to the mix of cash and stock to be exchanged in the deal, approve the deal through their boards of directors and satisfy the U.S. government's executive, legislative and judicial concerns. By adding TCI's 10 million subscribers to its own 13 million, Bell Atlantic would have become the largest local telecommunications operating entity in the U.S. The deal was called off on February 23, 1994, however, in part for a changing regulatory climate (read: when the FCC lowered CATV rates, TCI no longer looked attractive) and in part because TCI wanted a higher price than Bell Atlantic wanted to pay.

The Bell Atlantic/TCI merger would have dwarfed US West's investment in Time-Warner and Southwestern Bell's purchase of CATV operator Hauser. At \$30 billion, it was more than twice as big as AT&T's \$12 billion purchase of McCaw Cellular.

These deals, and the others that will surely follow, were made possible because regulators started opening the local exchange to competition, relaxing their grip on local carrier participation in cable TV lines of business, auctioning off radio spectrum for new PCN/PCS services and generally making the world safe for the much-hyped information superhighway. On the other hand, what the government giveth, the government taketh: Lowering cable TV rates put a big pothole in the information superhighway, which overturned the Bell Atlantic/TCI 18-wheeler.

The demise of the deal between Bell Atlantic and TCI shows that, despite rosy expectations, converting the information highway's possibilities into products, services and profits won't happen quickly. Even the most fanatic information highway boosters acknowledge that residential subscribers won't see any really new voice/data/video services (such as interactive gaming) until at least 1997. Technical issues associated with video compres-

sion, server and distribution systems design—as well as the integration of wire/fiber/wireless signaling and billing systems—remain to be resolved.

The direction, however, appears inevitable; regulatory hurdles are falling and the financiers are boarding the merge/acquire bandwagon. Whenever such a deal is proposed, investors look for “synergies.” Do they have complementary products/services now and the potential to create new products/services together? Can the merged entity afford to develop and deliver them? When will there be a growing market for these wares?

The other, and perhaps the most important, variable is the people within the merging companies. Will their strengths and weaknesses fit together in a way that enables the merged entity to overcome obstacles? It takes people to creatively manage and adjust the interaction of the other variables—products/services, markets and finance. Let's see how the Bell Atlantic/TCI deal would have stacked up.

## What Each Provides and How

Through New Jersey Bell, Bell of Pennsylvania, Diamond State, and the Chesapeake and Potomac Companies, Bell Atlantic offers switched and private line services for voice, data, and image to its 13 million customers. Its cellular operating division, Bell Atlantic Mobile, markets service throughout the U.S.

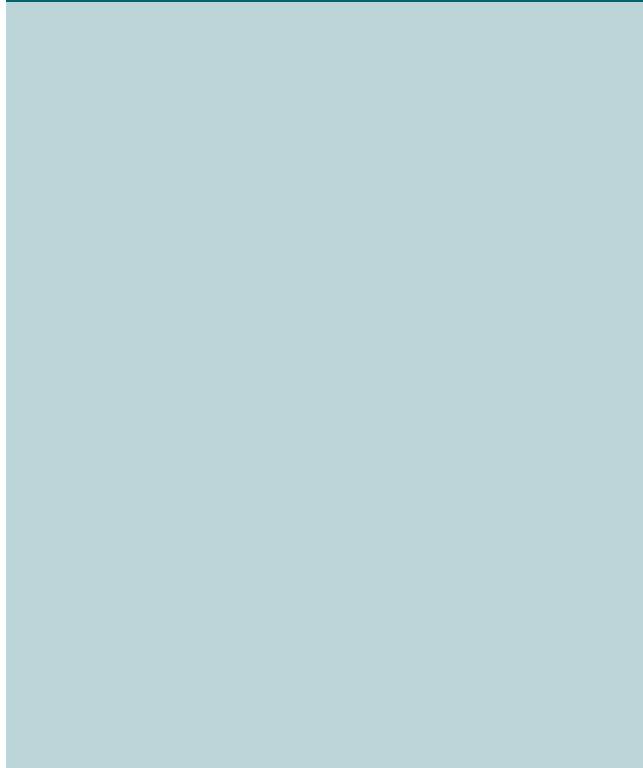
The company joined with Ameritech to operate the New Zealand telephone system (see *BCR*, August 1993, pp. 82–84), and it owns a minor equity stake in CellularVision (Freehold, NJ), a company that has developed a 28-GHz microwave transmission system for cable television services (hence the oxymoron “wireless cable”). Most of Bell Atlantic's 13 million customers, however, are residential subscribers whose access to the Bell Atlantic network is via twisted-pair copper wire.

Although Bell Atlantic has aggressive deployment plans for fiber optic transmission and digital switching throughout its network, it is just beginning to deploy these technologies for residential customers. To reach more of them, it plans to extend fiber to digital loop carrier (DLC) nodes and run copper from there to the subscribers' homes. The nodes will attach to regional SONET rings on the carrier side and serve 20 to 500 homes via copper wire on the subscriber side.

Bell Atlantic has announced contracts totaling \$500 million with Broadband Technologies, Inc. (Durham, NC), and DSC Communications (Plano, TX) for these DLC nodes. If the equipment is priced at about \$250 per line, 2 million lines will be upgraded, less than 20 percent of the installed base.

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**Figure 1**  
**Total Fiber Miles in U.S. CATV Outside Plant**



If the nodes are to support both telephony and cable television services, more sophisticated subscriber line cards are required, as are broadband coax amplifiers and interfaces to the existing coaxial cable television distribution drops. This additional cost is estimated at about \$1,000 per line for equipment, plus another \$250 per line for construction.

TCI is the largest cable television Multiple Systems Operator (MSO) in the U.S., with roughly 10 million customers in 49 states—none in Alaska—and Puerto Rico. It offers basic and premium cable programming, as well as pay per view, through its more than 600 operating entities.

TCI is also one of four CATV operators that jointly own Teleport Communications Group (TCG, Staten Island, NY), which provides private line and switched services, primarily to business customers, in about a dozen cities across the U.S. In addition, TCI owns a number of program providers through its Liberty Media operating unit.

TCI is aggressively deploying fiber optic transmission throughout its network, having realized the limitations of the branch and tree coax networks developed in the 1970s. The cascades of amplifiers used in these networks deliver relatively low-quality analog video, and are error-prone compared with today's hybrid optical fiber backbone and coaxial cable drop networks. TCI has financed this upgrade by debt—resulting in an equity-to-debt ratio of roughly 1:4 (compared with Bell Atlantic's

of roughly 2:1). In 1992, TCI became the largest single customer of AT&T Network Systems for optical fiber (see Figure 1).

TCI has hybrid optical/coax connections passing by approximately 18 million homes, and it has captured roughly 55 percent of this potential market, or 10 million subscribers. Optical fibers run from CATV head ends to optical fiber/coaxial cable nodes manufactured by Scientific Atlanta (Atlanta) and General Instrument (Chicago), each of which serves up to 500 homes. The nodes convert the optical broadcast television signals to electrical energy for delivery on coaxial cable.

TCI is also planning to upgrade its network by distributing compressed digital video (CDV) rather than the current analog program feeds and by adding digital, addressable set-top converters in the subscribers' homes. These upgrades will allow more channels of video to be delivered and more interactive services to be provided, once CDV standards are finalized. TCI recently delayed its plans to buy 1 million converters from General Instrument at about \$150 each, so that the appropriate standards can be completed.

The converters will be supplied to roughly 10 percent of TCI's subscribers, starting late in 1994. One of the first new services to use the set-top converters will be near video on demand, which will start a two-hour movie every 15 minutes on eight channels. Viewers never will be more than 15 minutes away from starting the movie, and can "back up" to the trailing channel by hitting the pause button on the set-top-box's remote control.

TCI is expected to price this new service above what it currently charges for premium service, although it hasn't yet filed the necessary FCC documentation (per the Cable Act of 1992). The next generation of set-top converters will cost about \$300 and will include hardware and software needed for more sophisticated interactive applications and services.

Just as Bell Atlantic's DLC nodes could theoretically evolve to deliver video as well as telephony transmissions, the fiber/coax nodes in TCI's hybrid distribution facilities could evolve to supply telephony services. Just as Bell Atlantic would have to buy equipment to handle the delivery of video programming, however, TCI would have to buy equipment to deliver basic telephony services, including supplying power on the line, signaling, supervision, busy signals, two-way communication, etc. (Neither coaxial cable nor optical fiber can handle the power requirements for ringing telephone bells.)

It will be interesting to watch the developing market for node equipment that can deliver voice, data and video services. Needless to say, the traditional suppliers of telco DLC nodes and fiber/coax CATV nodes are not the same—but both are working to build such equipment. Other plans include the development of various interface cards or modules that could be mounted outside the home for the termination of various services. The capital outlay for all this equipment may raise the cost of the information superhighway, already projected to be around \$450 billion, by billions more.

**Table 1**  
**1993 U.S. Local Access Network Infrastructure**

	Telco via Copper Wire	CATV via Fiber/Coax	Wireless Cellular
Total Capital Investment	\$300B	\$30B	\$10B
Total Telephone Lines or Subscribers	143M	57M	14M
Capital Investment per Line or Subscriber	\$2,098	\$526	\$1,400
Total Annual Revenue	\$80B	\$20B	\$12B
Annual Revenue per Line or Subscriber	\$559	\$351	\$857
New Installation Cost per Line	\$1,200	\$600	\$1,700
CAGR (Lines)	3%	3%	20%+

**Notes:** 1. Total capital investment includes all "sunk" costs to date. 2. Revenues for telcos include all monthly rates plus message units and intraLATA toll, but not long distance. 3. CAGR = compound annual growth rate. (M=million, B=billion)

**Source:** Annual Financial Reports, USTA, NCTA, CTIA

### Will Wireless Stay Wonderful?

Both CATV and telephony companies are looking at wireless services as an interesting high-margin new service opportunity. Table 1 shows why—cellular generates the most revenues per subscriber and requires less capital expenditure per subscriber.

Both Bell Atlantic and TCI are expected to be among the bidders at the spectrum auctions later this year. Bell Atlantic Mobile, which provides cellular service in its local telephone operating area and in southern New England, can be expected to continue upgrading its network to digital transmission and cellular digital packet data (CDPD) services and to increase the quality and reach of existing services via infrastructure upgrades (microcells). It also may bid for one or more of the PCN/PCS licenses to expand its coverage and services.

TCI spokespersons have mentioned plans to bid on PCS licenses, in part to open their option to provide local telephone service via microwave rather than copper wire technology. They also see the same competitive access provider (CAP) opportunities that companies like Metropolitan Fiber Systems, Teleport Communications and MCI are eying.

PCS would be a natural way for TCI to offer telephony. It can use the existing fiber optic network and add base stations for PCS for wireless voice and data along with its traditional video services.

In short, Bell Atlantic and TCI offer different services, and their respective network infrastructures use different technologies. To offer competing services in one another's markets would require expensive upgrades, either duplicating the missing distribution technology or upgrading to newer, integrated equipment. If they had combined forces, however, the merged entity might have been able to offer more new services more quickly and to more people, because of economies in procurement and the sharing of ongoing costs.

### Markets

The merged BA/TCI would have had an immense market—the combined facilities would have passed over 40 percent of all U.S. households. The other RBOCs remain

eager for similar expansion. AT&T's acquisition of McCaw and MCI's announced plans to enter the local services market are tiny in comparison with the telcos' acquisition of CATV operations outside their operating regions plus their aggressive upgrades of their own networks. Even without the BA/TCI deal, this suggests that the U.S. could evolve toward a local telecommunications service market "duopoly," in which each market is dominated by two powerful vendors whose prices are comparable because each has comparable costs and neither has any incentive to cut prices.

The emergence of these *de facto* cartels in the local exchange market is a development that almost no one predicted when AT&T went through divestiture in 1984. Back then, the conventional wisdom was that competition from CAPs and CATV operators would cause LECs to cut prices—first on network access charges (paid by long distance carriers to deliver their services) and eventually on other services as the local exchange became fully opened.

If the CAPs continue to simply "creamskim" high-volume business subscribers, and the CATV operators are bought by the Bells, it seems improbable that any enduring local exchange competition will develop. Instead, local access prices may fall for a while—then creep back up as the vendors "consolidate." This is what is currently happening in long distance calling: an initial period of price competition is being followed by consolidation and gradual rising prices (see *BCR*, February 1994, pp 12–18).

This leaves the nascent PCN/PCS services as the only potential new competition for local service and long distance access. However, as noted above, these could end up being provided by the same carriers and CATV operators who, individually, already own the wireline and CATV licenses in their regions and, as merged CATV/telco entities, could also own licenses outside their regions.

Deregulating local services will require actions by the FCC and the state regulatory agencies—although Congress could intervene with preemptive legislation. As the players position their plans for regulatory, legisla-

**Table 2**  
1993 Market Valuation per CATV Subscriber

Company	Market Value/ Subscriber	Intangibles/ Total Assets
Adelphia	\$258.96	57.7%
Cablevision Systems	\$766.54	67.4%
Century Communications	\$1,001.15	31.8%
Galaxy Cable	\$662.07	7.3%
TCA Cable	\$1,331.10	66.1%
TCI	\$1,373.66	58.0%

Source: Value Line, Paul Kagan Associates, NY Stock Exchange, NASDAQ

tive and judicial scrutiny, we can expect a lot of lip service to the “universal service” concept. For example, Bell Atlantic and TCI had announced that schools within their operating regions would have been allowed “free access” to their networks. Although they hadn’t defined this “free access,” they obviously wanted to fulfill Vice President Al Gore’s mandate that no citizen be cut off from the information superhighway.

At present, the major LECs, including Bell Atlantic, are barred from providing long distance, as well as from entering into equipment manufacturing in the U.S. There are, however, several bills before Congress and, in all likelihood, some legislation will be passed for a phased deregulation of the local exchange (e.g., over 10 years beginning in 1997—see this issue, pp. 14–18 and 54–56).

Given what would have been its extensive geographic reach, the merged Bell Atlantic/TCI would have sought to offer long distance services. The economies of scale would be attractive initially for voice alone and for video alone (via regional video servers), as well as for future multimedia communication services.

The case is less clear for equipment manufacturing, especially since there are already so many vendors vying for this business already. It is difficult to conceive how the merged entity would have been able to do a better job than the current suppliers. (Note, however, that the 1987 triennial review of the Modified Final Judgment found all the major LECs funding some form of manufacturing venture)

Sharing the costs to bring new services to market, especially new voice/data/video and multimedia services, would have been a natural objective for the merged entity. Balancing this objective with the imperative to insure universal access would require more than token “free” connections for a few schools and libraries, and before real prices had been determined.

### A Clash of Cultures?

Even mergers that are based on strong and obvious potential synergies of products, services and markets can fail if the employees do not adapt. Ray Smith, chairman of Bell Atlantic, has said many times that the infusion of the TCI corporate culture into Bell Atlantic was to have been “one of the most important ingredients” in the deal.

**Table 3**  
1993 Estimated Upgrade Capital Outlays  
(per Subscriber or Line)

Telco Upgrade to Video on Demand via Fiber to the Curb and Copper/Coax Drop	\$1,000–\$1,400
Bell Atlantic Customer Base	13M
Total Telco Upgrade	\$13B–\$18B
CATV Upgrade to Telephony via Fiber to the Curb and Copper/Coax Drop	\$1,200–\$1,400
TCI Customer Base	10M
Total CATV Upgrade	\$12B–\$14B
Grand Total, Telco + CATV Upgrade	\$25B–\$32B

Source: Wall Street Investment Banking Firms, Industry Experts

In general, Bell Atlantic’s corporate culture is still dominated by the motivation to supply highly reliable universal telephone service. The money to do so is simply “assumed” to be available, and key decisions virtually always involve engineers.

By comparison, TCI’s culture is focused on marketing an expanding variety of video programs to its subscribers. Spending money for capital equipment or operational enhancements is scrutinized at every step by astute marketers and financiers.

This is not to say that Bell Atlantic doesn’t have any marketers or that TCI doesn’t have any engineers; it says, rather, that Bell Atlantic’s engineering strengths might have complemented TCI’s strengths in marketing and finance—or they might have led to a company that was forever pulling apart in two directions. We’ll never know for sure.

### Finance

Ultimately, of course, the acquisition was about money, and this proved to be the real deal-breaker. In simple terms, Bell Atlantic was buying TCI’s installed base. At \$33 billion for TCI’s 10 million subscribers, that’s roughly \$3,300 per subscriber. Note that Wall Street doesn’t value TCI’s subscribers as highly; TCI has a market value of \$13 billion, which implies that each subscriber is worth about \$1,300 (see Table 2).

Speaking of money, you have to mention TCI’s John Malone, who may have exited if the merger had been consummated: He stood to make \$1 billion if the deal had gone through.

Bell Atlantic still labors under regulatory economics. It has a low growth rate potential (under 5 percent annually in access lines), immense capital requirements (\$3 billion annually) and millions of stockholders to whom it pays dividends every quarter.

As of early February, Bell Atlantic was planning to issue between 200 and 400 million new shares of non-dividend-paying stock to TCI shareholders to avoid cutting its dividend to existing stockholders. Still, Wall Street analysts predicted that Bell Atlantic’s 1994 per share earnings would have dropped from \$3.55 per share to \$2.30.



The problem is that telco stock sells on the basis of its yield and a multiple of earnings, while CATV stock (such as TCI's) sells on a multiple of cash flow. TCI's Malone has spent years educating Wall Street on why cash flow was the number to look at. His argument is simple: If the money coming in the door is enough to service the debt and build the company's value, then stockholders will profit when they sell their shares at a higher price than they paid for them.

Looking back at Table 1, we can see that CATV has the least capital expenditure per line, roughly one-fourth of copper wire telephony, and generates roughly three-fifths the revenue per subscriber that telephony does. A cable TV system can generate sufficient cash flow to pay off its debt while constantly looking for new incremental services that will require relatively little capital expenditure.

TCI actually didn't show an operating profit until early 1993. It also has over \$11 billion—just under 60 percent of its total assets—in “goodwill” booked and depreciated against its earnings. These intangible assets were garnered through its numerous acquisitions of other cable television systems over the past two decades. In the world of financial accounting, a hard look at “goodwill” can result in an immediate write-down of these intangible assets.

Investor relations personnel at Bell Atlantic and TCI have tried to put the following “spin” on this issue: A stock that is priced at one multiple of earnings (Bell Atlantic) can be priced at a much higher multiple of the same earnings, and people will be willing to pay this higher price because the potential synergies of the merged entity will be realized—in terms of shared marketing, services and economies of operating scale spread over a larger customer base.

They also had stressed that the annual cash flow of the merged companies was expected to be about \$7.5 billion (roughly \$4 billion from Bell Atlantic and \$3.5 billion from TCI), before interest, taxes, dividends, depreciation and capital expenditures. This would have been enough to fund all development activities and still have free cash flow of at least \$1 billion.

But even if the \$1 billion per year actually had materialized, would that provide enough leverage for the merged entity to upgrade its network and provide enhanced services over the information superhighway? As Table 3 shows, such an upgrade could have cost as much again as Bell Atlantic was slated to pay for TCI. Technology advances can be expected to drive down the cost of these upgrades, but the financial issue is always *when*.

Moreover, if the bond market had decided to look less favorably on this merger than the stock market, Bell Atlantic would have found itself either paying higher interest rates or selling more stock to finance the upgrade. Self-financing through internal cash flow was another possibility, but Bell Atlantic finds itself confronting increased pressure to reduce costs and maintain growth in the next several years. Bell Atlantic's investor

relations staff already refers to the company as “lean,” with current staffing levels at 34 employees per 10,000 access lines.

The merged Bell Atlantic/TCI's plans for growth also had to account for competition. If the local access market develops as discussed above, and a merged LEC/CATV company is competing in each of its regions even with only one similarly merged entity, the market will be shared. If, for example, each competitor gets 50 percent of the market, the LEC's upgrade cost per subscriber and the CATV upgrade cost per subscriber become twice as high (since only half the customers use the service). Put another way, the customer base would be only half as large, but the total upgrade capital outlay would be the same.

Wall Street took all of this into account last fall. When the merger was announced, Bell Atlantic stock was over \$67; when the merger was called off, it had dropped to under \$55—a 21 percent drop. The February 22 announcement by the FCC that CATV rates would drop by 7 percent would significantly affect the cash flow for TCI, but government filings in the fall of 1993 show that Bell Atlantic was well aware that CATV rates were overpriced, and it took that factor into account in the initial price of the merger. Ultimately, both parties wanted to make this deal, but when one of the parties felt that the terms were becoming unfair, the acquisition was called off.

## Conclusion

In pursuit of this merger, both Bell Atlantic and TCI kept the pressure up and stayed in the spotlight. TCI petitioned the Department of Justice for permission to offer local and long distance service anywhere outside the Bell Atlantic operating region, and Bell Atlantic requested relief from MFJ restrictions: either freedom to provide telecommunications and information services outside its own region without regard to LATA boundaries or a more limited waiver to provide telephony and video services over CATV systems that straddle LATA boundaries outside its own region. In addition, Bell Atlantic requested permission to operate head ends for CATV.

The most likely outcome of the TCI petition is that the Department of Justice will wait for Congress to act. The two Bell Atlantic petitions may now be moot, but one of them would probably have been granted, precedent having already been set for the limited waiver when Southwestern Bell won the right to operate the Hauser CATV systems in Washington, DC.

While we will learn more details about why the TCI/BA deal came apart, we are already beginning to get a clearer idea of the costs associated with building the much-heralded information superhighway. Bell Atlantic was not ready to pay the initial portion of the bill. Who will go after TCI next? The line is already forming□