# Telephone and Cable Companies: Rivals or Partners in Video Distribution?

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The article by Walter Baer states that cable systems and telephone companies operate distinctly different businesses today with different technical facilities; cable systems have video distribution links to the homes without switching capabilities, and telephone companies have local loops to the homes and places of businesses on a switched basis but without video capability. The Baer article states further that the technologies supporting both businesses are quickly converging. The main question addressed in the article is whether the cable companies and telephone companies will become rivals or partners in video distribution.

Mr. Baer presents an excellent and thorough review of the technologies that are emerging which have wideband transmission and switching capabilities. The author also cites likely scenarios to be followed by the cable companies and telephone companies in the wideband market place, indicating that in some instances, drawn from recent experiences, the two industries will pursue separate paths while in other instances they will engage in joint ventures. The author concludes that the direction the two industries follow - separate or joint ventures for bringing video links and interactive two way switching capability - will likely be made more on social and political factors than on technical and economic grounds.

My central comment on the Baer article is to differ only with its final conclusion as the article otherwise provides an excellent assessment of the emerging technologies, network designs of one way and two way switchable video links planned for the future and possible courses of actions of the two industries in developing their markets.

This author concludes that the principal determinates that will drive the two industries in the post divestiture era are market definition, efficient technology and the economics of efficient pricing structures. These factors carry greater influence in creating new telecommunications services and delivery techniques than social and political factors. Albeit, in regulated industries, social and political considerations often dominate the manner in which new markets are established and the extent to which existing markets are managed. Telephone companies are mindful of their new roles as communicators in the post divestiture era. Greater energy and more asute planning will dominate their futures in creating new markets. The focus of management's expertise will be to address three principal activities over the next five years: 1) reevaluate traditional switched and dedicated narrowband voice and data networks employing upgraded technologies of digital switching and fiber interoffice trunk plant; 2) plan new switched and dedicated wideband voice, data and video networks; and 3) move as rapidly as possible in the context of social and political realities of existing regulation to reorient the present pricing structures from one of value orientation with large cross subsidies to those that place greater emphasis on cost based pricing.

To a large extent, the ability of the telephone companies and regulatory agencies to reorient the present highly subsidized rate structure to a more economic efficient cost based pricing scheme will determine the success of the companies to enter new markets - with or without participatory roles with cable companies. Existing voice and data network prices are set well in excess of embedded, fully allocated costs to generate a contributional flow to subsidize the basic exchange loop connections to the central office. Interstate long distance prices are set at artificially high levels through the transfer of a portion of local exchange plant costs to the interstate enterprise via the separation and division of revenue process. Similarly, intrastate long distance and local network prices are set artificially above traffic sensitive costs through a similar but less formal process whereby state regulatory agencies have priced these network services above cost largely on a judgemental basis to hold local exchange prices to affordable levels.

To the extent that large institutional customers and residential customers with high network usage are faced with prices that exceed the costs of telephone networks and competitors' prices, they will move their voice and data requirements to lower priced bypass systems. As greater amounts of traffic are displaced from the established networks to new high technology competitive networks employing wideband fiber transmission systems, a growing source of revenue is developed by competitors enabling them to undertake wider penetration in video markets.

Uneconomic bypass of the telephone companies' networks is harmful because it results in the misallocation of society's resources by establishing wasteful and duplicative telephone networks which require large amounts of capital that could be used more efficiently elsewhere in society. Uneconomic bypass also can lead to the stranding of existing costly telephone company plant which has not been fully depreciated and which requires a continuing stream of revenue to provide for capital recovery.

The contribution from network rates which were designed historically to keep local telephone rates at affordable levels, also would be lost to the bypass systems. Although currently under review by many state regulatory agencies and legislative bodies around the country, competitive bypass systems and cable companies recognize no obligation or responsibility to provide a contribution to hold basic exchange rates of telephone customers at affordable levels.

The presence of uneconomic bypass stifles healthy competition. Telephone companies must be allowed to establish fair, cost based, and where appropriate, market driven prices so that they may compete on equal terms with other suppliers of telecommunications services. The deployment of the newest technology to bring about lower costs of operation is also inhibited because, under the present pricing scheme, the telephone companies are severely hampered in recovering the capital investment in new technology when faced with competition from uneconomic bypass. The established telephone companies must continuously modernize their plant.

At the same time, however, their hands are, in a sense, tied and they are precluded from taking reasonable and responsive pricing actions to compete fairly in the new environment. Greater overall positive economic benefits would result from a system where fair and equal competition is permitted. Where the telephone companies are not constrained from undertaking technological and operational improvements in the design and marketing of its services, their rates are then able to reflect true economic value. Telephone companies must offer the subscriber body new options, including a wide array of wideband value added services at rates which are consistent with economic costs. If permitted by regulators, fair and equal competition by all parties in the marketplace will drive the prices of telecommunications to their proper levels.

The President of New York Telephone Company, William C. Ferguson, addressed these issues in his remarks before the New York State Public Service Commission's preliminary public statement session on March 15, 1984 in New York City. In those remarks, he outlined two approaches for the Commission's consideration; 1) it could decide to not allow bypass of the established telephone network, or 2) the Commission could establish a course of action that would permit the orderly evolution of the restructuring of the Company's existing network prices and access charges applicable to other carriers to permit fair competition among all carriers providing service in New York State.

The New York Telephone Company does not believe that the first approach of maintaining monopoly control is either effectively manageable over the long run, or desirable in light of the speed with which new technology at ever decreasing costs is being developed for the transport of information. The very nature of the rapidly expanding market for telecommunications by the established telephone companies, companies employing their own bypass systems and cable companies emerging into the fields of data and video transmission puts high volume transmission systems employing new technology at lower costs within the reach of many business customers. Major newspapers, business magazines and communications trade journals disclose on a daily basis this explosion in telecommunications.

The massive extent of internal cross subsidies within New York Telephone's prices distort network prices of toll and local calling is shown in TABLE I. Albeit, these data are reflective of New York Telephone, most other telephone companies around the country have similar required subsidies. The source of the subsidies, derived in the main from network prices, is illustrated in TABLE II.

The graph in TABLE II brings into sharp focus the policy issues facing the regulatory agencies and company managements around the country regarding historic pricing practices being inappropriate in a competitive mode of operation. The prices of the network services must be adjusted downward to meet the realities of the competitive marketplace. The New York Telephone Company has recommended that the New York State Public Service Commission embark on a five point plan which would provide the basic architectural framework for reasonable control and oversight of that would

permit the establishment of a workable and competitive pricing structure in New York State. The plan is transitional in nature and allows adequate time for all parties to adopt their respective budgets and capital programs devoted to telecommunications services. Furthermore, the plan is designed in such a manner to preclude disruptive rate impacts on basic subscriber rates while, at the same time, providing a fair and equitable pricing structure to all of the carriers in the State, including New York Telephone. Importantly, the plan provides for the long term continuation of the universality of basic telephone service, and provides for the benefits of programmed rate reductions in most usage rates and carrier access charges at specified intervals.

POINT I - MAINTENANCE OF UNIVERSAL SERVICE:

The long standing policy of the Commission and the Company has been to make access to the telephone network available to as many people as possible by keeping the price of basic access as low as possible. This objective is achieved first by offering some form of especially low priced telephone service to people with modest and low incomes. In light of the recent restructuring of the telecommunications industry resulting from divestiture, the New York Telephone Company has been the first telephone company in the nation to come forward with a sound and workable proposal in recognition of its responsibility for the continuance of a low priced service option. This proposed service, known as Life Line, is designed to

be targeted specifically to customers with low incomes. This proposed offering, with highly subsidized monthly rates and low connection charges, will ensure the continuation of universal telephone service in New York State.

POINT II - ORDERLY TRANSITION IN NETWORK RATES:

The Company has proposed that the Commission take effective steps to reduce the rates for network usage services gradually over a three year period. The reduction of these rates is recognized as an evolutionary process. It is most effectively managed where all parties have knowledge of the restructuring goal and the transitional steps involved to reach an end point in the plan.

POINT III - ORDERLY TRANSITION IN ACCESS CHARGE TARIFFS:

The present tariffs for carrier access to obtain interconnecting facilities with the Company's local distribution network include an increment in the rate design to recover the displaced contribution previously derived from the longer haul intrastate toll service transferred on January 1, 1984, to American Telephone and Telegraph Communications of New York (ATTCOM). That element of contribution, like the contribution in the Company's existing usage rates, should be managed down to levels so that it does not act to stimulate carriers to bypass the Company's local distribution plant with their own direct links to the customers' premises.

POINT IV - REPRICING OF USAGE AND ACCESS CHARGE CONTRIBUTION:

The present level of contribution derived from usage rates and carrier access charges form an integral part of the overall revenues required by the firm to cover its total operating costs. The contribution element must be shifted from the network usage rates to the basic exchange services which heretofore have been the beneficiaries of the subsidy.

POINT V - PRICING FLEXIBILITY TO MEET THE CHANGING MARKETPLACE DEMANDS:

Pricing flexibility is a cornerstone in the effective marketing of service in a competitive environment. It is a significant element in developing the overall stragegy for the deployment of new services with wideband capabilities. Telephone companies need the freedom to change network prices to respond to varying conditions brought about by the introduction of new technologies, and to achieve timely responses to the market strategies of other carriers. Long periods of regulatory review coupled with the requirements of voluminous documentation to achieve fine tuning of the prices hamper the ability of the regulated telephone companies to compete on equal terms with other carriers not subjected to such detailed regulatory constraints. New narrowband and wideband network services should be permitted at price levels best suited to the market, and not be restrained by an overall level of return, and telephone companies should be permitted to support new services based on incremental costs where market place factors so indicate and where the traditionally fully allocated cost often overstate the actual

operating expenses of the new service.

The large established regional telephone companies and smaller independent companies, while considering the possibilities of joint ventures with cable companies, are hestitant and even skeptical of such contractual arrangements in the video marketplace. Services such as pay-per-view have not proven themselves to be widely marketable. Although little capital would be required for upstream signalling requirements over telephone company local loops, the fundamental question remains as to the longer term sustainability of the home video market on a switched basis. The telephone companies require more research to ascertain the desirability of entering residential markets, albeit hybrid telephone-cable systems require little new capital on the part of the telephone company.

The telephone companies are focusing their attention on signifcant market research oriented toward the large commercial and industrial markets where the transport of wideband data and video is envisioned to be a vast market. It is in this sector of telecommunications that telephone companies see both the possibility and profit potential of deploying their own wideband fiber transmission systems with switchable capabilities. Undoubtedly, cable companies also sense the vast scope of the market, and are conducting similar market research and engineering studies pursuant to entry. Inevitably, the two industries will compete head-on because neither has the present fiber links directly to the customers' premises.

Large amounts of capital will be required to upgrade the local loop plant, consequently both industries will gear their market approach to well defined services and carefully placed facilities which promise the greatest return. Initially the wideband commercial markets will develop slowly on a customer by customer basis in the large metropolitan regions and in selected, high density suburban industrial parks.

The telephone companies operating under present regulatory ground rules however, have greater risks in these new emerging markets than unregulated cable companies. Prices for wideband services furnished by telephone companies on a fiber basis would ordinarily be established on the basis of statewide average cost factors employing fully allocated loadings for common and joint access costs. Under these ground rules, the telephone industry will be hindered economically in their pricing efforts, and will have to "carry the day" in the opened market on their reputation as a quality provider of service. The new entrants however, are not known for poor service, and their pricing structures set on direct costs without social pricing loadings under price established telephone tariffs by significant amounts.

There rises then the concept of the "level playing field" in the new competitive era of telecommunications. Telephone companies want regulatory forebearance for equal competition. The cable companies want no regulatory controls beyond those necessary to obtain franchises to place cables. In this context, Baer's conclusion is

correct in that the social and political factors will influence the outcome. Telephone companies will attempt to influence regulatory agencies, seeking changed ground rules to price according to the market. There is some evidence that the commissions are beginning to see the problems of traditional regulation in a competitive environment due to the growing record of bypass of the established networks.

In the main, whether by legislation or by regulatory reform, the social factors to be considered in the context of emerging competitive technologies and wideband services will be resolved by the underlying forces of the market and economic pressures. Most telephone companies will plan for the deployment of their own wideband networks, believing this to be a natural evolution of their mission as contrast to approaching the market on a partnership basis with cable companies. I forecast that following a period of three to five years of regulatory revision, during which interval cable companies will have some advantage in the market unless blocked by legislation, cable companies in the main will continue to provide entertainment video distribution to the home market with some limited successes in business data and video conferencing. Telephone companies will become aggressive suppliers of wideband data and video on a switched basis in commercial markets. More development of new, low cost technologies and greater market definition are required however, before telephone companies address the residence market in the fields of interactive data. It is doubtful however, that the residential market in broad

scope will be developed in the near term by either telephone companies or cable companies for inter active video services. While some telephone companies oppose Congressional adoption of HR 4103, that opposition is not expressed as intentionally barring cable companies from handling voice and data services. It reflects the need for fairness in the marketplace where both industries meet the potential customer on equal pricing terms. Two sets of costing and pricing rules can not be applied to a common marketplace, nor can one industry be held to inflexible tariffs while the other industry has greater freedoms in addressing the changing market conditions.

The market pie is now expanding at a rapid rate, and both telephone and cable industries will search for their independent markets.

TABLE I

REQUIRED SUBSIDY FROM EXISTING NETWORK PRICES TO SUBSIDIES BASIC TELEPHONE EXCHANGE SERVICES FURNISHED BY NEW YORK TELEPHONE
(millions)

| SERVICE CATEGORY | |
|---|---|
| - Local Coin Telephone (10¢) | $ 85 |
| - Directory Assistance Calling | 35 |
| - Business Connection Charges | 5 |
| - Business Message Rate Local Line | 225 |
| - Residence Connection Charges | 60 |
| - Residence Flat Rate Local Line | 545 |
| - Residence Message Rate Local Line | 720 |
| - Residence Basic Budget Local Line | 115 |
| Total | $1,790 |

TABLE II

COMPARISON OF CURRENT RATES AND EMBEDDED COSTS
ADDITIONAL MINUTE - INTRALATA TOLL CALL
(DAY RATES)