**BP-432E**

# THE DEREGULATORY FRAMEWORK FOR TELECOMMUNICATIONS AND BROADCAST DISTRIBUTION

**Prepared by:**
**Daniel J. Shaw**
**Economics Division**
**November 1996**

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## TABLE OF CONTENTS



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*Canada ... continued to maintain artificial barriers between industry segments long after the real ones blurred. As the Information Revolution gathers steam ... the dividing line between cable, telco and other information industries will become even more artificial than they are today*.

Jocelyne Côté-O'Hara, Stentor Telecommunications Policy Inc.

*The dominant domestic carriers have proven themselves equal to the task of operating in a competitive environment. As one of their competitors stated in an advertisement: "Competition brings out the best in all of us."*

Michael Kedar, GeoReach Telecommunications Inc.

## INTRODUCTION

Telecommunications and cable television companies in Canada and elsewhere are undergoing a rapid transformation in the technologies they employ and, consequently, in the services that they can deliver. No longer do these enterprises rely exclusively on copper wire and coaxial cable as their primary transmission media; increasingly, the backbone of their networks consists of fibre-optic cable, which carries information on a pulse of light, and wireless systems, which make use of the electromagnetic spectrum. The Internet, a network of computer networks with an amazing array of new software applications, is also a unique source of revolution in the carriage of information that is both complementing and competing with the more traditional communications networks.

Formerly the distinct preserve of, respectively, telephone, satellite and cable television companies, today voice communications, data communications, and entertainment services can each be provided over the others' transmission facilities. The dissolution of conventional boundaries between telecommunications, cable television and computer activities is paving the way for the convergence of information carriage services over what has been dubbed the "Information Highway." Indeed, the very existence of this highway illustrates the demise of those transmissions technologies characterized by "natural monopoly" conditions, which were the pre-eminent argument for the economic regulation of telecommunications and broadcast distribution. The new technological and structural conditions of communications transmissions are forcing public policy-makers to re-think their traditional framework policies and replace them with broad, new ground rules for incumbent as well as *de novo* telecommunications and broadcast distribution companies.

The significance of this policy reformulation cannot be overstated. As such, this paper considers the possibility of infrastructure competition in the "local loop," a subject that involves such competition issues as rate-rebalancing, regulatory forbearance, access to "bottleneck" facilities and databases (and its pricing), the unbundling of facilities and services, the co-location of competitor equipment, corporate structural separation and overseas telecommunications.(1)

## LOCAL AND TOLL SERVICES RATE-REBALANCING AND FORBEARANCE

Some industry experts believe that competition should be introduced into local telephone service and broadcast distribution. In general, they do not hold up

competition for competition's sake; after all, competition is not an end in itself, but a means to an end. These experts usually choose competition over regulation because they believe that the benefits of competition in the telecommunications and broadcast distribution fields, especially in conjunction with the development and deployment of the newest technologies, outweigh its costs. The primary benefit of competition in the local loop and cable television is, of course, access to a universe of new products and services from a highly advanced Information Highway. These, in turn, will create greater wealth and more high-skill jobs, both directly and indirectly, by forging more internationally competitive domestic manufacturing and services sectors.

> Specifically, we believe that the fetters of regulation and regulatory procedures that were intended for another industry operating in another age should be replaced with a stronger reliance on competition and an open environment for new technologies. We need more clarity on the policy front, less micromanagement from the regulator, and a positive partnership with government, which would enable us both to succeed. Not only will these measures keep the benefits of competition flowing to Canadian customers, they will strengthen the ability of Canadian firms to compete and win abroad, not just those in the telecom sector but, importantly, all companies that rely on telecommunications as part of their basic infrastructure for global competition.(2)

The largest single barrier to competition in the local loop appears to be the fact that telephone rates are too far below their cost. Simply put, at current residential rates, profitability is not possible and no competition would be forthcoming in most local markets.

> The large subsidy paid to support the cost of local phone service is of critical importance in the development of a fully competitive telecommunications market in Canada. Currently, Canadian local telephone rates are among the lowest in the world, on average just $13, compared to $23 in the U.S. In fact, real local rates have declined 10 per cent in the last decade.
>
> The Stentor companies have gone on record many times concerning the need for a change in the pricing of local phone service to bring the price more in line with the cost of providing service. ... The facts are that all competitors are free to enter the local market but, to this point, none have done so. Despite the Commission's recent decision to adjust local rates upward, there continues to be a large gap between the chargeable rate and the true costs. This is a major disincentive to attracting new competition for almost all residential and rural markets. While it is true that local competition could flourish in selected markets, such as Toronto and other large urban areas where business rates for local service exceed costs, we do not expect local competition to become broadly based in Canada until costs and rates are significantly rebalanced in major markets.(3)

In fact, the Director General of Office of Telecommunications, the head official of the regulatory body in the U.K., where limited competition has been permitted since 1991, holds that telephone service rate-rebalancing and rate-restructuring constitute more than half the problem of introducing competition and that, unless they are achieved, the transition to a competitive market will be unnecessarily complex and burdensome for all stakeholders.

> Trying to introduce competition into local markets while preventing prices from equating with costs will undoubtedly prove to be very difficult. The introduction of competition quickly reveals the defects in regulated price structures. This has happened in the surface transportation and airline industries as well as the toll industry.(4)

These opinions suggest that, in an unfettered competitive market, the prices of services would gravitate to their costs of provision and there would be no place for cross-subsidies. From today's relatively low, flat monthly rate for broadly defined local areas, tariff "forbearance" (i.e., restraint from regulation) on the part of the Canadian Radio-television and Telecommunications Commission (CRTC) would lead to higher local telephone rates, more pricing and services options, a possible redefinition of the size of the local market, and a move towards local rates based on the number of calls or the cumulative amount of time spent on calls in a given period. The economic factors for moving telecommunications prices towards their efficient levels are explained as follows:

> For a potential competitor considering entry into a telecommunications market and for a regulator examining efficient price structures, it is the future costs of service that matter, not the embedded costs of past investment decisions. Changes in technology are altering the incremental costs of telephone services ...
>
> Local exchange carriers are steadily increasing the use of fibre optic cable for the main feeder portion of the distribution plant and of carrier systems to reach the subscriber interfaces. The result is that a growing fraction of the access plant consists of shared distribution facilities. Radio access technology – cellular and personal communications services – will extend this effect, so that the cost of network "access" is becoming increasingly usage sensitive. Furthermore, the incremental costs of adding new access points, using radio or perhaps cable television technology, may well be less than the embedded cost of the copper twisted-pair plant carried on the exchange carrier's accounts as the average cost of an access line.
>
> For local calling, a greater portion of the cost is becoming usage-sensitive as urban densities increase and inter-switch calls form a larger fraction of the traffic. As electronic stored-program control switches replace the remaining older mechanical switches, the cost of measuring and billing local calls drop significantly. ... When local service is unbundled, the efficient pricing of local calling will reflect the capacity-driven nature of local switching costs and confine charges for local calls to peak traffic periods. Local service prices

> will therefore move up toward marginal costs of usage.(5)

These points are confirmed by statistics in the U.K., where there is a measured cost for local calls. The International Telecommunication Union (ITU) also reports that 30 of 38 upper middle-income countries have instituted measured local pricing policies.(6)

The potential competitors of the Stentor Group (the statutorily established monopolies of each province and territory) would be the cable companies, wireless companies and long distance carriers. The first of these groups (cable companies) has almost universal residential access, with more than enough transmission capacity. The second group (wireless carriers) has the advantage of national licences for rights-of-way over specific ranges of the radio spectrum that would permit the establishment of vast and elaborate communications networks. This group offers significant cost advantages; indeed, if one was to build a new communications network from scratch today, one would likely base it on the radio spectrum, rather than on copper wire. The third group (long distance carriers) would likely enter into strategic alliances with one or more companies of either or both the first two groups. Such alliances would immediately replicate and provide direct competition to the vertically integrated networks of the Stentor companies.

In the long distance market, it is believed that regulatory forbearance by the CRTC will breakdown the current pattern of "follow-the-leader" pricing strategies, whereby the Stentor companies are the leaders in their respective jurisdictions and their competitors are the followers. Absent both this pattern and the need for contributions from long distance services providers to the Stentor companies for subsidizing local rates, greater competition will yield yet lower long distance services tolls.

> [A]symmetric regulation denies regulated firms the full pricing flexibility needed to respond to competitive pressures in the market. The inevitability invites "cream skimming" and inefficient entry from higher cost firms. Anti-competitive discrimination, cross-subsidization, misallocation of resources, and ill-advised investments may also result.(7)

Indeed, other industry specialists expressed further concerns about the past and current asymmetric regulatory treatment of long distance companies and the Stentor companies.

> I believe that, by all the standards used by competition authorities, the long distance market is the subject of very strong rivalry and meets all the tests to be a truly competitive market. Indeed, if anything, people are overwhelmed by the degree to which it is fairly competitive. If the Commission were to apply forbearance and let those market forces operate, and also remove the artificial subsidies and advantages but maintain the controls only on those places where intervention is needed until our local market competition really rolls out effectively, then they would be able to achieve what is needed.

> In the meantime, I believe all the artificial rules and distortions are backfiring on us. We have attracted more players than the market can support. We have given the wrong economic signals, and huge advantages in terms of market participation. What we have not done is created a stable market. We have created a market that needs to rationalize and have a shake-out. Until that occurs, and until people know that reality rather than artificial rules will prevail, then we will have chilled everyone in terms of how they move ahead.(8)

## AN OPEN NETWORK ARCHITECTURE: BARRIER-FREE INTERCONNECTION AND INTEROPERABILITY

In the "network of networks" vision of the Information Highway, any user on any network would be able to reach any other user on the same or any other network, something requiring a great deal of interconnectivity and interoperability in communication systems. Such an Information Highway is based on a concept known as an open network architecture (ONA), comprising such factors as interconnection, unbundling, co-location and phone number portability.

> The best (and possibly only) way of addressing the barriers to entry for local telephony and CATV are for the regulators to ensure an absolutely open network architecture, to mandate the unbundling and co-location of equipment (on both a "real" and "virtual" basis), to permit universal resale of all local services on a wholesale basis, and to ensure that prices of bundled or unbundled components, over time, reflect marginal costs. In this way, viable and sustainable competition will be fostered.(9)

From a competition point of view, network interconnection simply reduces the degree to which a customer’s choice of carrier is likely to affect his or her communications or networking possibilities. Therefore:

> The benefits customers derive from joining a telephone network depend on the size of the network. The larger the size of the network in terms of the number of other subscribers a subscriber can reach, the more valuable is access to the network. In the absence of interconnection, larger networks will have a competitive advantage over smaller networks since their larger network implies a higher "quality" of service ... It is quite possible that in many instances the smaller network will eventually be foreclosed from the market since the higher quality service of the larger carrier gives the customers of the smaller carrier an incentive to migrate to the larger carrier, thereby potentially further increasing the quality differential. The end result would be monopolization.(10)

The various standards bodies are developing common or compatible protocols for the interoperability of networks, to which time and ingenuity are the only obstacles. The interconnection prerequisite, however, has proven contentious in other jurisdictions. On the one hand, in certain conditions that appear to exist today, monopoly telcos have a very obvious profit motive for denying, inhibiting,

forestalling and limiting such interconnection. Industry officials have expressed their apprehensions with respect to voluntary interconnection by the historically privileged monopolists:

> However, in the very near future, matters with respect to bottleneck facilities must be clarified. ... These include how the facilities are provided and protection of customers' proprietary information. It is the role of the regulator to ensure that when a competitor buys or leases bottleneck facilities, they are provided at a cost-based price. The regulator must also ensure that incumbent telcos do not have an advantage with respect to access to its competitors' customer information. These are issues that need to be addressed soon.(11)

On the other hand, new entrant competitors have an incentive to demand unlimited interconnection (possibly uneconomic but technically feasible) with the incumbent monopoly networks, thereby imposing undue costs on their main rivals. Obviously, the CRTC will have to perform a careful balancing act over this interconnection spectrum.

The pricing of interconnection will be a difficult issue for the CRTC. Most agree that it should be based on costs – but which costs? Some suggest the use of a top-down methodology based on fully allocated costs, using historic cost accounting conventions; others argue for a bottom-up methodology based on long-run incremental costs, using current accounting conventions and hypothetical, efficient-engineering models (i.e., best practice, best network architecture).

One advantage of the top-down model is that it deals with actual costs – not hypothetical costs and debatable assumptions – and can provide very disaggregated data on complex inter-linkages, which is important when considering the cost of a network component. One advantage of the bottom-up model is that it is forward-looking, incorporating an asset's replacement value and not incorporating the many inefficiencies of the Stentor companies' current network resulting from their monopoly past. Rate-base, rate-of-return regulation gave the Stentor monopolists an incentive to over-invest in capital equipment (i.e., more capital invested, more profit) and resulted in more costly networks than would have come about in a competitive market.

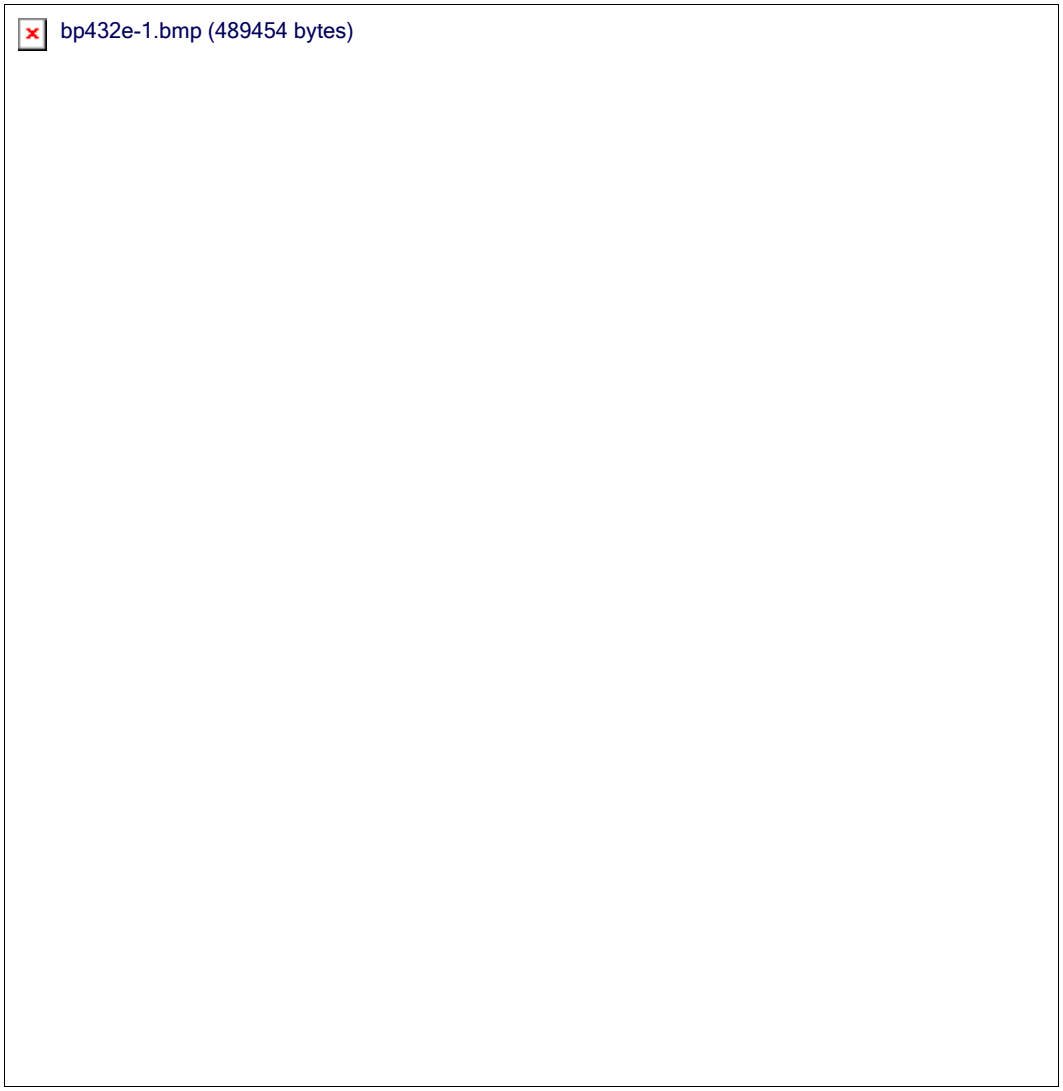
Since the aim is to encourage efficient entry for today and tomorrow, interconnection charges must be set to signal their current and future resource costs to potential entrants. This suggests that the appropriate basis for determining interconnection charges would be the model based on long-run incremental costs, which more accurately reflects true resource costs. Figure 1 demonstrates the simplest factors that must be determined in a telecommunications network; however, this is only for illustration purposes - a myriad of sub-component categories could be included.

U.S. costs could be incorporated into this calculation, as Canada and the United States share similar corporate and telecommunications cultures (i.e., private-sector corporations). The primary difference is that the Regional Bell Operating Companies (RBOCs) were divested by AT&T in the U.S. in 1984, making the

cost of interconnection less cumbersome and more straightforward to calculate. At the same time, such forward-looking calculations effectively leave Stentor companies with stranded investments; that is, investments made in good faith under the rate-base, rate-of-return regulation, and in expectation of being compensated over long-time horizons, will not likely be fully recouped. It can be argued that a time-limited, partial allowance for recoupment of these investments ought to be considered.

The pricing of interconnection will certainly be a very contentious, hotly disputed issue, and possibly subject to extensive and drawn out litigation, particularly if rates are not completely re-balanced and re-structured. Therefore, a dispute-resolution mechanism must be established, so that connection charges would be dealt with expeditiously by a competent authority.

The unbundling of facilities and services requires the specific, *essential* or *bottleneck* components of a carrier's network to be made available on a leased basis in order to permit the competitor to construct its own network by building separate facilities, leasing existing facilities, or some combination of both. Co-location is the ability of an entrant to install equipment on an incumbent's premises.




Source: The Office of Telecommunications (Oftel), *Pricing of Telecommunications Services from 1997*, p. 23.

> Unbundling components of the incumbent network makes entry easier since it allows entrants to create their own networks by combining their own facilities with facilities which can be leased from the incumbent carrier. This reduces the extent to which entrants are required to make sunk investments. In addition, depending upon how the unbundled components are priced, it could allow entrants to benefit from the existing economies of scale and scope in the incumbent carrier's network. Finally, unbundling could enable the entrant to offer a full line of services in competition with the incumbent.(12)

The significance and likelihood of phone number portability is also an important factor in deregulating the local telephone network.

> One particular issue with which they are concerned is portability,

> which is the ability to change or carry your number. The portability issue is a global issue. I am sure that wherever you have been, they have discussed the fact that when competition is introduced, the competitive edge you have as a company is to give somebody a number. ... There are now technologies which can provide a transition until the world has created – and North America will probably lead – true number portability. In other words, if you leave one company, you will be able to carry the same number.(13)

There is some evidence that lack of number portability will prove to be a significant barrier to competitors' entry. In marketing surveys in the U.K., where the cable television companies have been permitted to enter local telephony since 1991, about 7% of residential customers and 15% of business customers claimed that the inability to keep their phone number was an important reason for not switching to these new entrants.(14)

## LINE-OF-BUSINESS AND STRUCTURAL SEPARATION RESTRICTIONS

If one endorses competition in the telecommunications and broadcast distribution industries, one should also be prepared to endorse the cross-industry licensing of companies seeking entry into both industries, since they are each other's most likely competitors. In a competitive communications transmissions market there is no basis for a line-of-business restriction. Some argue, however, that there is a need for the structural separation of programming and distribution services.

> The absence of significant economies of scope supports a policy of structural separation for any distributor that is in a position to exercise market power. Cable companies can be expected to retain market power in broadband distribution. There is also general concerns about the financial strength and monopoly power of telephone companies. **Therefore, any activities of these distributors in programming should be carried out through structurally separate affiliates, and be subject to transparent access rules and conditions of licence, including those dealing with ownership and control.**(15)

Only the cable television companies advocated the safeguard of structural separation in distribution, so that a telephone company would be required to pursue a licence for distributing programming under a separate affiliate.

> The fundamental issues ... are the terms and conditions that will underpin competition between the telephone companies and cable television industry. To be able to explain the issue, it is important to understand the differences in technology between the two types of industries. Cable television is essentially a one-way service. It picks up a television signal, whether from satellite, over the air or on a closed-circuit feed, and sends it to a customer. Telephone service is, of course, a two-way service; you have to be able to send and receive messages. What this means is that anybody who wants to enter the

> cable television business, so long as they have a licence, can just simply build their plant and offer their service. They do not require anything from the cable television industry. This is different from entry into the local telephone business.(16)
>
> If I want to start a telephone company, I have to be able to connect my companies' lines with the lines of the incumbent telephone company. ... If the telephone companies block the interconnections or deny these interconnections to the new player, they can effectively frustrate entry and stop competition from happening. This fundamental asymmetry is at the root of our concerns.(17)

The Canadian Cable Television Association (CCTA) recognizes that duplicated overhead costs would result from this safeguard, but offers the following cost-benefit analysis:

> The benefits of competition in terms of price reductions, innovation, better services et cetera ... We believe that those benefits will be maximized if separate subsidiary structures are used. We do not deny that there may be some extra costs associated with this, but our belief is that the extra costs are trivial compared to the benefits. You can see this very clearly if you examine the history of the use of separate subsidiaries in Canada.(18)

In support of this position, one cable television official recounted some of the sector's history:

> We have in this country two models of competition, one that is working well and the other that is a total disaster. I am referring, of course, to the cellular telephone model and the long distance competition model. Why is there a difference? It is because, in the case of cellular, policy-makers recognize the immense power of the dominant telephone companies.
>
> To ensure that competition would remain sustainable, they required two things: First, they require that the telephone companies offer their cellular service through a structurally separate company in order to minimize the possibilities and opportunities for cross-subsidization that could bankrupt a competitor; and second, they implemented a "no headstart" rule that prevented the telephone companies from offering cellular service until Cantel, the non-telco competitor, could. As a result, and because of those two policies, we have a vibrant competitive market for wireless services in this country.
>
> The other model, long distance, does not have structural separation and, of course, with the telephone companies' 100-year headstart, the competitors are really coming from very far behind in this race.(19)

The CRTC knows this history only too well, but came to the following

conclusion:

> **Since the Split Rate Base proceeding is currently under way, and because price caps will be in place by 1998, there appears to be no compelling need for a telephone company to set up a separate affiliate to apply for a broadcasting distribution licence.** However, the Commission does not preclude such an option and notes that, to resolve issues of foreign or Crown ownership, this or some alternative may be necessary for market entry by some telephone companies.(20)

## OVERSEAS TELECOMMUNICATIONS AND TELEGLOBE INC.

The reasons that favour competition in local and long distance telephone services should also apply to competition in international services. It has been the practice of many countries, including Canada, to cross-subsidize local telephone service with revenues from international telecommunications services. They accomplish this by charging excessive, non-market rates for providing in-coming and out-going telecommunications services.

> I should point out to you that there is an agreement already between Stentor and Teleglobe under which Teleglobe guarantees to Stentor that the prices it charges for this service of overseas transmission will be no higher than the American telcos pay for that same kind of thing. That is forcing Teleglobe to get its costs down. Another way to do it is simply to have entry. Its costs will have to come down or it will perish or move onto some other line of business. That is the virtue of competition.(21)

One could further argue that, even with the Stentor-Teleglobe pact in place, Canadian consumers are still paying non-competitive overseas telephone rates.

> Under agreement between Stentor and Teleglobe, Teleglobe is required to keep its rates competitive with those of the U.S. However, large customers in the U.S. do not pay the tariffed rates. They do pay bulk or what is called "street prices." As long as Teleglobe is a monopoly, they do not have to meet those prices, just what is called the base price or the tariff.(22)

The impact of such a monopoly goes beyond the simple issue of pricing of international services to include the types of services offered:

> The range of services offered by Teleglobe is another issue. Our research also demonstrated that the U.S.-based international carriers that operate in a competitive environment offer a much wider range of international voice, data, broadband, multi-media and video-conferencing services than what is available in Canada.
>
> Teleglobe relies on conventional switched voice services for 97 per

> cent of its revenues. In other words, 97 per cent of Teleglobe's activity [is] IDD, international direct dialling. This means that Canadian-based content and information-related services will not have the same opportunity to benefit from convergence, since the range of international services, particularly broadband services, available in Canada is very limited.(23)

And in terms of the Canadian economy:

> The current monopoly has a negative effect on Canada's ability to compete in the international arena and is denying customers in Canada many of the benefits of competition that have been realized in the long-distance market. For example, in a recent speech, the Director General, Economics and International Affairs, Bureau of Competition Policy, remarked that facilities-based long-distance services competition saved customers an estimated $800 million in the past two years, with savings of a total of $1.3 billion projected through the end of the year.
>
> Similarly, across the border in the U.S. ... the Economic Strategy Institute reports that in the period following AT&T divestiture, interstate long-distance prices in the U.S. for residential customers declined 50 per cent in real terms, and long-distance revenues grew by 53 per cent.(24)

The international telecommunications marketplace has changed dramatically in the past decade. Competitive platforms have recently been developed by the major telecommunications carriers of most countries, including Canada, to provide seamless global communications services. These competitive services make it possible for Canadians to bypass non-competitive telecommunications services and are indirectly forcing the rates to more competitive levels.

In recognition of a future in international telecommunications that will be, by and large, characterized by a competitive market structure, change must be accommodated. The Government of Canada must endorse the efforts of the Negotiating Group on Basic Telecommunications (NGBT) to bring an orderly transition to competitive pricing and trade in international telecommunications services. As a result, the monopoly privilege in overseas telecommunications services granted by the federal government to Teleglobe must come to an end. Teleglobe must be re-engineered to compete in a competitive environment.

> Teleglobe has evolved over the years, largely as a result of government policy, to become a unique and highly specialized component of the Canadian telecommunications industry. Current legislation and regulations reflect this situation. The transition from a "carrier's carrier" with an exclusive mandate, highly dependent on a single domestic customer, to that of a modest-sized player in a competitive overseas facilities-based market, poses a significant challenge for Teleglobe. The company is ready to face this challenge. (25)

In terms of Canadian national policy, however, one must recognize that there is a trade-off to be made when moving to a competitive international telecommunications market.

> The critical question then is simply whether we should open overseas telecommunications, which is now a monopoly, and make it available to all comers in general. I could assure that if we do that, which I advocate by the way, one effect will be to lower the cost of that overseas communications. However, the other side of it is that a substantial amount of Canadian traffic will be moving over foreign facilities because it is very easy to use a broadband line and run the traffic to New York and put it on AT&T's system or through the international cable that it operates and so forth.(26)

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(1) The local loop includes the wires, cables, poles and various equipment that connect the terminal to a local central office.

(2) Derek Burney, Senate of Canada, *Proceedings of the Standing Senate Committee on Transport and Communications*, First Session, Thirty-Fifth Parliament 1994-95, Issue No. 36, p. 6.

(3) Jocelyne Côté-O'Hara, Senate of Canada, *Proceedings of the Standing Senate Committee on Transport and Communications*, First Session, Thirty-Fifth Parliament 1994-95, Issue No. 37, p. 9.

(4) The Bureau of Competition Policy, *Implementation of Regulatory Framework: Local Interconnection and Network Component Unbundling*, January 1996, p. 16.

(5) Bridger M. Mitchell, "Efficient Pricing of Telecommunications Services and the Ways to Get There," in Steven Globerman, W.T. Stanbury and Thomas A. Wilson, *The Future of Telecommunications Policy in Canada*, Bureau of Applied Research of the University of British Columbia and Institute for Policy Analysis of the University of Toronto, April 1995, p. 85-86.

(6) International Telecommunication Union, *World Telecommunication Indicators 1994/95*, Table 11, p. 33.

(7) The Bureau of Competition Policy (1996), p. 7.

(8) Benoit Courtois, Senate of Canada, *Proceedings of the Standing Senate Committee on Transport and Communications*, First Session, Thirty-Fifth Parliament 1994-95, Issue No. 36, p. 11-12.

(9) Juri Koor, Personal written correspondence with the Clerk of the Standing Senate Committee on Transport and Communications, 1996, p. 8. In this context, a virtual basis would mean a non-physical connection of equipment, in particular the possibility of partitioning a switch to simulate a physical connection.

(10) The Bureau of Competition Policy (1996), p. 23.

(11) James Meenan, Senate of Canada, *Proceedings of the Standing Senate Committee on Transport and Communications*, First Session, Thirty-Fifth Parliament 1994-95, Issue No. 35, p. 6-7.

(12) The Bureau of Competition Policy (1996), p. 25.

(13) Jocelyne Côté-O'Hara (Issue No. 37), p. 12.

(14) The Office of Telecommunications (Oftel), *Telecom Services: Influences on Customer's Choice of Suppliers*, p. 6.

(15) Canadian Radio-television and Telecommunications Commission, *Competition and Culture on Canada's Information Highway: Managing the Realities of Transition*, 1995, p. 21.

(16) Richard Stursberg, Senate of Canada, *Proceedings of the Standing Senate Committee on Transport and Communications*, First Session, Thirty-Fifth Parliament 1994-95, Issue No. 35, p. 20.

(17) *Ibid*., p. 20.

(18) *Ibid*., p. 34.

(19) Phil Lind, Senate of Canada, *Proceedings of the Standing Senate Committee on Transport and Communications*, First Session, Thirty-Fifth Parliament 1994-95, Issue No. 24, p. 6-7.

(20) Canadian Radio-television and Telecommunications Commission (1995), p. 22.

(21) William Stanbury, Senate of Canada, *Proceedings of the Standing Senate Committee on Transport and Communications*, First Session, Thirty-Fifth Parliament 1994-95, Issue No. 28, p. 11.

(22) Michael Kedar, Senate of Canada, *Proceedings of the Standing Senate Committee on Transport and Communications*, First Session, Thirty-Fifth Parliament 1994-95, Issue No. 32, p. 7.

(23) *Ibid*., p. 7.

(24) James Meenan (Issue No. 35), p. 9.

(25) Teleglobe Canada Inc., *Review of Canadian Overseas Telecommunications and Specifically Teleglobe Canada's Role*, 1995, p. 8.

(26) William Stanbury (Issue No. 28), p. 11.