

**4. Carrier access procedures**

- 4.1** A single numbering plan is fundamental to the establishment of vigorous competition. Carrier specific numbering should be avoided to reduce consumer confusion and increase transparency. At the same time, the capability of overriding any preselected routings should be maintained. The Government's decision that the numbering plan be administered by AUSTEL is appropriate.
- 4.2** Any requirement to dial additional digits for access to the second carrier network would create an extraordinary advantage for the dominant carrier. If Telecom/OTC has this advantage, then incentives would need to be made available to the second carrier to counterbalance the advantage, e.g. discounted interconnection/access charges.
- 4.3** As a general principle, the new carrier should be able to share utilization of ducts, towers and rights of way. Any other arrangement would confer an unfair competitive advantage upon Telecom/OTC. AUSTEL may consider that it would be an appropriate body to oversee the terms upon which such shared arrangements are established, including determination of whether it is appropriate for these purposes to distinguish between existing and new infrastructure.
- 5. Call Handover principles**

- 5.1** The call handover principles outlined in chapter 5 of AUSTEL's Discussion Paper are generally acceptable.

**TECHNICAL AND OPERATIONAL ARRANGEMENTS  
FOR INTERCONNECTION AND ACCESS**

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**1. Framework principles.**

**1.1** In our response to AUSTRAL's Discussion Paper on the economic and commercial issues of interconnection, we have stated that the following general principles should be considered in determining any interconnection regime:

- (a)** there should be reciprocity between carriers involved;
- (b)** carrier to carrier arrangements and carrier to reseller arrangements need to be able to be implemented on a commercial basis;
- (c)** the interconnection regime must strike an appropriate balance between encouraging a desirable level of facility investment by the second carrier, on the one hand, and discouraging the wasteful duplication of facilities, on the other hand. It is important to encourage new network investment where it is at a lower cost than existing facilities or introduces new technology or new customer facilities;
- (d)** interconnection pricing should be conducive to optimal capacity planning and utilisation on a national basis and encourage rational, non-vestibla and long term pricing behaviour; and
- (e)** there must be a mechanism for efficient determination of disputes concerning interconnection.

**1.2** The implementation of any general principles and the framework which is established for interconnection and access should ensure that economically efficient investment outcomes are encouraged.

**1.3** An economically efficient outcome, as well as a more robust competitive environment, will be encouraged if the new carrier can elect what interconnection or access arrangements are made.

**2. Definitions and broad specifications.**

**2.1** We will respond on these items after we have had an opportunity to review certain necessary technical and operational information on the Telecom network.

**3. Points of Interconnection.**

**3.1** The second carrier should be able to make economic choices, on a case by case basis, between building its own transport or switching facilities and using Telecom/OTC's facilities. In addition, where the second carrier elects to use Telecom/OTC's facilities, interconnection arrangements should be sufficiently unbundled such that the second carrier pays only for what it needs. While the offering of a choice of interconnection arrangements may add some complexity to the process, the potential for increased economic efficiency is certain to be increased.

# *BELLSOUTH*

## *EUROPE*

Comments of BellSouth Europe to the European Commission's Green Paper  
on the Liberalisation of Telecommunications Infrastructure and Cable  
Television Networks

March 15, 1995

## Introduction

BellSouth Europe is pleased to provide written comments to the Commission regarding the "Green Paper on the Liberalisation of Telecommunications Infrastructure and Cable Television Networks" (the "Green Paper").

BellSouth, one of the world's leading telecommunications companies, has a long-standing commitment to Europe and maintains a headquarters office in Brussels. By following its strategy to develop business projects in the EU in partnership with strong local partners, BellSouth is participating in cellular operations in Denmark (Sonofon) and Germany (E-Plus), and mobile data operations in Belgium, Germany, France, The Netherlands and the U.K.

BellSouth has also gained considerable experience in the area of competitive networks through its operations in the United States, as well as its leadership as the key operator in Optus, the second carrier in Australia, and BellSouth Chile, a long-distance carrier in South America. With its wireless operations in Europe as a base, BellSouth is now transferring its capabilities in the competitive network area to support the Commission's initiatives to bring the benefits of competition to Europe. The initial result of this strategy has been the recent selection of BellSouth as the operating partner in the Telecom-2 consortium, which expects to be granted a license to operate a second infrastructure-based wireline network in The Netherlands.

BellSouth endorses the Commission's efforts to liberalize the European telecommunications market and agrees to many of the principles suggested in the Green Paper. BellSouth however wishes to comment on some of the key issues of the paper in this submission, including the industry structure, the framework for interconnection, and the universal service obligation.

## I. The Need for "Constructive Competition"

The expressed intent of the telecommunications liberalization initiatives as framed by the Green Paper is the creation of an environment to allow Europe to compete more effectively in the global economy. This competitive effectiveness will require superior information access, processing and transmission capabilities. Implicit in the "Green Paper" is the premise that these superior capabilities can only be gained via a superior telecommunications infrastructure fabricated from effective competition and significant private funding. The "Green Paper" further notes that significant private funding depends on investment certainty borne of a stable regulatory regime in which "non-commercial political burdens" are removed and reasonable expectations of profitability are inherent. BellSouth Europe emphatically concurs.

From this position, the "Green Paper" concludes that open, unrestricted infrastructure competition and effective competition are synonymous. In many cases, this is true. Open competition drives prices toward marginal costs thereby maximizing social surplus. This makes good economic policy in the majority of sectors wherein marginal (or, incremental) costs exceed average costs. It is not however good economic policy in those sectors in which incremental costs are chronically less than average costs. If prices equal incremental cost and incremental cost is less than average cost, investors cannot possibly recover their capital, much less realize reasonable profitability. Under these conditions rational investors would not invest.

These conditions have been observed in practice. The airline industry is an example of a segment in which incremental costs are significantly less than average fixed costs. The International Telecommunication Union (ITU) has noted the on-going effects of "destructive competition" in this sector with some disturbing implications for the telecommunications sector:

*"... the international airline industry has lost almost US \$16 billion between 1990 and 1992. This is greater than the cumulative profits achieved by the industry in its first 60 years of existence."<sup>1</sup>*

Destructive competition in the international airline industry was foreshadowed by proportionate operating losses and market failures in the U. S. where deregulated, open competition has been in effect for over 15 years. The ITU goes on to note that:

*"The telecommunication service industry and the airline industry have much in common."<sup>2</sup>*

In addition to high fixed cost and relatively low incremental cost similarities,

*"Both are undergoing deregulation and are subject to the introduction of competition... But the recent experience of growth and profitability in the two sectors has been markedly different... So why the big difference in the fortunes of the two*

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<sup>1</sup> World Telecommunication Union Report 1994, International Telecommunication Union, Geneva, Switzerland, 1994, p. 8.

<sup>2</sup> Ibid

industries? The main reason appears to be that the process of deregulation and competition has extended much further in the airline industry than in the telecommunications industry. This has been expressed as price wars (in the airline industry)... If the airline industry is to be taken as a model for the future of telecommunications, then there are some important lessons to be learned."<sup>3</sup>

The fundamental lesson appears to be that open competition is not sustainable in a declining cost industry. Based on US airline experience, the sequence appears to involve a protracted initial phase in which massive amounts of money are lost and market failures are commonplace. The initial phase appears to be followed by a market consolidation phase in which the stronger players acquire their weaker competitors. Ultimately, the market is expected to be rationalized into a relative few survivors capable of sustaining viable competition.

Open competition is supposed to eliminate the incapable and make the capable more capable—but it is questionable whether the public good is truly served by the economic carnage that precedes market consolidation. As exemplified by the US airline industry, price wars produce transitory below-cost prices for consumers. In the short-run, that is good from the consumer's perspective, but it masks concomitant deterioration in service quality as competitors frantically cut costs to attempt to stay afloat. Investors simply will not risk capital under these circumstances to upgrade the industry's productive assets. Ultimately, "economic Darwinism" will rationalize the market as indicated above, but the cost will be high. Europe cannot afford the delay in reaching the same stage of market evolution that some of its international competitors have already reached.

Given the fact that some of Europe's international competitors are years ahead in rationalizing their telecommunications markets, is there some way to leapfrog the market carnage phase of open competition, identify the probable survivors and in effect, consolidate the market ahead of time? Just how hard is it to identify probable survivors? Are their identities so nebulous that we must let the market take 10-20 years to decide the issue? Consider the US. long distance market. The 1978 EXECUNET decision effectively opened that market to competition. Would a 1978 observer have projected MCI and AT&T as the principal market survivors in 1995? BellSouth believes the answer is "yes".<sup>4</sup>

Based on the above, BellSouth Europe recommends that the European Commission adopt the general principle that liberalization of telecommunications infrastructure limit competitive entry to a managed number of entrants until such time as effective competition is achieved (i.e., when no single carrier has dominant market power).

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<sup>3</sup> *Ibid*

<sup>4</sup> Since it was the product of multiple mergers and acquisitions, it would not have been possible to project Sprint as a survivor in 1978. On the other hand, Sprint holds less than 10% of the U.S. long distance market by most measures and it is therefore questionable whether Sprint is principal market survivor or simply a niche player.

## II. The Need for Economically Efficient Interconnection Charges

### A. Development of a Framework for Interconnection

It is fairly common for interconnection charges to constitute 40-60% of a typical alternate telecommunications service provider's total operating costs. This emphasizes the importance of reasonable interconnection charges for the creation of sustainable competition. It would not be an overstatement to say that the success or failure of the European Community's telecommunications liberalization initiatives may hinge on the establishment of an appropriate framework for the establishment of these charges.

This framework should include the setting of objectives that promote economic efficiency through effective competition. In other words, interconnection charges should:

- Reflect cost causation
- Stimulate efficiency
- Promote effective competition

BellSouth Europe supports the concept that the cost causation principle is inherent in long-run incremental costs (LRIC). Both the WIK/EAC and Arthur Andersen interconnection studies prepared for the Commission, support the cost causation nature of LRIC. These studies also report the paradox that European regulators universally use Fully Distributed costs (FDC) as the basis for pricing decisions. There is sufficient reason for using FDC for pricing in monopoly markets. By virtue of its basis in the typical PTT's accounting system, FDC is conceptually simple, auditable and "balances to the books" but, unfortunately, it is not consistent with cost causation. It is therefore not useful for pricing decisions in competitive markets. The WIK/EAC study notes that "... reported costs are often not at all reflective of the actual cost causation."<sup>5</sup> The Arthur Andersen study conclusively demonstrates the fallacy of using FDC for economic decision-making in its graphic "Death Spiral" example.<sup>6</sup> With convincing evidence that FDC in all its variant forms cannot support the development of cost-based interconnection, BellSouth Europe supports the Green Paper's (Part II, p. 73) position that "Regulatory authorities should have a responsibility ... for ensuring ... cost-oriented pricing structures..." This should be done by insisting on LRIC-based interconnection charges.

"One of the prime motivations for liberalising the telecommunications sector is that incumbent operators are believed to be inefficient."<sup>7</sup> Based on liberalization efforts outside the European Community (U.S., U.K., Australia, etc.), there is ample

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<sup>5</sup> Network Interconnection in the Domain of ONP. Wissenschaftliches Institut für Kommunikationsdienste/European-American Center for Policy Analysis (WIK/EAC). Bad Honaf, Germany, 1994, p. 89.

<sup>6</sup> Arthur Andersen Study Prepared for the Commission of the European Community DG XIII, 1994, Appendix 3.

<sup>7</sup> Ibid., p. 63.

evidence this is true. In the U.S., for example, Regional Bell Operating Company productivity in terms of access lines per employee has more than doubled since divestiture in 1984. Efficiency improvements have a direct impact on international competitiveness and thus a nation's future economic health will be significantly affected by the relative efficiency of its incumbent carrier. In this vein, the Arthur Andersen study notes:

*"As far as interconnect is concerned it involves ... setting interconnect charges which give incentives to the incumbent to improve its efficiency."*<sup>8</sup>

The study goes on to suggest a way to accomplish this goal is to adjust specific components of the interconnection charge:

*"There should be only partial funding of the local access loss. This will incentivise the incumbent to improve efficiency in the provision of local access."*<sup>9</sup>

As indicated above, incumbents have ample room to finance these and other adjustments through efficiency improvements. In Australia, where the new alternate carrier's interconnection charge contains no explicit local access loss component, the incumbent, Telstra, reports record profits as a direct by-product of its efficiency improvements efforts. AT&T's Chief Executive Officer Robert Allen has stated in U.S. congressional committee hearings that competition has made AT&T a more profitable company because of AT&T's greatly increased efficiency. The record is clear—effective competition benefits the incumbent. To date, the record does not present as positive a picture for the newcomers.

After 15-20 years of competition, AT&T still commands 2/3 of its contested US long distance market and BT has only surrendered about 10% of its overall market (while Mercury reports operating losses and becomes more of a niche-player by recently exiting certain markets). The conventional assumption that ex-monopolists are easily attacked by their new, market-hardened competitors has proven wrong for two fundamental reasons:

- Monopoly-bred inefficiency plays into the incumbent's hands by (1) enabling dramatic improvements in operating results through relatively easy "fat-cutting" and (2) justifying high interconnect prices designed to largely recoup the incumbent's past inefficiencies. The combination of high prices and significantly reduced costs virtually guarantee the kind of economic rejuvenation Telstra, Telecom New Zealand, BT and other incumbents have experienced with the onset of competition.
- The incumbent brings enormous structural advantages to the competition in the form of a "paid-for" infrastructure, name recognition, brand loyalty, consumer inertia, preferential access to data regarding the calling habits of its interconnecting competitor's customers, superior access to infrastructure, established regulatory/legislative relationships, etc.

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<sup>8</sup> *Ibid.* p 166

<sup>9</sup> *Ibid.* p 185

The WIK/EAC study takes note of the incumbent's inherited structural advantages in its executive summary:

*"Even with interconnection charges set as low as marginal or average incremental costs, the incumbent is unlikely to lose its market quickly. Usually there are sunk costs (that entrants have to expend), switching costs by customers, name recognition, brand loyalty and other advantages of the TO over entrants that prevent consumers from switching to entrants even at substantially lower prices. For example, in the UK, Mercury only gained about 10% in its first ten years."<sup>10</sup>*

The Arthur Andersen study comes to the same conclusion. It goes on to suggest how this formidable barrier to effective competition can be offset:

*"One practical way to offset such structural advantages is to give the competing new entrants temporary abatements of interconnect charges, expressed in terms of a percentage of the charges paid by the entrant for the interconnect capabilities it receives. This was the approach adopted in the U.S. after the initial divestiture of AT&T."<sup>11</sup>*

As regards this last point, MCI received interconnection price abatements as high as 65% [the so-called Exchange Network Facilities for Intercity Access (ENFIA) discounts] until the late 1980s—ostensibly to compensate for unequal access. Entrants' unequal access to the local network is second only to high interconnection prices as the most formidable barrier to effective competition. Equal access involves the following principal components:

- Preselection
- Neutral Provisioning
- Ubiquitous end office access
- Unbundled interconnection charges

In short, equal access means the incumbent and the entrant share the same mode of access to their respective customers and, furthermore, their customers have the same mode of access to their carrier of choice. It also means that infrastructure requested by the entrant's and the incumbent's service provision (retail) units receive the same level of priority of provisioning, service and repair.

*"Competitors are disadvantaged if they cannot order and obtain leased lines, circuit rearrangements, and enhanced services on reliable commercial schedules that are equivalent to the service a TO provides to its own departments or subsidiaries. Experience in liberalised markets (U.S., U.K.) suggests that regulators need to establish a requirement for equal provisioning and to monitor TO performance to ensure equal access."<sup>12</sup>*

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<sup>10</sup> WIK/EAC, p. 10.

<sup>11</sup> Arthur Andersen, p. 172.

<sup>12</sup> WIK/EAC, p. 37.

Possibly the most effective way to ensure equal access and confidential treatment of entrant's commercially-sensitive traffic data is to separate the TO's infrastructure (wholesale) and service provision (retail) units into different organizations under a TO holding company. The creation of such an organization may also lead to significant efficiency gains. Telecommunications infrastructure is characterized by high fixed costs, low marginal costs and overall economies of scale. An infrastructure organization's operating results are thus improved to the extent it is able to spread its fixed costs over a wider circle of paying customers. Such an organization would tend to welcome new business whether it came from an entrant or the incumbent's own service provision unit. The incumbent's service provision unit would naturally take a contrary view. The best ways to ensure neutral treatment for all service providers is to organizationally separate the incumbent's infrastructure and service provision units.

In summary, BellSouth Europe's comments regarding a framework for the development of interconnection charges are:

- Interconnection charges will have a major impact on the potential success of infrastructure liberalization
- Interconnection charges should reflect cost causation and, as such, should be based on long-run incremental costs (LRIC).
- Interconnection charges should motivate incumbent efficiency.
- Rather than handicapping incumbents, past monopoly-bred inefficiencies often greatly advantage these incumbents when competition with new entrants requiring interconnection begins.
- Incumbents bring enormous structural advantages to competitive situations.
- To develop effective competition, interconnection charges must be adjusted to motivate incumbent efficiency and counterbalance the incumbent's considerable structural advantages.
- Effective competition is largely dependent upon equal access to infrastructure by competing parties. This is most easily accomplished by organizationally separating the incumbent's infrastructure and service provision units. Where equal access does not exist, interconnection charges should be adjusted to achieve the same competitive effect (e.g., the AT&T ENFLA discount to MCI).

#### B. Development of Interconnection Charges

Although not specifically acknowledged in either the WIK/EAC or Arthur Andersen reports, it is nonetheless clear that developing the right set of interconnection charges is not subject to mathematical certainty. The necessary adjustments to interconnection charges cited above can only be subjectively determined. This fact disturbs many regulators since subjective decisions are the most difficult to defend. This does not mean reasonable bounds (so-called "sanity checks") cannot be established for interconnection charges. Enough experience with interconnection charges has been gained over the past several years to establish bounds of reasonableness.

Australia has demonstrated that a busy period composite access charge rate of approximately 0.023 US\$ per minute in concert with partial equal access produced record profits for the incumbent, Telstra. It also enabled the new entrant, Optus, to apparently develop a viable business. This suggests that full equal access and the same composite access charge rate may be within an appropriate range. The Arthur Andersen study cites a recent OVUM study of worldwide interconnection charge experience.<sup>13</sup> The OVUM study found that whatever the theoretical basis for setting charges, new entrants need to have interconnection charges of less than approximately 0.010 US\$ for a three-minute call to create and maintain a viable business. This correlates fairly well with Australian experience. Regulators should thus be fairly confident that peak period interconnection charges in the range of 0.02 to 0.03 US\$ per minute for essentially equal access are reasonable. In fact, to avoid the long drawn-out, litigious interconnection charge "negotiations" that have occurred in the past, European regulators should initially establish a range of reasonable outcomes. The Australian regulatory agency, AUSTEL, did this with great success as noted by the ITU in its report:

*"More often than not interconnection arrangements have been established only after a new market entrant has been licensed and the consequent delays have greatly handicapped the expansion of new services. This has been the case in the United States, the United Kingdom, New Zealand and most recently, Poland. In Australia, the regulatory body, AUSTEL, laid down principles for equitable interconnection from the outset and this has meant that a competitive environment has been established much more quickly than in other countries. Regulators elsewhere in the world looking to license new market entrants would do well to follow AUSTEL's example."<sup>14</sup>*

Beyond establishing principles, AUSTEL prescribed the 0.023 US\$ composite peak period interconnection charge cited above before Optus and Telstra initiated interconnection negotiations. With this behind them, a workable agreement framework was completed in about six weeks with only minimal need for AUSTEL arbitration.

BellSouth Europe agrees with the ITU that regulators would do well to follow AUSTEL's example in establishing interconnection parameters at the start of the liberalization process. Regarding use of the Australian approach to telecommunications liberalization as a model, the economist Henry Ergas comments:

*"Competition is likely to establish itself relatively quickly in significant parts of the Australian market... This is for three primary reasons. The first is that the government has put in place a framework of competitive safeguards which anticipates and solves in advance many of the difficulties which have hindered the establishment of competition in the other markets where liberalisation has been attempted... this framework should significantly reduce the lead time involved in the transition to competition and allow an early move to a fully commercial market. A second reason has to do with the selection of the competing carrier. In the United*

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<sup>13</sup> Arthur Andersen, p. 181.

<sup>14</sup> ITU, p. 69

Kingdom and the United States, the transition to competition involved entry by players with little experience of major common carrier markets and whose financial resources were slight relative to the task they were taking on. In contrast, the winning consortium in Australia involves major foreign carriers which ... have similar or even greater technical resources than the incumbent carrier and ... ready access to finance. It is only natural to expect that this will be reflected in a more rapid erosion of the incumbent's bottleneck control... Finally, the fact is that the Australian market involves relatively powerful and sophisticated major customers, well aware of the range of services and service options available in competitive markets overseas... Taken together, these factors mean that the development of workable competition in Australian telecommunications will be measured in years rather than, as in the United Kingdom and the United States, in decades... This is primarily because the greatest benefits of liberalisation come not from the inroads made by the entrants, but from the improved performance by the incumbent. In no country have the entrants secured more than 15 to 20 percent of the market as a whole, and even in the Australian circumstances they are unlikely to secure much more. What really counts for improved economic performance are, consequently, the efficiency gains made in the remaining 80 percent, that is, the market held by the established carrier."<sup>15</sup>

In light of the market liberalization lead established by some of its major trading partners, the European Community should reduce the period required to reach the benefits of effective competition by avoiding the mistakes of these trading partners as Australia has done. This suggests a need for close attention to the Australian model.

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<sup>15</sup> Ergas, Henry, "An Alternate View of Australian Telecommunications Reforms," from Implementing Reforms in the Telecommunications Sector: Lessons from Experience, edited by Bjorn Wellenius and Peter A. Stern, The World Bank, Washington, D.C., 1994, p. 250

### III. The Need to Harmonize Public Policy, International Competitiveness and Economic Efficiency

Economic efficiency theory does not address those situations in which there are compelling social reasons for producing designated goods and services at prices which do not cover production costs. Historically, universal telephone service has been one of these designated goods and services. The social costs of universal service have traditionally been recovered via internal cross-subsidies provided by consumers of other telecommunications services including interlocal and international long distance. It is in this context that European Community member states and their global trading partners face the need to reconcile the social impact of growing global economic competition with potential technological expansion of universal service. In concert with the consensus that a society's telecommunications capabilities and its ability to compete in the global economy are tightly correlated, the question becomes to what extent any member state should compromise economic efficiency by significantly expanding universal service.

The "Green Paper" appears to suggest that such a compromise is worthwhile to provide egalitarian access to advanced telecommunications services, possibly including multimedia. BellSouth Europe suggests this may be feasible via some changes in the way universal service is funded; i.e., there may be a means of bridging some of the gap between economic efficiency and expanded universal service.

If expanded universal service is a reasoned response to vital public demand, the discipline imposed by correlating cost causation with cost recovery can be at least partially maintained via public funding. In this way, the expanded cost of universal service can be spread over all economic sectors avoiding disproportionate impact on the telecommunications sector and international competitiveness.

Since most developed countries support the traditional definition of universal service, BellSouth Europe does not see immediate threat to the European Community's relative international competitiveness by continuing to fund universal service via the telecommunications sector alone. There are time constraints, however, on viably maintaining the status quo. Some of Europe's international trading partners are considering measures that would limit the impact of universal service on economic efficiency. These measures include:

- Targeting subsidies to the truly marginal consumer.
- Rebalancing local service and long distance tariffs to better align prices with costs.

Proponents of these measures maintain universal service's fundamental social aims can be realized without unduly compromising economic efficiency:

*"The breakup of AT&T in 1984 into a long-distance (and manufacturing) component and seven local-service companies, the Bell operating companies, created the opportunity for billions of dollars of annual economic efficiency gains for the U.S. economy. These potential annual efficiency gains arise in part from the*

establishment of a rational price system for telephone services. At the time of the breakup (and to a lesser extent today) basic access to the telephone network received a large cross subsidy from other telephone services; that is, the price of basic access was well below its incremental (or marginal) cost. The largest component of this cross subsidy arises from the prices of long-distance services which are well in excess of their incremental cost.

... Economists were aware of this problem and in the 1970s recommended that long distance prices be decreased and basic (local) access prices be increased, which eliminates the loss in economic efficiency. Income-distribution problems arise, but these problems can be solved by a targeted subsidy to low-income households...

Our (price elasticity) estimates also find an important effect of long distance prices on the demand for basic (local) access. Indeed, the effect of long distance prices is sufficiently large that a revenue-neutral rebalancing of telephone prices, which would reduce the subsidy for basic (local) access and lower long-distance prices would lead to large gains both in economic efficiency and increased telephone penetration in the United States. Thus, the perceived trade-off between economic efficiency and telephone penetration (universal service) is unlikely to exist anymore."<sup>16</sup> (Emphasis and parenthetical remarks added)

In fact, telephone penetration increased from 91.4 percent to 93.3 percent of US households in the 1984-1990 period.<sup>17</sup> During this period, basic local service prices increased about 35 percent. This increase was balanced by long distance decreases of about the same amount. Targeted subsidies in the form of deeply-discounted "lifeline" local service rates were also made available to low-income households during this period. A policy of targeted subsidies and tariff rebalancing in the U.S. has had the dramatic effect of improving both economic efficiency and universal service. The Hausman, et al., study however notes that steps in the United States toward cost-based pricing are well short of the goal:

"... the current combination of federal and state policy toward regulation of telephone service in the United States has an efficiency loss in the billions of dollars and retards the advancement of the "Information Age" which many individuals believe will increase productivity and lead to many new services for telephone consumers."<sup>18</sup>

Both the WIK/EAC and Arthur Andersen studies agree that the long-term objective should be to remove from the telecommunications sector the burden of financing social policy (universal service, below-cost local service and geographic averaging). As demonstrated in the U.S., a carefully crafted system of targeted subsidies, tariff balancing and public funding has the potential to realize both important social objectives and improved economic efficiency. The Arthur Andersen study points out that tariff rebalancing alone can reduce appropriate universal service obligations

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<sup>16</sup> Hausman, Jerry, Timothy Tardiff, and Alexander Belinfante. "The Effects of the Breakup of AT&T on Telephone Penetration in the United States." Federal Communications Commission, 1990. pp. 178-179.

<sup>17</sup> *Ibid.*, p. 182.

<sup>18</sup> *Ibid.*, pp. 183-184.

(USO) and local access service deficits to 2% or less of the average European Community incumbent's annual revenues.<sup>19</sup> Achieving the long-term objective is thus possible. BellSouth Europe recommends that infrastructure liberalization utilize appropriate proportions of targeted subsidies, tariff balancing and public funding to harmonize social goals in the short-to-mid-term with the ultimate goal of funding social policy from public sources.

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<sup>19</sup> *Ibid.*, p. 158

#### IV. Summary of Comments from BellSouth Europe

1. Private funding of world-class telecommunications infrastructure depends on investor confidence in receiving acceptable rates of return. Open competition in a declining cost industry such as telecommunications is unlikely to generate sufficient investor confidence since prices tend to approach marginal production costs and cannot therefore recover the investor's capital. This is especially true if the industry is expected to be burdened with significant increases in social costs such as expanded universal service. BellSouth Europe recommends that the Commission adopt the position that competitive entry must be limited to 2 to 3 proven infrastructure providers to ensure constructive competition and the ability to attract long-term private capital.
2. The Commission should establish guidelines that promote the development of interconnection charges that:
  - Reflect cost-causation
  - Stimulate economic efficiency
  - Promote effective competition

To achieve these objectives BellSouth Europe recommends that interconnection charge development be subjected to the following guidelines:

- Interconnection charges should largely reflect long-run incremental costs (LRIC) caused by the interconnection.
- Since the incumbent carrier has ample latitude to rationalize its costs in the short-term, proportionate recovery of joint and common costs should be limited by global "best practice" benchmarks for such costs established by incumbents in other fully competitive markets.
- Interconnection charges should be sufficiently reduced to factor-out the incumbent's structural market advantages and superior access advantages (if any).
- A range of reasonable outcomes from the interconnection charge negotiations between the incumbent and entrant should be established at the start. Based on experience in constructively competitive markets, BellSouth Europe recommends a standard, peak-period, interconnection charge range of 0.02 to 0.03 US\$ per minute under full equal access conditions.
- In recognition of the consensus that telecommunications is a declining cost industry, interconnection charges should be subject to a Consumer Price Index minus X (CPI-X) time gradient where the productivity factor, X, is such that CPI-X is normally negative.

- Local access loss and the universal service obligation should be funded independent of interconnection charges. In both cases, proportionate recovery should only be partially funded to promote incumbent efficiency.
3. Any expansion of universal service beyond its traditional voice telephony basis should be publicly funded to avoid compromising the European Community's global economic competitiveness. Furthermore, the long-term objective should be removal of the burden of funding social policy (universal service, below-cost local service and geographic averaging) from the telecommunications sector beginning with a combination of (1) targeted subsidies, (2) rebalanced tariffs and (3) public funding. Ultimately, social policy as defined above should be reducible to no more than 1-2% of industry revenues based on "best practice" benchmarks. At this level, the transition to full public funding of social policy can probably be effected at minimal political risk.

BellSouth Europe believes Commission adoption of these recommendations in concert with other recommendations of the Green Paper will produce effective and sustainable competition in the telecommunications sector. Such competition will yield benefits in increased economic competitiveness for the member states and increased social benefits for the populations covered.

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30 March 1995

Don Cruickshank Esq  
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Dear Don

**A Framework for Effective Competition**

I enclose a copy of U S WEST International's submission to your Consultative Document on the future of interconnection, *A Framework for Effective Competition*. U S WEST very much welcomes the opportunity to contribute to the consultation over what, we believe, is the most significant regulatory review paper published in the UK.

As you know, U S WEST strongly believes that the UK has succeeded in creating one of the world's most liberalised telecommunications markets. However, you and your colleagues at OFTEL are right to want to build on the achievements of the 1980s and early 90s. The current interconnection regime restricts operators' flexibility to offer the innovative services and pricing packages which must be at the heart of effective competition. The proposals put forward by your office in the Consultative Document are a vital step forward in removing this barrier to competition and choice.

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I hope that you and your colleagues find our submission informative and useful in arriving at your conclusions. Naturally, we would be very happy to provide any further information or clarification which would be of assistance.

Yours sincerely

  
RICHARD J CALLAHAN

*A Framework for Effective  
Competition*

A response to OFTEL's  
consultative document from

U S WEST International

## Introduction

U S WEST welcomes OFTEL's consultative document, "*A Framework for Effective Competition*", as the most significant telecommunications regulation review paper published in the UK. Its intent - the creation of effective competition - will help keep Britain at the forefront of the new telecommunications revolution.

The United Kingdom already has one of the world's most advanced, liberalised and competitive telecommunications sectors. The success of policy-makers in implementing reforms which have dramatically improved customer choice, service quality and service accessibility should not be lightly dismissed. However OFTEL is right not to be complacent.

While UK regulatory policy has delivered many benefits to consumers and the telecommunications industry alike, there are still many distortions caused by regulation which prevent the emergence of broad, effective competition. Operator's licences have expanded each time policy is reviewed, as OFTEL has sought to deal with particular regulatory distortions through further detailed regulation.

Thus the approach taken by OFTEL in this consultative document is particularly welcome as it seeks to strip away these distortions through an integrated approach to the many public policy and commercial aspects of regulation - interconnection, retail pricing, the universal service obligation and so forth - which are too often treated as separate issues.

The benefits of a regulatory framework for effective competition will be felt by both new and established operators. Consumers will benefit from an out-pouring of innovation and a diverse range of competing telecommunications services, while the UK as a whole will benefit as its citizens and companies have access to the most advanced forms of the key enabling technology for the next century.

## Executive Summary

The great variety of telecommunications services can, for the purpose of regulatory policy, be divided into two categories: interconnection and retail.

"Interconnection" should be tightly defined as those service components essential to call completion. Interconnection is a vital part of telecommunications public policy because it preserves "any-to-any" calling and a seamless network. Operators should be recompensed for costs actually incurred in interconnection; but that is all. Interconnection is a means of surmounting the externality that an originating operator, in order to complete their customer's transaction, may need to terminate their call on another operator's network.

The tariff for interconnection between originating and terminating network operators should be calculated through a "bottom up" approach which identifies the cost drivers and their long run incremental cost (LRIC), including the appropriate contribution to the cost of capital. There should be no arbitrary mark-up to this LRIC, as any attempt to add common or overhead costs will distort the market, serve as a barrier to effective competition and operate against the public good of "any to any" calling.

All other services are "retail" and operators should recover their overhead and other costs in this market, where competition will force them to allocate their costs in the most efficient manner. In general, operators should have the freedom to tailor their prices to the market, subject to competition and fair trading rules. However there may be a short-term need, as competition develops, for regulatory action to prevent dominant operators exploiting their market power in parts of the market which are nominally competitive but which are, in practice, dominated by one or two operators.

U S WEST therefore believes that a modified version of OFTEL's option 3 - a LRIC interconnection regime, including an appropriate rate of return for capital employed, with no mark-up and no specific constraint on BT's exchange line rental prices - provides the best basis for enabling sustainable competition. Option 4, which proposes a general prohibition on anti-competitive practices, could usefully complement Option 3 but, in itself, would not be a sufficient reform.

## U S WEST in the UK

U S WEST International is a partner, through Telewest PLC, in 24 cable TV franchises in the United Kingdom with the potential to serve more than 3.3 million homes and more than 500,000 businesses. U S WEST and its partners are the largest operators of cable TV and telephone services in the UK with more than 271,000 access lines in service and more than 320,000 cable television subscribers.

Through Mercury One-2-One, a 50-50 joint venture between U S WEST and Cable & Wireless, U S WEST is helping to bring the next generation of PCN wireless communications technology to the UK marketplace. Mercury One-2-One is the first wireless service priced to reach a mass market of customers offering rates 20-40% less than traditional cellular service. One-2-One also offers the world's first free local calling for wireless phones. The service has over 200,000 customers.

In the print and electronic directory business, U S WEST purchased Thomson Directories in 1994.

Elsewhere in Europe, U S WEST is a partner in developing cable TV projects in France, Hungary, Norway, Spain and Sweden and is providing wireless service in Hungary, the Czech Republic, Slovakia and Russia. Also in Russia, U S WEST established the Russian Telecommunications Development Corporation (RTDC) which is supporting the financing, development and operation of a modern intercity network for Russia. In addition, the company has a directory business in Poland and is a partner in an international gateway switch venture in Lithuania.

## Our Approach

Chapter 10 of the consultative document discusses the "*Barriers to the development of sustainable competition*". It is this concept of *sustainable competition* which we believe should be at the heart of regulatory policy. By sustainable competition, we mean an environment where companies succeed or fail in the marketplace on the basis of their ability to serve customers' needs, operate efficiently, innovate successfully and direct their investments effectively. Companies who succeed have hard won competitive advantages which are economically efficient and honestly earned.

Such an environment has been - and is - cited as the goal of regulatory policy. However while policy-makers have shared this goal, too often they have used their policy tools to achieve a specific short-run outcome. Licensing, retail price regulation and interconnection have all been used to achieve particular short-run policy ends. Instead of enabling *competition*, regulatory policy has instead fostered *competitors*.

This has created an environment where competition is in winning regulatory favour rather than customer approbation. Uneconomic entry has been promoted by regulatory-driven price signals and, once in the market, uneconomic operators have become addicted to regulatory succour. They press for further distortions to the market to allow them to survive. Regulators face pressure from operators they effectively created to impose further regulation. Such new regulation inevitably has further unanticipated side-effects elsewhere in the market, creating further false signals and regulatory dependency.