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Integration of technology and telecommunications policy

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BACKGROUND

The telecommunication world is undergoing radical change. There are two dominant technological forces behind this, firstly the very rapid development in transmission and switching technology, secondly the increasing blurring of the borderline between telecommunications and computer technology. This development has radically lowered the unit costs for providing international communications and created a vast market for new terminals and services.

At the same time and linked to the technological change there is an important political drive towards opening of markets and increased international competition. These driving technological and political forces reinforce each other and have exposed the fairly closed world of telecommunications to a radically changed environment.

In yesterday´s world, monolithic national operators dominated their own markets and supplied a few stable services. They managed the international traffic through cooperative agreements which avoided competition and instituted market sharing. This system has made truly remarkable achievements in creating the present worldwide telecommunications network. This is in large part due to the longstanding work here in ITU. Let us remember that it dates as far back as 1865 and presently links 162 countries together.

In the emerging world of tomorrow we see new operators appearing. They operate internationally in particular market segments where the economic prospects are promising. They supply an increasing number of new services or simply subject the existing services to price competition. The markets are becoming much more dynamic.

TARIFFS

The new competitors have exposed a fundamental weakness in the existing international system and the telecommunication policy behind it. The tariffs are much too high in comparison with the

actual production costs. I maintain that this fact is in the long run bad both for consumers and the telecommunications operators.

For example a recent study has shown that for a transatlantic call Intelsat gets 10%, Comsat gets 15% while the network operators at both ends retain 75% of the call charge. The case of cables is largely similar.

Obviously, the Atlantic is bound to be a battlefield for a number of major actors (public or private) within the next few years. The capacity will increase dramatically through deployment of satellites and optical fibre cables. This can not fail to put serious pressure on the prices.

Why have the tariffs become so unrelated to costs? There are three factors. Firstly, the technical development has lowered the production costs. For example, the annual charge for the INTELSAT space segment has dropped by a factor of seven between 1965 and 1985. Changes in the intercontinental telecom tariffs have been negligible in comparison. Secondly, the tariffs are determined by a complicated negotiation process which has failed to respond to the technological change. International tariffs for switched services are dominated by the accounting rates, which have proved to be very difficult to reduce. Tariffs for leased lines are somewhat simpler to change unilaterally, but only to a limited degree. Thirdly, psychological and political factors have no doubt contributed. Increases in subscription rates may affront voters, but unchanged international tariffs would most likely be rather unnoticed.

The unbalanced situation is detrimental to all parties in the long run. The telecommunications administrations run the risk of loosing their most important revenue sources. Their competitors are tempted to make investments in alternative systems, which may well be competitive with the prevailing prices, but not with the real costs of the present systems. The customers will not enjoy the best price possible. Artificial prices will inevitably divert not only customer choices, but also misguide the allocation of investments. In the final analysis, not only large but also small users will suffer from misallocated investments.

Risks

To some extent the price competition has already started. Leased circuits have been the first targets for price negotiations for large customers. They see the option of choosing between different countries for the focal point of their international operations. This is only natural. It is difficult for a company to convince its shareholders

(and employees) that it should pay more than necessary for any service, including telecommunications.

However this ongoing process carries the risk of creating new structural imbalances. A short-sighted temptation may be efforts to "stabilize" tariffs for switched circuits and "limit" the price competition to leased circuits only. The "advantage" of such soft adaptation has however a heavy long term cost to be paid by both large and small users.

Large customers will be lured into basing their investments in computers and software on the (false) signal that switched services are more costly and leased circuits are cheaper than any comparison of real cost would suggest. Small users, not having the volume to motivate leased circuits, will find themselves in the awkward position of actually "subsidising" large users because of the artificially high tariffs for switched services.

If the process of rebalancing the price/cost relationship is delayed , everybody concerned, including the telecommunications administrations, are bound to face unnecessary long term losses. Misguided investments not only within the telecom sector, but also in data processing will have to be painstakingly changed - and paid for.

Conclusion

Given this perspective, the dangers of moving very slowly are obvious. So are the benefits of an early and fairly rapid adaptation to new technological and market conditions. It is of great importance to start this adaptation without delay and thereby send out right signals to all actors on the market.

I thus draw the conclusion that decisions on new long range policies for international tariffs should be given high priority.

National followup

The present system has allowed the telecommunications operators to collect substantial surplus profits from their international operations. These profits have in general been used to subsidise loss-making national local operations to provide universal service. Thus any redressing of the international situation will inevitably have national policy consequences.

As a matter of fact, the relations between long-distance tariffs and costs inside our countries are similar to what I have sketched regarding the international arena, although the differences are in

general not so large. Thus our governments would be well advised to review the situation also from a purely national perspective. The Swedish government has already done so and given the political approval of a gradual change of tariffs in a cost-based direction in order to protect the long term interests of all customers.

I am quite convinced that no government would like the perspective of seeing their telecommunications operations divided into a profitable part in private hands and a loss-making part under public ownership!

STANDARDS

Another area which has been brought into the focus by the recent developments is standards. Telecommunications standards can no longer be made in isolation by the administrations. They need to be formulated with due regard to the views of manufacturers and users.

The dynamic technical development offers the promise of an ever increasing number of innovations to the benefit of the users. But the users are not necessarily best served by a multitude of incompatible stand-alone systems. They need systems with interoperability, which offer them a further freedom of choice.

The users are further best served by an environment which is reasonably stable and above all predictable. We must remember that the life-time costs for new systems are only to a limited extent the initial purchase price of the equipment. An increasing share must be devoted to software, maintenance and training of personnel. The success of the total investment may even be vital for the survival of the user. Efficient telecommunications are becoming a strategic competetive weapon for a rapidly increasing number of business users.

The progress so far in standardising ISDN and OSI are laudable, but by no means completed. The standardisation process is complicated. It must accomplish two essential objectives, both to produce standards of high technical quality and at the same time achieve a wide consensus on the options chosen. This is inevitably a complex negotiation process which requires time. It has however been criticised for being too slow.

I am convinced that we must increase our joint efforts to make the international process more efficient and rapid. This will have to include opening up of the present system to a wider participation of manufacturers and users. Otherwise we run the risk of being

overrun by multiple competing efforts, which would in the long run badly serve the global community.

A strong international standardisation system is a prerequsite for the true opening of a global marketplace for products and services to the benefit of all actors. This is an important policy question for our governments, both from a technology policy as well as from a trade policy standpoint.