INTERNATIONAL TELECOMMUNICATION UNION

TELECOMMUNICATION STANDARDIZATION SECTOR

STUDY PERIOD 1997 - 2000

COM 3-2-E
November 1996
Original: English

Questions: 1/3. 2/3

STUDY GROUP 3 – CONTRIBUTION 2

SOURCE*: CHAIRMAN OF STUDY GROUP 3

TITLE: SECRETARY GENERAL'S PAPER ON ACCOUNTING RATE REFORM

Mindful of the rapid and substantial changes occurring in the environment of international telecommunications industry and the great pressure for the reform of the traditional accounting rate regime, the Secretary General has taken the initiative to submit a comprehensive consultation document, as shown in the attachment, as a possible starting point for the relevant studies in Study Group 3. This document had to be treated as a temporary document at our first meeting in November 1996. However, given the important substance of the paper, it was agreed that the paper should remain as a basic reference document throughout the study of the subjects concerned. Therefore, I am submitting the document as a white contribution.

It should be noted that the document encompasses a wide area of subjects which, in the context of our work, relate to two Questions 1/3 and 2/3. Since these Questions are assigned to Working Parties 1 and 2 respectively, it is important to indicate which subjects are to be studied under these separate Questions. Study Group 3's management team has tentatively assigned the various sections in Secretary General's paper to the two Questions as follows :

1. Introduction	Q.1/3, 2/3
2. Collaboration and competition	Q.1/3
3. Cost orientated accounting rates	Q.2/3
4. Tariff and traffic dissymmetries	Q.1/3
5. Developing country concerns	Q.1/3
6. Towards a new paradigm for international telecommunication services	Q.2/3
7. Principles for accounting rate reform	Q.1/3, 2/3

However, the document composes a single text so that the various sections should not be considered out of context.

Members of Study Group 3 are urged to give serious thoughts to the points raised in this document and to submit contributions. In addition, in order to assist the Secretary General to further develop useful material, individual members of Study Group 3, as experts in this field, should feel free to respond to the consultation points, directly to the Secretary General.

Although this may be somewhat of an unprecedented way to carry out studies in Study Group 3, all the members' understanding will be appreciated.

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Attachment

SOURCE : THE ITU SECRETARY-GENERAL

TITLE : CONSULTATION DOCUMENT ON ACCOUNTING RATE REFORM

1. Introduction

The international telephone service has developed to date under a paradigm of collaboration and co-operation among national administrations. This paradigm is specifically recognised in the ITU Constitution which calls upon the Union to *"foster collaboration among its Members with a view to establishment of rates at levels as low as possible consistent with an efficient service ..."* (Article 1, 2f). The preferred method for collaboration is the system of charging and accounting specified in Article 6 of the International Telecommunication Regulations (Melbourne, 1988) which comprises collection charges (retail tariffs), accounting rates (wholesale prices agreed between national administrations), transit charges levied by third parties and settlement payments between the parties.

The accounting rate system has served the telecommunications industry well for many decades. One measure of this success is the fact that any of the 700 million or telephone users around the globe can speak with virtually any other. But now it is coming under pressure for reform for a number of reasons which are reviewed in this document. As Secretary-General of the International Telecommunication Union, I have received representations from a number of parties who are seeking to reform the international accounting rate system, or simply to ensure that the provisions of relevant international treaties and ITU-T Recommendations are respected. In particular, I have received advice from the World Telecommunication Advisory Council (WTAC) that I should publish a discussion document analysing pressures for reform of the accounting rate system. I have also received many calls to accelerate the pace of work in ITU-T Study Group 3 which has responsibility for the development of charging, accounting and settlement principles for the international telephone service.

In response to this advice, I have developed this contribution, which is at the same time a consultation document, hoping that it serves as a good starting point for the study of Question B/3. In order to undertake this study in as efficient a manner as possible, I would propose that Study Group 3 should first discuss this contribution and identify the main points that could serve as the basis for consultation. Then, based on those consultation points, Study Group 3 could invite Member States and Sector Members to develop their own contributions which will be submitted to the Director of TSB for the second meeting of Study Group 3 in May 1997. (Deadline for submission of normal contributions will be mid March 1997.)

2. Collaboration and competition

A growing number of national administrations have now licensed multiple international carriers, or permit capacity resale on selected international routes. One of the primary objectives of creating a competitive market environment is to reduce prices to end-customers. In a competitive environment, collaborative pricing mechanisms may not represent the optimal means of achieving low tariffs. The existing system of collaboration and co-operation has been interpreted by some as an abuse of market power on the part of some monopoly carriers which are setting accounting rates substantially above costs, or not passing on the benefits of accounting rate reductions to consumers in the form of lower collection charges. There are certain features of the accounting rate system which may be preventing the full benefits of competition from being realised.

- Most regulatory bodies that have licensed competition enforce the principle of uniform accounting rates on all national carriers safeguarding against “whipsawing” but leaving little scope for price competition or technological innovation;
- The principle of proportional return means that traffic is returned in the same proportion to that which it arrives in order to prevent any operator from engaging in “whipsawing”, even though this may not favour the least cost carrier;
- The principle of equal revenue division (50/50) may prevent competitive carriers offering preferential rates in return for higher traffic flows;
- Technical developments, notably in dynamic routing and packet switching, mean that the direct route between two correspondents is not necessarily the least-cost route. The International Telecommunication Regulations currently give preference to direct routes except where there is mutual agreement on alternative routing;
- Insistence on the use of the accounting rate system may preclude the development of alternative revenue-sharing mechanisms which may be more appropriate to particular types of traffic or particular bilateral relations.

In addition, the necessity for new market entrants to establish correspondent relations with some 200 or more different national administrations can act as a significant barrier to market entry for international services. Furthermore, there is evidence that some monopoly carriers are unwilling to negotiate with alternative carriers, or carriers they anticipate will bring in little additional traffic.

In view of the above arguments, **I am seeking advice on how to improve the compatibility of the accounting rate system with a competitive market environment**. Specifically:

- How can the accounting rate system be reformed to ensure that the benefits of competition are passed on to all consumers in the form of lower collection charges?
- Would “traffic auctions”, in which carriers bid for the opportunity to terminate traffic, provide a better way of allocating traffic to least cost routes than proportional return or uniform accounting rates?
- Should carriers in competitive markets be given freedom to define least-cost routes without requiring mutual agreement with partner correspondents?
- What kind of safeguard mesures will be required, if any, in order to prevent discriminatory arrangements that do not meet economic rationality ?

3. Cost-oriented accounting rates

The International Telecommunication Regulations state that in setting accounting rates, national administrations should take account of “*relevant cost trends*”. ITU-T Recommendation D-140 states that “*accounting rates for international telephone service should be cost-orientated*...” and specifies a timetable of up to five years for achieving the necessary reductions. Annex A to the Recommendation specifies which cost elements should be taken into account while Annex C provides guidelines for bilateral negotiations.

While accounting rates have been coming down over time, by some 3 per cent per year on average since 1988, available evidence suggests that they are still well above costs. For instance, during this period, the price of circuit capacity on trans-Atlantic submarine cables has been falling by some 30 per cent per year. The average level for 37 countries which reported information to the ITU was SDR1.73 per minute in 1995, down from SDR 2.12 in 1988.

Recommendation D.140 notes that there are three main cost elements necessary to provide international telephone service: international transmission facilities, international switching facilities and national extension. Substantial cost reductions have been realised in the first two areas to such an extent that they are no longer a major component in the cost of delivering international service. But the costs of national extension have proved harder to define. In competitive markets, many carriers regard such cost information as confidential and have ceased to supply cost data to regional tariff groups such as TEUREM. Some have suggested that the best way of estimating costs is to take the lowest accounting rate in a competitive market and assume that this is equivalent to cost-orientation. Others have argued that accounting rates in competitive markets could be replaced by transit charges plus national extension charges (call termination charges), as approximated, for instance, by national mobile interconnect charges.

The normal practice under accounting rate revenue division is to divide settlement payments on a 50/50 basis. The rationale for this is that the benefits from each call are approximately equal in each direction, even though the costs may be different. Recommendation D.155 allows for the possibility of a sharing basis other than 50/50 in cases where "*the intercontinental facilities made available by each Administration in the terminal countries are not equivalent*". In practice, this provision is rarely applied and, in any case, the major difference in costs arise from the national extension not from international transmission and switching facilities.

I would welcome comments on methodologies for cost-estimation and on relevant cost trends. In particular I would request:

- proposals on methodologies for assessing least-cost routes for international traffic;
- data on the margin between accounting rates and national interconnect charges in particular countries, and whether this margin is justifiable;
- comments on the appropriateness of applying revenue-sharing mechanisms, such as call termination charges, which are not based on a 50/50 split.

4. Tariff and traffic dissymmetries

The International Telecommunication Regulations recognise that the establishment of collection charges is a national matter, but recommend that "*administrations should try to avoid too great a dissymmetry between the charges applicable in each direction of the same relation*". In practice, asymmetric tariffs are widespread, particularly in relations which permit competition at one end but have retained monopoly at the other end. Furthermore, in some countries there is a growing margin between the accounting rate on a particular route and the published collection charge. This margin is naturally used by operators in competitive environments to offer discounts to preferred users in respect of the volume of traffic they generate, or their loyalty. These benefits are not necessarily available to all users.

Tariff dissymmetries are being exploited by a number of alternative calling procedures which favour the routing direction which offers the lowest price. Several alternative calling procedures are offered by the major carriers themselves, including use of calling cards, country direct service and freephone. In other cases, alternative calling procedures are offered by competitors to the carriers, such as call-back companies, international simple resellers and operators of private networks.

The combination of tariff dissymmetries and alternative calling procedures has served to accentuate traffic imbalances between countries. While some traffic imbalances occur naturally due to geographical, historical or demographic reasons, imbalances have been accelerating due to price distortions and reverse routing of calls. Traffic imbalances translate into imbalances in settlement payments between countries and, in recent years, these have grown to be significant.

I would seek comment on the impact of tariff and traffic dissymmetries on the efficient operation of the international telecommunication network. In particular:

- Is there evidence that traffic dissymmetries are caused by tariff dissymmetries, either directly through call stimulation or indirectly through reversed route calling, or is the causality the other way round? What other factors are involved?
- What is the impact of reversed route charging on revenue generation and on investment in the telecommunication network, both domestic and international?
- What steps can be taken to encourage lower call charges for all consumers rather than just business users?

5. Developing country concerns

Many countries, both developing and developed, benefit from the net settlement payments and therefore have a vested interest in the continuation of the current system. However, these payments are generally more significant as a share of total telecommunications revenue in developing countries. In some cases, notably in Latin America and the Caribbean, more than half of annual revenue comes from this source. Furthermore, because settlement payments are paid in hard currency, they are particularly welcome in those developing countries which have a soft currency or which are plagued by inflation and exchange rate instability. The business plans for network development of many Public Telecommunication Operators in developing countries are predicated upon settlement payments which are recycled into orders for telecommunication equipment imports. If settlement payments are reduced, it will have a negative effect on the health of the telecommunication equipment manufacturers as well as on those finance houses which have lent money to operators in developing countries, on network development and on consumers.

The impact of reversed route calling on developing countries is ambiguous. On the one hand it deprives them of potential revenue from collection charges, but on the other hand it gives them a guaranteed source of income from settlement payments without the requirement for marketing, billing or debt collection. Developing countries could reduce the scope for reversed route calling if they wished to do so by reducing their outgoing telecommunications tariffs to bring them into line with those of partner countries, insofar as they are able, or reducing the margin between the collection charge and the accounting rate. But the accounting rate system provides an incentive, for countries which receive more calls than they send, to maintain accounting rates at a high level.

For developing countries, the bigger threat lies in the bypass of the accounting rates system by alternative networks such as voice over data networks (such as the Internet or frame relay) international simple resale, private networks, or satellite bypass. The practice of refile or hubbing may also have an equivalent effect in that incoming traffic is routed via third countries with whom the destination country has a low accounting rate or maintains a “sender keeps all” form of revenue-sharing. The ability of regulators to control accounting rate bypass is limited except insofar as the incentive would disappear if accounting rates and collection charges were more symmetric and closer to costs. Many developing countries have recognised the inevitability of accounting rate reduction but are seeking alternative mechanisms to replace settlement payments or to ease the transition towards a competitive marketplace.

In reality, the debate is more concerned with distinctions between monopoly and liberalised telecommunication environments rather than between developed and developing countries. Many developing countries have liberalised market entry while many developed countries maintain monopoly provision. One can foresee the emergence of three types of bilateral relation:

- Relations between liberalised markets, where accounting rates are retained as one among many options for revenue-sharing;
- Relations between monopoly markets, where accounting rates will remain the dominant methodology for revenue-sharing;
- Relations between liberalised and monopoly market which will be subject to increasing friction as one party seeks to reduce accounting rates and/or move to alternative methodologies while the other party seeks to maintain the status quo.

The ITU remains committed to finding an inclusive, multilateral solution in which all countries move forward together

I would welcome comments, particularly from operators and regulators in developing countries, on the issue of accounting rate bypass and on delineating a transition path to assist operators to bring their accounting rates and collection charges closer to costs.

- Should the principles outlined in the International Telecommunication Regulations for mutual agreement on routing of traffic be enforced? Should they also be applied to new market entrants? If so, how?
- What has been the impact on revenue derived from international services in those economies which have reduced accounting rates and collection charges, and/or which have licensed competitive service provision for international telecommunications?
- Is it possible to envisage an alternative, transparent subsidy mechanism from developed to developing economies which could substitute for settlement payments in the short to medium-term?

6. Towards a new paradigm for international telecommunication services

The accounting rate system is founded on the paradigm of jointly-provided services. However, it is increasingly possible for carriers to offer end-to-end service, for instance because they have established a commercial presence in both correspondent countries, because they have entered into commercial alliances that offer equivalent market access, or through mobile roaming agreements. In such circumstances, it would be possible for the carrier originating the traffic to avoid the obligations of the international accounting rate system. Such an arrangement may well offer a wider range of services to users at a lower price.

In addition, many providers of international transit facilities, such as submarine cables or international satellites, now seek to sell their services direct to end-users. They are seeking interconnection agreements which are equivalent to that offered to national operators.

An increasing number of countries view international telecommunications as a traded service rather than simply a jointly-provided public service. At the World Trade Organisation

(WTO), the ongoing negotiations on basic telecommunication services are due to conclude in mid-February 1997 with an agreement which would come into force on 1st January 1998,. In this context the accounting rate system is sometimes viewed as being in conflict with trade liberalisation principles such as non-discriminatory market access, transparency or most-favoured nation status. Furthermore, some of the current practices of collaboration between carriers, on routing and revenue-sharing, may be inconsistent with basic principles of competition law.

It should not be assumed that accounting rates are the only system available. Recommendation D.150 defines two alternative methodologies: the flat-rate (price per circuit) procedure and the traffic-unit price procedure. Many new networks, such as the Internet, are based on “sender keeps all”. If accounting rates continue to fall, then that may be the logical direction for the public telephone network to follow. Within the European Union, it has been proposed that accounting rates will be superseded by facilities-based interconnect agreements after 1998. Many mobile operators already use a variation on this methodology, for instance in Scandinavia. The public telegram service uses call termination fees which are set unilaterally under a procedure by which each operator informs the ITU what price they intend to charge for terminating incoming telegrams.

I would welcome views on alternatives to the accounting rate system. In particular:

- What are the implications of a WTO agreement on trade in basic telecommunication services for the accounting rate system? Should international telecommunications be viewed as a traded service?
- What should be an appropriate method of remuneration for incoming calls, its features and characteristics ?
- What are the relative merits/demerits of alternative revenue-sharing mechanisms, notably call termination charges, which have received the support of the OECD, and facilities-based interconnect agreements which have the support of the EU? Please provide also overall comments/reactions to those alternative remuneration mechanisms.
- What transition procedures would be necessary and what timetable appropriate for the progressive implementation of an alternative system? Could the accounting rate system co-exist with an alternative system?

7. Principles for accounting rate reform

In considering either a reform of the accounting rate system or the transition to an alternative methodology, I would offer the following principles for consideration:

- Continuity and viability of international telecommunication service. Any proposed reform or alternative must ensure, at a minimum, that the international telecommunication service remains viable from a technical, financial, operational and commercial perspective.
- Transparency. While progress towards increased transparency has been made, notably through the work of ITU Study Group 3 and the OECD, it remains the case that few countries publish accounting rate data. While recognizing the commercial confidentiality of some data, we should also bear in mind that markets thrive on the free availability of reliable information, particularly on comparative pricing data.
- Non-discrimination. Recommendation D.140 encourages non-discrimination in the application of cost-oriented tariffing, but it may be necessary to go further than this in order to accommodate

the trade principles of non-discriminatory market access and most favoured nation (MFN) status. In particular, it may be necessary to apply the same national extension charge to all bilateral relations if conditions are similar, and to do so on a multilateral basis.

- Cost-oriented tariffing. While it may never be possible satisfactorily to define a commonly acceptable cost model, it is nevertheless clear that the principle of cost-oriented tariffing is now widely accepted. The best way of achieving is to permit competition at the level of both services and infrastructure.
- Competition. There is now overwhelming evidence from developing and developed economies alike to support the contention that competition and private enterprise, tempered by regulation, provide the best recipe for telecommunication development. Pro-competitive policies and market mechanisms should be favoured wherever feasible.
- The benefits of accounting rate reductions should be passed on to end-users. The widening gap between accounting rates and collection charges is an alarming development and indicates that a growing share of the benefits of technical change and service innovation are being retained by the operators, or their shareholders, and not passed on to end consumers. This may be justified if those operators are engaged upon major investment programmes, but research from Australia suggests a *negative* relationship between high accounting rates and investment. This would suggest that the profits gained are not being used to benefit consumers through enhanced service availability.
- Ease of transition for developing countries. The developing countries have the most to lose, but potentially also the most to gain from a reform of the accounting rate system. For this reason, the specific requirements of the least developed countries should be paramount in considering a transition path for reform.

I am seeking comment on the direction and application of these principles for reforms of the accounting rates system. While recognising that these seven principles need to be significantly developed and expanded, they nevertheless provide a starting point for further work. I would appreciate guidance from the membership of the Union on what is the appropriate forum to take forward this reform effort:

- Would it be helpful to convene a World Telecommunication Policy Forum to discuss this issue in a wider context, or is it sufficient to continue discussions within the framework of ITU-T Study Group 3?
- Will it be necessary, at some stage in the future, to hold a World Conference on International Telecommunications (WCIT), as provided for in Article 25 of the ITU Constitution, to revise the International Telecommunication Regulations? If so, when?
- With which other organisations, such as the WTO or the OECD, should the ITU be collaborating in this issue, and how should such collaboration be conducted?

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In conclusion, I wish to affirm that, as Secretary-General of the ITU, I am committed to moving ahead on a multilateral basis in which all countries benefit, not just those carriers with market power. I understand the urgency of reform and am convinced that a competitive market regime offers the best way forward for the majority of countries. The purpose of this consultation is to stimulate debate and to generate ideas. I am not committed to the survival of the accounting rate system *per se*, but would rather see it function more efficiently while alternative options are developed. In the longer term, I believe that carriers in a competitive market should have a wide variety of options from which to choose. Ultimately it is competition rather than elaborate pricing methodologies which will bring lower prices to telecommunication consumers.