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SECTION 10

TRANSFERRED ACCOUNT SERVICE

Recommendation D.98

CHARGING AND ACCOUNTING PROVISIONS RELATING TO

THE TRANSFERRED ACCOUNT TELEGRAPH AND TELEMATIC SERVICES

(Melbourne, 1988)

1 Definition

1.1 The **international transferred account telegraph and telematic service** is a service in which the Administrations concerned agree that the charge for telegraph and telematic services be paid by a party that has accepted responsibility for payment, instead of being paid by the sender. This service is called the *TA Service* .

1.2 TA service, as defined in § 1.1 above, provides for the acceptance and routing of telegraph and telematic services, to any country, being not limited to the country of the guarantor Administration.

1.3 The term **Guarantor Administration** as used herein refers to the Administration responsible for the collection of TA charges and for the payment of such charges to the Administration of origin of TA traffic.

2 Charging for the telegraph and telematic services provided on presentation of a TA card

2.1 The use of a TA card does not alter the charging rules for the telegraph and telematic services provided on presentation of the card.

3 Surcharges and special charges

3.1 The origin Administration and the Guarantor Administration may levy a surcharge for each service (see Recommendation F.41, § 2.1) provided on presentation of the TA card.

3.2 The Administration that issues a TA card may also levy a special charge to cover the cost of preparing the card.

See also Recommendation F.41.

3.3 These surcharges shall accrue to the Administration that levies them.

4 Accounting

4.1 Traffic of the TA service shall not be distinguished from other traffic in the international accounts exchanged between Administrations. In particular, the indication TA shall not be mentioned in the monthly traffic accounts.

5 Establishment and exchange of TA accounts

5.1 The origin Administration of the telegram/call shall prepare a monthly transferred account for each person or corporate body responsible for the payment of charges. Such statements shall include the following information:

1) name of the origin Administration;

2) month of acceptance of the services provided on presentation of the TA card;

3) name and address of the Administration responsible for collecting the charges;

4) name of person or corporate body that has undertaken to pay the charges, together with the address when known;

5) country and, if possible, office of acceptance;

6) office of destination and, if necessary, the country;

7) identification group of the card and name of card holder;

8) date of acceptance of the TA traffic;

9) name of addressee, or telex number and answer-back code of recipient;

10) class of correspondence;

11) information required to draw up the accounts for TA traffic;

12) total charges, including surcharges in the currency of the origin country;

13) total charges in Special Drawing Rights (SDRs) or in gold francs (or other agreed currency), together with the relevant conversion rate.

5.2 Any TA accounts omitting these details may be referred back to the origin Administration and the credit due to it reduced by the total of the rejected accounts.

5.3 A monthly recapitulatory statement of TA accounts shall be prepared by the origin Administration for each Guarantor Administration. This statement shall recapitulate the individual accounts of the persons or organizations responsible for the payment of TA traffic charges.

5.4 A maximum of three copies of the recapitulatory statement and also of the individual statements shall be sent to the Guarantor Administration.

5.5 The recapitulatory statement and the attached individual accounts may be sent to the Guarantor Administration either direct or through another Administration that has accounting relations with the Guarantor Administration.

5.6 A period of up to three months following the acceptance of the traffic may be allowed for the preparation and dispatch of these accounting documents to the Administration concerned.

5.7 Any complementary information required for monthly TA statements shall be requested by the Guarantor Administration from the Administration that has prepared the accounts within three months of receipt of the TA accounts. When this period expires, the amount concerned shall be included for settlement in quarterly accounts for the TA service (see § 6 below).

5.8 Adjustments arising from discrepancies unresolved on expiry of the three months referred to in § 5.7 shall be settled in subsequent accounts, as agreed between the Administrations concerned.

6 Settlement of TA accounts

6.1 In the absence of alternative settlement procedures agreed between the Administration concerned, settlement of quarterly TA balances shall be effected in accordance with the settlement provisions of the *International Telecommunication Convention* [1] and the *Telegraph Regulations* [2] annexed thereto.

7 Liability for collection of charges

7.1 The Administration that has accepted responsibility for the collection of charges guarantees payment of the TA charges to other Administrations.

References

[1] *International Telecommunication Convention* , Nairobi, 1982.

[2] *Final Acts of the World Administrative Telegraph and Telephone Conference, Telegraph Regulations, Telephone Regulations* , ITU, Geneva, 1973. (See also preliminary note No. 3, page XIV.)

SECTION 11

CHARGING AND ACCOUNTING IN THE INTERNATIONAL TELEPHONE SERVICE

11.1 Charging (determination of collection charges) in the international telephone service

Recommendation D.100

CHARGING FOR INTERNATIONAL CALLS IN MANUAL OR SEMI-AUTOMATIC OPERATING

(Geneva, 1972; amended at Melbourne, 1988)

1 The charge unit for a particular international service is the charge for an ordinary private station call of one minute duration, set up during the period of heavy traffic. The minimum charge for a call in manual or semi-automatic operating is normally one charge unit. Administrations may, in accordance with their national policy, levy a higher minimum number of charge units. To recover the costs of operator assistance, Administrations may levy an additional charge per call, the level of which is a national matter.

The charge unit is always the same, whatever the route (primary or secondary) used between any two countries.

2 The charge for a call established over a chain of circuits should not exceed the sum of the charges for calls over each individual circuit. However, the Administrations concerned may agree to fix a total unit charge less than the sum of the charges.

3 Subject to agreement between Administrations, two different rates may be applied to traffic exchanged over their mutual routes:

— one rate during the period of heavy traffic;

— the other rate during the period of light traffic (see Recommendation D.106).

4 The charge for a personal call is the same as that for a station call with the same priority and of the same duration, exchanged during the same charge period, plus a special flat-rate charge for personal calls, the amount of which is established by the billing Administration.

However, in certain relations and, in particular, those operated by radio circuits, the Administrations concerned may agree to apply the same charges for station calls and personal calls

The provisions of this Recommendation were contained in the former Recommendations cited in [1] and [2].

5 The facility of collect calls or the use of credit cards may be accepted for station calls, personal calls (possibly including personal calls with dispatch of a messenger), data transmission calls and conference calls

6 Personal collect or credit card calls are subject to a special flat-rate charge to be established by the billing Administration.

7 Station credit card calls may be subject to a special flat-rate charge to be established by the billing Administration.

8 Station collect calls may be subject to a special flat-rate charge, the amount of which is fixed by the billing Administration. The called subscriber may be informed of the charge he will have to pay.

9 Administrations wishing to levy a special charge for sending a messenger are advised to adopt a uniform amount for all calls requiring this facility and to notify it to other Administrations.

10 Principles for application of charges

10.1 When the call requested has been set up, the appropriate charge is payable. When the call requested has not been set up, no charge is payable.

10.2 In the case of a request for a station call, the call is considered set up when the two stations are interconnected.

10.3 In the case of a request for a personal call, the call is considered set up when the caller is interconnected with the called party.

References

[1] CCITT Recommendation *Operation of international telephone services (initial system)* , White Book, Vol. II-A, Rec. E.142, ITU, Geneva, 1969.

[2] CCITT Recommendation *Operation of intercontinental telephone services (new system)* , White Book, Vol. II-A, Rec. E.143, ITU, Geneva, 1969.

Recommendation D.101

CHARGING IN AUTOMATIC INTERNATIONAL TELEPHONE SERVICE

1 Principles for charging

Approved in 1958 by the Special Assembly of the CCITT. Slightly modified and brought up to date in 1973 by the CCITT Secretariat in preparing the *Green Book* .

1.1 It has been the general practice to charge for international telephone calls on the basis of a minimum indivisible period of 3 minutes, and then by whole minutes.

1.1.1 This system of charging, which is still in existence, was adopted at a time when automatic international service was not envisaged;

1.1.2 Many Administrations have adopted methods of charging for use with their national automatic service, in which the charges are recorded on subscribers' meters, but based on two different principles:

a) some Administrations have for many years used a system based on trains of meter-pulses issued at the start of each period of 3 minutes, the number of pulses in the train depending on distance;

b) other Administrations use, or intend to use, a system based on individual meter-pulses issued at short intervals of time, the length of the interval depending on the distance.

1.1.3 Certain Administrations which have adopted the system of charging by periodic pulses in their national services have made it known that it will not be possible for them to use a different system of charging for automatic international calls.

1.1.4 The use, on the same international relation:

a) at one end, of a 3 minute + 3 minute method of charging (national type) or of a 3 minute + 1 minute method of charging (the type prescribed for international calls in manual operation);

b) at the other end, of a periodic pulse method of charging (national type);

would lead to a grave dissymmetry in the charges made to users in the two countries concerned.

1.1.5 This serious dissymmetry would be likely to provoke adverse reactions from the subscribers of one country, who would be less favourably treated than their correspondents in the other country;

1.1.6 This serious dissymmetry would be likely to create certain financial difficulties for one of the countries:

a) as a result of changes which may possibly take place in the balance of traffic;

b) as a result of the fact that the country which charged on the basis set out in § 1.1.4 a) above would receive, in respect of the use of its system for incoming traffic, substantially less than it would collect from its own subscribers.

1.2 In order to avoid too great a dissymmetry in the charges collected, it was recommended in 1958 that either of the two following methods of charging might be used in the international automatic service:

a) charging minute by minute;

b) charging by periodic pulses, of the type used in the national automatic services.

2 Reduction of dissymmetry in the charges

2.1 As the existence, in the same relation, of the two methods a) and b) in § 1.2 above lead to a dissymmetry in the charges made, and as moreover the existence, in the same relation, of metered pulse charging methods with different intervals in the two countries concerned results in a very small dissymmetry in the charges made, in a given service between two countries A and B, the Administrations shall endeavour to see that the revenue obtained from users and the amounts entering in the international accounts correspond.

2.2 Hence, for a given relation, each Administration fixes the unit-charge and the unit-interval according to the characteristics of its national charging system but endeavours to observe the following equalities:

$$\frac{\sum_n d_r}{u_r} = \frac{\sum_n d_A}{u_A} = \frac{\sum_n d_B}{u_B}$$

which equalities apply to a group of n messages chosen in such a way as

to constitute a representative sample of the traffic on the relation in question.

In this equality,

d_r = actual call duration,

d_A = chargeable duration in the charging system of country A,

d_B = chargeable duration in the charging system of country B,

u_r = unit-charge used in drawing up international accounts in the automatic international service,

u_A = charge per unit-interval in the charging system of country A,

u_B = charge per unit-interval in the charging system of country B.

Note — d_r is expressed in minutes, with the appropriate decimals.

d_A and d_B are expressed by the whole number of unit-intervals in the charging system of country A or country B (the interval between two periodic pulses in periodic-pulse systems, or one minute in a 1 + 1 system).

u_r is a charge per (actual) call duration, is expressed in gold francs per minute of conversation and is the same for both directions in the relation in question.

Recommendation D.103

CHARGING IN AUTOMATIC SERVICE FOR CALLS TERMINATING ON SPECIAL SERVICES FOR SUSPENDED, CANCELLED

OR TRANSFERRED SUBSCRIBERS

(Melbourne, 1988)

It is desirable for calls terminating on special services for suspended, cancelled or transferred subscribers in the international automatic service to receive the same treatment in different countries.

The CCITT considers that no charge should be made for these calls.

Note — As far as all the signalling systems involved in a given connection for any of the possible relations allow the transmission of the ‘‘no-charge’’ information , the answer signal should not be withheld. Nevertheless such a situation will not exist on a worldwide basis for a long period to come. Therefore it is appropriate, for the time being, to suppress the sending of the answer signal on the international circuits for calls towards these special services. It should also be noted that according to Recommendation Q.118, such calls will be cleared upon expiry of a certain fixed time-out.

Recommendation D.104

CHARGING FOR CALLS TO SUBSCRIBER’S STATION CONNECTED EITHER TO THE ABSENT SUBSCRIBER’S SERVICE OR TO A

DEVICE SUBSTITUTING A SUBSCRIBER IN HIS ABSENCE

(Melbourne, 1988)

1 When a subscriber’s line is connected to the absent subscriber’s service or to a device which answers the telephone in the subscriber’s absence (and may possibly record a message or exchange data) the absent subscriber’s service or the device is assumed to be equivalent to a person answering for the subscriber at the latter’s express wish. The call shall therefore be set up and charged in the normal manner.

1.1 *Station calls*

For station calls, charging takes effect on receipt of an answer:

— from the absent subscriber’s service, or

— from a device substituting a subscriber in his absence.

This Recommendation is also included in the Series E Recomendations under the number E.231.
This Recommendation is also included in the Series E Recommendations under the number E.232.

1.2 *Personal calls*

The caller is informed that the line is connected to the absent subscriber's service or to a device substituting the called party in his absence. If he accepts the call he is charged on the basis of duration and the special charge for a personal call is levied. If he does not accept the call, no charge is levied.

2 This Recommendation applies to manual, semi-automatic and automatic services.

Recommendation D.105

CHARGING FOR CALLS FROM OR TO A PUBLIC CALL OFFICE

The establishment of a station call from or to a public call office entails special expenses, but these special expenses are negligible in comparison with the other costs involved in the establishment of an international call.

It is therefore preferable not to collect a supplementary charge for the use of a public call office for an international call, but, notwithstanding, the Administrations which collect a supplementary charge in their national services may apply such a supplementary charge to international calls, it being understood that this supplementary charge is not included in the international accounts.

Recommendation D.106

INTRODUCTION OF REDUCED RATES DURING PERIODS OF LIGHT TRAFFIC IN THE INTERNATIONAL TELEPHONE SERVICE

(Geneva, 1972)

1 It is desirable for Administrations to have uniform guide lines for applying reduced rates during periods of light traffic in the international telephone service. Observance of the following rules should lead to some degree of uniformity in this sphere.

2 Subject to the agreement of the Administrations concerned and with due regard to § 5 below, a reduced rate may be charged during light traffic periods both for fully automatic calls and for semi-automatic or manual calls.

3 According to the reasons for which the reduced rate is introduced, Administrations may choose a percentage reduction ranging from a minimum of 10 per cent to a maximum of 50 per cent. In selecting the percentage, Administrations should take into account the following:

— the necessity of informing the customers, by some means, of the hours and level of reduction;

— the need to determine the effects on distribution of traffic during the various hours and on revenues obtained from the service. In order to determine such effects, it may be well to introduce a series of small reductions rather than one large reduction.

3.1 The percentage reduction should be fixed by agreement between the terminal Administrations concerned to avoid dissymmetry between the charges at the two extremities of a relation.

3.2 Within regions, Administrations should agree to apply, as far as possible, the same percentage reduction.

3.3 For charging and accounting purposes, calls should be considered in principle to fall entirely within the charge period in which they start, regardless of the fact that they may end in another charge period.

4 The reduced rate periods and the date of introduction must be fixed by bilateral agreement or possibly by multilateral agreement for a region in the light of the following considerations.

4.1 The days and times during which reduced rates are offered may not be the same in both directions of the same relation, in particular as regards:

— public holidays, which vary from country to country;

— hours, owing to the difference in local times , especially in intercontinental relations. It is recommended, however, that the duration of the period in which the reduced rates apply should be the same in both directions.

4.2 The reduced rate period should begin and end on the hour (and not at subdivisions of an hour).

4.3 When there is a time difference between the two ends of the same relation, the period of application of the reduced tariff shall be determined on the basis of local time in the country of origin.

However, calls paid for in the country of destination may be charged:

i) according to the tariff provisions in force in the country of destination;

ii) taking into account, where appropriate, the charging period in effect at the start of the call in the country of origin.

4.4 Since business hours do not generally extend beyond 1900 hours (local time) in the evening and do not start in the morning before 0800 hours (local time), it is recommended that the intervening period be adopted for charging reduced rates on working days (see also § 4.6 below) in relations where the end-to-end time difference is not more than 3 hours.

4.5 In relations where the time difference is greater than 3 hours, the night reduced rate shall not be applied in the country of origin as long as the busy period has not yet ended in the country of destination.

4.6 The reduced rate shall normally be charged on Saturdays in countries where this is a rest day and on Sundays in countries where this is not a working day.

5 It is recommended that the application of reduced rates to the automatic service (see also § 2 above) be delayed until all or nearly all subscribers are able to dial their own calls in the relation concerned or until nearly all traffic can be routed automatically.

6 If the introduction of reduced rates is made before full dial capability exists, in the interest of fairness to subscribers who still must pass their traffic by semi-automatic or manual means, the reduced rate should be granted to these subscribers also.

11.2 **Charging and accounting of calls with special services**

Recommendation D.110

CHARGING AND ACCOUNTING FOR CONFERENCE CALLS

(Malaga-Torremolinos, 1984)

Conference calls may be accepted in the international service by agreement between the Administrations concerned. The conditions for the operation of the service and the setting up of calls by manual and semi-automatic working are defined in Recommendation E.151 [1].

1 Types of conference calls

Conference calls are normally of two types:

The denomination ‘‘conference call’’ without further clarification or addition has been chosen to designate communications between several subscribers in different countries, known before the Vth Plenary Assembly of the CCITT (1972) as ‘‘multiple calls’’ or as ‘‘conference (multiple) calls’’.

— bidirectional calls in which each participant can listen and speak whenever he wishes to intervene in the conversation;

— undirectional calls in which only one of the participants can speak, the other participants being able only to listen.

However, a conference call may consist of a combination of both types of call defined above.

2 Assessment of the chargeable duration of calls

2.1 In determining the chargeable duration of an international conference call, the basic principles outlined in Recommendation E.230 | 2] shall be applied. It should moreover be noted that:

2.1.1 the chargeable duration shall begin when all participants have been connected to the originator of the call;

2.1.2 the chargeable duration shall end when the originator gives the clearing signal;

2.1.3 if, by prior agreement, the originator of the call asks for the withdrawal or introduction of one or more participants during the call, the original call shall be regarded as terminated. In the case of withdrawal, the end of the original call coincides with the start of the next call. In the case of an addition, the start of the next call coincides with the moment when the new participant(s) is/are connected to the others;

2.1.4 no charge shall be levied when a call cannot be set up.

3 Charging

The charges applicable to conference calls shall be determined in accordance with the following principles:

3.1 The country of origin of a conference call shall be the country where the call is billed.

3.2 The establishment of the collection charge shall be a national matter for the country of origin.

3.3 Every international connection between the first bridging equipment for conference calls (calling side) and a participant in a conference call shall be considered as a personal call.

3.4 If the bridging equipment for conference calls is used in the country of transit or destination, the charging rules shall be established by agreement between the Administrations concerned.

4 Preparation of international accounts

4.1 International accounts shall be prepared by the Administration of origin.

4.2 The remuneration of the countries of transit and destination shall be governed by the arrangements concluded for the preparation of accounts for personal calls as if there had been a personal call between the country of origin and each of the participants in the countries of destination.

4.3 When the bridging equipment for conference calls is used in the country of transit or destination, the Administrations concerned shall agree upon accounting arrangements different from the one prescribed in 4.2 above, taking into account the actual configuration of international circuits utilized.

References

[1] CCITT Recommendation *Conditions of operation and setting up of conference calls* , Rec. E.151.

[2] CCITT Recommendation *Charging (Determination of collection charges) in the international telephone service* , Rec. E.230.

Recommendation D.115

TARIFF PRINCIPLES AND ACCOUNTING FOR THE INTERNATIONAL FREEPHONE SERVICE (IFS)

(Melbourne, 1988)

Preamble

This Recommendation sets out the general principles for charging and international accounting to be applied by Administration for the provision of the international freephone service.

With regard to tariff and accounting principles, the **internal freephone service** is a service where the subscriber can be allocated a special (freephone) number and the charges for all calls to this number are paid by the respective subscriber instead of by the originating caller

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For technical or other reasons, some originating Administrations may apply a small utilization charge to the calling party.

1 Tariff structure

1.1 *Tariff components*

1.1.1 The tariff for the service should normally consist of two components:

— a network access component;

— a network utilization component.

1.1.2 The network access component, normally intended to cover the cost of making the service available, represents the cost of the service which is not dependent on network utilization.

It corresponds to what is generally known as the ‘‘ network connection charges

1.1.3 The network utilization component normally covers the costs which are dependent on network utilization.

1.2 *Network access component*

1.2.1 Access charges should be levied for each subscription and should normally be independent of network utilization. They may consist of:

a) an initial fee (non-recurring);

b) a subscription rental (payable at certain intervals, e.g. monthly or quarterly, until the subscription is terminated).

1.2.2 The access charges shall not be included in international accounts between Administrations and their establishment is strictly a national matter.

1.3 *Network utilization component*

1.3.1 These charges may vary by call duration and country origin and time of day.

1.3.2 *Composition*

Charges for network utilization may consist either of a communication charge or a minimum charge/a minimum average charge per call.

2 Collection charges

2.1 Collection charges are a national matter, but the structure and level should encourage international cooperation for the development of the service.

2.2 Normally, chargeable time for calls begins and ends on the same basis as for the automatic international telephone service.

3 International accounting

3.1 IFS should be accounted for and settled using the same principles and methodologies used for other international telephone services and should be bilaterally agreed to by the two Administrations.

3.2 The terminating Administration, having the charging responsibility for IFS, is also responsible for the establishment of international accounts.

3.3 As an automatic service, IFS should be accounted at the same rate as the international automatic telephone service. By bilateral agreement, Administrations may agree to apply a higher rate to take account of the additional resources provided by the country of origin.

3.4 International accounts should identify usage associated with IFS separately.

Recommendation D.120

COLLECTION CHARGES APPLIED TO AUTOMATED TELEPHONE CREDIT CARDS

(Melbourne, 1988)

The CCITT,

considering

— that currently used manual credit cards apply collection charges of the card-issuing Administration;

— that the current system of applying the card-issuing Administration's tariffs may be difficult to change in the foreseeable future;

— that automated credit cards may be used as a replacement for manual credit cards;

— the expansion of the use of automatic credit cards will stimulate the use of telephone services and is desirable as a marketing tool,

the following charging principles are recommended

1 For calls from the country of the card-issuing Administration, the tariffs of that Administration will apply.

2 For calls within a second country, or from a second country to a third country, the charge raised against the card holder is a national matter for the card-issuing Administration.

The charge can be based on i) or i) and ii) below:

i) application of the appropriate tariff of the Administration where the call originated,

ii) application of a per call charge to cover the administrative costs for the transaction;

3 For calls from a second country to the card-issuing country, the charge raised against the card holder is a national matter for the card-issuing Administration.

The charge can be based on i) or ii), with or without iii) below:

i) application of the appropriate tariff of the card-issuing Administration,

ii) application of the appropriate tariff of the Administration where the call originated,

iii) application of a per call charge to cover the administrative costs for the transaction.

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11.3 Procedures for remuneration of Administrations for facilities made available

Recommendation D.150

NEW SYSTEM FOR ACCOUNTING IN INTERNATIONAL TELEPHONY

(Mar del Plata, 1968; amended at Melbourne, 1988)

1 General considerations

1.1 *Introduction*

1.1.1 The introduction of automatic and semi-automatic operation entails the use of alternative and overflow routings which make it impracticable to follow the path of a telephone call without considerable technical complications.

1.1.2 In order to avoid complicating too much the new technical equipment required and thereby raising its cost, new procedures are required so as to eliminate the need to know the path of every call as the basis for accounting in international telephony.

1.1.3 There is also the situation in certain international relations whereby Administrations purchase or lease direct transit circuits for the handling of their traffic.

1.1.4 The following procedures to meet these new situations and improve the efficiency of the world telephone network are valid, above all, for semi-automatic and automatic operation. They can be applied on relations operated manually, subject to agreement between the Administrations of all the countries concerned.

1.1.5 These procedures introduce the new concept of remunerating the Administrations of countries of destination and transit for making telephone network facilities available for use (e.g. for the routing of telephone calls including those with special facilities and calls indistinguishable from telephone calls such as facsimile transmission, etc.) by Administrations of countries of origin.

1.2 *Explanation of some of the terms and expressions used in this Recommendation*

1.2.1 Except for the expression ‘‘conversation time’’ which is defined in § 1.2.2 below, an explanation of some of the terms or of some of the expressions used in this Recommendation is given in Recommendation D.000.

1.2.2 **conversation time**

F: durée de conversation

S: duraci´on de conferencia

A minute of conversation time is the traffic unit that is recommended for use in the traffic unit price procedure. Conversation time is the interval that elapses between:

— the moment when the reply condition (answer signal in the backward direction) is detected at the point where the recording of the call duration takes place, and

— the moment when the clear forward condition (clear forward signal) is detected at the same point.

1.3 *Basic principles of a new system for accounting in international telephony*

1.3.1 The remuneration of the Administrations of *transit countries* (direct transit or switched transit) should not depend upon the procedure selected by the terminal Administrations for accounting for their remuneration. That is, the different procedures affect only the remuneration of terminal Administrations.

1.3.2 As regards the remuneration of the Administrations of the countries of destination and transit countries, it is preferable to make no distinction between automatic and semi-automatic traffic when establishing international accounts. This is in line with the idea that Administrations should be remunerated on the basis of the facilities made available. Whilst expenses of setting up calls in these two cases are different in countries of origin, they are approximately the same in the countries of destination and transit countries.

1.3.3 It is preferable, in order to simplify accounting, that one procedure or the other be used to the greatest possible extent. Certain regions may find it expedient to select one of the procedures for use within their region.

1.4 *Procedures*

Procedures relating to remuneration of Administrations of *destination and transit countries* are as follows:

1.4.1 *Remuneration of countries of destination*

Administrations of countries of destination will be remunerated,

either by:

Having due regard, as concerns this element, to the location of the international exchange and the distribution of the international traffic within the country of destination.
1.4.1.1 a procedure whereby the Administration of the country of origin keeps its revenue and remunerates the Administration of the country of destination for the facilities made available, including the international circuit, the international exchange and the national extension :

a) on the basis of a flat-rate price per circuit (called the *flat-rate price procedure*); or

b) on the basis of traffic units carried (called the *traffic-unit price procedure*);

in either case, the price will be fixed by the Administration of the country of destination;

or by:

1.4.1.2 the procedure whereby accounting revenue is shared between terminal Administrations (called the *accounting revenue division procedure*).

1.4.2 *Remuneration of transit countries*

Administrations of transit countries will be remunerated for facilities made available,

either by:

1.4.2.1 the *flat-rate price procedure* relating in the main to direct transit operations;

or by:

1.4.2.2 the *traffic-unit price procedure* relating in the main to switched transit operations.

1.4.3 *Remuneration of the country of origin*

For the remuneration of the country of origin, see § 4.

1.5 *Traffic unit*

1.5.1 *Definition of the traffic unit — Conversation time*

It is recommended that, when the traffic-unit price procedure is used (see §§ 1.4.1.1 |) and 1.4.2.2 above), the traffic unit adopted for the purpose of remunerating other Administrations should be *one minute of conversation time* .

1.5.1.1 With regard to a call, conversation time is the interval that elapses between:

— the moment when the reply condition (answer signal in the backward direction) is detected at the point where the recording of the call duration takes place, and

— the moment when the clear forward condition (clear forward signal) is detected at the same point.

1.5.1.2 The above duration conforms to that in Recommendations E.230 [1] and E.260 [2] for the ‘‘call duration’’ of automatic calls; it is now to be applied to all calls covered by this Recommendation. In practice, the reply condition is detected by recognition of the answer signal generated upon answer of the called party or distant operator. The clear forward condition is detected by recognition of the signal generated by the calling party or outgoing operator clearing down the connection. In default of such action, the connection will be automatically cleared down and a clear forward signal generated in the outgoing exchange after a delay period following receipt of the clear back signal generated by the called party replacing the receiver.

1.5.1.3 Conversation time has been chosen as the traffic unit because it is capable of being measured automatically in response to signals generated by CCITT signalling systems. Furthermore, it allows accounts to be settled by an Administration of a transit country without waiting for information from countries ‘‘up the line’’ as regards call durations taken from data on operators’ tickets

1.5.1.4 The only other unit which meets these criteria, holding time , is not recommended because of the wide variations between chargeable time and holding time in different relations and in different call types, which makes the use of holding time inappropriate for remunerating Administrations of countries of destination.

1.5.2 *Remarks*

1.5.2.1 In relation to individual calls, conversation time:

a) will be less than circuit-holding time by reason, in particular, of the extra time circuits are held because there will be a period between the seizure of the circuit and the answer signal;

b) will be the same as chargeable time in the case of station-to-station calls in the fully automatic service and will be the same as charged in the same service when periodic pulse-metering systems are used;

c) may be more than chargeable time in the case of personal calls where time is spent in obtaining the called party, of calls with special facilities requiring operator intervention (such as credit card , collect, conference or data calls or phototelegraph transmissions); or in the case of station calls requiring operator assistance in the called country of destination or a transit country.

1.5.2.2 In relation to overall use of the circuit:

a) there will be additional holding time in case of inability to reach the distant subscriber;

b) there will be additional conversation time because of time on the circuit for service calls , directory inquiry or other information exchanges between operators;

c) exceptionally, conversation time could be less than charged time depending on the mixture of traffic on the circuit and whether the Administration of the country of origin rounds up the charged time in 3 + 3 or 3 + 1 minutes charging systems, or when the final pulse in a periodic pulse-metering system does not coincide with the end of the conversation time.

1.5.2.3 It should further be noted that where conversation time is not known, but other time periods such as circuit-holding time or charged or chargeable time are known, e.g. from operators’ tickets, it is possible to convert these other times to approximate conversation times by the use of factors which allow for the time differences referred to in

§§ 1.5.2.1 and 1.5.2.2 above. These factors can be established on the basis of periodic measurement or sampling procedures, and may need to take account of individual characteristics.

2 Remuneration of the Administration of the country of destination

2.1 *Flat-rate price procedure*

2.1.1 Under this procedure the Administration of the country of destination receives payment for the facilities made available by a flat-rate price fixed by it as a price per circuit. The price per circuit would cover:

a) the international circuit section provided by the country of destination;

b) the use of its international exchange;

c) the national extension

2.1.2 In fixing these flat-rate prices, Administrations of countries within the same region may find it desirable to follow the principles in CCITT Recommendations.

2.2 *Traffic-unit price procedure*

2.2.1 Under this procedure, the country of destination receives payment on the basis of the price fixed by it per traffic unit. This price will be related to the facilities made available and will take account of:

a) the international circuit section provided by the country of destination;

b) the use of its international exchange;

c) the national extension

2.2.2 In fixing these traffic-unit prices, Administrations of countries within a region may find it desirable to follow the principles set forth in CCITT Recommendations.

2.3 *Accounting revenue division procedure*

2.3.1 Under this procedure, the accounting revenue from the traffic exchanged in their relationship is divided between the Administrations of the terminal countries, in principle on a 50/50 basis. Proportions other than 50/50 may be used when the facilities made available by each of the Administrations of the terminal countries are not approximately equivalent, or if Administrations reach agreement on a different proportion when, for example, the costs differ greatly.

2.3.2 The Administration of each terminal country in principle pays an appropriate share (normally half) of any remuneration due to the Administrations of transit countries.

2.4 *Consideration regarding choice of accounting procedure*

In connection with one-way and both-way circuit operations, actual circuit operation should not be confused with the possibilities of operating such circuits that signalling systems may offer. Even though the circuits between the terminal countries have a signalling system permitting both-way operation, it is common practice, when the volume of traffic is large enough, to split the both-way circuit groups into three groups, two of which are operated on a one-way basis, the third, operated on a both-way basis, being used for overflow from the first two.

2.4.1 The accounting revenue division procedure is particularly appropriate when there is a significant volume of traffic exchange or when operation is over both-way circuits as in the case of certain intercontinental traffic relations. The establishment of accounts for collect and credit card calls may be easier under the accounting revenue division procedure.

2.4.2 On the other hand, other accounting procedures are more appropriate when:

a) the volume of traffic exchanged between the Administrations of terminal countries is light, as is the case when all traffic is handled only by switched transit;

b) there is one-way operation on all the international circuits concerned

2.5 *Simplification of accounts and use of traffic sampling*

2.5.1 In certain conditions, the Administrations of terminal countries may agree not to exchange international accounts when, for example:

a) the balance of settlement of their accounts is normally negligible;

b) the *terminal countries'* traffic levels in both directions are more or less equal;

c) there is approximate equivalence as regards their national extension

2.5.2 Traffic sampling may be used for the establishment of international accounts when the countries involved in a given traffic relation so agree. This sampling may then avoid the necessity for continuous traffic measurements. For example, the samples could cover five working days and could be taken at regular intervals, such as once a year or four times a year, or they could be taken on the occasion of any significant change in the number of circuits in the given relation. Sampling is particularly useful when traffic in any international relationship is reasonably stable.

3 Remuneration of the Administrations of transit countries

3.1 *Flat-rate price procedure*

3.1.1 It is recommended that in the case of direct transit via other countries, the Administrations of these direct transit countries should be remunerated for the exclusive use of the facilities made available on the basis of a flat-rate price per circuit.

3.1.2 Under the flat-rate price procedure, the terminal Administrations will ensure that the best possible use is made of the circuits because:

a) if they provide too few circuits, they pay the penalty in the form of the lower quality of service they offer to their subscribers;

b) if they provide too many circuits, they will have to pay more in remuneration and will be penalized financially.

3.1.3 The flat-rate price is fixed by the Administration of the transit country. In fixing these flat-rate prices, the Administrations of countries within a region may find it desirable to follow the principles in CCITT Recommendations regarding the establishment of recommended values for facilities provided.

3.2 *Traffic-unit price procedure*

3.2.1 When transit traffic is not handled on direct circuits (e.g. in the case of traffic passing by switched transit), the remuneration for the transit routing through one or more countries should be made to the Administration of the country of the first transit exchange used, which fixes a price per unit of handled traffic. This price should also include the remuneration to the Administrations of other transit countries, if any, and to the Administration of the country of destination, where appropriate.

3.2.2 The procedure of remuneration to the Administration of the country of the first transit exchange for the entire routing of the traffic to the country of destination (remuneration of the first transit exchange) is necessary to meet the situation where traffic may be routed through subsequent transit exchanges, each of which, under automatic operation, will be unable to identify the country of origin of the traffic. This procedure makes the source of the traffic irrelevant for the establishment of accounts. Depending on the accounting methods in force between Administrations, the remuneration of the first transit centre may or may not include payments for use of the facilities of the country of destination.

3.3 *Establishment of a switched-transit relation*

3.3.1 Before switching traffic via a transit exchange, the Administration of the country of origin will request the country in which the first switching transit exchange is situated for a price quotation per transit-traffic unit to the country of destination.

3.3.2 The Administration of the country to which the first exchange belongs advises the price per traffic unit for handling the traffic from the transit exchange to the country of destination, including remuneration of the latter country where appropriate. This price may be set up by the Administration of the country to which the transit exchange belongs, on the basis either of a special study or of a price already fixed for the transit routing to the same terminal country of traffic originating in other countries.

3.3.3 The Administration of any country with traffic to be routed in transit may, of course, find it advisable to consult the Administrations of several countries to ascertain which transit routing is the most economical.

3.3.4 The consultations by the Administration of the country of origin regarding the transit routing (by switching) of its traffic should be in accordance with the principles of the International Routing Plan described in Recommendation E.171 [3].

3.4 *Calculation of the remuneration to the Administration of the country of the first transit exchange on the basis of traffic units*

3.4.1 Remuneration to the Administration of the switched transit country depends on the number of traffic units handled by its transit exchange.

3.4.2 For the establishment of international accounts, the Administration of the country of origin should determine the volume of traffic in minutes of conversation time routed each month towards each country of destination through this transit exchange. If it is not technically possible to measure units of conversation time, the originating Administration may use charged minutes (shown on operators' tickets) or measurements of holding time and make the necessary conversion to obtain an assessment of conversation time. The procedure for determining the conversion factor to be used for each relation will be decided by agreement between the Administrations of the originating and transit countries and if necessary, the destination country, taking the remarks made in § 1.5.2 above into account.

3.4.3 An alternative version of this system can be contemplated when the traffic to the country of destination routed via a given international transit centre is sufficiently stable; the Administrations of the country of origin and of the country where the first transit exchange is situated might then agree to settlement on the basis of an estimated number of traffic units determined by means of traffic sampling and subject to periodic revision (such as once a year or four times a year).

3.4.4 For the establishment of international accounts for temporary alternative routes, the Administration of the country of origin should determine the volume of traffic in minutes of conversation time routed via the transit Administration. If it is not possible to measure units of conversation time, two alternative methods are described in Annex C and may be used by originating Administrations subject to agreement of the Administrations concerned.

4 Remuneration of the Administration of the country of origin

4.1 As far as collect calls and credit card calls, placed with the assistance of an operator in the country of origin, are concerned, subject to agreement between the Administrations concerned, the Administration of the country of destination should pay a flat-rate charge per call to the Administration of the country of origin of the call in addition to the normal share relating to the call. The purpose of this flat-rate charge, the level of which is fixed by bilateral agreement, would be to cover the costs incurred in the country of origin for the establishment of the call.

4.2 Given that automated credit card service is still in the early stages of development, reimbursement and any additional accounting procedures are for further study but the following principles may be applied.

4.2.1 For those calls placed between two countries and billed to an automated credit card customer of the Administration of one of these countries, subject to bilateral agreement, either:

i) the system based on the existing practices for a manual credit card call should apply, or

ii) the card-issuing Administration will pay all charges for the call as established by the Administration of the origin of the call to that Administration.

4.2.2 For those calls placed within the country of one Administration and billed to an automated credit card customer of another Administration, the card-issuing Administration will pay all the charges for the call as established by the Administration of the call to that Administration.

4.2.3 For those calls placed between two countries and billed to an automated credit card customer of the Administration of another country, the card-issuing Administration will pay all the charges for the call as established by the Administration of the origin of the call to that Administration.

4.2.4 In all cases, the Administration of the country of origin of the call will include that call in its traffic account with the call destination Administration.

5 Notes and examples

To assist in an understanding of the new procedures, the following three annexes are provided:

Annex A: Differences between collection charges and accounting rates.

Annex B: Examples of the various procedures for remunerating Administrations.

Annex C: Traffic measurement conversions from seizures or erlangs into conversation time for temporary alternative routes.

ANNEX A
(to Recommendation D.150)

Differences between collection charges and accounting rates

A.1 The collection charge is the charge collected by an Administration from its public for the use of the international telephone service.

A.2 The accounting rate is the rate per traffic unit agreed between Administrations for a given relation, which is used for the establishment of international accounts.

A.3 Whilst, in general, Administrations correlate collection charges and accounting rates, the two cannot always be the same because, for example:

a) in most countries collection charges and accounting rates will be expressed in different currencies;

b) collection charges and accounting rates may be based on different traffic units;

c) the value of national currencies can fluctuate relative to the special drawing right (SDR) or the gold franc;

d) collection charges may be influenced by government fiscal policies.

A.4 As a general principle, in fixing the collection charges, Administrations should make every effort to avoid too large a dissymmetry between the charges applicable in each direction of the same relation.

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ANNEX B

(to Recommendation D.150)

Examples of the various procedures

for remunerating Administrations

B.1 *General*

B.1.1 The diagram in Figure B-1/D.150 shows a typical pattern of circuit interconnections between various countries, with particular reference to the exchange of traffic between countries A and B carried partly on direct circuits through countries C and D, and partly on switched transit circuits through country E — which in turn may also make use of transit-switching facilities in country F.

FIGURE B-1/D.150 p.

B.1.2 Three basic situations are examined in relation to use of Recommendation D.150:

B.1.2.1 Case 1 where countries A and B account for the total traffic between them on the basis of the accounting revenue division procedure and the sharing of the costs of facilities obtained from countries C, D, E and F.

B.1.2.2 Case 2 where countries A and B account for the total traffic between them on the basis of the traffic unit and/or flat-rate price procedure, each being responsible for accounting forward for the traffic it originates.

B.1.2.3 Case 3 where countries A and B account for some of their traffic on the basis of the accounting revenue division procedure, and the balance of their traffic on the basis of the traffic-unit price procedure.

B.1.3 The selection of methods of remuneration to be used will be agreed jointly between the Administrations of countries A and B taking into account, among other things, the routes and facilities made available and the traffic-unit and flat-rate prices quoted by countries C, D, E and F.

B.2 *Case 1 — Use of the accounting revenue division procedure for all traffic*

B.2.1 In accordance with the accounting revenue division procedure the Administrations of countries A and B jointly share the revenues of the traffic between their countries, each paying their appropriate shares (normally 50/50) of

a) the remuneration due to direct transit countries C and D for the use of the circuit sections traversing those countries; and

b) the costs incurred in use of overflow routes via E and F.

No separate or identified payment is made by the Administration of country A or country B for the facilities made available in country of destination B or A, at least for the portion of traffic using the direct route.

B.2.2 *Direct-transit traffic*

Remuneration to the Administrations of the direct-transit countries C and D is based on a flat-rate price per circuit and calculated according to the (crowflight) length of the circuit sections on the territories of countries C and D.

B.2.3 *Switched-transit traffic handled by the exchange in E*

B.2.3.1 The remuneration to the Administration of country E for traffic routed from A to B by switched transit at the exchange E is paid by the Administration of country A. The Administration of country E receives from the Administration of country A a payment calculated from the number of traffic units passed to country B on behalf of the Administration of country A.

Since the accounting revenue division procedure implies that each of the Administrations of the terminal countries A and B pays a share (normally half) of the remuneration due to the Administrations of the transit countries, irrespective of whether these are switched-transit or direct-transit countries, the appropriate share of the remuneration paid by the Administration of country A to the Administration of country E must be debited in the statement of revenue divided between the Administrations of countries A and B.

B.2.3.2 The Administration of country E fixes the price to be paid by the Administration of country A per unit of traffic between the transit exchange E to country B; the Administration of country E must take into consideration:

— its expenses on its own territory;

— the expenses incurred for the direct-transit circuits E-B through country D;

— the expenses for switched transit after overflow in E through the transit exchange in country F.

B.2.3.2.1 In determining expenses in its own territory, E should include expenses for the circuits A-E from the frontier AE to transit exchange E as well as its switching expenses.

B.2.3.2.2 The Administration of country E must also take into account the expenses relating to:

— the section of international circuits provided by the Administration of country B;

— the international exchange and the national extensions in that country.

These expenses may be:

— counted as part of the accounting revenue shared between the Administrations of country A and country B; or

— be included in the price fixed by country E, if it is more convenient or even necessary for that country to fix a price (normally one-half) for facilities made available in B. In this case A should, in principle, remunerate B with the appropriate share (normally one-half) of the gross revenue from this stream of traffic, minus:

i) *the appropriate share* (normally one-half) of the amount due from A to E for the transit of E and D or F, and minus

ii) *the whole* of the amount due from A to E for the destination country B.

In practice, it may be difficult for A to obtain the necessary information to split the total remuneration due to E into two parts i) and ii) above because E will have quoted a combined rate for the two routes via D and F and the amounts due to B for these two routes may be different; A will not know the distribution of traffic between the routes via D and F. In such cases, the Administrations of A and B may agree not to take into account the distribution of the traffic on the routes E-D-B and E-F-B and make separate arrangements to ensure the fair division of costs between A and B. For example B may agree with A on an average share for the extension on its territory of the routes D-B and F-B. These shares would be deducted from the gross revenue for the part of the traffic transited via routes E-D-B and E-F-B. Alternatively, they may agree to dispense with the accounting revenue division procedure for this stream of traffic and account for it in accordance with § B.4 below.

B.3 *Case 2 — Use of traffic-unit and/or flat-rate price procedure for all traffic*

B.3.1 *Traffic on direct circuits*

B.3.1.1 *Remuneration to the Administrations of direct-transit countries*

The Administration of the country of origin A remunerates each of the Administrations of countries C and D for use of the sections of circuit A-B. Remuneration is based on a flat-rate price per circuit and is calculated according to the (crowflight) length of the circuit sections on the territories of countries C and D.

B.3.1.2 *Remuneration of the country of destination*

The Administration of the country of origin A should remunerate the Administration of country B:

— for the circuit section A-B provided by the Administration of country B;

— for the use of the international exchange in B;

— for the national extensions in country B.

Depending on the agreements concluded by the Administrations of countries A and B, the remuneration is based:

a) either on a flat-rate price per circuit, or

b) on the traffic-unit price.

B.3.1.3 *One-way operating and both-way operating*

In the case of one-way circuits the remuneration of an international circuit by the Administration of a country of origin presents no difficulty. In the case of both-way circuits, the Administrations of the terminal countries A and B decide how the costs of the international circuits are to be divided after taking account of the outgoing traffic of each.

B.3.2 *Switched-transit traffic handled by the exchange in E*

B.3.2.1 *Remuneration for circuits in the group A-E*

With respect to the traffic transiting the transit exchange in country E, the Administration of country A first of all remunerates the Administration of country E for the use of the section of the circuit A-E provided by the Administration of country E.

This remuneration is normally independent of the traffic in transit to country B, because the circuits A-E are used not only for traffic in transit to country B but also for terminal traffic from country A to country E. This is the case when the remuneration paid by the Administrations of countries A and E for terminal traffic between them is based on the flat-rate price procedure.

When the remuneration paid by the Administrations of countries A and E for terminal traffic between them is based on the traffic-unit price procedure, i.e. on the measurement of all traffic routed over the circuits A-E, a meter could be used to measure the whole of the traffic sent from A to E on the circuits A-E, regardless of the destination (i.e. regardless of the country codes); these measurements therefore would include traffic from A to B and A to F.

Alternatively, separate meters could be used in country A to measure the traffic destined for each of the countries B, E and F; this might facilitate the accounting for each of these streams of traffic.

B.3.2.2 *Remuneration for transit routing by the exchange E*

The Administration of country A remunerates the Administration of country E for routing calls to B beyond the transit exchange in E on the basis of the number of traffic units from A to B passing through the international transit exchange in E. This number of traffic units might be measured by a special meter, reserved for calls to country B, which could be placed in country A on the circuits A-E. The meter is activated only when the country code of country B is sent by the outgoing register of the exchange in country A.

The Administration of country E is credited by the Administration of country A for the transit traffic sent via its international transit exchange to country B on behalf of country A and is entirely responsible for

remunerating the Administrations of countries D, F and B. This remuneration is included in the remuneration it makes for the entire traffic emanating from E and sent to country B, since the national traffic originating in E and the transit traffic originating in other countries is consolidated for accounting purposes.

In principle, the remuneration of the Administration of country B by the Administration of country E should comprise not only remuneration for use of the international circuit sections provided by the Administration of country B and remuneration for use of facilities in the international transit exchange in country B, but also any remuneration for use of national extensions in country B.

If the remuneration for the circuits in section A-E (which carry both terminal and transit traffic) is made on a flat-rate price basis which includes remuneration for the international exchange and the national extension, the transit traffic proportion of the amounts so included should be taken into

account in calculating the remuneration to be paid by the Administration of country A to the Administration of country E for the traffic which is switched at E and routed to country B.

B.4 *Case 3 — Use of the accounting revenue division procedure for the direct traffic between A and B and the traffic-unit price procedure for the traffic switched via country E*

B.4.1 This case represents the situation where countries A and B wish to use the accounting revenue division procedure for the traffic carried over the direct A-B circuits and the traffic-unit price procedure for remuneration of the destination country for traffic switched through country E.

B.4.2 *Traffic on direct circuits*

By way of meters or statistical assessments the Administration of country A will identify that traffic sent on the direct circuits A-B, and account for that traffic on the basis of the accounting revenue division procedure as in Case 1 under § B.2.1 above.

B.4.3 *Switched-transit traffic handled by the exchange in E*

B.4.3.1 By way of meters or statistical assessments the Administration of country A will identify the traffic sent on the switched-transit route via country E, and account for that traffic on the basis of the traffic-unit price procedure as in Case 2 under § B.3.2 above.

B.4.3.2 The traffic-unit price quoted by country E in this case will include an amount for the facilities in country B. It should in fact be the same price as quoted in Case 2.

ANNEX C
(to Recommendation D.150)

Traffic measurement conversions from seizures or erlangs

into conversation time for temporary alternative routes

C.1 *Conversion from seizure measurements*

For each hour the temporary alternative route is being used, the originating international Network Management Centre should record the number of seizures of the circuits which make up the route and convert this number to conversation time in minutes by the following formula:

Conversation time = (Seizures) × (Answer/seizure ratio) × (Average call duration).

The average call duration should be based on historical records and agreed in advance.

The answer/seizure ratio should be also based on historical records or, if available, on measurements taken during the period the route was used.

C.2 *Conversion from erlang measurements*

For each hour the temporary alternative route is being used, the originating international Network Management Centre should record the number of erlangs on the route and convert this number to conversation time by the following formula:

Conversation time = (Erlangs) × 60 × (Efficiency ratio).

The efficiency ratio is the ratio of conversation time to occupied time in minutes. The difference between the two is call set-up time and occupied time for unsuccessful calls. It should be based on historical measurements and agreed in advance.

References

[1] CCITT Recommendation *Chargeable duration of calls* , Rec. E.230.

[2] CCITT Recommendation *Basic technical problems concerning the measurement and recording of call durations* , Rec. E.260.

[3] CCITT Recommendation *The international telephone routing plan* , Rec. E.171.

Recommendation D.151

OLD SYSTEM FOR ACCOUNTING IN INTERNATIONAL TELEPHONY

(Geneva, 1972)

1 Introduction

The new system for accounting (Recommendation D.150) might not always be applied in some relations especially where radiotelephone circuits are used and, in these cases, the following provisions may be adapted appropriately.

When Recommendation D.150 is not applied, it is recommended that the accounting rate for intercontinental calls, expressed in units of charged time, should be divided in accordance with the principles set out below.

2 Calls over direct intercontinental circuits

The accounting rate for calls over direct circuits should in principle be divided equally between the terminal Administrations unless other arrangements are agreed among the Administrations concerned

3 Calls over a chain of intercontinental circuits

For calls over a chain of intercontinental circuits, the accounting rate should not exceed the sum of the accounting rates for calls over each of the individual circuits. However, the Administrations concerned may agree to fix a total accounting rate less than the sum of the individual accounting rates.

The total accounting rate should in principle be apportioned between the individual circuits in proportion to the accounting rate for direct calls over each individual circuit. The amounts accruing to each circuit should then be divided equally between the Administrations at each end of each circuit unless other arrangements are agreed between them.

4 Calls extended over continental landlines (that is, using them as an intermediate section or as an extension of an intercontinental circuit)

The principles for the determination of the total accounting rate are radiotelephone circuit may agree to forego any share for the terminal land section used on their continent to extend calls over intercontinental circuits.

Administrations concerned in the provision of the landline section should not ask for higher payments than those applying in the case of calls obtained entirely by landline.

The total accounting rate should in principle be divided as follows:

a) the part of the accounting rate accruing to the intercontinental circuit (or circuits) should be divided between the Administrations at the end of the intercontinental circuit (or circuits) as indicated in §§ 2 and 3 above;

b) the part of the accounting rate accruing to the continental circuit should be divided in proportion to the amounts required by each Administration concerned in the provision of the continental circuit.

Where the application of the above principles would result in different accounting rates for calls over different routes in a given relation, the Administrations concerned with the operation of the most expensive route (or routes) should agree how the rate should be scaled down to the lower figure. Unless otherwise decided by agreement between the Administrations concerned, this should be done by a proportionate reduction in the hypothetical shares applicable to the most expensive routes.

5 Similar considerations may apply to continental relations especially where radiotelephone circuits are used.

Recommendation D.155

GUIDING PRINCIPLES GOVERNING THE APPORTIONMENT OF

ACCOUNTING RATES

Certain large countries claim landline shares in respect of calls extended to places at a considerable distance from the inter-continental circuit terminal, before division of the balance of revenue.

IN
INTERCONTINENTAL TELEPHONE RELATIONS

(Malaga-Torremolinos, 1984; amended at Melbourne, 1988)

The CCITT,

considering

a) that the apportionment of accounting rates in the intercontinental telephone service is already discussed in CCITT Recommendations, for example, Recommendations D.150 and D.151;

b) that, on grounds of fairness, additional guiding principles should be established to ensure that accounting rates between the terminal and any transit Administration concerned should be apportioned in such a way as to take account of the service rendered by each of these Administrations;

c) that the telecommunication facilities provided by Administrations should be used as profitably as possible;

d) that in accounting between Administrations the principle of remunerating the first transit exchange as described in Recommendation D.150 is gradually being superseded by the concept of a remuneration plan for switched transit,

recommends

General principles

In an intercontinental telephone link, bilateral or multilateral agreements between the Administrations concerned should normally provide for the application of the same accounting rate in both directions of the relation, regardless of the route used.

1 Direct relations

1.1 A direct relation is a relation between two terminal Administrations in which the traffic is routed over direct circuits , i.e. over circuits established for the exclusive use of these terminal Administrations.

1.2 In the case of traffic routed over direct circuits, the accounting rate is in principle shared equally between the Administrations of the terminal countries in respect of each traffic direction. A sharing basis of other than 50/50 may be applied if the intercontinental facilities made available by each Administration in the terminal countries are not essentially equivalent.

1.3 If a direct link exists and the traffic is unilaterally diverted by the Administration of the country of origin to the financial detriment of the country of destination, via a transit route not agreed between the two parties, it is for the Administration of origin to reach agreement with the transit Administration with a view to remunerating it by drawing on the terminal share of the Administration of origin.

If, however, the route which has not been agreed has been chosen for reasons such as failure or impairment of quality of the direct route, or traffic overflow, the Administration of origin will negotiate with the Administrations concerned on the basis of the provisions set out in § 2.2 of this Recommendation.

2 Switched transit relations

2.1 A switched transit relation is a relation between two terminal Administrations in which the traffic is routed by switching through one or more international transit exchanges in one or more countries other than the country of origin and the country of destination.

2.2 The accounting rate in a switched transit relation should normally be divided into two terminal shares and one or more transit shares, as applicable.

The balance of the accounting rate after deduction of the transit shares should be divided equitably, in principle on a 50/50 basis, between the terminal Administrations concerned. A sharing basis of other than 50/50 may be applied if the intercontinental facilities made available by each Administration in the terminal countries are not equivalent.

3 Temporary alternative routes

3.1 A temporary alternative route is an alternative route used for a short period of time to meet high congestion occurring in the international network at either foreseeable or, in the case of unexpected events, unforeseeable periods.

3.2 Transit countries should be remunerated on the basis of facilities provided. The accounting rate should be allocated in two terminal shares and one or more transit shares divisions of revenue should be those applicable normally for transit routing of switched telephone traffic.

3.3 Where conditions warrant it and all concerned Administrations agree, special accounting arrangements may be implemented. These may include, but are not limited to, waiver of accounting, or a transit charge lower than the normal rate.

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SECTION 12

DRAWING UP AND EXCHANGE OF

INTERNATIONAL TELEPHONE AND TELEX ACCOUNTS

Recommendation D.160

MODE OF APPLICATION OF THE FLAT-RATE PRICE PROCEDURE SET FORTH IN RECOMMENDATION D.67 AND RECOMMENDATION D.150 FOR REMUNERATION OF FACILITIES MADE AVAILABLE

TO THE ADMINISTRATIONS OF OTHER COUNTRIES

(Geneva, 1976; amended at Melbourne, 1988)

1 Introduction

1.1 The general procedures for remuneration of Administrations for facilities made available are given in Recommendations D.67 and D.150. In § 3 of Recommendation D.67 and in § 3 of Recommendation D.150 the principles for remuneration of transit countries by a flat-rate price procedure are given.

1.2 Practical methods for implementation in the case of facilities made available by transit countries are given for the following points:

— procedures for ordering facilities;

— provision of facilities;

— determining the period of remuneration;

— accounting;

— refunds for outages.

Throughout this Recommendation the term ‘‘facilities’’ embraces individual circuits and groups of circuits, e.g. groups (12 circuits), supergroups (60 circuits), etc.

2 Procedures for ordering facilities

2.1 After a preliminary enquiry on availability of facilities, price, etc., the terminal Administrations concerned should place an order with the transit Administration(s) for the facilities required. Such orders may be sent preferably by

This Recommendation was formerly Recommendation D.152 of the Red Book.

telex, or otherwise by telegram, or mail.

The following information should be given:

1) name of the Administration(s) to which the facilities are made available;

2) type of service to be provided (telephone, telegraph, telex, data transmission, etc.);

3) facilities to be made available (supergroup, group, telephone or telegraph circuit) and the number of such facilities;

4) type of transmission system used (submarine cable, satellite, etc.);

5) section of circuit or group (for multilink circuits);

6) expected in-service date;

7) preliminary technical information, if available, e.g. date and time for testing (to be settled by the technical services);

8) the duration required for temporary provision of facilities.

The order for the facilities should be sent well in advance so that the transit Administration(s) will have sufficient time for preparation.

2.2 In case of a change or cancellation of the order, the terminal Administrations should notify the transit Administration(s) of it as promptly as possible by telex, quoting a specific reference to the original order.

3 Provision of facilities

3.1 *Confirmation of order*

The transit Administration(s), when they have received an order, should give confirmation to the terminal Administrations of the availability of the requested facilities, the price per month or per year, and any other terms and conditions.

3.2 *Notification of completion of order*

When a telecommunication facility is being made available, the technical services of the Administrations concerned will naturally be in communication with each other as the work progresses. Nevertheless as soon as the facilities ordered are available a formal notification of the date of completion must be sent by the transit Administration(s) to all Administrations concerned.

4 Determining the period of remuneration

4.1 *Beginning of the period*

4.1.1 In accordance with the spirit of Recommendations D.67 and D.150 payment is due when the facilities are made available by the transit Administrations, irrespective of the date on which the terminal Administrations bring the facilities into service.

In cases where the facilities are made available in advance of the ordered date, payment is based on the order date.

4.1.2 For *intercontinental* | facilities, payment would be due from the day following that on which the facilities are made available to the terminal Administrations.

Thus for example, a request for the lease of an intercontinental facility for 1 July, would be handled as follows:

Date of availability: 24 June *Charging:* from 2 July

Date of availability: 10 July *Charging:* from 11 July

4.1.3 For *continental* facilities, a simplified method should be utilized for remuneration.

For the month during which the circuit(s) or the group(s) is(are) made available, terminal Administrations should remunerate the transit Administrations which made their facilities available as indicated below:

— for the whole month, if the facilities are made available between the 1st and the 15th;

— from the 1st of the following month if the facilities are made available between the 16th and the end of the calendar month.

However, within continents bilateral agreements may be made to apply the intercontinental method.

4.1.4 Nevertheless, in special circumstances the Administrations concerned may, by special agreement and in keeping with the basic principles, decide in the best interests of each party concerned on the procedure to be followed in selecting the date on which charging should start. Examples of cases where this could apply are:

i) *When there are several transit sections*

If, for example, two transit Administrations C and D do not complete their arrangements for making available the facilities requested by terminal Administrations A and B on the same date, it would be reasonable to select the date on which the entire transit section becomes operational.

ii) *Where the circuit orders relate to major projects, e.g. the opening of a new international exchange*

It is recognized that technical services will have a large circuit provision programme to meet which may extend over a considerable period before the new facility comes into service. The Administrations concerned may agree to the period for remuneration commencing at some later date after the facilities have been furnished.

4.2 *Determination of the duration of the period of remuneration*

The period during which facilities are made available should be determined as follows:

4.2.1 *Facilities made available on a permanent basis — intercontinental*

In calculating the period during which facilities are made available, one month shall mean one calendar month. Moreover, the day on which the facility is made available shall not be reckoned, whereas the day on which the facility is withdrawn shall be reckoned as a full day. Thus, a period of availability covering one month or more is calculated as follows:

a) count the number of days beginning on the day following the day on which the facility was made available until the end of the month;

b) thereafter count the number of full calendar months, if any; and

c) count the number of service days in the last month, including the day on which the facility was withdrawn.

As regards charging:

— full calendar months are subject to the monthly rental;

— fractions of a month shall be subject to a daily charge equal to 1/30th of the monthly rental.

Examples are given in Table 1/D.160.

4.2.2 *Facilities made available on a permanent basis — continental*

In calculating the period during which facilities are made available, one month shall mean one calendar month. When the facilities are made available between the 1st and 15th of the month, remuneration shall be for the whole month. When the facilities are made available between the 16th and the end of the calendar month, remuneration shall commence from the 1st of the following month.

When the facilities are withdrawn between the 1st and 15th of the month, remuneration shall be made to the end of the previous month. When withdrawn between the 16th and the end of the calendar month, remuneration shall be made for the whole month.

4.2.3 *Facilities made available on a temporary basis*

By agreement between the Administrations concerned, it is possible to make facilities available for a period of less than one month.

In calculating the period during which facilities are made available on a temporary basis, one day shall mean a period of 24 consecutive hours.

The period during which a facility is made available should be calculated in multiples of 24 hours, the period starting from the time at which the facility is made available until the time at which it is withdrawn. If the number of days thus obtained contains a fraction of 24 hours, it should be rounded up to the next whole number.

Examples:

Circuit made available on 1 June, at 09.00 hours, cleared on 5 June at 09.00 hours:

4×24 hours, i.e. 4 chargeable days

Circuits made available on 1 June, at 09.00 hours, cleared on 5 June at 11.00 hours:

(4 days + 2/24 day) i.e. 5 chargeable days.

The remuneration shall be equal to 1/30th of the monthly rental for each day of the period of availability

Table 1, [T1.60] p.

4.3 *End of period of availability*

The period during which facilities are made available on a *permanent basis* | will be terminated by the advice of the terminal Administrations. The notice of cancellation should normally be given to the transit Administration(s) one month in advance of the effective date of termination.

However, the period of availability for facilities provided on a *temporary* basis will end on the date and time agreed upon in advance.

5 Accounting

5.1 In the absence of a specific agreement and notwithstanding the procedure described in Recommendation D.170, accounts are drawn up separately where remuneration is made on a flat-rate basis the statement applies is drawn up by the creditor Administration and two copies are sent to the debtor Administration which, after verification, returns one copy with its notice of acceptance.

In order to simplify accounting methods and to stimulate mutual assistance among Administrations, the administrative and technical costs of establishing temporary circuits are not included. By special agreements between Administrations, these costs may, however, be recovered through a surcharge or installation charge equivalent to 2/30ths of the monthly rental.

5.2 However, an agreement may be made between the Administrations concerned for the terminal Administrations to credit the transit Administration(s) with the sums due to them, through the ordinary monthly accounts. In special cases, only one of the terminal Administrations may credit the transit Administration(s) with the total remuneration due by means of regular monthly accounts and debit the other terminal Administration.

5.3 There may also be specific cases, e.g. facilities made available on a temporary basis, provision of mutual aid facilities, where the Administrations concerned may agree that the country providing the facility should debit the country of origin.

6 Refunds for outages

6.1 *Need for rapid restoration of service*

When an outage occurs, the Administrations providing facilities should make every effort to restore interrupted facilities, or to make available at no extra charge the same facilities on an alternative routing, either through their own territory or through third countries.

6.2 *Intercontinental outages*

6.2.1 Automatic refunds will not be made. However, when an outage in a transit country exceeds 24 hours and the Administration of that country has not restored the facilities, the terminal Administration is entitled to claim a refund, particularly if it had to provide substitute facilities *at its own expense* .

This refund is calculated on the basis of 1/30th of the monthly rental per day or part of a day for the facilities which were temporarily interrupted.

6.2.2 When a transit Administration provides one or more intercontinental sections and an outage occurs in one of them, it shall refund for all the facilities it provides (including any continental section) and not solely for the section on which the failure occurred.

6.2.3 When several countries are involved in making transit facilities available, only the Administration of the transit country in which the outage occurred shall be liable to pay a refund in the conditions set out above. If an outage occurs simultaneously in more than one country, the Administrations of those countries will be liable if a refund is claimed.

6.3 *Continental outages*

There will be no refunds for outages.

However, within continents, bilateral agreements may be made to apply the intercontinental method.

Recommendation D.170

MONTHLY TELEPHONE AND TELEX ACCOUNTS

1 General

1.1 The following arrangements are recommended for the drawing up, exchange and acceptance of monthly telephone and telex accounts between Administrations.

1.2 Each Administration of origin (and of transit where

appropriate, e.g. in the case of § 3.1.4 below) shall prepare and forward monthly accounts. These should be drawn up separately on forms of the types shown below as specimens for:

a) telephone traffic proper — Forms 1 or 2 (see Annex A);

b) sound- and television-programme and phototelegraph transmissions — Forms 1 or 2 (see Annex A) suitably adapted;

c) telex traffic — Forms 1 or 2 (see Annex B).

1.3 The choice of form to be used for the accounts should be decided by the Administration which prepares the accounts, after consultation with the other Administration concerned. It may be convenient to use separate forms for originated and transit traffic.

1.4 The traffic details which must be included in the account are only those which are necessary for the purpose of international accounting. However, by agreement between the Administrations concerned, traffic information which is not essential for the accounts (e.g. the number of calls where this does not affect the accounting) may be included on the account forms.

1.5 In accordance with the *Telegraph and Telephone Regulations* [1], monthly accounts should be sent as promptly as possible but in any case before the end of the third month following that to which they relate.

2 Accounts in international relations where Recommendations D.67 and D.150 apply

The preparation of the monthly telephone accounts shall be as follows, using as an example the diagram in Figure 1/D.170 which is a reproduction from Annex B to Recommendation D.150. This diagram relates to the traffic from terminals A to B.

2.1 *When the accounting revenue division procedure is applied for accounting between A and B*

2.1.1 *For traffic on the direct route , A to B*

A shall prepare and forward to B a monthly account crediting B with one-half of the net revenue (accounting revenue), after deduction of the amounts due from A to C and D. A shall also account with C and D, either by including their remuneration in the monthly accounts for traffic from A which terminates in each of these countries, or by sending them a copy of the monthly account prepared for B, showing in it the amounts due to C and D.

Figure 1/D.170 p.

2.1.2 *For traffic on the route, A to B via E*

There are two possibilities:

1) *When the rate quoted by E includes an amount due to B*

A shall prepare and forward to E a monthly account crediting E for A's traffic to B via E at the rate quoted by E to cover the transit of E and of D or F and also for the destination country B.

In principle A should include in its monthly account to B an amount crediting B with the appropriate share (normally one-half) of the gross revenue from this stream of traffic minus:

a) the appropriate share, (normally one-half) of the amount due from A to E for the transit of E (and of D or F) and

b) the whole of the amount due from A to E for the destination country B.

(For a better understanding of these procedures, see Recommendation D.150 and Annex B thereto, in particular.)

2) *When the rate quoted by E does not include an amount due to B*

A shall prepare and forward to E a monthly account crediting E for A’s traffic to B via E at the rate quoted by E to cover the transit of E and of D or F.

A shall also include in its monthly account to B an amount crediting B with the appropriate share (normally one-half) of the net revenue after deduction of the amounts due (normally one-half) from A to E (the amount covering the transit by E and D or F regardless of the method of repayment: flat-rate or traffic-unit price procedure).

2.2 *When the accounting revenue division procedure is not applied for the accounting between A and B*

2.2.1 *For traffic on the direct route A to B*

A shall prepare and forward to B, C and D respectively a monthly account crediting the amounts due from A to each of them under whatever accounting procedure has been agreed with each of them (i.e. either the traffic-unit price or the flat-rate price procedure).

If the country of destination is remunerated under the traffic-unit price procedure, the flat-rate amounts for direct-transit countries should be divided in appropriate shares (normally equal) between the two terminal countries and the traffic-unit per minute price for passage through those transit countries should be divided in the same proportion between the two terminal countries. The application of this rule is necessary if the traffic accounting between the two terminal countries is to be fair, as this traffic-unit per minute price should be used by each terminal Administration as a factor to be multiplied by the volume of outgoing traffic, which may not be the same in the two directions. Thus A will credit to B the traffic-unit price of B plus (normally one-half) of the traffic-unit price attributable to the transit of C and D.

2.2.2 *For traffic on the route A to B via E*

A shall prepare and forward to E a monthly account crediting E for all A's traffic to B via E, at the rate quoted by E to cover both:

a) the transit of E and of D or F respectively,

b) the remuneration due to B.

A shall not include this traffic in its monthly account with B.

2.3 *Accounting to be done by E in the cases described in §§ 2.1.2 and 2.2.2*

E shall prepare and forward to D, F and B respectively a monthly account crediting to each of them the amounts due to them in respect of traffic originating in E, and shall include in these accounts the amounts due to them for traffic from A (and any other countries transited by E). However, if the method of remuneration from E to either D, F or B is flat-rate price procedure, then E shall in principle retain the amount received from A (or any other countries upstream from E) relating to the section through the country being remunerated by the flat-rate price procedure.

3 Preparation of accounts for relations to which Recommendations D.67 and D.150 do not apply

3.1 The following provisions apply to certain international relations to which Recommendations D.67 and D.150 do not apply.

3.1.1 In direct relations the Administration of origin shall prepare and send a monthly account to the Administration of destination.

3.1.2 Where transit relations within the continent of origin are concerned, the Administration of origin shall prepare and send the monthly account to the Administration controlling the intercontinental circuit in the outgoing direction. At the same time a copy of the account shall be sent to each of the Administrations of transit countries concerned. The account shall show the share accruing to each of the Administrations of transit countries and in addition, in one amount, the share due to the Administration controlling the intercontinental circuit in the outgoing direction and the

Administrations beyond its territory.

3.1.3 The Administration controlling the intercontinental circuit in the outgoing direction shall prepare and forward a monthly account, both for traffic which originates in its own country, and for that which passes in transit through its own territory, showing in one amount the share due to the Administration operating the other end of the intercontinental circuit, and, where applicable, the shares accruing to the Administrations beyond its territory.

3.1.4 The Administration operating the other end of the intercontinental circuit shall, where applicable, prepare a new account for each Administration concerned beyond its territory showing the share due to each.

3.2 In continental relations, except those covered by § 2.1 above, the Administration of origin shall prepare and send a monthly account to the Administration of destination and, where appropriate, a copy to each of the transit Administrations concerned showing the amount due to each of these Administrations.

4 General remarks on the preparation of accounts

In the preparation of monthly accounts, the following should be taken into account:

4.1

Separate entries should be made in respect of traffic sent over secondary routes

4.2

The monthly account should include all special charges for telephone calls and, except when the traffic-unit price procedure as in Recommendation D.150 is applied or where there is agreement to the contrary, these special charges should be shared between the Administrations concerned in the same proportion as the charges for calls.

4.3 The collection charge for a collect telephone call is the one applicable in the country of destination of the call.

4.3.1 The Administration of the country of destination should, unless specially agreed otherwise, regard the collect telephone call as an outgoing call for the purpose of international accounting.

4.3.2 Collect telephone calls should be included in the monthly account by the billing Administration. The total number of messages, of minutes and the total settlement amounts for calls should be listed separately on the settlement statement. Settlement arrangements are as shown in Recommendation D.178.

4.3.3 The procedure described above could be applied to credit card calls subject to bilateral agreement between the Administrations concerned.

4.4 The rules for the preparation and submission of accounts for phototelegraph transmissions shall be the same as for telephone traffic proper.

4.5 The rules for the preparation and submission of accounts for sound- and television-programme transmissions shall be the same as for telephone traffic proper, except that the accounts shall be prepared by the Administration responsible for collecting the charge. Unless otherwise agreed these accounts should be accompanied by supplementary documents in which each sound- or television-programme transmission shall be separately identifiable.

4.6 In relations in which a relatively large volume of transit traffic is routed through one (or more) transit country(ies), and in particular in relations in which direct circuits exist between two terminal Administrations, the terminal Administration of arrival may, on occasion, request the terminal Administration of origin to send it directly, for information, a copy of the monthly account (or an extract from this account) relating to the transit traffic routes through a transit Administration, in order to know without delay the volume of the monthly traffic thus routed in transit.

4.7 Traffic representing test or service telex calls, expressed in minutes, should be deducted from the international accounts. If this deduction cannot be made directly (and this is especially the case with the method described under § 2.3.1.2 in Recommendation D.61), the Administrations concerned should decide between themselves, after taking sample metering if necessary, on the percentage of such traffic to be deducted from the traffic measured.

When free calls are allowed (for example during international telecommunication conferences), deductions may be made in the international accounts by the Administration of the country on whose territory a conference is held.

5 Supply of directories

5.1 Accounting arrangements concerning the paid supply of directories shall be established in the following manner.

5.2 At least once a year, and preferably at the end of the current period of the directories concerned, each Administration that has supplied to another Administration directories, in respect of which payment is due, shall draw up a special account for the amounts due to it for such directory supplies, including postage and/or freight, and send it to the latter Administration for settlement. These amounts may be included in the monthly accounts.

5.3 Except where the Administrations have agreed otherwise, no accounts shall be established for the paid supply of directories unless the total number delivered to an Administration for service requirements and for sale exceeds 50. When the number is 50 or less, all directories shall be delivered free of charge.

6 Queries relating to monthly accounts

In the absence of a specific agreement, it is recommended that queries relating to monthly accounts should not be made unless the differences involved exceed those shown in Table 1/D.170.

Table 1 [T1.170], p.

These limits shall apply separately to each of Forms 1 and 2 and separately also to:

a) telephone traffic proper,

b) sound- and television-programme and phototelegraph transmissions,

c) telex traffic.

Queries shall not be further pursued once the difference involved no longer exceeds these limits.

A query may be justified, however, where a difference that does not qualify for query in an individual month appears to recur in subsequent months. In the case of a difference of opinion regarding the chargeable duration of a call or calls, the opinion of the Administration of origin shall prevail. Nevertheless, each Administration shall have the right to advise the Administration of origin of obvious errors in the monthly account.

7 Adjustments and refunds

For the accounting procedure in the case of adjustments and refunds see Recommendation D.171 (telephone) and Recommendation D.177 (telex).

8 Checks of accounting data

Data relating to Forms 1 or 2 in Annexes A and B can be subject to sampling checks if the Administration of destination considers it desirable.

These traffic samples will be taken as follows:

On a given day the Administration of destination has observations made of a number of conversations chosen at random. For each of these, a determination is made of the route concerned, the time, the called subscriber's number, and on occasion the identity of the caller. (The first three factors can be obtained in semiautomatic service as well as in manual service.) Before noon on the following day the Administration of destination asks the Administration of origin to indicate the chargeable duration shown on the tickets for each of these calls.

An accounting check may also be made. In particular cases, where justified by the volume of traffic and by special agreement between Administrations, an official of the Administration receiving the account can visit the Administration which draws up the account, to see how the accounts are drawn up and to verify that the details of these calculations are as accurate as possible.

9 Keeping of vouchers

The vouchers which have served for the establishment of accounts should be preserved until those accounts have been settled, or in any case for at least six months.

10 Settlements of accounts

10.1 Accounts will be settled in accordance with Articles 8 and 11 respectively and Appendix 1 of the *Telegraph and Telephone Regulations* [1].

ANNEX A
(to Recommendation D.170)

Tableau [T2.170], p.

Tableau [T3.170], p.

ANNEX B

(to Recommendation D.170)

Tableau [T4.170], p.

Tableau [T5.170], p.

References

[1] *Final Acts of the World Administrative Telegraph and Telephone Conference, Telegraph Regulations, Telephone Regulations* , ITU, Geneva, 1973. (See also the Preliminary Note No. 3, page XIV.)

Recommendation D.171

ADJUSTMENTS AND REFUNDS

IN THE INTERNATIONAL TELEPHONE SERVICE

The CCITT recommends that the following procedure for adjustments and refunds should be used in the international telephone service.

1 Any complaint made after the completion of an international telephone call which cannot be dealt with by operators shall be investigated by the international exchange of origin. According to circumstances, the other international exchange or exchanges concerned shall communicate direct to the international exchange of origin the information which may be necessary for the inquiry.

2 When a refund is granted, the international exchange responsible for charging is entitled to modify the entries in the documents used for the establishment of international accounts, if necessary after agreement with the other international exchanges concerned.

3 Any refunds granted to a subscriber which it has not been possible to deduct from the international accounts before they were sent out shall, in principle, be borne by the Administration which levied the charge for the call in question. However, international accounts may be adjusted on condition that an agreement is reached between the Administrations concerned.

4 When an Administration is able to show that a collect call has been connected, by a distant operator, to a payphone station equipped with payphone recognition tone, and as a result is not able to raise a charge for that call, that Administration can, on the basis of bilateral agreements, exclude that call from the international accounts. Details of all such calls should be forwarded to the Administration responsible for the call being set up.

Recommendation D.172

ACCOUNTING FOR CALLS CIRCULATED OVER INTERNATIONAL ROUTES FOR WHICH ACCOUNTING RATES HAVE NOT BEEN ESTABLISHED

(Geneva, 1972)

Normally, when calls are circulated over international routes for which accounting rates have not been established,

— these calls shall be treated in the international accounts as if they had been sent via the primary route, or

— if no relation has been opened between two terminal countries, they shall not be included in the international accounts, provided that the chargeable duration of such calls does not exceed:

— 25 minutes of call per month in an intercontinental relation,

— 100 minutes of call per month in a continental relation.

The Administration of origin shall be responsible for keeping check of the total duration of such calls and for arranging to remunerate the Administration concerned if the duration exceeds the above-mentioned limits.

However, if the amount of such traffic becomes significant or if, for any other reasons, any one of the Administrations involved wishes to have a proper accounting rate established, all the Administrations concerned should consult together and establish the accounting rate and divisions thereof to be used for such traffic.

Recommendation D.173

DEFAULTING SUBSCRIBERS

1 It is in the interest of Administrations to know of telephone subscribers coming from a country where they have not settled their telephone accounts, and also to render each other assistance in the recovery of amounts due from such debtors.

2 In view of the differences in the law in different countries, it would be very difficult to regulate this assistance.

3 It is therefore recommended that when a telephone subscriber has left the country in which he was a subscriber without settling his telephone account, and has taken up residence in another country which is known, the Administration of the country of origin should advise the Administration in the other country and ask this latter, on a reciprocal basis, to take such steps or make such arrangements as it thinks fit to obtain payment of the accounts outstanding.

4 The minimum amount of unpaid telephone bills, for the recovery of which the assistance of another Administration is requested, should be 100 gold francs or 32.67 SDR. Any such request for assistance should be made within two years from the date on which the unpaid telephone bill was submitted.

One Administration may appeal to another in special cases even when the amount owed is less than 100 gold francs or 32.67 SDR; for example, if a punishable offence is involved and it is considered necessary for reasons of principle to recover the debt.

Recommendation D.174

CONVENTIONAL TRANSMISSION OF INFORMATION NECESSARY | fR FOR BILLING

AND ACCOUNTING REGARDING COLLECT AND CREDIT CARD CALLS

(Geneva, 1972)

1 Information regarding collect and credit card calls, where the chargeable duration is determined in the outgoing country, should be transmitted promptly to the Administration which will be collecting the charges ideally within 10 days, but in any event within one month after the call took place, unless otherwise bilaterally arranged.

2 The method of transmitting this information (telecommunication or postal media) should be agreed between the Administrations concerned.

3 Where Administrations have not agreed on the exchange of tickets (or photocopies) and lists are used in order to facilitate prompt billing and establishment of accounts, the following minimum information should be transmitted:

a) date of establishment of the call;

b) calling party national number;

c) called party national number;

d) type (collect, credit card or third number paying);

e) credit card number or billed number;

f) basis of charging (full, reduced, personal or station);

g) chargeable duration (minutes);

h) connect hour.

4 By bilateral agreement between Administrations, certain items in § 3 above may be omitted or additional items included.

5 For uniformity it would be advantageous that the items be transmitted in the order listed in § 3 above.

Recommendation D.176

TRANSMISSION IN ENCODED FORM OF TELEPHONE REVERSED

CHARGE
BILLING AND ACCOUNTING INFORMATION

(Geneva, 1976)

1 Introduction

1.1 Under the provisions of Recommendation D.174 where the chargeable duration of a reversed charge telephone call is determined in the outgoing country, the details of the call should be transmitted promptly to the distant Administration to enable it to perform customer billing and in certain circumstances (Recommendation D.170, § 4.3) initiate international accounting.

The term ''Reversed Charge'' is used to mean collect, credit card and third number paying calls.

1.2 A growing number of Administrations are processing telephone call data using computer based accounting systems. Information is drawn from traffic history tapes or from manually encoded data such as telephone tickets. It is usual, at present, to convert computer output from this processing to conventional printed accounts for dispatch to other Administrations. Where the receiving Administration also uses computer facilities, however, this information has to be re-encoded for further processing.

1.3 Transmission of data in encoded form avoids the decoding/re-encoding step. It also offers a faster transfer of information than by printed forms through the mail. The latter remains true even if the forwarding Administration has prepared the data by manual/mechanical means.

2 Aim

2.1 The aim of this Recommendation is:

2.1.1 to enable Administrations using computer based accounting systems to transfer information to each other in encoded form, without the need for decoding into conventional printed form and subsequent encoding into machine-readable form;

2.1.2 to enable other Administrations, if they so desire, to benefit from the greater efficiency of speedier transfer of information to them and to prepare themselves for the introduction of computer working by introducing transmission of data in encoded form in advance of installation of a computer;

2.1.3 to facilitate provision of printed output from computer based systems in a format suitable for manual/mechanical processing where it is to be forwarded to Administrations not using computer facilities;

2.1.4 to facilitate provision of printed output from manual/mechanical accounting systems in a format suitable for data encoding where it is to be forwarded to Administrations employing computer processing.

3 Method

3.1 *Data record*

3.1.1 The aim of this Recommendation can be met by use of a standard data record format for the various elements of information to be transferred. The information elements and their sequence must be compatible with the provisions of Recommendation D.174, so that decoding to and encoding from printed output for exchange of information with Administrations using manual/mechanical systems will be as simple as possible.

3.1.2 Between Administrations operating computer based accounting systems, adherence to the standard data record format for data transmission purposes will ensure that only one interface programme will be needed to enable any one computer installation to generate suitable input for, and accept output from, other computer installations.

3.2 *Data transfer*

3.2.1 Procedures already exist for transfer of data in conventional (printed) form through the mails. Data in encoded form could be transferred by mailing of magnetic or paper tapes, paper tape transmission by telex or data transmission over circuits utilized for this purpose.

3.2.2 While mailing of tapes avoids the encoding task for the receiving Administration there can be delays and loss in transit. In addition, there can be difficulties caused by the fragility of paper tape and incompatibility of various forms of magnetic tape recording.

3.2.3 Transfer of data via the telex service using paper tape transmission and reception can be advantageous for Administrations whether they have computer based accounting systems or manual/mechanical systems. As both page copy and punched paper tape can be generated at the receiving point users of either type of accounting system can benefit. Page copy can be used for checking paper tape with the latter becoming input to a computer. Page copy can also be used as the source of information for preparation of customer billing in a manual mechanical system.

3.2.4 Where large volumes of data are to be exchanged transmission over higher speed circuits offers significant benefits. Where suitable data links are in use for service transmission, these could be utilized. Data terminals and modems capable of transmission speeds in the range 600 to 2400 bits per second should be sufficient but higher speeds could be used. For

manual/mechanical systems, data received on data terminals can be reproduced as page copy for the production of customer billing. For computer based accounting systems, data transmission offers the possibility of complete automation of the process by computer-to-computer transfer.

4 Specific recommendations

4.1 It is recommended that:

4.1.1 where possible, data transferred in printed form should be placed in the order shown in § A.2 of Annex A;

4.1.2 for transfer of data in encoded form the standard data record format detailed in the Annex should be followed;

4.1.3 transmission of data in encoded form be by the following means:

a) use of the telex system;

b) use of data transmission over telephone circuits, dedicated telegraph circuits or special data links;

4.1.4 transmission speeds, operating practices and technical standards should be agreed between the Administrations concerned and should conform with the appropriate CCITT Recommendations.

5 Code maintenance

The Secretariat of the CCITT is responsible for maintenance of the record of codes used for Items 1, 2, 6 and 7 of the Detail Record shown in Annex A.

New codes can be allocated by the authority of the Director of the CCITT. Applications should be made through the CCITT Secretariat who will arrange for the notification of new codes in the *Operational Bulletin* .

ANNEX A

(to Recommendation D.176)

Telephone reversed charge billing information

Fixed record formats

A.1 *Batch header*

H.T. [T1.176]

Item Number	Contents	Field size	Justification	Fill	Comments
1 Record type identification number }	{ 3	—	—	Always HDR	
2 For a specific combination of two Administrations. Reset to 1 after 999 }	Batch sequence number	3	Right	Zero	{
3 Always 01 for telephone reversed charge data }	Service type	2	Right	Zero	{
4 Code as agreed bilaterally between the sending and receiving Administrations }	Administration sending data	6	Left	Space	{
5 Year, month and day on which data tape was created YYMMDD (January 01) }	Creation date	6	—	—	{
6	Administration receiving data	6	Left	Space	As for item 4
7 Space fill to give fixed size records }	Filler	38	—	—	{

Tableau Annexe A.1 [T1.176], p.

A.2 *Detail record*

H.T. [1T2.176]

Item Number	Contents	Field size	Justification	Fill	Comments
1 Number all messages in numerical sequence 0001 through 9999 }	Record sequence	5	Right	Zero	{
2 1. Collect 2. Credit card 3. Third party paying 4. Collect pay phone 5. International Freephone service 6. Automated credit card service | ua) }	Reserved charge type code	1	—	—	{
3 Month and day of service in place of origin — MMDD (January 01) }	Service date	4	—	—	{
4	Calling party number	11	Left	Space	National (significant) number
5	Called party number	11	Left	Space	National (significant) number

Tableau Annexe A.2 [1T2.176], p.

A.2 *Detail record* (end)

H.T. [2T2.176]

Item Number	Contents	Field size	Justification	Fill	Comments
6 1. Personal rate 2. Station rate }	Rate level 1	1	—	—	{
7 1. Full rate 2. Reduced rate A | ub) 3. Reduced rate B | ub) }	Rate level 2	1	—	—	{
8	Charged duration				
8 |)	Charged duration — minutes	3	Right	Zero	Time to be paid for
8 |) Time for determining charges and/or establishing settlement accounts Individual calls of over 999 minutes to be handled manually }	Charged duration — seconds	2	Right	Zero	{
9 Time call connected in the place of origin 0000 through 2359 }	Connect time	4	—	—	{
10 National (significant) number of credit card number use when charges are not to called number (item 4) }	Charged number/credit card	15	Left	Space	{
11 Indicates the country code of the called country | uc) }	Called country	3	Left	Space	{
12 Specifies charged amount. Can include decimal point | ud) | ue) | uf) | ug) }	Charged amount	7	Left	Space	{
13 Additional charges to be collected: ADC (advice of duration of call) Space to fill to indicate no additional charge }	Additional charges	1	—	—	{
14 To indicate primary route has been used, record no data against this item (space fill still required). To indicate a route other than the primary, use the appropriate country code: — include the 3rd digit for country code 21. — include NPA code (and NPX code, if necessary) for World Numbering Zone I }	Route	6	Left	Space	{

Tableau Annexe A.2 [2T2.176], p.

H.T. [3T2.176]

a) See Recommendation D.120 on collection charges applied to automated telephone credit cards.

b) For telephone only.

c) For the countries within World Zone 1, no entry is necessary, as the terminating location can be determined by the digits contained within the called number.

d) To allow the originating Administration to determine the charges for calls where it, rather than the receiving Administration, determines the charges.

e) The currency of the charged amount will be expressed in SDR's or in gold francs. The billing Administration will also convert the charged amount into local currency for customer billing purposes.

f) Includes all amounts the originating administration expects to receive, including but not limited to service charges, surcharges, taxes, etc.

g) Consistent with its national policies, the billing Administration may levy additional charges and/or taxes that may apply, if any, for this type of service.

H.T. [T3.176]

Item Number	Contents	Field size	Justification	Fill	Comments
1	Record type identification	3	—	—	Always TRL
2 - 6	(As for Batch header)	23	—	—	
7	{				
Number of details records in batch					
}	6	Right	Zero		
8	Control total	7	Right	Zero	{
Total of all items 7 in *detail record*					
}					
9	Filler	25	—	—	{
Space fill to give fixed size records					
}					

Note 1 — New codes can be obtained from the Director of the CCITT. (Refer to § 5 of this Recommendation.)

Note 2 — Items not used should be space or zero filled as appropriate.

Note 3 — In telex transmissions, records may be followed by ''new line'' function characters. Records may also be terminated at the end of significant data by ''new line'' function characters and the remainder of the record will then be interpreted by the Administration receiving the data as space or zero fill as appropriate.

Tableau Annexe A.2 [3T2.176], p.

A.3 *Batch trailer*

H.T. [T3.176]

Item Number	Contents	Field size	Justification	Fill	Comments
1	Record type identification	3	—	—	Always TRL
2 - 6	(As for Batch header)	23	—	—	
7	{				
Number of details records in batch					
}	6	Right	Zero		
8	Control total	7	Right	Zero	{
Total of all items 7 in *detail record*					
}					
9	Filler	25	—	—	{
Space fill to give fixed size records					
}					

Note 1 — New codes can be obtained from the Director of the CCITT. (Refer to § 5 of this Recommendation.)

Note 2 — Items not used should be space or zero filled as appropriate.

Note 3 — In telex transmissions, records may be followed by ‘‘new line’’ function characters. Records may also be terminated at the end of significant data by ‘‘new line’’ function characters and the remainder of the record will then be interpreted by the Administration receiving the data as space or zero fill as appropriate.

Tableau Annexe A.3 + Remarques [T3.176], p.

Recommendation D.177

ADJUSTMENT OF CHARGES AND REFUNDS

IN THE INTERNATIONAL TELEX SERVICE

(Melbourne, 1988)

1 If a subscriber claims a reduction in charges as a result of difficulties or irregularities during the call, he may be requested by his Administration to supply copies of the message in question as transmitted and received. If the faults are clearly attributable to either of the subscribers, no reduction of the charge shall be made. If the difficulty was due to the telex service, the chargeable duration of the call shall be reduced to the total period during which telex conditions were satisfactory.

2 Any complaint made after the completion of the call shall be investigated by the international exchange of origin. According to circumstances, the international exchange or exchanges concerned shall communicate directly to the international exchange of origin the information that may be necessary for the inquiry.

3 When a refund must be granted, the international exchange responsible for charging is entitled to modify the entries in the documents used for the establishment of international accounts, if necessary after agreement with the international exchanges affected.

4 In the case of refusal by the calling station or in the absence of a reply from the latter when it is called, the cost of one minute of ordinary private call exchanged between the two stations concerned during the charge period in which the refusal or non-reply took place shall be payable. This charge shall not be posted in the international accounts. However, Administrations and recognized private operating agencies concerned may, by special agreement, collect total charges different from those mentioned above.

5 A call booked to a wrong number and established with the station having that number shall be charged as for a call with a correct number.

6 However, if the international telex position is advised by the calling subscriber immediately after the establishment of the call, the charge payable for the call to the wrong number may be an amount not exceeding the cost of one minute's telex call for the charge period during which the request for the call to the wrong number was made.

7 The amount of this charge shall not be entered in the international accounts.

Recommendation D.178

MONTHLY ACCOUNTS FOR SEMI-AUTOMATIC TELEPHONE CALLS

(ORDINARY AND URGENT CALLS, WITH OR WITHOUT SPECIAL FACILITIES)

(Malaga-Torremolinos, 1984)

The CCITT,

considering

a) that a trend has been observed in various countries over the past few years whereby it is becoming less and less common, in international telephone operation, for the operator of the country of destination and in some cases of transit to be requested to set up telephone calls;

b) that the operator of the country of origin therefore plays a predominant role in establishing the connection between the calling and called subscribers;

c) that this trend makes it necessary to modify the former accounting rules based on the principle of ‘‘ accounting revenue division

d) that those countries whose operators effectively participate in setting up the call need to be remunerated on a more equitable basis;

e) that international telephone accounting should be simplified;

recommends | that in international semi-automatic operation:

1) for calls, with the exception of collect and/or credit card calls , the only item to be entered in international accounts should be the effective conversation time determined according to the 3 + 1 or 1 + 1 charging systems. Special charges (such as the surcharge for station-to-station and personal calls) would remain with the Administration of the country of origin;

2) as far as collect calls are concerned, subject to agreement between the Administrations concerned, the Administration of the country of destination should pay, in addition to the normal share relating to the call (regarded as an outgoing call), a flat-rate charge per call to be fixed by bilateral agreement. The purpose of this flat-rate charge would be to cover the costs incurred for the establishment of the call in the country of origin

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The accounting methods described above could be applied to credit card calls, subject to bilateral agreement between the Administrations concerned.

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SECTION 13

INTERNATIONAL SOUND- AND TELEVISION-PROGRAMME TRANSMISSIONS

Recommendation D.180

OCCASIONAL PROVISION OF CIRCUITS FOR INTERNATIONAL SOUND- AND TELEVISION-PROGRAMME TRANSMISSIONS

1 General

In most cases, circuits used for sound- and television-programme transmissions are owned by Administrations although in some countries national broadcasting organizations own all or part of the circuits within national boundaries.

The provision of circuits for transmissions between two or more countries requires the closest cooperation between:

— the broadcasting organizations concerned in a sound- or television-programme transmission, either as users or owners of sound-programme and television circuits or both, and

— the Administrations concerned.

It is therefore recommended that the following principles for ordering and charging should be observed for the occasional provision of sound or television circuits.

This Recommendation is intended to cover the provision of circuits for sound- and television-programme transmissions only and not other types of transmissions.

This Recommendation does not include provisions for the leasing for periods of one day or more of sound- and television-programme circuits, which are subject to the provisions of Recommendation D.4 and Recommendation D.310 R.

Provisions governing the technical aspects and maintenance of sound and television programmes and associated circuits are contained in the J, M and N Series Recommendations.

2 Definitions

The terms used in connection with sound- and television-programme transmissions, as defined below, apply to all cases of the occasional provision of sound or television circuits.

Any reference to broadcasting organizations in this Recommendation applies equally to other users.

2.1 **programme booking centre (PBC)**

F: service centralisateur

S: centro de reserva de programas (CRP)

The office of an Administration (or broadcasting organization where circuits are provided for international service by such an organization) which receives orders for international sound and/or television circuits from broadcasting organizations in its own country or from a broadcasting organization in another country or from the PBC of another Administration and is charged with the task of making appropriate arrangements for providing the ordered circuits.

2.2 **international sound programme centre (ISPC)**

F: centre radiophonique international (CRI)

S: centro radiofónico internacional (CRI)

A centre at which at least one international sound-programme circuit terminates and in which international sound-programme connections can be made by the interconnection of international and/or national sound-programme circuits.

The ISPC is responsible for setting up, lining up and maintaining international sound-programme connections and for the supervision of the transmissions made on them.

2.3 **international television programme centre (ITPC)**

F: centre télévisuel international (CTI)

S: centro internacional de televisión (CIT)

A centre at which at least one international television circuit terminates and in which international television connections can be made by the interconnection of international and/or national television circuits.

The ITPC is responsible for setting up, lining up and maintaining international television connections and for the supervision of the transmissions made on them.

The centre at the end of an international satellite television circuit is sometimes referred to as the satellite international television-programme centre (SITPC).

2.4 **broadcasting organization**

F: organisme de radiodiffusion

S: organismo de radiodifusión

A broadcasting organization is an organization which is concerned with sound and/or television broadcasting.

Most of the customers ordering facilities for sound- and television-programme transmissions are broadcasting organizations, and for convenience, the term ‘‘broadcasting organization’’ is used in this Recommendation to denote activity of any user or customer, and where so used, is equally applicable to any other customer requiring sound- or television-programme circuits.

2.5 *Categories of transmissions*

2.5.1 **regular transmissions** are those which take place at regular intervals, at fixed times between the same points. Some regular transmissions may be subject to special contractual arrangements.

2.5.2 **occasional transmissions** are all those which do not fall within the definition of regular transmissions.

Some occasional transmissions may be subject to special contractual arrangements.

2.5.3 **simple transmissions** are one-way transmissions from a point of origin in one country to a receiving point in another.

2.5.4 **multiple-destination transmissions** are those transmissions which originate in one or more countries, from one or more points of origin, and are transmitted simultaneously to two or more countries.

2.6 *Categories of circuit*

2.6.1 **sound-programme circuit** is a unidirectional circuit for the transmission of a sound programme or a sound component of a television programme The various types of audio circuits are described in § 3.

2.6.2 **television circuit** is a unidirectional circuit for the transmission of the video component of a television programme.

2.6.3 **control circuit** is a telephone-type circuit which may be used by a broadcasting organization for the supervision and/or coordination of a sound- or television-programme transmission.

2.7 **Constitution of sound- and television-programme connections**

2.7.1 An international sound- or television-programme connection consists of one or more unidirectional circuits between broadcasting organizations and comprises:

a) the point to be regarded as that of the origin of the transmission (Point A of Figures 1/D.180 and 2/D.180);

b) the outgoing national circuit which connects Point A to the first ISPC or ITPC (Point B);

c) an international circuit comprised of any combination of international or national terrestrial, submarine cable, radio or satellite circuits or circuit sections. (A satellite circuit consists of a satellite section, including the earth stations, extended by terrestrial means to the ISPCs or ITPCs at the ends of the satellite circuit);

d) the incoming national circuit which connects the last ISPC or ITPC (Point C) to Point D;

e) the point of destination of the transmission (Point D).

The various parts of international connections are illustrated in Figures 1/D.180 and 2/D.180.

More than one such sound-programme circuit may be required for association with a single television circuit.

More than one such control circuit may be required for association with a single television circuit.

Figure 1/D.180 p.

Figure 2/D.180 p.

2.7.2 The complete chain between A and D, including the international circuit B-C and the national circuits (A-B and C-D) is the *international sound- or television-programme connection* .

2.7.3 Points A and D are, as a general rule, under the control of the transmitting and receiving broadcasting organizations.

Points B and C are, in principle, under the control of the Administrations of the corresponding countries.

The circuit B-C is generally under the control of the Administrations but certain of its component parts (which may be national or international circuits) and some ISPCs and ITPCs may be owned or operated by broadcasting organizations.

The national circuits A-B and C-D may be under the control of either an Administration or a broadcasting organization, or both jointly, according to the actual arrangements in the countries concerned.

3 Types of sound-programme circuits

3.1 The types of sound-programme circuits that may be provided for sound-programme transmissions or the sound component of a television-programme transmission are referred to as follows for ordering and charging purposes:

	Approximate bandwidth
Narrow-band	3 kHz
Medium-band	5 kHz
Wide-band	10 kHz
Very wide-band	15 kHz
Stereophonic pair	2 at 15 kHz each

Detailed technical parameters of some types are given in the J and N Series Recommendations.

A stereophonic pair consists normally of two very wide-band circuits, which must be carefully matched. Each circuit of a stereophonic pair may also be used separately for monophonic transmissions

3.2 Narrow-band sound-programme circuits may be telephone-type circuits. They are provided in varying forms, but are routed through the ISPC for setting-up and maintenance. When provided on a 4-wire basis, the return path may be used as an unidirectional control circuit

3.3 The five types of circuit in § 3.1 above provide for the continued use of existing facilities (e.g. circuits with a top nominal transmitted frequency of 6.4 kHz, both ‘‘old’’ and ‘‘new’’ types, would be medium-band circuits as well as those with a top nominal frequency of 5 kHz) as well as future requirements, and apply equally:

— for both sound- and television-programme transmissions, and

— for terrestrial, submarine cable, radio and satellite circuits.

3.4 Administrations may decide to provide of the five types of sound circuits, only those for which sufficient customer demand is indicated.

3.5 When an Administration cannot provide the type of circuit that is ordered, if time permits, it will inform the broadcasting organization of the type of circuit that can be made available. When time does not permit consultation with the broadcasting organization, the Administration should provide a circuit of the nearest suitable type available.

4 Ordering of circuits and conditions of acceptance

4.1 *Orders*

4.1.1 Orders for the use of circuits for sound- and television-programme transmissions should normally be addressed by a broadcasting organization to the Administration of its country. The broadcasting organizations concerned should coordinate their arrangements before placing orders for circuits. Orders for all the circuits to be established and, wherever possible in practice, for any automatic telephone set required, should usually be placed by the broadcasting organization which is to receive the transmission.

4.1.2 With prior agreement of the broadcasting organizations concerned, and particularly for some multiple-destination transmissions, orders may be placed with the Administration of the country in which the transmission will originate or of any intermediate transit country.

4.1.3 Coordinated Universal Time (UTC)

For operational purposes, Coordinated Universal Time can be considered equivalent to Greenwich Mean Time (GMT).

should be used for bookings.

4.1.4 When agreement has been reached on the orders to be placed, the transmitting broadcasting organization should provide its Administration with a list, for information purposes, of all the circuits to be established.

Provision of this list does not constitute an order for circuits. In addition, if the broadcasting organizations concerned have appointed a coordinating centre for a transmission, it should send a list of all circuits to be established to the Administration concerned (see Recommendation N.52 [1]).

4.1.5 Each order, which should be clearly identified as such, carries with it an undertaking to pay all the charges relating to the use of the facilities ordered, including any cancellation fee or special expenses which may be incurred in connection with the order.

If time permits after an order has been placed, an estimate of any special expenses which are likely to be a major part of the total should be given to the broadcasting organization.

4.1.6 Orders for the use of circuits will be met subject to availability of facilities. The Programme Booking Centre (PBC) receiving orders should confirm acceptance and availability of circuit as soon as possible unless special arrangements have been made nationally between the Administration and the broadcasting organization which has placed the order. When time permits, orders and confirmations should normally be in written form (e.g. telex).

4.1.7 It is in the interest of both broadcasting organizations and Administrations that orders should be placed as soon as possible, preferably at least 24 hours before the provision of circuits is scheduled to take place. Administrations should always do their best to provide circuits at shorter notice. Broadcasting organizations should always do their best to place orders as early as possible, particularly in those cases where special construction of facilities will be required.

4.2 *Handling of orders received by Administrations*

4.2.1 The Administration receiving an order is responsible for passing the order to all other Administrations concerned and for obtaining from them confirmation of the availability of the circuits and facilities required.

4.2.2 Facilities for sound- and television-programme transmissions should be allocated in the sequence in which orders are received.

4.2.3 For the provision of television circuits via satellite :

a) the Administration receiving the order is responsible for arranging the circuits between the broadcasting organization and the appropriate ITPC at the end of the satellite circuit (SITPC);

b) the Administration operating this ITPC is responsible for confirming the availability of the satellite circuit and for ordering its portion of that circuit; and

c) the Administration operating the ITPC at the other end of the satellite circuit is responsible for ordering its portion of the satellite circuit and for arranging the circuits between its ITPC and the other broadcasting organization.

This procedure normally applies also to sound-programme and control circuits provided by means of satellite channels specially assigned for use in association with television transmissions but not necessarily to other sound-programme circuits provided via the satellite or to sound-programme circuits provided by any other means, e.g. submarine cable.

4.3 *Cancellations*

4.3.1 A cancellation fee may be charged by Administrations if, for reasons not within their control, the order is cancelled:

a) less than 24 hours, but more than 2 hours, before the time scheduled for the beginning of the provision of circuits (see § 4.3.2 below); or

b) 2 hours or less before the time scheduled for the beginning of the provision of circuits (see § 4.3.3 below).

The time to be considered in determining these limits is the time at which the broadcasting organization submits its cancellation request to the PBC which received the original order.

4.3.2 The fee with regard to a) above should be such as to cover the administrative expenses already incurred by Administrations following receipt of the order. This should provide some incentive to broadcasting organizations to cancel orders in sufficient time for the circuits concerned to be made available to another customer. This fee should not be charged unless the order has been accepted and confirmed by the Administration concerned.

4.3.3 The fee with regard to b) above should be such as to cover, in addition to the expenses referred to in 4.3.2, any additional preparation for the provision of circuits, and to compensate in part for loss of revenue which might have been obtained by making the circuit available to another customer. This fee may be charged whether or not the order has been confirmed by the Administration concerned.

4.3.4 In all cases, Administrations may require reimbursement of any documented special expenses incurred, e.g. in the provision of specially engineered circuits, even when the transmission is cancelled with more than 24 hours notice.

4.4 *Alterations in orders*

An alteration to an order for which the Administrations are not responsible should be considered as a new order which cancels the original one. The original order is therefore subject to the cancellation fee referred to in § 4.3 above when the alteration request is made within the specified time limit, except that no fee is payable in respect of:

a) a change of less than a total of 2 hours in the time scheduled for the beginning of the use of the circuit, regardless of the number of individual alterations;

b) a change in the scheduled time such that the new period of use overlaps the original period;

c) a change in the overall duration of the use of circuits;

d) a change in the routing of circuits beyond the extremities of the international circuit provided that no alteration whatsoever is requested in the international circuit.

5 Charging principles

The total charge for the provision of circuits for an international sound- or television-programme transmission is the sum of the charges for the various circuit sections (see § 2.7 above and Figures 1/D.180 and 2/D.180).

The international charges should normally have two basic elements:

1) a fixed charge designed to cover preparation and operation, and

2) a charge based on duration of the provision of the circuit.

The fixed charge may include a minimum duration of the provision of the circuit.

In view of the great disparity in the cost of the various components of, on the one hand, terrestrial circuits of the type used mainly within continents and, on the other hand, satellite and long-distance submarine cable circuits used mainly for intercontinental relations, it is not possible to recommend one single method for developing the charges for each individual section.

Administrations which of necessity operate using more than one method of charging should define the interconnection points for the application of the different methods. This should normally be an ISPC or an ITPC.

Whenever possible the same method of charging should be used within the same region.

5.1 *Charging for the provision of circuits for international sound- and television-programme transmissions except those via satellite, radio or intercontinental submarine cable circuits*

5.1.1 The charge normally should be made up of the following elements:

a) a fixed charge for the preparation and operation per provision of circuits and per country having an interconnection point (whatever the number of interconnecting points within the terminal and transit countries);

b) a charge per minute of provision of circuits per terminal country, which may be expressed differently for:

— a sending terminal,

— a receiving terminal,

— a branching terminal in a multiple-destination transmission;

c) a charge per minute of provision of circuits and per interconnection point in a transit country;

d) a charge per minute of provision of circuits based on the length of line;

e) any special expenses incurred in the setting up of special circuits to connect with existing circuits and, wherever possible in practice, for the installation of any automatic telephone set required, any special charges for use of national facilities not covered by the charges of a) and d) above.

5.1.2 The provision of a sound-programme circuit established on a subcarrier of a channel used for television transmission is charged as for a sound circuit provided for an independent sound-programme transmission.

When a Sound-In-Sync (SIS) facility is used, no additional amount is added to the accounting rates. Any remuneration for extra expenses incurred by an Administration is a national matter between that Administration and its broadcasting organization.

5.1.3 In principle, use of different types of sound-programme circuits to make up an international sound-programme connection should be avoided. However, if it is necessary to use different types of circuits for any section of the connection, the charge applicable to all sections would be that for the lowest quality type used. The sharing of charges between Administrations should be on the basis of the lowest charges applied.

If a broadcasting organization orders a higher quality sound-programme circuit for a particular section of the connection, the charges for that higher quality type would apply to that section.

5.1.4 If a telephone-type circuit is provided for use as a sound-programme circuit, items b), c) and d) in § 5.1.1 above may be combined in a charge related to the charge for an appropriate telephone call in the relation concerned.

Note — This does not obviate the need to pay the charges of a) and e) as appropriate.

When a narrow-band circuit provided on a 4-wire basis is used as a sound-programme circuit in one direction and as a control circuit in the other direction (see § 3.2 above) an additional charge may be made.

5.1.5 International circuits which are part of a network providing multiple-destination transmissions, where the programme is received simultaneously in several countries, are considered, from the charging point of view, as separate circuits:

— from the point of origin to the first receiving terminal;

— from the first receiving terminal to the next receiving terminal, and so on;

— from a branching point to the next receiving terminal.

5.1.6 Broadcasting organizations should arrange among themselves which will pay charges for the common use of circuits in multiple-destination transmissions. The diagram in Figure 3/D.180 illustrates how such arrangements and the principles in § 5.1.5 above should be applied.

In Figure 3/D.180, it is assumed that the broadcasting organization in B, which broadcasts the transmission coming from A, pays the charge for the circuit A-B, that the broadcasting organization in F pays the charge for the circuit B-F, while the broadcasting organizations in G, H and J pay for the circuits F-G, F-H and F-J respectively.

As C is not broadcasting the transmission, the broadcasting organizations in D and E should arrange in advance which of them will pay the charge for the circuit B-C. If, for example, the broadcasting organization in D agrees to pay the charge for the circuit B-C, the charges to be collected in D and in E should be based, respectively, on the use of circuits B-C-D and C-E.

If, during the use of a circuit an additional broadcasting organization is connected to any part of the international circuit, that broadcasting organization will be responsible for all additional charges concerned in that connection.

Figure 3/D.180 p.

5.1.7 When several different routes exist in any given relation the total charge for each of the routes is the sum of the shares due to each country for the actual route followed. The choice of route is normally left to the discretion of Administrations. However, a broadcasting organization may request a specific route, which should be provided by the Administration concerned if possible.

In the case of direct transit of a country where the transmission is not used and when there is more than one route through that country, its Administration should normally fix a uniform transit charge for transit of its country in a given relation.

5.1.8 There is a minimum chargeable duration of three minutes for the provision of circuits used for sound- and television-programme transmissions.

5.1.9 The same charge should apply in principle to circuits used for both colour and monochrome television transmissions and normally at all times of the day and night.

5.1.10 Where a telephone-type circuit is provided for use as a control circuit, the appropriate telephone charge between the two terminal countries should be applied. Where additional facilities are provided in connection with such a circuit, Administrations may make appropriate charges for such facilities.

5.1.11 When the vertical blanking interval is used to transmit special signals specified by the CCIR (such as VITS, VIRS, DIS and captions for the deaf) no additional charge should be levied provided that the information is directly related to the switching, quality control or content of the TV signal.

5.1.12 The clauses applied in certain regions of the world are given in the corresponding regional Recommendations found in the D.xxxR Series Recommendations. In regions for which no Recommendation has been adopted, the appropriate clauses of the D.xxxR Series Recommendations could possibly be applied.

5.2 *Charging for sound- and television-programme circuits furnished by means of satellite, radio or intercontinental submarine cable and used for international sound- and television-programme transmissions*

5.2.1 For the provision of television circuit, a minimum charge should be made covering an initial period of 10 minutes hereinafter referred to as the *initial period charge* , plus a per-minute charge for each minute or part minute thereafter.

5.2.2 The charge for a satellite television circuit is made up of an *up part* and a *down part* charge, each including its terrestrial extension to the ITPC.

Each Administration should establish a charge for the part which it controls.

5.2.3 For the provision of circuits for sound-programme transmissions, the charge should normally have two basic elements:

1) a fixed charge designed to cover preparation and operation, and

2) a charge based on the duration of the connection which may be related to, but not necessarily the same as, the station-to-station telephone call rate.

5.2.4 For the consecutive use of the same satellite television circuit by different broadcasting organizations, only one initial period charge may be made, as though the circuit was being used by one broadcasting organization only. The duration of each of the consecutive transmissions should then be considered, for purposes of calculating the charges, at least as long as an initial chargeable period.

5.2.5 For the use of satellite circuits for multiple-destination transmissions via satellite involving:

— one part between the point of origin and the satellite (up-link);

— several parts between the satellite and the receiving earth station (down-link) of each country receiving the transmission,

the charge for the up-link normally should be divided amongst the receiving earth station countries based on the time of usage of each down-link. When this charge varies according to the point of destination, the highest charge should be applied.

The Administration providing the up-link may levy a surcharge for the common use of a satellite circuit to cover the additional costs of preparation. This surcharge should be shared by the receiving countries in proportion to their time of usage.

The same procedure may apply to any charges for circuits upstream to the connection.

5.2.6 For the provision of circuits whose direction of transmission alternates between two points in a given period, the individual durations may be summed to determine the chargeable duration in each direction.

5.2.7 When the vertical blanking interval is used to transmit special signals specified by the CCIR (such as VITS, VIRS, DIS and captions for the deaf) no additional charge should be levied provided that the information is directly related to the switching, quality control or content of the TV signal.

5.2.8 Administrations may offer services under special contractual arrangements to meet individual customer requirements such as:

a) periodic provision of circuits at fixed times and with fixed points of origination and termination;

b) provision of circuits without requirements for fixed times or fixed points of origination and termination;

c) provision of circuits during off-peak hours.

5.2.9 Administrations may apply a charge for a television-associated sound-programme circuit established by Administrations on a subcarrier of a channel used for television connection.

5.3 *Determination of the chargeable duration*

5.3.1 The ISPCs and ITPCs concerned in providing circuits should come to an agreement between themselves and broadcasting organizations at the end of each period of use of circuits as to the chargeable duration:

a) the time at which the ordered connection was placed at the disposal of the broadcasting organization (beginning of the chargeable duration) — this is also the beginning of the preparatory period (see Recommendations N.4 [2] and N.54 [3]);

b) the time at which the ordered connection was released by the broadcasting organization (end of chargeable duration) — sometimes referred to as the ‘‘goodnight time’’.

c) when necessary, the time and duration of any interruption which may have occurred.

The time at the beginning and end of the chargeable duration, as well as the time of any occurrence and duration of any interruptions are entered on a report. This report should be sent, preferably on the same day, to the office responsible for coordinating all the details necessary for the establishment of international accounts. In addition, details relative to interruptions are noted on the report sent periodically to the technical services concerned.

5.3.2 In case of disagreement, the opinion of the Administration in the receiving country on the duration of use of circuits and the duration of interruptions shall prevail, except with regard to orders which are placed and paid for at the transmitting end when the opinion of the Administration at that end shall prevail as regards the start and end times (though not as regards the duration of interruptions).

5.3.3 The start time for the use of a circuit is the time scheduled when the order is placed, unless the circuit is handed over to the customer earlier at his request. It may be later than the scheduled time only if the Administrations have failed to provide the circuit in good working order on time.

5.3.4 There should be no obligation upon Administrations to monitor transmissions continuously. Consequently broadcasting organizations should be requested always to report at once if they are not satisfied with the quality of a circuit or if there is any interruption; Administrations, however, are not responsible for notifying broadcasting organizations of interruptions.

5.4 *Interruptions — allowances*

5.4.1 If during the period of use of circuits, an interruption, even of short duration, occurs:

— whether on the connection, or

— in a section of that connection, or

— in one or more of the sound circuits associated with a television-programme transmission, or

— in the video circuit only of a television-programme transmission,

a credit allowance corresponding to the duration of the interruption shall be given to the broadcasting organizations affected by the interruption.

Where multiple-destination transmissions are involved, interruptions of one or more video or sound circuits receiving the television transmission shall not be considered as an interruption of the associated video or sound transmitting circuit if such video or sound transmitting circuit is continued in use for reception at another point.

5.4.2 The general test of whether an allowance is in order should be: Was the circuit used?

This implies that broadcasting organizations must decide whether to use or refuse an ordered connection.

In general, if a broadcasting organization continues to broadcast or record the programme transmission, the charges in respect of any circuits it uses remain payable in full. If, however, as a result of a fault or interruption on the circuit, no signals or faulty signals are received by one or more participating broadcasting organizations, an allowance in respect of the circuits serving each of these broadcasting organizations may be given. Each circuit used by any broadcasting organization which continues to broadcast or record the transmission remains payable in full.

Similarly, if in such circumstances broadcasting or recording of either the video or sound components of the programme (but not both) is discontinued by any broadcasting organization, an allowance in respect of the television or sound circuit concerned (but not both) may be given at that broadcasting organization's request (see also § 5.4.6 below).

5.4.3 Any interruption should be reported by the broadcasting organization; however, in cases of facility failures known to the Administration, such reports may not be required. While broadcasting organizations are normally required specifically to request allowances for interruptions , such requirement may be waived at the discretion of and according to the national practices of Administrations.

5.4.4 It will be for the Administration of the country of the receiving broadcasting organization to assess the validity of any claim for allowances and to assess the allowance to be made, where necessary in consultation with the other Administrations concerned. In the event of disagreement, the opinion of the Administration of the country of the receiving broadcasting organization shall prevail over that of the other Administrations concerned.

5.4.5 Credit for interruptions should be allowed on any transmission, regardless of the interval between the receipt of the order and the start of the use of circuits.

5.4.6 It is accepted that an interruption of either the video or the sound component of a programme may render the whole transmission valueless to the customer. However, the charges for any connection which continues to be used by the customer for broadcasting or recording remain payable in accordance with § 5.4.2 above.

5.4.7 All Administrations concerned in the provision of circuits should make the allowances for interruptions , regardless of where they took place.

5.4.8 No allowance will be given when the interruption is due to the negligence of the broadcasting organization or the failure of facilities provided by the broadcasting organization.

5.4.9 When a circuit failure makes it impossible to provide a connection on the planned route, or causes an interruption in a circuit, an alternative routing should be established whenever possible, provided that the broadcasting organization undertakes to pay additional charges that may apply. However, for those sound-programme circuits which can be readily rerouted, the broadcasting organization should pay the same total charge that would have applied if no failure had occurred.

5.5 *Measurement of distances for terrestrial circuits*

5.5.1 When part or all of the charge for the provision of circuits is based on the length of circuit, the distance is normally taken as:

— in the case of the terminal country, the crowflight distance between the ISPC or ITPC and the point where the circuit crosses the frontier;

— in the case of the transit country, the crowflight distance between the points of crossing the frontier by the circuit;

— in both cases, in order to take better account of the cost actually incurred with a radio-relay link, the point midway between the two stations on either side of the frontier may be used instead of the actual point of crossing of the section of the link straddling the frontier.

5.5.2 However, the relatively high cost of television circuits and the wide disparity in many relations between crowflight and actual distances could make it desirable to base distance measurement for television circuits on the actual distance.

Similarly, it might be appropriate to round up the actual distance in small rather than large steps (in some regions, actual distances are rounded up to the next 10 km).

It is recommended that regions should decide whether to use actual distance within their region or whether to retain the system of measurement described in § 5.5.1 above for terrestrial television circuits.

6 Accounting

6.1 *Collection of charges*

In principle, the Administration with which the order was placed is responsible for collecting the charge for the provision of circuits from the broadcasting organization which placed the order.

6.2 *Remuneration of Administrations*

The Administration with which the order for the provision of circuits is placed is responsible for ensuring that the remuneration to other Administrations is entered into the international accounts in accordance with the provisions of Recommendation D.170. Unless otherwise agreed, the consolidated monthly accounts should be accompanied by supporting documents which will allow each provision of circuits to be separately identified.

6.3 For the provision of circuits for sound-programme transmissions as stated in § 5.2 above, the accounting rate shall be established by agreement between the Administrations concerned. The accounting rate based on the duration, which normally corresponds to the station-to-station telephone call accounting rate, should be shared between terminal Administrations and, where appropriate, with transit Administrations in the same manner as the accounting rates for telephone calls. In addition, each Administration shall be remunerated by the predetermined amount corresponding to its part of the fixed charge as described in § 5.2.3.

7 Directory for handling orders for international sound- and television-programme circuits

To ensure speedy and reliable arrangements for the provision of international sound- and television-programme circuits, it is essential that detailed information regarding the PBCs all over the world which handle orders for such circuits should be readily available to those concerned. This also applies to appropriate technical services and to the broadcasting organizations themselves.

A directory of this information has been established and kept up to date by the General Secretariat of the ITU, to which a request can be sent to obtain the necessary copies. In order that this directory be kept up-to-date and complete, each Administration should draw up an information sheet for every programme booking centre (PBC), international sound-programme centre (ISPC) and international television-programme centre (ITPC) under its control. It is recommended that broadcasting organizations which handle orders for international circuits should also draw up information sheets.

To this end, up-to-date information sheets should be sent to the General Secretariat of the ITU.

The information sheets should include, where applicable, the following basic particulars:

— name of country;

— name of office for which information is given (PBC, ISPC, broadcasting organization, etc.);

— name of Administration or broadcasting organization;

— postal address;

— telephone number(s);

— telex number and answerback;

— telegraphic address;

— office hours (UTC);

— languages spoken;

— senior staff and deputies;

— contact outside office hours and on holidays;

— office handling orders for leased circuits (if not PBC);

— earth station;

— local time reference UTC;

— name(s) of customer(s) for which orders are normally handled.

References

[1] CCITT Recommendation *Multiple television transmissions and coordinating centres* , Vol. IV, Rec. N.52.

[2] CCITT Recommendation *Definition and duration of the line-up period and the preparatory period* , Vol. IV, Rec. N.4.

[3] CCITT Recommendation *Definition and duration of the line-up period and the preparatory period* , Vol. IV, Rec. N.54.

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