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**RECOMMENDATIONS FOR REGIONAL
APPLICATION**

**STANDARDS RATES APPLICABLE IN THE
INTERNATIONAL TELECOMMUNICATION SERVICES**

**DETERMINATION OF ACCOUNTING RATE
SHARES AND COLLECTION CHARGES
IN TELEX RELATIONS BETWEEN
COUNTRIES IN EUROPE AND THE
MEDITERRANEAN BASIN**

ITU-T Recommendation D.301 R

(Previously "CCITT Recommendation")

FOREWORD

The ITU-T (Telecommunication Standardization Sector) is a permanent organ of the International Telecommunication Union (ITU). The ITU-T is responsible for studying technical, operating and tariff questions and issuing Recommendations on them with a view to standardizing telecommunications on a worldwide basis.

The World Telecommunication Standardization Conference (WTSC), which meets every four years, establishes the topics for study by the ITU-T Study Groups which, in their turn, produce Recommendations on these topics.

The approval of Recommendations by the Members of the ITU-T is covered by the procedure laid down in WTSC Resolution No. 1 (Helsinki, March 1-12, 1993).

ITU-T Recommendation D.301R was revised by ITU-T Study Group 3 (1993-1996) and was approved under the WTSC Resolution No. 1 procedure on the 20th of March 1995.

NOTE

In this Recommendation, the expression “Administration” is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

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INTRODUCTION

When, in full exercise of their sovereignty, the Administrations of the countries of Europe and the Mediterranean Basin negotiate among themselves agreements for determining the accounting rate shares and when they fix the collection charges to be applied in their telex relations, it is recommended that they take into consideration:

- for the determination of accounting rate shares and accounting rates, the provisions of clause 2 of this Recommendation;
- for fixing the collection charges, the provisions contained in clause 3 of this Recommendation.

The standard rates given in this Recommendation are expressed in the monetary unit of the International Monetary Fund (IMF), and the Special Drawing Right (SDR). In accordance with the international Telecommunication Regulations, the gold franc is equivalent to 1/3.061 SDR.

**DETERMINATION OF ACCOUNTING RATE SHARES
AND COLLECTION CHARGES IN TELEX RELATIONS
BETWEEN COUNTRIES IN EUROPE
AND THE MEDITERRANEAN BASIN^{1) 2)}**

(Revised in 1995)

1 Explanation of some of the terms used in this Recommendation

An explanation of some of the terms used in this Recommendation is given in Recommendation D.000.

2 Determination of accounting rates in telex relations between countries in Europe and the Mediterranean Basin

2.1 General

2.1.1 Since the setting-up of any international call involves both the international network and the national networks of the terminal countries, the accounting rate share for each country is derived from three basic elements, to which separate standard rates are applied:

- the line (transmission) part of the international network, which includes the various transmission systems used and is a function of the distance;
- the international exchange, i.e. the switching part of the international circuit, plus the terminal transmission equipment;
- the national extension, which denotes that part of the national network of each terminal country involved in completing the connection.

2.1.2 In special cases where the line (transmission) part of an international connection is:

- a tropospheric scatter link; or
- a HF radio link,

the provisions of this Recommendation with regard to the determination of an accounting rate share in relation to the length of the international circuit are not applicable and accounting rate shares should be agreed upon between the Administrations concerned.

Cases in which the line (transmission) part of a connection is a satellite link are dealt with in Annex D.

2.2 Calculation of distances (line part)

2.2.1 Distances to be taken into consideration

2.2.1.1 General case

In determining the share payable to a country for the use of international circuits, the distance to be taken into consideration is, in principle:

In a terminal country

- The crowflight distance between:
 - a) the point at which the international circuit crosses the frontier; and
 - b) the international exchange at which the circuit terminates;

¹⁾ Countries in the Mediterranean Basin are countries not belonging to Europe but bordering the Mediterranean Sea.

²⁾ The standard rates given in this Recommendation were approved in 1984.

In a transit country

- The crowflight distance between the two frontier points at which the international circuit enters and leaves the country in question.

The above provisions for the calculation of distances apply to international circuits both on land cables and on radio-relay links.

2.2.1.2 Special cases

2.2.1.2.1 Radio-relay links crossing the sea or a third country

When a frontier is crossed by a radio-relay section of an international circuit passing over a third country or over the sea, without an intermediate relay station, the frontier point for measuring the circuit length shall be the point midway between the two relay stations on either side of the frontier.

2.2.1.2.2 Submarine cables

With regard to international circuits which are routed in submarine cables, the distance to be used for accounting will be calculated as follows:

- a) for the land section of the circuit to the cable station, the distance shall be calculated in accordance with the general principles (i.e. the crowflight distance), it being assumed that the point at which the circuit crosses the frontier is the cable station;
- b) for the submarine cable section, the distance used shall be the actual route distance between the submarine cable stations, as determined and agreed by the joint owners of the cable; the distance will be divided appropriately (normally 50/50) between the countries at the extremities of the cable.

2.2.1.2.3 Special itineraries

In exceptional circumstances, multiplication factors may be applied to the crowflight distance, from which the terminal and transit charges are calculated, to take account of special itineraries. For example, in the case of a direct transit country, the crowflight distance between the points on the frontier at which the circuit enters and leaves the country may (in exceptional circumstances) be replaced by a length representing the sum of two crowflight segments making up a broken line, etc.

2.2.2 Possibility of weighting distances

For calculation of the crowflight distances for the international section, a weighting, according to the number of circuits, is normally applied in a given relation to simplify accounting:

- when there are several international arteries with different itineraries terminating at an international exchange;
- when there are several international exchanges in a country for the relation concerned.

This weighting serves to determine a length (crowflight distance) for fixing the accounting rate shares relating to the international section and it would remain in force as long as the structure of the network was not significantly changed. The length of the international section would then be used to fix the international section element for the shares for international telex circuits.

2.2.3 Rounding off distances

2.2.3.1 Distances less than 50 km shall be rounded up to 50 km.

Example: distance of 24 km rounded up to 50 km.

2.2.3.2 Other distances shall be rounded off to the nearest multiple of 50 km.

Examples

- distance of 72 km rounded off to 50 km;
- distance of 126 km rounded off to 150 km;
- distance of 175 km rounded off to 200 km.

2.2.3.3 This rounding rule applies to the distances in each of the terminal countries and in each of the transit countries and is applied to the total distance calculated for any one country. It is applicable to the remuneration of Administrations both on the basis of a flat-rate price for the facilities made available and on the basis of traffic units.

2.2.3.4 When distances are weighted in accordance with the provisions of 2.2.2, the rounding shall be applied only after the weighted distance has been calculated.

2.2.4 Existence of several routes in a given relation

When in a given relation there are several routes traversing different transit countries, these transit countries shall in all cases receive the share or flat-rate price normally due to them for the distance between the points of entry and exit; any cost of equalizing collection charges in a relation comprising different routes shall be borne solely by the Administration of the country of origin and no deduction shall be made from the remuneration due to the transit countries.

2.3 Standard rates to be applied for international accounting

For international accounting purposes, there are two methods of remuneration for the facilities made available by Administrations:

- on the basis of traffic units;
- on the basis of a flat-rate price for the facilities made available.

2.3.1 Remuneration on the basis of traffic units

To determine the accounting rate shares for each country, the following standard rates, per minute of telex call, are recommended:

- 1) *International network*
 - a) Manual operation:

	SDR
– per 100 km of international circuit (excluding any national circuit required for connecting the international exchange to the national exchange serving the subscriber) ^{a), b)}	...
– for the manual international exchange in the country of origin or destination ^{b), c)}	0.817
– for a manual international exchange in a transit country ^{b), c)}	0.817

- b) Semi-automatic and automatic operation:

	SDR
– per 100 km of international circuit (excluding any national circuit required for connecting the international exchange to the national exchange serving the subscriber) ^{a), b)}	...
– for the semi-automatic international exchange in the country of origin ^{b)}	0.784
– for the automatic international exchange in the country of origin ^{b), c)}	0.029
– for the automatic international exchange in the country of destination ^{b), c)}	0.029
– for an automatic international exchange in a transit country ^{b), c)}	0.039

^{a)} The rate for the line element was calculated at 0.0008 and 0.0003 SDR per 100 km and per minute for manual and automatic operation respectively. Because of these relatively low amounts, the cost of the line element was included in the rate shares for the international exchange, taking into account an average distance of 500 km for incoming and outgoing terminal traffic and of 1000 km for transit traffic. As a consequence, direct transit traffic can only be charged for on the basis of the flat-rate procedure.

^{b)} The standard rates mentioned for the line element per 100 km of circuit and per minute as set out in footnote^{a)} above may not be appropriate to some small capacity submarine cables. In these cases the rates should be fixed by agreement among the parties concerned.

^{c)} This amount includes the cost of the transmission equipment for one extremity in terminal operation and for two extremities in transit operation.

2) National extension

An amount may be added to cover the cost of the extension of calls over the national network, taking into account:

- the (weighted average) number of national exchanges by which an outgoing or incoming international call is routed;
- the (weighted average) number of terminal transmission equipments (component A)³⁾ by which an outgoing or incoming international call is routed;
- the (weighted average) crowflight length of the national circuit used for setting-up an outgoing or incoming international call;
- the cost per minute of use of a national exchange in an international call;
- the cost per minute of use of a terminal transmission equipment (component A)³⁾ in an international call;
- the cost per minute of use of 100 km (crowflight) of national circuit in an international call;
- the administrative cost per minute of an outgoing or incoming international call.

Administrations are recommended, when determining the remuneration of their national extension per minute of international call, not to exceed the maximum values indicated below:

- a) for outgoing traffic: 0.088 SDR;
- b) for incoming traffic: 0.082 SDR.

2.3.2 Remuneration on a basis of flat-rate price for the facilities made available

2.3.2.1 Remuneration of a direct transit country

2.3.2.1.1 To determine the flat-rate price for remuneration for the transmission facilities made available by Administrations, the following standard rates are recommended:

		Per year and per 100 km of transmission channel (line part)
		SDR
– per telegraph channel (VFT or TDM)	50 bauds ^{a), b)}	14.7
	100 bauds ^{a), b)}	29.4
	200 bauds ^{a), b)}	58.8
	300 bauds	68.6
– per telegraph carrier circuit ^{a), b)}		392
<p>a) To allow for the small capacity of some submarine cables, a correction factor may be applied to the above rates.</p> <p>b) Where, in order to establish a circuit, two telegraph channel in a direct transit country are connected, an additional charge shall be made for the lease of the transmission equipment for two telegraph channel extremities, irrespective of the number of such connections in the direct transit country, as follows:</p> <ul style="list-style-type: none"> – $216 \times 2 = 432$ SDR for a 50-baud circuit; – $294 \times 2 = 588$ SDR for a 100-baud circuit; – $441 \times 2 = 882$ SDR for a 200-baud circuit; – $719 \times 2 = 1438$ SDR for a 300-baud circuit. 		

³⁾ The cost of international telecommunication circuits should be expressed in the form **Error!** . A represents all costs relating to terminal transmission equipment for one end of the international circuit; B represents the costs per 100 km (crowflight distance) of the circuit.

2.3.2.1.2 When a circuit leased to a private user passes through a direct transit country, the Administration of this country will be remunerated by the Administrations of the terminal countries with a flat-rate price on the same basis as if the circuit were an ordinary public service circuit applying the rate in 2.3.2.1.1.

2.3.2.2 Remuneration of a country of destination

To determine the flat-rate price for remuneration of the country of destination for the facilities made available by Administrations, the following standard rates are recommended:

1) *For the transmission channel (line part)*

		Per year and per 100 km
		SDR
– per telegraph channel (VFT or TDM)	50 bauds 100 bauds ^{b)} 200 bauds ^{b)} 300 bauds ^{b)}	[see ^{a)} below] 29.4 58.8 68.6
– per telephone carrier circuit ^{b)}		392

2) *For the international exchange (including terminal transmission equipment)*

- per year and per 50-baud international circuit connected:

Manual operation	Automatic operation
$0.817^{c)} \times 18\,000^{d)}$ = 14 706 SDR	$0.029^{c)} \times 40\,000^{e)}$ = 1160 SDR

3) *For the national extension*

- per year and per 50-baud international circuit connected:

Manual operation	Automatic operation
$PN^{f)} \times 18\,000^{d)}$	$PN^{f)} \times 40\,000^{e)}$

^{a)} Included in the international exchange price [see Note^{a)} of 2.3.1].

^{b)} To allow for the small capacity of some submarine cables, a correction factor may be applied to the above rates.

^{c)} The cost of the terminal telex transmission equipment for one extremity is included in the amounts of 0.817 and 0.029 SDR.

^{d)} Average number of minutes of traffic routed per year and per manual international telex circuit.

^{e)} Average number of minutes of traffic routed per year and per semi-automatic or automatic international telex circuit.

^{f)} PN represents the amount, per minute of telex call, of the share to be fixed by each Administration for the extension of calls on national territory.

- 4) The rentals for telegraph channel transmission terminal equipment, per year, per terminal, determined in relation to costs are as follows:
- 216 SDR per 50-baud telegraph channel;
 - 294 SDR per 100-baud telegraph channel;
 - 441 SDR per 200-baud telegraph channel;
 - 719 SDR per 300-baud telegraph channel.

The remuneration of the international exchange given in point 2) of 2.3.2.2 takes into account an amount of 216 SDR relating to 50-baud terminal equipment.

2.3.3 All the amounts contained in clause 2 above are reproduced in the three tables in Annexes A, B and C.

2.4 Remuneration for facilities made available for the extension of intercontinental circuits

In principle, the rates mentioned in clause 2 above apply also to the remuneration of facilities made available for the extension of intercontinental cable or satellite circuits.

3 Determination of collection charges in telex relations between countries in Europe and the Mediterranean Basin

3.1 General

The establishment of the collection charge is a national matter. Whilst, in general, Administrations correlate collection charges and accounting rates, the two will not necessarily be the same for a number of reasons, 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 may fluctuate in relation to the SDR;
- d) collection charges may be influenced by government fiscal policies;
- e) Administrations frequently establish common collection charges for geographical zones or groups of countries;
- f) in many relations there will be different routes with different accounting rates to which a single collection charge will be applied.

3.2 Determination of collection charges

3.2.1 In considering the collection charges for a relation in which automatic and semi-automatic working both exist, each Administration should decide to fix its charges:

- either by establishing different charges for each method of operation; or
- by establishing a single collection charge weighted according to the volume of each type of traffic.

3.2.2 To recover the costs of operator assistance, Administrations may levy additional charges per call, the level of which is a national matter.

Annex A

Standard rates to be applied in Europe and the Mediterranean Basin in determining accounting rate shares in the telex service

(traffic unit basis)

(This annex forms an integral part of this Recommendation)

A Accounting rate shares applicable in terminal countries per minute of telex call

Direction of operation	Manual operation		Semi-automatic operation		Automatic operation	
	Transmission (per 100 km of circuit) ^{a)}	International exchange ^{c)}	Transmission (per 100 km of circuit) ^{a)}	International exchange ^{c)}	Transmission (per 100 km of circuit) ^{a)}	International exchange ^{c)}
Outgoing	SDR	SDR	SDR	SDR	SDR	SDR
	... ^{b)}	0.817 ^{b)}	... ^{b)}	0.784 ^{b)}	... ^{b)}	0.029 ^{b)}
Incoming	... ^{b)}	0.817 ^{b)}	... ^{b)}	0.029 ^{b)}	... ^{b)}	0.029 ^{b)}

B Accounting rate shares applicable in transit countries per minute of telex call

Switched transit			
Manual		Automatic	
Transmission (per 100 km of circuit) ^{a)}	International exchange ^{c)}	Transmission (per 100 km of circuit) ^{a)}	International exchange ^{c)}
SDR	SDR	SDR	SDR
... ^{b)}	0.817 ^{b)}	... ^{b)}	0.039 ^{b)}

a) The standard rates mentioned for the line element per 100 km of circuit and per minute as set out in footnote^{b)} below may not be appropriate to small capacity submarine cables. In these cases, the rates should be fixed by agreement among the parties concerned.

b) The rate for the line element was calculated at 0.0008 and 0.0003 SDR per 100 km and per minute for manual and automatic operation respectively. Because of these relatively low amounts, the cost of the line element was included in the rate shares for the exchange, taking into account an average distance of 500 km for incoming and outgoing terminal traffic and of 1000 km for transit traffic. As a consequence, direct transit traffic can no longer be accounted for on the basis of the traffic-unit price procedure, taking into account the rates indicated in this Recommendation.

c) Including the cost of the transmission equipments for one extremity in terminal operation and for two extremities in transit operation.

Annex B

Standard rates to be applied in Europe and the Mediterranean Basin in remuneration for transmission facilities made available by Administrations in a direct transit country

(flat-rate price basis)

(This annex forms an integral part of this Recommendation)

Unit element considered		Transmission (line part)
		Rates per 100 km per annum
		SDR
Telegraph carrier circuit ^{a), b)}		392
Telegraph channel	50 bauds ^{a), c)}	14.7
	100 bauds ^{a), c)}	29.4
	200 bauds ^{a), c)}	58.8
	300 bauds ^{a), c)}	68.6
<p>^{a)} To allow for the small capacities of some submarine cables, a correction factor may be applied to the above rates.</p> <p>^{b)} Including, wherever applicable, use of modulation and demodulation equipment or through-band filters in the direct transit country.</p> <p>^{c)} Where, in order to establish a circuit, telegraph channels in a direct transit country are connected, an additional charge is made for the lease of transmission equipment for two telegraph channel extremities, irrespective of the number of such connections in the direct transit country, as follows:</p> <ul style="list-style-type: none"> – $216 \times 2 = 432$ SDR for a 50-baud circuit; – $294 \times 2 = 588$ SDR for a 100-baud circuit; – $441 \times 2 = 882$ SDR for a 200-baud circuit; – $719 \times 2 = 1438$ SDR for a 300-baud circuit. 		

Annex C

Standard rates to be applied in Europe and the Mediterranean Basin in remuneration for facilities made available between Administrations in a destination country

(flat-rate price basis)

(This annex forms an integral part of this Recommendation)

Unit element considered	Transmission (line part)	International exchange		National extension	
	Per 100 km and per year	Operation		Operation	
		Manual	Automatic	Manual	Automatic
	SDR	per year	per year	per year	per year
Per international telegraph circuit:					
– 50 bauds	a)	$0.817^{b)} \times 18\,000^{c)} = 14\,706 \text{ SDR}$	$0.029^{b)} \times 40\,000^{d)} = 1\,160 \text{ SDR}$	$PN^{e)} \times 18\,000^{c)}$	$PN^{e)} \times 40\,000^{d)}$
– 100 bauds	29.4	Not applicable	Not applicable	Not applicable	Not applicable
– 200 bauds	58.8	Not applicable	Not applicable	Not applicable	Not applicable
– 300 bauds	68.6	Not applicable	Not applicable	Not applicable	Not applicable
Per telegraph carrier circuit	392	Not applicable	Not applicable	Not applicable	Not applicable
<p>a) Included in the international exchange prices [see footnote^{b)} of Annex A].</p> <p>b) The cost of telex terminal transmission equipment for one extremity is included in the amounts of 0.817 and 0.029 SDR.</p> <p>c) Average number of minutes of traffic routed per year and per manual international telex circuit.</p> <p>d) Average number of minutes of traffic routed per year and per semi-automatic or automatic international telex circuit.</p> <p>e) PN represents the amount, per minute of telex call, of the share to be fixed by each Administration for the extension of the connection on national territory.</p>					

Annex D

Remuneration for the facilities used to set up telegraph-type satellite circuits (INTELSAT system) via an earth station in Europe and the Mediterranean Basin

(This annex forms an integral part of this Recommendation)

D.1 Flat rate charges for the provision of telegraph-type circuits set up via a foreign European earth station

Preliminary note

The charges are the same, whether the telegraph-type circuit is used in an intra-European or an intercontinental relation.

When an Administration operates a direct satellite (VFT/TDM) telegraph-type circuit set-up via a foreign European earth station, the following standard rates are recommended for the remuneration of the facilities provided by the country operating the earth station.

D.1.1 For the remuneration of the international circuit section between the border of the outgoing terminal country and the international exchange of the country operating the earth station⁴⁾, the rates set out in 2.3.2.1.1 apply.

D.1.2 For the remuneration of the earth station and the national extension from the international exchange mentioned in D.1.1 above, to that station:

		SDR
– per telegraph channel (VFT or TDM) per annum	50 bauds	350
	100 bauds	700
	200 bauds	1400
	300 bauds	1640
– per telegraph carrier circuit per annum		9800

D.1.3 For the remuneration of the space segment:

– per telegraph channel (VFT or TDM) per annum	50 bauds	1/26	of the INTELSAT charge for a telegraph carrier circuit
	100 bauds	1/13	
	200 bauds	1/6	
	300 bauds	1/5	

The remuneration of the space segment for a full telegraph carrier circuit is normally payable directly to INTELSAT.

D.1.4 For the remuneration of the two terminal equipments (components A)⁵⁾ interconnecting the land line extensions mentioned in D.1.1 and D.1.2 above, the amounts set out in 2.3.2.1.1, b).

⁴⁾ Part of the circuits provided at the expense of the Administration operating the earth station.

⁵⁾ The cost of international telecommunication circuits should be expressed in the form **Error!** . A represents all costs relating to terminal transmission equipment for one end of the international circuit; B represents the costs per 100 km (crowflight distance) of the circuit.

D.2 Traffic unit price applicable in telex relations between countries of Europe and the Mediterranean Basin, for traffic routed via satellite links

Preliminary note

The same standard rates are used to determine the accounting rate shares payable to terminal and transit (switched transit) countries.

D.2.1 Routing via satellite links only

When, in a given relation, all traffic is routed using international satellite links, the terrestrial distance between the respective terminal or transit exchanges is disregarded. In addition to the amounts quoted in 2.3.1, it is recommended that the following remuneration for the satellite link be applied in order to determine the terminal or transit shares relating to the use of that link:

– 0.012 SDR⁶⁾

D.2.2 Routing via satellite and terrestrial links

When, in a given relation, international traffic is routed via both satellite and terrestrial links, the additional remuneration is calculated by applying a weighting factor based on the number of circuits set up on each transmission medium to the transmission (line part) element.

NOTE – To take account of the relatively low utilization factor of certain earth stations, a correction factor may be applied to the standard rates given in Annex D by the Administrations owning the stations concerned.

⁶⁾ These figures were calculated using 26 telex circuits per carrier circuit and 40 000 minutes per year.