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CHARGING AND ACCOUNTING IN INTERNATIONAL
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CHARGING AND ACCOUNTING IN THE
INTERNATIONAL TELEPHONE SERVICE

**CHARGING IN AUTOMATIC INTERNATIONAL
TELEPHONE SERVICE**

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NOTES

- 1 CCITT Recommendation D.101 was published in Fascicle II.1 of the *Blue Book*. This file is an extract from the *Blue Book*. While the presentation and layout of the text might be slightly different from the *Blue Book* version, the contents of the file are identical to the *Blue Book* version and copyright conditions remain unchanged (see below).
- 2 In this Recommendation, the expression “Administration” is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

CHARGING IN AUTOMATIC INTERNATIONAL TELEPHONE SERVICE

1 Principles for charging

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:

$$\sum_n d_r u_r = \sum_n d_A u_A = \sum_n d_B u_B$$

¹⁾ 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*.

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.

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