



INTERNATIONAL TELECOMMUNICATION UNION

ITU-T

E.100

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

**TELEPHONE NETWORK AND ISDN
OPERATION, NUMBERING, ROUTING
AND MOBILE SERVICE**

**DEFINITIONS OF TERMS USED IN
INTERNATIONAL TELEPHONE OPERATION**

ITU-T Recommendation E.100

(Extract from the *Blue Book*)

NOTES

1 ITU-T Recommendation E.100 was published in Fascicle II.2 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.

**DEFINITIONS OF TERMS USED IN INTERNATIONAL TELEPHONE
OPERATION**

1 telephone call

F: communication téléphonique

S: comunicación telefónica

The interconnection of two telephone stations.

2 call request

F: demande de communication

S: petición de comunicación

The first application made by the caller for a telephone call is called the call request.

In automatic service, the operation of the dial (or key-set) by the caller to obtain a call with his correspondent is comparable to the call request.

3 telephone message

F: conversation téléphonique

S: conferencia telefónica

An effective call over a connection established between the calling and the called stations.

4 telephone circuit (international or trunk circuits)

F: circuit téléphonique (international ou interurbain)

S: circuito telefónico (internacional o interurbano)

4.1 The whole of the facilities whereby a direct connection is made between two exchanges (manual or automatic) is called a telephone circuit.

4.2 A circuit is called an international circuit when it directly connects two international exchanges in two different countries.

4.3 The term *trunk circuit* is reserved for the designation of exclusively national circuits.

Note - The above definitions relate solely to the use of the terms in operational procedures, no matter how the circuits are actually made up.

5 international exchange

F: centre international

S: central internacional

The exchange (at the end of an international telephone circuit) which switches a call destined to or originating from another country.

¹) The word "international" is applied to any relation between countries whether those countries are in the same continent or not.

Administrations shall designate the exchanges in the territory they serve which are to be regarded as international exchanges.

6 international transit exchange

F: centre de transit international

S: central de tránsito internacional

An international exchange chosen to establish telephone calls between two countries other than its own is called an international transit exchange.

7 preparation operating

F: exploitation avec préparation

S: explotación con preparación

In preparation operating, after the request is recorded by an operator in the outgoing international exchange another operator in the exchange sets up the call. After the requests have been put in order at the exchange, the controlling operator sees to it that the calling station is connected on the international circuit without loss of time.

A distinction is made between:

1) advance preparation operating

Advance preparation operating requires preparation at both the outgoing and incoming international exchanges.

2) outgoing preparation operating

Outgoing preparation operating requires preparation at the outgoing international exchange only.

8 demand operating

F: exploitation en service rapide

S: explotación en servicio rápido

In demand operating (manual or semiautomatic), after the request has been recorded in the outgoing international exchange, an immediate attempt to set up the call is made by the operator at this exchange who took the request.

A distinction is made between:

1) manual demand operating

There are two operating methods:

a) indirect manual demand operating

In this method of operating, the operator at the incoming international exchange always acts as an interpreter between the operator in the outgoing international exchange and the called party.

b) direct manual demand operating

In this method of operating, the operator in the outgoing international exchange speaks with the called party direct.

2) semiautomatic demand operating

In this method of operating, the operator in the outgoing international exchange controls the automatic switching operations to obtain either the called station, or an operator in the incoming or transit international exchange (or an operator in a manual exchange in the country of destination).

9 automatic service

F: service automatique

S: servicio automático

In the automatic service, the calling subscriber himself dials (or operates the key-set) the number necessary for connection with the called station.

10 routes

F: voies d'acheminement

S: rutas

The routes followed by international telephone traffic are designated by agreement between Administrations. A distinction is made between:

- primary routes,
- secondary routes,

primary routes: The circuits normally used in a given relation.

secondary routes: The circuits to be used when the primary routes are congested, or when the transmission on the primary routes is not sufficiently good, or it is outside the normal hours of service on the primary routes.

The secondary route(s) may pass through the same countries as the primary routes or through different countries.

11 controlling exchange

F: centre directeur

S: central directora

11.1 The exchange which is responsible for setting up calls and decides the order in which they are to be connected is called the controlling exchange.

11.2 The Administrations concerned shall agree among themselves to designate the controlling exchange.

11.3 As a general rule, they shall select for this purpose:

- 1) when a single international circuit is used, the international exchange operating that circuit on the calling party side;
- 2) when two or more international circuits are used:
 - a) either the international exchange which has access to the first international circuit on the calling party side, or
 - b) the international transit exchange designated by joint agreement of the Administrations concerned.

Note - It may be that the international circuits are not operated exclusively by operators at the international exchange where they end; operators at other international or national exchanges may also have access to them by means of an automatic transit device. In such circumstances these international or national exchanges must be treated as though they were a controlling exchange, as far as setting up calls is concerned.

12 controlling operator

F: opératrice directrice

S: operadora directora

The controlling operator is the outgoing operator in the controlling exchange who operates the international circuit. The controlling position is the position used by the controlling operator.

Note - However, it may happen that the outgoing international circuit is also operated by an operator in an international or even a national exchange. If this is so, the latter operator is considered as controlling operator.

13 successive phases of a call

F: phases successives d'une communication

S: fases sucesivas de una comunicación

The characteristic instants in the successive phases of the setting-up of an international telephone call in the manual or semiautomatic service are distinguished as follows:

- t_0 the caller has placed his request;
- t_1 the controlling operator has received all of the call details;
- t_2 the controlling operator has made the first attempt to set up the call (this instant corresponds practically to the seizure of the international circuit);
- t_3 the called number has replied or the caller has been informed why the call cannot be connected;
- t_4 the called person (or called extension) has been obtained or the caller has been informed why the call cannot be connected (the instant is only significant for personal calls);
- t_5 the end of the conversation, generally when the caller replaces the receiver;
- t_6 disconnection, normally when the international circuit is released by the operator.

Note - In automatic service it is in general difficult to define all the characteristic instants specified above, either because it is impossible to distinguish between them with accuracy or because of differences between the switching systems used. It is, however, possible to define the *total setting-up time* (see definitions 17).

14 duration of a call (conversation time)

F: durée de la conversation

S: duración de conferencia

The interval between the instant the call is actually established between the calling and the called stations and the instant the calling station gives the clearing signal (or the instant when, although the caller has not replaced his receiver, the call is:

- in manual or semiautomatic service, officially cleared down by an operator,
- in fully automatic service, cleared down after some slight delay by the action of the called subscriber's clear-back signal).

The time interval between:

- a) $t_5 - t_3$ is the duration of a station call;
- b) $t_5 - t_4$ is the duration of a personal call.

15 chargeable duration - charged duration

F: durée taxable - durée taxée

S: duración tasable - duración tasada

15.1 The time interval on which the charge for a call is based is called the chargeable duration.

15.2 The chargeable duration is equal to the duration of the call reduced in manual or semiautomatic service, if necessary, to make allowance for any interruptions or other difficulties which might have occurred during the call.

15.3 The duration of a call for which the charge is paid by the calling subscriber (or the called subscriber in the case of a collect call) in the case of manual or semiautomatic operation, is the chargeable duration rounded upwards to the next whole minute.

16 holding time of an international circuit

F: durée d'occupation du circuit international

S: duración de ocupación de un circuito internacional

The time interval $t_6 - t_2$ during which the circuit is used is the holding time of the international circuit.

This interval includes in particular the call duration, the operating time and the time taken to exchange service information.

Note - The term "operating time" is meant to cover the time taken both by operators and switching equipment.

17 answering time of operators; request transmission time; delay time; setting-up times of an international call

F: délai de réponse des opératrices; délai de transmission de la demande; délai d'attente; délai d'établissement d'une communication internationale

S: demora en contestar de las operadoras; tiempo de transmisión de la petición; demora; tiempo de establecimiento de una comunicación internacional

17.1 At the outgoing international exchange, the *answering time of operators* is the interval between the end of the transmission of the calling signal and its answer by an operator at the distant international exchange.

At the incoming international exchange, the *answering time of operators* is the interval between the appearance of a calling signal on a position or group of positions at that exchange and its answer by an operator.

17.2 The request transmission time is the time interval ($t_1 - t_0$) taken in passing the call request to the controlling operator.

17.3 The time interval ($t_2 - t_1$) is the delay to which the call is subject at the controlling exchange.

The caller is generally informed of this delay.

17.4 The setting-up time of a station call is the time interval ($t_3 - t_1$). The total setting-up time of a personal call is the time interval ($t_4 - t_1$). These times include any delay at the outgoing international exchange.