INTERNATIONAL TELECOMMUNICATION UNION

CCITT

THE INTERNATIONAL
TELEGRAPH AND TELEPHONE
CONSULTATIVE COMMITTEE

E.105

(08/92)

TELEPHONE NETWORK AND ISDN

OPERATION, NUMBERING, ROUTING AND MOBILE SERVICE

INTERNATIONAL TELEPHONE SERVICE

Recommendation E.105

FOREWORD

The CCITT (the International Telegraph and Telephone Consultative Committee) is a permanent organ of the International Telecommunication Union (ITU). CCITT 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 Plenary Assembly of CCITT which meets every four years, establishes the topics for study and approves Recommendations prepared by its Study Groups. The approval of Recommendations by the members of CCITT between Plenary Assemblies is covered by the procedure laid down in CCITT Resolution No. 2 (Melbourne, 1988).

Recommendation E.105 was prepared by Study Group I and was approved under the Resolution No. 2 procedure on the 4th of August 1992.

CCITT NOTES

1) In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication Administration and a recognized private operating agency.

2) A list of abbreviations used in this Recommendation can be found in Annex A.

© ITU 1992

All rights reserved. No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the ITU.

Recommendation E.105

INTERNATIONAL TELEPHONE SERVICE

1 General provisions

1.1 These provisions define the operation of the international telephone service.

1.2 The telephone service is a public telecommunication service primarily intended for the exchange of information in the form of speech, whereby users can communicate directly and temporarily between themselves in conversational mode, and should be provided in accordance with the International Telecommunication Regulations [1], and the relevant CCITT Recommendations. The international telephone service can also support a number of non-voice services or applications such as facsimile and data transmission. Such applications are not dealt with specifically by this Recommendation, but, in principle, they should not degrade the quality of the telephone service.

1.3 Further provisions concerning operational aspects, such as traffic engineering, numbering, routing, quality of service, interconnection with mobile services and network management may be found in other E-Series Recommendations.

1.4 Provisions concerning accounting and charging in the telephone service may be found in the D-Series Recommendations.

1.5 Provisions concerning technical aspects of providing and maintaining the telephone service and associated supplementary services may be found in the G-, I-, M- and Q-Series Recommendations.

1.6 For the definition of terms concerning the international telephone service, see Recommendation E.100 [2].

2 Operation of the international telephone service

The telephone service is operated:

– automatically;

– semi-automatically;

– manually.

It is strongly recommended that the service should be provided on a fully automatic basis, and it should be possible for users to reach one another by fully automatic selection.

2.1 *Automatic operation*

2.1.1 In automatic operation, the user dials or keys the called number and the call is established automatically without the assistance of an operator.

2.1.2 To establish an international call in the automatic service, the user shall select:

– the access code to the international network, which is fixed according to national requirements;

– the telephone country code, in accordance with Recommendation E.164 [3];

– the national (significant) number, in accordance with Recommendation E.164 [3].

2.1.3 During the call set-up phase of the call, progress signals, tones and announcements should be in accordance with Recommendations E.180 [4], E.181 [5], E.182 [6], E.183 [7] and E.184 [8].

2.2 *Semi-automatic operation*

With semi-automatic operation, the call is established by the international operator who receives the call request and sets up the call by dialling or keying the called number, and, before or after confirming that the called and calling parties are in conversation, may leave the circuit. Supervision of the call is carried out automatically, but the operator may be required to clear the connection.

2.3 *Manual operation*

2.3.1 With manual operation, a call is established over an international link by the originating and terminating international operators. Once the call has been set up and the called and calling parties are in conversation, at least one of the operators, preferably the originating operator, will remain in control of the call and will monitor its progress until completion. Calls established manually may be extended to other countries on an additional manual circuit or by the semi-automatic service.

2.4 Detailed procedures on operator assisted calls are contained in the Instructions for the International Telephone service (Recommendation E.141 [9]). See also Recommendation E.140 [10].

2.5 In principle, the duration of manual and semi-automatic calls should not be limited. However, in accordance with the Telephone Instructions, the duration of calls may be limited in certain exceptional situations, including where precedence is required for distress (emergency) calls, or in the case of congestion or interruption on any route.

2.6 Administrations should ensure that speech quality and speech transmission standards are in accordance with the P-Series Recommendations.

2.7 The procedures for the measurement of chargeable call duration should be in accordance with Recommendations E.230 [11], E.231 [12], E.232 [13], E.260 [14] and E.261 [15].

2.8 International telephone routing plans should be in accordance with the provisions of Recommendations E.170 [16], E.171 [17], E.172 [18] and E.173 [19].

3 International circuits and routes

3.1 The networks of countries operating the telephone service should be, as far as reasonable and practicable, directly interconnected.

3.2 For each relation, the Administration concerned shall, by mutual agreement, decide on one or more primary telephone routes, and, to the extent necessary and possible, upon secondary routes.

3.3 In this respect, the Administrations shall conform as far as possible with the principles recommended by the CCITT as regards the constitution and the maintenance of international circuit and installations, as specified in M-Series Recommendations.

3.4 Administrations should ensure that the provision of the international telephone connections is in accordance with the G-Series Recommendations.

4 Duration of service

4.1 In principle, the automatic telephone service shall be continuously available.

4.2 To the extend practicable, semi-automatic and manual services should also be continuously available.

4.3 In accordance with Article 36 of the Instructions for the International Telephone Service [20], where an exchange or route is not open permanently, the service should be extended for a reasonable period, when needed, to allow the completion of calls in progress.

5 Classes of telephone calls

5.1 *General*

5.1.1 Accepted classes of telephone calls are:

a) ordinary private calls;

b) service calls, including requests for directory information between operator centres;

c) privilege calls;

d) government calls, and

e) safety of life calls, such as distress calls.

The provisions governing the definition and priority of calls are contained in Articles 2 and 5 of the International Telecommunication Regulations [1] and the Instructions for the International Telephone Service [20].

5.2 *Service telephone calls*

5.2.1 Service telecommunications are defined in Article 2 of the International Telecommunication Regulations [1].

5.2.2 The general operational aspects of service telecommunications, are found in Recommendation F.17 [21].

5.2.3 Service telephone calls are those which relate to the working of the international telephone service (including the provisioning, administration, maintenance or restoration of service between Administrations, and for collection, settlement and other financial matters).

5.2.4 The principles for the charging and accounting of service telecommunications may be found in Recommendation D.192 [22].

5.3 *Privilege telephone calls*

In accordance with Recommendation D.193 [23], privilege telephone calls may be offered during conferences and meetings of the ITU. Such privilege telephone calls are admitted on a reciprocal and optional basis.

6 Restriction on the use of the telephone service

6.1 In general, there should be no restriction on the use of the international telephone service, in accordance with Articles 1 and 3 of the International Telecommunication Regulations [1], and subject to national laws and regulations of the ITU Members concerned. Members may, for example, approve the placing of conditions on the interconnection arrangements or for specific applications.

6.2 In addition, pursuant to Articles 19 and 20 of the International Telecommunication Convention [24]. Members may exercise their rights concerning stoppage of telecommunications and suspension of services in certain exceptional circumstances.

7 Directories and information for users

7.1 For the provisions on the supply of lists of subscribers (by directories or other means), see Recommendation E.114 [25].

7.2 The E.120-Series [26] Recommendations deal with human factors that should be considered when publishing or promulgating directory information, and guidance on how to make effective use of the telephone service.

7.3 For the general principles applicable to the various methods for users to obtain information (and the barring of access to foreign operators), see Recommendation E.115 [27].

8 Mobile services

The mobile telephone services can provide access to the international telephone service that is not constrained by the need for direct physical connection to the fixed telephone network. This includes the following mobile applications:

- land;
- maritime;
- aeronautical.

9 Supplementary services in the international telephone service

9.1 The following supplementary services have been standardized by the CCITT:

- International Freephone Service (IFS). See Recommendation E.152 [28];
- automated international telephone charge card system. See Recommendation E.118 [29];
- international operator direct calling (Home Country Direct). See Article 207 *bis* of the Instructions for the International Telephone Service [20].

9.2 In addition, a listing of possible telephone supplementary services may be found in Supplement No. 1 of Fascicle II.1 of *Blue Book* [30]. This listing includes supplementary services which have international implications and those that do not.

10 International telephone supplementary services in the ISDN era

10.1 The development of digital switching, transmission and signalling techniques, and their introduction into the public switched telephone network, and the evolution to the integrated services digital network (ISDN), provides scope for network based service features. The range of supplementary services will depend on the signalling capability in the network, and a number of other factors. Consequently, some services may be offered nationally, but not necessarily internationally.

10.2 The range of ISDN supplementary services and the "teleservices" to which they relate in the ISDN are described in the I.250 [31] and I.240-Series [32] of Recommendations respectively.

10.3 Charging and accounting principles applicable to ISDN supplementary services may be found in Recommendation D.232 [33].

10.4 Supplementary services must be offered together with, or in association with, a basic or CCITT-defined telecommunication service. They may supplement or modify such services, but they cannot be offered to subscribers as stand-alone service offerings.

10.5 The following list of ISDN supplementary services may be seen as applicable to the international telephone service. The lists of ISDN supplementary services below and in 10.6 are not exhaustive and are provided for example only:

- Calling Line Identification Presentation;
- Calling Line Identification Restriction;
- Call Transfer;
- Closed User Group;
- Conference Call;

– Three-Party Service;

– Call Forwarding (Busy, No Reply, Unconditional, Call Deflection);

– Connected Line Identification Presentation;

– Connected Line Identification Restriction.

10.6 The following ISDN supplementary services are predominantly functions of the destination network, and are unlikely to pass across international boundaries. However, when these supplementary services are invoked in the destination network, they may affect the service seen by the originator:

– Call Waiting;

– Call Hold;

– Multiple Subscriber Number;

– Line Hunting.

ANNEX A

(to Recommendation E.105)

Alphabetical list of abbreviations used in this Recommendation

IFS International freephone service

ISDN Integrated service digital network

References

[1] *International Telecommunication Regulations*, Melbourne, 1988

[2] CCITT Recommendation *Definitions of terms used in international telephone operation*, Blue Book, Rec. E. 100, ITU, Geneva, 1988.

[3] CCITT Recommendation *Numbering plan for the ISDN era*, Rec. E.164, ITU, Geneva, 1991.

[4] CCITT Recommendation *Technical characteristics of tones for the telephone service*, Blue Book, Rec. E.180, ITU, Geneva, 1988.

[5] CCITT Recommendation *Customer recognition of foreign tones*, Blue Book, Rec. E.181, ITU, Geneva, 1988.

[6] CCITT Recommendation *Application of tones and recorded announcements in telephone services*, Blue Book, Rec. E.182, ITU, Geneva, 1988.

[7] CCITT Recommendation *Guiding principles for telephone announcements*, Blue Book, Rec. E.183, ITU, Geneva, 1988.

[8] CCITT Recommendation *Indications to users of ISDN terminals*, Blue Book, Rec. E.184, ITU, Geneva, 1988.

[9] CCITT Recommendation *Instructions for the international telephone service*, Blue Book, Rec. E.141, ITU, Geneva, 1988.

[10] CCITT Recommendation *Operator-assisted telephone service*, Rec. E.140, ITU, Geneva, 1992.

[11] CCITT Recommendation *Chargeable duration of calls*, Rec. E.230, ITU, Geneva, 1992.

[12] CCITT Recommendation *Charging in automatic service for calls terminating on special services for suspended, cancelled or transferred subscribers*, Blue Book, Rec. E.231, ITU, Geneva, 1988.

[13] CCITT Recommendation 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, Blue Book, Rec. E.232, ITU, Geneva, 1988.

[14] CCITT Recommendation *Basic technical problems concerning the measurement and recording of call durations*, Blue Book, Rec. E.260, ITU, Geneva, 1988.

[15] CCITT Recommendation *Devices for measuring and recording call durations*, Blue Book Rec. E.261, ITU, Geneva, 1988.

[16] CCITT Recommendation *Traffic routing*, Rec. E.170, ITU, Geneva, 1992

[17] CCITT Recommendation *International telephone routing plan*, Blue Book, Rec. E.171, ITU, Geneva, 1988.

[18] CCITT Recommendation *ISDN numbering plan*, Rec. E.172, ITU, Geneva, 1992.

[19] CCITT Recommendation *Routing plan for interconnection between public land mobile networks and fixed terminal networks*, Rec. E.173, ITU, Geneva, 1991.

[20] CCITT *Instructions for the International Telephone Service*, (1st October 1985), ITU, Geneva, 1985.

[21] CCITT Recommendation *Operational aspects of service telecommunications*, Rec. F.17, ITU, Geneva, 1992.

[22] CCITT Recommendation *Principles for charging and accounting of service telecommunications*, Rec. D.192, ITU, Geneva, 1992.

[23] CCITT Recommendation *Special tariff principles for privilege telecommunications*, Blue Book, Rec. D.193, ITU, Geneva, 1988.

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

[25] CCITT Recommendation *Supply of lists of subscribers (directories and other means)*, Blue Book, Rec. E.114, ITU, Geneva, 1988.

[26] CCITT Recommendation *Instructions for users of the international telephone service*, Blue Book, Rec. E.120, ITU, Geneva, 1988.

[27] CCITT Recommendation *Computerized information service for telephone subscriber numbers in foreign countries (directory assistance), reserved for operators*, Rec. E.115, ITU, Geneva, 1991.

[28] CCITT Recommendation *International freephone service*, Blue Book, Rec. E.152, ITU, Geneva, 1988.

[29] CCITT Recommendation *The international telecommunication charge cards*, Rec. E.118, ITU, Geneva, 1992.

[30] CCITT Supplement *Cost and tariff study method*, Suppl. No. 1, Fascicle II.1, Blue Book, ITU, Geneva, 1988.

[31] CCITT Recommendation *Definition of supplementary services*, Blue Book, Rec. I.250, ITU, Geneva, 1988.

[32] CCITT Recommendation *Definition of teleservices*, Blue Book, Rec. I.240, ITU, Geneva, 1988.

[33] CCITT Recommendation *Specific tariff and accounting principles applicable to ISDN supplementary services*, Rec. D.232, ITU, Geneva, 1992.