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TELEPHONE NETWORK AND ISDN

**OPERATION, NUMBERING, ROUTING
AND MOBILE SERVICE**

PRESENTATION OF ROUTING DATA

ITU-T Recommendation E.149

(Extract from the *Blue Book*)

NOTES

1 ITU-T Recommendation E.149 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.

Recommendation E.149

PRESENTATION OF ROUTING DATA

1 When semiautomatic or automatic service is initially introduced between two countries it is recommended that a routing document be prepared by each Administration and an adequate number of copies exchanged. This routing document should be prepared as a booklet of A5 size (14.8 × 21.0 cm), and be divided into three sections.

It seems important to keep the information up to date by exchanging data of the following types:

- a) Major routing changes involving existing routes and/or offices for which data have been previously supplied. Such information should be made available at least three months prior to the effective date of the change. In this respect, the importance of notification will be governed by the volume and characteristics of the traffic affected.
- b) Other routing changes in a country's networks which were not sufficiently important to be handled as described in a) above. This information should be supplied annually or more frequently when circumstances justify this course.

When forwarding routing changes under a) and b), forms on the model of Tables A or B in Section 2 of the routing document should be used, indicating whether the change is a revision or a new edition. In principle, a complete reprinting of the routing document is desirable from time to time. However, the frequency of production of a revised set of routing information should be left to the discretion of the issuing Administration. It is recommended that a revised set should be brought out not less frequently than once in five years.

Where an Administration finds it impracticable to provide all of the routing data in the manner recommended above, it is desirable that it adhere to this Recommendation to the maximum extent possible.

2 Information to be entered on the routing document

2.1 Section 1 – Explanatory notes

2.1.1 The issuing Administration should include the following items:

2.1.1.1 The numbering plan arrangements should be explained briefly, and the trunk prefix (if any) used in the national network should be quoted. Any useful information about the total number of digits in the national numbering system should be supplied.

2.1.1.2 The country code.

2.1.1.3 Language digits according to the availability of language assistance on incoming calls.

2.1.1.4 Name(s) of international exchange(s) used for incoming traffic. In specifying the name of the international exchange it should be indicated if it serves for continental and/or intercontinental traffic. If there is more than one exchange, an explanation should be given as to which part of the national network each exchange serves by quoting the digit(s) of the trunk code which are necessary for this purpose. Where there is no uniform system for all incoming traffic to a country, the explanatory notes should make clear the specific instructions proper to each outgoing country.

2.1.1.5 It should be explained how subscribers in other localities than those listed in Section 2 can be reached (for instance by code 11).

2.1.1.6 A table showing how to reach special services such as:

- supervisor,
- delay operator,
- transit calls,
- calls to/from ships,
- phototelegraph calls,
- collect calls,
- requests for information,
- personal calls for which word has been left at the called station.

2.1.1.7 If functions described in § 2.1.1.6 are performed on a decentralized basis, routing data will be indicated in Section 2, Tables A and B. It should be observed that if the outgoing operator does not speak any of the languages indicated, she should direct her call to the appropriate incoming international operator.

2.1.1.8 A table of public holidays when general business and financial institutions may be closed.

2.1.1.9 It is recommended that a specific address be provided by each Administration to receive routing information and to handle questions regarding internal routing arrangements and inquiries about entries in the routing document.

2.2 *Section 2 – Instructions for preparing and using routing tables*

The routing information considered appropriate for distribution to other Administrations should be set out in a standard form for ease of interpretation and in sufficient detail to enable the controlling operator to set up a connection without recourse to the incoming international operator on more than 5% of the calls.

It is in the interests of Administrations to ensure that adequate and accurate information is available to controlling operators in order that operating costs at both outgoing and incoming exchanges may be kept to the lowest figure commensurate with the cost of production and maintenance of the routing information.

It is recommended that the routing information should be produced in either of the forms shown below, i.e. Table A or Table B.

TABLE A

(of the routing document)

Name of locality	Routing code to reach subscribers	Routing code to reach operators	Directory
1	2	3	4

How to fill in Table A:

Column 1 – Name of locality

This is the name of the community, e.g., city, town or village, which subscribers generally use to designate where their telephone service is provided.

Column 2 – Routing code to reach subscribers

The routing code (trunk code) used to reach telephones in the locality.

Column 3 – Routing code to reach operators

The routing code combined with a standardized operator code (see § 2.1.1.7 in explanatory notes) which permits reaching an operator performing a specific function for the locality.

Language indicator

In column 3, insert, using a letter code, the language(s) spoken by the local operators. If the language(s) are spoken by all operators serving the localities listed in column 1, an explanatory note keyed to column 3 would suffice for indicating the common language(s). An explanation of the code should be annexed.

Column 4 – Directory

Where applicable the reference number or letter which indicates the particular directory column or section where the telephone number for the locality may be found.

TABLE B

(of the routing document)

Name of locality	Routing code to reach subscribers	Routing code to reach operators for			Directory
		Completing calls and verifying station conditions	Verifying station conditions only	Requests for information	
1	2	3a	3b	3c	4

How to fill in Table B:

Columns 1, 2 and 4

See under Table A.

Column 3a

This column should contain the complete code that enables a controlling operator to gain access to an incoming operator who is in a position to extend the connection to the called number and verify the station conditions.

Column 3b

This column should contain the complete code that enables a controlling operator to gain access to an operator who can verify the conditions on a called station, e.g., that the number is of a working line, that there is no reply or that the line is engaged.

Column 3c

This column should contain the complete code that enables a controlling operator to obtain the subscriber of a person in the locality in question.

As it is important that the controlling operator should know that she will be able to understand the called operator, an indicator should be used, as described in the § "language indicator of Table A". If separate routing codes are necessary to give access to operators speaking specific languages at the incoming exchanges, these should be shown with the appropriate indication against each code. A routing code in column 3a should not be repeated in column 3b.

The country where uniform information is available throughout its territory for access to its operators handling:

- a) the completion of inward calls and verifying station conditions,
- b) verification of station conditions only, and
- c) local telephone number information,

ordinarily would use Table A. The method of access to these particular services would be indicated in Section 1 above and need not be repeated against the individual items in the routing schedule.

In the case where a country provides differing access points beyond its international exchange for any or all of the three categories a), b) and c) mentioned above, it would use Table B. The specific routing information to give access to the available point should be shown in sub-columns of column 3, headed respectively 3a, 3b and 3c. Where no facility exists for a particular locality there should be no entry of any kind, thus indicating the need for the controlling operator to call the international incoming operator.

2.3 Section 3 – List of trunk (area) codes in numerical order

It is in the interest of Administrations to incorporate this information in the routing document not only for the controlling operator for maintenance (e.g. fault report) and for proper application of Recommendation E.422 [1] (e.g. dialling of wrong trunk code).

Furthermore, this information can be used to prevent calls with improper routing codes from seizing the international circuits.

It is recommended that the information be given in the form shown in Table C.

TABLE C

(of the routing document)

Routing code	First digits after routing code	Number of digits after routing code	Identification of section or area
1	2	3	4

How to fill in Table C :

Column 1

Routing code (trunk code) used to reach telephones in the section or area.

Column 2

First digit to be dialled after the routing code (not required when the number of digits after the routing code is constant).

Column 3

Number of digits after the routing code [not required when the national (significant) number has a fixed length].

Column 4

Name of the section or area.

References

- [1] CCITT Recommendation *Observations on international outgoing telephone calls for quality of service*, Rec. E.422.