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OPERATION, NUMBERING, ROUTING AND MOBILE SERVICE

COMPUTERIZED INFORMATION SERVICE FOR TELEPHONE SUBSCRIBER NUMBERS IN FOREIGN COUNTRIES (DIRECTORY ASSISTANCE), RESERVED FOR OPERATORS

ITU-T Recommendation E.115

(Previously "CCITT Recommendation")

FOREWORD

The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of the International Telecommunication Union. 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, established the topics for study by the ITU-T Study Groups which, in their turn, produce Recommendations on these topics.

ITU-T Recommendation E.115 was revised by the ITU-T Study Group I (1988-1993) and was approved by the WTSC (Helsinki, March 1-12, 1993).

NOTES

1 As a consequence of a reform process within the International Telecommunication Union (ITU), the CCITT ceased to exist as of 28 February 1993. In its place, the ITU Telecommunication Standardization Sector (ITU-T) was created as of 1 March 1993. Similarly, in this reform process, the CCIR and the IFRB have been replaced by the Radiocommunication Sector.

In order not to delay publication of this Recommendation, no change has been made in the text to references containing the acronyms "CCITT, CCIR or IFRB" or their associated entities such as Plenary Assembly, Secretariat, etc. Future editions of this Recommendation will contain the proper terminology related to the new ITU structure.

2 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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CONTENTS

Page

1 Preamble 1

2 Methods of obtaining information 1

3 General principles applicable to the various methods of obtaining information 1

4 Principles for the organization of an interconnected computerized international information service 2

5 Description of the standards used for inquiry and response 3

5.1 Input information 3

5.2 Output information 3

5.3 Alphabet to be used 3

5.4 Description of standardized inquiry and response messages 3

6 Charges 12

7 Operator manual 12

Annex A – Directory services interconnect bearer services 12

A.1 Introduction 12

A.2 Identification 14

A.3 Network interconnection 14

Annex B – Formal definitions of directory messages 14

References 15

COMPUTERIZED INFORMATION SERVICE FOR TELEPHONE SUBSCRIBER NUMBERS IN FOREIGN COUNTRIES (DIRECTORY ASSISTANCE), RESERVED FOR OPERATORS

(Geneva, 1991; revised Helsinki, 1993)

1 Preamble

The method to be followed in providing the customers and operators in one country with information on the national significant telephone numbers (as specified in Recommendation E.160) of subscribers in another country depends on the way the information service is organized in the country of destination, distance between the countries, operating procedures, etc.

2 Methods of obtaining information

The operator in the country of origin dealing with international inquiries should be able to obtain information, depending on the organization of the inquiry service in each country, by one of the following methods:

a) from telephone directories;

b) from other information systems sent by the country of destination and kept up-to-date (e.g., microfiches);

c) by calling the information service operator in the country of destination:

- outgoing operators in the originating country should, where language and other conditions permit, have direct access to the appropriate foreign information centre(s) which hold, or are able to obtain from other centres up-to-date information;
- where language and other conditions do not permit the outgoing operator to have direct access to the appropriate foreign information centre, the outgoing operator should call the operator in the international exchange of the country of destination;
- where access to a number of information centres is possible, provision should be made for access to a centralized international information centre or assistance operator in case the originating operator encounters language or other difficulties;

d) by having access to foreign information service computers:

- either via a national computer using appropriate procedures;
- or, in special circumstances, via direct access using dedicated or switched connections.

3 General principles applicable to the various methods of obtaining information

In any relation, Administrations should abide by the following general principles:

a) Inquiries from customers concerning foreign subscribers' numbers should normally be addressed to operators in the country of origin who will obtain the required information; it may be useful to keep the customer on line while this information is being sought.

b) In order to give operators in the country of origin ready access to the international telephone inquiry service in other countries, it is desirable that Administrations, in conformity with Recommendation E.149, provide common routing codes or abbreviated access numbers to the foreign computerized or manual telephone inquiry services.

c) Technical arrangements should, as far as practicable, prevent access by a subscriber of one country to an operator of the telephone information service of another country. Administrations should not communicate access numbers of telephone information services in foreign countries to their subscribers (except in cases covered in Recommendation E.128).

d) Exceptionally, however, subscribers in one country may be permitted to have access to the information service in another country subject to bilateral agreement between the Administrations concerned.

e) An international system should be able to provide:

- for the desired correspondent: his international number;
- for the locality in which this correspondent resides: the country code and the trunk code;
- special numbers for other services.

f) No secret numbers should issued.

4 Principles for the organization of an interconnected computerized international information service

For the organization of an interconnected computerized international information service, Administrations should abide by the following principles:

a) The international system should be so designed that national systems can be used, each Administration should adapt its system to the international system by means of the appropriate interface procedures.

b) The operator should be able to supply the most adapted and selective search data in order to avoid a situation in which the number of subscribers matching the search criteria exceed the maximum capacity of a single response message.

c) To overcome language difficulties, the questions put to a remote system containing the file to be consulted shall be formulated in the language used in the country concerned. This means that the language problems raised by certain inquiry and response features must be resolved by the country making the inquiry.

d) Where, in a given country, the files have been allocated to different computers integrated in a single system, access to the system from a foreign country should be possible via a designated computer.

e) Standardized formats for inquiry and response procedures must be used.

f) A question should give rise to only one response message with no dialogue between computers. Any dialogue concerning all the information provided should be prepared at the national level. The response message may cover several subscribers where such subscribers match the search characteristics introduced in the system. The maximum number of subscribers mentioned in a response message depends both on the limitations imposed by national systems and on the maximum capacity of the message. If the maximum limit of 3000 characters is exceeded the system can sub-divide the list of subscribers into several response messages. If the system is capable of sending additional response messages this shall be indicated by the message code. To obtain another response message a new question indicating this must be sent.

g) With regard to the management of messages, there is no relationship between the inquiry and the response; where for any reason the response to a particular question has not been obtained, the inquiry must be reiterated by the requesting country and on its initiative.

h) To realize the interconnection of computers of different countries, the network procedures described in Annex A should be used. The layer 4 will conform to Recommendations X.214 and X.224, Class O. The layer 5 follows Recommendations X.215 and X.225 (BCS – Basic combined subset). Functional units “kernel” and “duplex” are only selected.

   For the layer 6, the procedures will be the subject of further study.

i) The structure and coding of the inquiry and response formats will use the notation defined in Recommendations X.208 and X.209, and are described in Annex B.

j) It should be possible to retrieve a list of localities, by the use of the locality name field in the international inquiry format.

k) Special numbers for other services such as Telefax may also appear in the response message. The order of presentation for all numbers should remain as contained in the original data base to preserve the customer's preference for the order of usage.

5 Description of the standards used for inquiry and response

When operator access is given via a national computer to foreign information service computers, unless modified by bilateral agreement, the following minimum standards shall apply to the inquiry and response process, to permit maximum flexibility in the national information service and compatibility with the international information service.

5.1 Input information

5.1.1 The operator shall request information using the details supplied by the caller, according to the format given in 5.4.1.

5.1.2 Country code, locality (or geographical area) and surname are minimum requirements to receive information about subscribers. Country code and locality (or geographical area) are minimum requirements to receive a list of localities.

5.1.3 The foreign system shall reply to every question asked. If the foreign computer indicates that the information supplied is insufficient, the question should be repeated with more selective information.

5.2 Output information

5.2.1 The output from the foreign computer system should give the information as available in the data base, in order to identify the accuracy of the telephone number according to the format given in 5.4.3.

5.2.2 If the list of subscribers in the response is incomplete, it should be possible to obtain the next sequence of 3000 characters.

5.2.3 Certain specified conditions, i.e. the number is not available (secret number, no listing, etc.) or further information has to be obtained, may be indicated by a standardized coded response.

5.3 Alphabet to be used

5.3.1 The minimum character set that shall be employed for inquiries and responses is[1)]:

- 26 capital letters A-Z;
- 10 figures 0-9;
- space, full stop.

This minimum character set shall be coded in accordance with International Alphabet No. 5 (Recommen-dation T.50 [1]).

5.3.2 Special signs associated with letters are not transmitted.

5.4 Description of standardized inquiry and response messages

The standard formats for inquiry and response shown in Figures 1 and 2 shall be used[1)].

5.4.1 Inquiry format

See Figure 1.

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1) The use of punctuation marks will be studied at a later stage.

The question contains the following information:

a) *Part I*

1) Obligatory

– message indicators identifying a request to the international inquiry service; 4 characters

Form: $ C Q I

– international indicators identifying the countries of origin and destination; these codes consist of the country code (see Recommendation E.163); 8 characters

Form: xxxxyyyy

xxxx = country of destination

yyyy = country of origin

E.g.: 00310032 Belgium → Netherlands

– code of the originating terminal. This code should not be used by the receiving country but should be repeated identical fashion in the response format; 8 characters

2) Optional

– areas reproduced identically in the response:

i) date and time of the origin of the inquiry: 12 characters

Format: YYMMDDHHMMSS

ii) message number given by the local country: 4 characters

b) *Part 2*

1) Basic data

– *Locality:* variable length (maximum 70 characters)

The name of the locality shall be introduced according to its exact[2)] spelling. Special signs shall be replaced by spaces and each space must be introduced as a space.

Abbreviations are not permitted, except for the words “Sint”, “Saint”, Sankt”, “San”, ..., which are abbreviated by the letter “S” followed by a space.

The mandatory minimum number of characters to be input should be fixed by each country and be mentioned in an operator’s manual. The system of the outgoing country should check whether this minimum is respected. Each complete word must be terminated with a full stop.

– *Surname or trade name of subscriber:* variable length (maximun 80 characters)

The subscriber’s surname should be input according to its exact spelling.

Special signs, including the full stop, should be replaced by spaces and each space must be introduced as a space. Abbreviations should not be allowed. The mandatory minimum number of characters to be input should be fixed by each country and be mentioned in the operator's manual.

The system of the outgoing country should check whether this minimum is respected. Each complete word must be terminated with a full stop. When the subscriber's surname or trade name is replaced by initials, the characters composing the acronym should be introduced successively without being separated by special signs or spaces.

Numbers forming part of names or acronyms should be introduced as numbers.

If this field is omitted then the response will only contain a list of localities.

2) Additional data (for making the search easier)

– *Name of street or equivalent:* variable length (maximum 70 characters)

The name of the street should be input according to its exact spelling, the complete name of the street being retained. Special signs, including the full stop, should be replaced by spaces and each space must be input as a space.

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2) The problem of exact native spelling is subject to further study.

The words “Sint”, “Saint”, “Sankt”, “San”, . . . should be abbreviated by the letter “S” followed by a space. The mandatory minimum number of characters to be input should be fixed by each country and be mentioned in the operator's manual. The system of the outgoing country should check whether this minimum is respected. Each complete word must be terminated with a full stop. Numbers forming part of the name of the street should be introduced as numbers.

– *House number:* variable length (maximum 10 characters)

  The numerical part of the house number should precede the alphabetical part without separation. Non-significant zeros should be omitted.

– *Subscriber's forename:* variable length (maximum 60 characters)

  Entire forenames, initials or a combination of forenames and initials should always be separated by spaces.

– *Heading in the guide:* variable length (maximum 30 characters)

  This data should only be introduced after bilateral agreements.

– *Profession code:* variable length (maximum 30 characters)

  This data should only be introduced after bilateral agreements.

– *Additional information for a selective search:* variable length (maximum 30 characters)

  This data should only be introduced after bilateral agreements.

– *County, State or province:* variable length (maximum 30 characters)

  This data should only be introduced after bilateral agreements.

– *Category:* variable length (maximum 30 characters)

  The category to which the required subscriber number belongs:
  business, residential or public service (government).

  The following codes have been defined: B for Business, R for Residential and G for Government.

– *Sequence number:* 1 character

  The response should only contain a maximum of 3000 bytes. If the list of subscribers is too long to be contained in one response it is possible to sub-divide it into several responses.

  The sequence number indicates which sub-division of the response should be sent. ϕ (or if the field is omitted) indicates the first 3000 bytes, 1 the second 3000 bytes, etc.

On the basis of the above data, the computer of destination searches in its files.

Part 1					Part 2		
Message indicators	International indicators	Originating terminal code	Date and time	Message number	Locality	Subscriber name	Street name or equivalent

Part 2 (*continued*)							
House number	Forename	Heading in the Guide	Profesison code	Additional information for a selective search	County, State or Province	Category	Sequence number

NOTES

1 Questions entered by the operators.

2 The national computer recognizes each part of the question and converts it into the standard international format.

FIGURE 1/E.115

International inquiry format

5.4.2 Structure of the inquiry

INQUIRY message

1010 0000 Directory message (telephone)
LENGTH

1010 0000 Telephone (inquiry)
LENGTH

0011 0000 Inquiry
LENGTH

0110 0000 Part 1
LENGTH

1000 0000 Message indicators
LENGTH
Message indicators

1000 0001 International indicators
LENGTH
International indicators

1000 0010 Originating terminal code
LENGTH
Originating terminal code

1000 0011 Date and time (optional)
LENGTH
Date and time

1000 0100 Message number (optional)
LENGTH
Message number

0110 0001 Part 2
LENGTH

1000 0000 Locality
LENGTH
Locality

1000 0001 Subscriber name (optional)
LENGTH
Subscriber name

1000 0010 Street name (optional)
LENGTH
Street name

1000 0011 House number (optional)
LENGTH
House number

1000 0100 Forename (optional)
LENGTH
First name

1000 0101 Heading in the Guide (optional)
LENGTH
Heading in the Guide

1000 0110 Profession code (optional)
LENGTH
Profession Code

1000 0111 Additional information for a selective search (optional)
LENGTH
Additional information for a selective search

1000 1000 County, State or Province (optional)
LENGTH
County, State or Province

1000 1001 Category (optional)
LENGTH
Category

1000 1010 Sequence number (optional)
LENGTH
Sequence number

5.4.3 Response format

See Figure 2.

The response contains the following information:

a) *Part 1*

1) Obligatory

– message indicators identifying an answer to the international inquiry service; 4 characters

Form: $ C R I

– international indicators identifying both the answering country and the requesting country; these codes normally consist of the country code (see Recommendation E.163); 8 characters

Form: yyyyxxxx

xxxx = country of destination

yyyy = country of origin

E.g.: 00320031 Netherlands → Belgium

– code of the originating terminal; 8 characters

2) Optional

– areas generated by the country of the input message:

i) date and time; 12 characters

ii) message number; 4 characters

b) *Part 2*

– Message code; 2 characters

Always included and common in all answer messages. The coded message must be converted to text by the calling country.

The following codes have been defined:

00 = One or some subscribers have been found

01 = Locality insufficiently defined; no subscriber number is forthcoming

02 = Street name insufficiently defined; no subscriber number is forthcoming

03 = No subscriber has been found

04 = Fault or congestion; no subscriber number is forthcoming

05 = The number of subscribers who correspond to the selection criteria exceeds the maximum capacity for the message. Re-enter the question with more precise information. No subscriber number is forthcoming

06 = Partial fault or congestion. The list of subscriber numbers who correspond to the selection criteria is not complete

07 = The number of subscribers who correspond to the selection criteria exceeds the maximum capacity of the message. The list of subscriber numbers answering to the selection criteria is not complete. Re-enter eventually the question using more precise informations

08 = Insufficient search elements have been entered. Re-enter the question with more information. No subscriber number is forthcoming

09 = Selection criteria not known (e.g. locality does not exist)

10 = Protocol error

11 = The number of subscribers corresponding to the selection criteria exceeds the maximum capacity of the message. The list of subscriber numbers returned corresponding to the selection criteria is not complete. Information about more subscribers is available.

12 = No subscribers have been found with this sequence number.

13 = Locality list is forthcoming.

14 = The number of localities corresponding to the selection criteria exceeds the maximum capacity of the message. The list of localities returned corresponding to the selection criteria is not complete. Possibly, re-enter the question using more selective information.

NOTE – A reply containing message code 13 or 14 together with a locality list should be sent if there is no subscriber name in the inquiry or if the locality given in the inquiry is ambiguous.

– *country code* (in accordance with the CCITT Recommendations); 4 characters: aligned from the left (if necessary, supplemented by spaces).

c) *Part 3.1*

– *Trunk code* (in accordance with the CCITT Recommendations); 5 characters

i) aligned from the left (if necessary, supplemented by spaces);

ii) zeros if no subscriber has been found or a series of "X" characters if a subscriber's number is not to be disclosed;

iii) filled with spaces if trunk code does not exist

– *Subscriber's number* (in accordance with the CCITT Recommendation); 8 characters

i) aligned from the left (if necessary, supplemented by spaces);

ii) zeros if no subscriber has been found or a series of "X" characters if a subscriber's number is not to be disclosed;

– *Locality:* variable length (maximum 70 characters)

Town under which the subscriber has been found or town found as part of a locality list.

If no subscriber has been found: the "Locality" field of the inquiry message.

– *Surname or tradename of subscriber:* variable length (maximum 80 characters)

Surname or tradename of subscriber.

If no subscriber has been found: the "Surname or tradename of subscriber" field of the inquiry message.

– *Subscriber'forename:* variable length (maximum 60 characters)

Subscriber's forename.

If no subscriber has been found: the "Subscriber's forename" field of the inquiry message.

– *Name of street of equivalent:* variable length (maximum 70 characters)

Name of street or equivalent.

If no subscriber has been found: the "Name of street or equivalent" field of the inquiry message.

– *House number:* variable length (maximum 10 characters)

Number of the house.

Non-significant zeros are omitted.

If no subscriber has been found: the "House number" field of the inquiry message.

– *Supplementary data:* variable length (maximum 30 characters)

If the subscriber has been found "Supplementary data" regarding that subscriber (in the language of the distant country).

If a locality list: supplementary data regarding a locality.

– *Subscriber message:* 1 character

The coded message which must be converted into text by the calling country.

The following codes have been defined:

0 = no comment

1 = subscriber changed address

2 = refer to distant operator

– *Heading in the guide:* variable length (maximum 30 characters)

Heading in the guide.

If no subscriber has been found: the "Heading in the guide" field of the inquiry message.

– *Profession code:* variable length (maximum 30 characters)

Profession code.

If no subscriber has been found: the "Profession code" field of the Entry message.

– *Additional information for a selective search:* variable length (maximum 30 characters)

Information used for a selective search.

If no subscriber has been found: the "Additional information for a selective search" field of the inquiry message.

– *County, State or Province:* variable length (maximum 30 characters)

County, State or Province.

If no subscriber has been found: the "County, State or Province" field of the inquiry message.

– *Category*: variable length (maximum 30 characters)

Category.

If no subscriber has been found: the "Category" field of the Inquiry message.

d) *Part 3.2 to 3.x*

– contains the continuation of the selection if other subscribers have been selected. Each supplementary selection uses the same form as in the layout of Part 3.1.

Part 1					Part 2	
Message indicators	International indicators	Originating terminal code	Date and time	Message number	Message code	Country code

Part 3.1						
Trunk code	Subscriber number	Locality	Subscriber name	Forename	Street name or equivalent	House number

Part 3.1 (*continued*)						
Supplemen-tary data	Subscriber message	Heading in the Guide	Profession code	Additional information for selective search	County, State or Province	Category

Part 3.2 to 3.*x*
In all cases, the same as Part 3.1

NOTES

1 The response is output to the screen.

2 The distant computer replies to the enquiring computer according to the following standardized international response format.

3 Each country can view data on the screen in its national format.

4 Total length: a maximum of 3 000 characters.

FIGURE 2/E.115

International response format

5.4.4 Structure of the response

Response message

1010 0000 Directory message (telephone)
LENGTH

1010 0001 Telephone (response)
LENGTH

0011 0000 Response
LENGTH

0110 0011 Part 1
LENGTH

1000 0000 Message indicators
LENGTH
Message indicators

1000 0001 International indicators
LENGTH
International indicators

1000 0010 Originating terminal code
LENGTH
Originating terminal code

1000 0011 Date and time (optional)
LENGTH
Date and Time

1000 0100 Message number (optional)
LENGTH
Message number

0110 0100 Part 2
LENGTH

1000 0000 Message code
LENGTH
Message code

1000 0001 Country code
LENGTH
Country code

0110 0101 Part 3 (optional)
LENGTH

0011 0001 Selection
LENGTH

1000 0000 Trunk code (optional)
LENGTH
Trunk code

1000 0001 Subscriber number (optional)
LENGTH
Subscriber number

1000 0010 Locality
LENGTH
Locality

1000 0011 Subscriber name (optional)
LENGTH
Subscriber name

1000 0100 Forename (optional)
LENGTH
Forename

1000 0101 Street name (optional)
LENGTH
Street name

1000 0110 House number (optional)
LENGTH
House number

1000 0111 Supplementary data (optional)
LENGTH
Supplementary data

1000 1000 Subscriber message (optional)
LENGTH
Subscriber message

10000 1001 Heading in the Guide (optional)
LENGTH
Heading in the Guide

1000 1010 Profession code (optional)
LENGTH
Profession code

1000 1011 Additional information for a selective search (optional)
LENGTH
Additional information for a selective search

1000 1100 County, State or Province (optional)
LENGTH
County, State or Province (optional)

1000 1101 Category (optional)
LENGTH
Category

0011 0001 Selection
LENGTH

1000 0000 Trunk code
LENGTH
Trunk code

5.4.5 The different parts of the inquiry formulated by the operator of the country of origin should be converted by the national computer into the international standard format. The different parts of the response transmitted in the international standard format should be converted by the computer of the country which made the request into its national format.

6 Charges

Any charging for telephone directory inquiries is a national matter.

The provisions concerning charging and accounting if any may be found in Recommendation of the D-Series.

7 Operator manual

Each country that implements this Recommendation must supply a simple operator manual for remote countries. This manual describes principally the main characteristics of its directory assistance system so as to indicate the best way to inquire for the remote operators.

Annex A

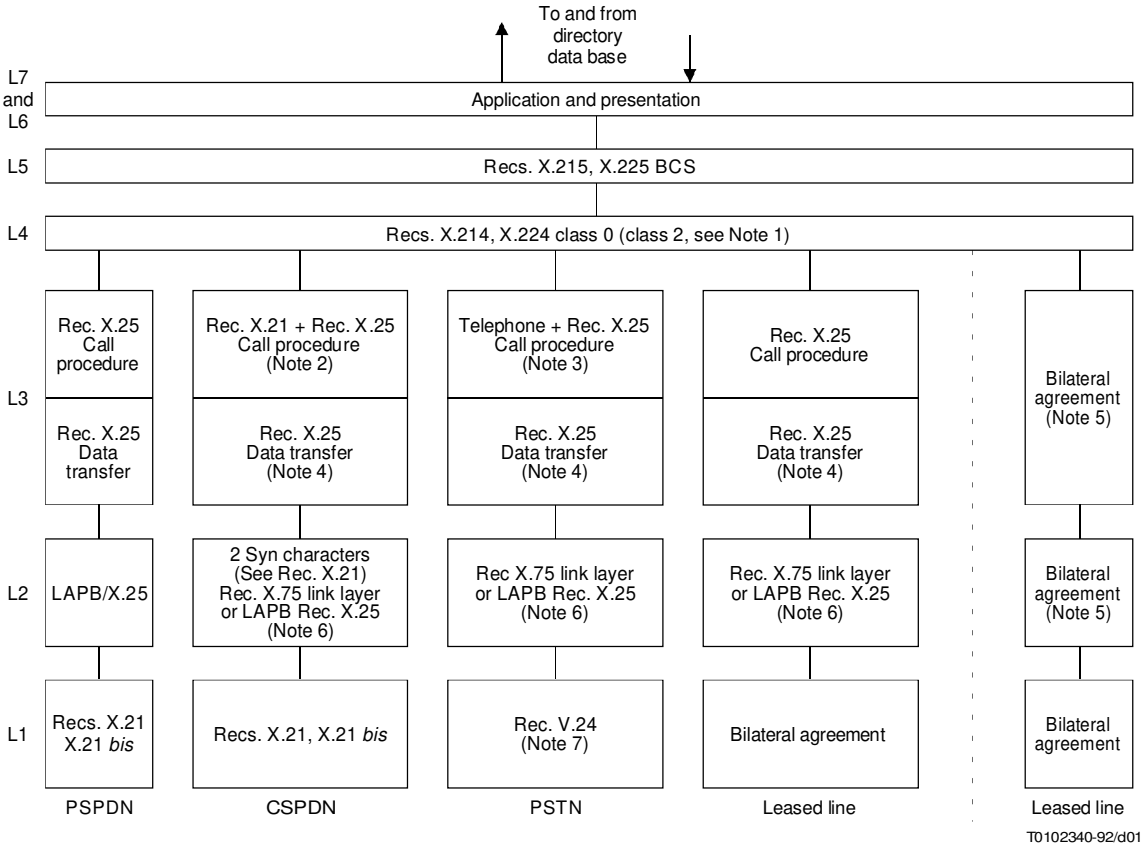
Directory services interconnect bearer services

(This annex forms an integral part of this Recommendation)

A.1 Introduction

The interconnection of International Directory Databases should be network independent.

The general structure for the arrangement of the physical link (OSI layer 1), link access (OSI layer 2) and network layer (OSI layer 3) are as outlined in Figure A.1. Where Administrations have provided similar equipment, interconnection may be arranged by bilateral agreement to suit local requirements. This method of interconnection is solely the matter of the Administrations concerned.



NOTES

1 In all cases, layer 4 must conform to Recommendations X.214 and X.224, class 0. However, by bilateral agreement, Recommendations X.214 and X.224, class 2 defaulting to class 0, may also be used.

2 The network connection is established by a two-stage selection; the first using normal X.21 procedures, and the second using X.25 call control procedures.

3 The network connection is established by a two-stage selection; the first using normal telephone network procedures, and the second using X.25 call control procedures.

4 The X.25 network layer is introduced in order to ensure a common procedure at layer 3 for all types of network connection.

5 Where Administrations have provided similar equipment, they may be interconnected in accordance with bilateral arrangements.

6 The link layer procedures are in accordance with Recommendation X.75 for single link operation.

7 For automatic calling and/or answering, Recommandation V.25 may be applied. For duplex operation using modems in accordance with the CCITT, Recommandation V.32 is preferred.

FIGURE A.1/E.115

General interconnect structure

A.2 Identification

The types of bearer services considered applicable for directory inquiry interconnect are:

i) packet switched public data network (PSPDN);

ii) circuit switched public data network (CSPDN);

iii) public switched telephone network (PSTN);

iv) Administration leased line (point-to-point).

With possible evolution to ISDN, Signalling System No. 7 includes Message Transfer Part and message handling systems.

A.3 Network interconnection

The choice of network to be used for the interconnection of computer-based directory systems should be agreed bilaterally. However, to achieve commonality across all types of networks, the link, data transfer and call procedures, as specified in the appropriate Recommendations, should be used.

Annex B

Formal definitions of directory messages

(This annex forms an integral part of this Recommendation)

```
Directory Message      ::= CHOICE [ [0] Telephone ]

        Telephone      ::= CHOICE [ Inquiry [0], Response [1] ]

            Inquiry    ::= SEQUENCE [ Part 1, Part 2 ]

                Part 1 ::= [ APPLICATION 0 ] IMPLICIT SET [

                        MessageIndicators [0] IMPLICIT IA5String,

                        InternationalIndicators [1] IMPLICIT IA5String,

                        OriginatingTerminalCode [2] IMPLICIT IA5String,

                        DateAndTime [3] IMPLICIT IA5String OPTIONAL,

                        MessageNumber [4] IMPLICIT IA5String OPTIONAL ]

                Part 2 ::= [ APPLICATION 1 ] IMPLICIT SET [

                        Locality [0] IMPLICIT IA5String,

                        SubscriberName [1] IMPLICIT IA5String OPTIONAL,

                        StreetName [2] IMPLICIT IA5String OPTIONAL,

                        HouseNumber [3] IMPLICIT IA5String OPTIONAL,

                        Forename [4] IMPLICIT IA5String OPTIONAL,

                        HeadingInTheGuide [5] IMPLICIT IA5String OPTIONAL,

                        ProfessionCode [6] IMPLICIT IA5String OPTIONAL,

                        AdditionalInformationForASelectiveSearch [7] IMPLICIT IA5String OPTIONAL,

                        CountyStateOrProvince [8] IMPLICIT IA5String OPTIONAL,

                        Category [9] IMPLICIT IA5String OPTIONAL,

                        SequenceNumber [10] IMPLICIT IA5String OPTIONAL ]
```

```
Response :: = SEQUENCE [ Part 1, Part 2, Part 3 OPTIONAL ]

        Part 1    ::= [ APPLICATION 3 ] IMPLICIT SET [

                  MessageIndicators [0] IMPLICIT IA5String,

                  InternationalIndicators [1] IMPLICIT IA5String,

                  OriginatingTerminalCode [2] IMPLICIT IA5String,

                  DateAndTime [3] IMPLICIT IA5String OPTIONAL,

                  MessageNumber [4] IMPLICIT IA5String OPTIONAL ]

        Part 2    ::= [ APPLICATION 4 ] IMPLICIT SET [

                  MessageCode [0] IMPLICIT IA5String,

                  CountryCode [1] IMPLICIT IA5String ]

        Part 3    ::= [ APPLICATION 5 ] IMPLICIT SET of Selection

                  Selection :: = SET [

                  TrunkCode [0] IMPLICIT IA5String OPTIONAL,

                  SubscriberNumber [1] IMPLICIT IA5String OPTIONAL,

                  Locality [2] IMPLICIT IA5String,

                  SubscriberName [3] IMPLICIT IA5String OPTIONAL,

                  Forename [4] IMPLICIT IA5String OPTIONAL,

                  StreetName [5] IMPLICIT IA5String OPTIONAL,

                  HouseNumber [6] IMPLICIT IA5String OPTIONAL,

                  SupplementaryData [7] IMPLICIT IA5String OPTIONAL,

                  SubscriberMessage [8] IMPLICIT IA5String OPTIONAL,

                  HeadingInTheGuide [9] IMPLICIT IA5String OPTIONAL,

                  ProfessionCode [10] IMPLICIT IA5String OPTIONAL,

                  AdditionalInformationForASelectiveSearch [11] IMPLICIT IA5String OPTIONAL,

                  CountyStateOrProvince [12] IMPLICIT IA5String OPTIONAL,

                  Category [13] IMPLICIT IA5String OPTIONAL ]
```

References

[1] CCITT Recommendation *International Telegraph Alphabet No. 5,* Rec. T.50.