[1] Country or geographical area.

1.5As an objective, all ISDNs should evolve towards a single numbering plan, namely the ISDN numbering plan. Considering the wide penetration of the telephone network in the world and existing telephone network resources, the ISDN numbering plan has been developed by building from Recommendation E.163. Therefore, it is recommended that the telephone country code (TCC) be used to identify a particular country.[1]

1.6An existing numbering plan may interwork and thus co-exist with the ISDN numbering plan. A framework for interworking between an ISDN and existing numbering plans is given in Recommendation I.332. Recommendations E.166 and X.122 provide information describing selected interworking situations which have been considered by appropriate Study Groups. Preference should be given to single stage selection methods whenever possible.

1.6.1It is recognized that some of the present data networks, for instance, could retain the X.121 numbering structure and interwork with ISDNs. A critical element of such interworking is numbering plan identification. Two approaches have been recommended:

1) the escape code method, now recognized within the format structures of Recommendations E.164 and X.121;

2) the NPI (Numbering Plan Identifier) method which applies distinct protocol provisions to distinguish numbering plan identity from address content.

Method 1) is intended for near-term applications while method 2) may be applied to both near-term and long-term interworking, with a view to general use of method 2) after year-end 1996.

1.6.2It should be understood that call routing at each switching system is guided by reference to a destination numbering plan which is identified by either method 1) or method 2), not both. Method 1) interprets numbers in terms of the numbering plan incorporated into the basic operation of the switching system, unless incoming circuit class logic or an escape code explicitly overrides that interpretation, substituting a different numbering plan. Under method 2) an explicit numbering plan identifier is presented on each call.

1.6.3When transmission of the calling party's number is appropriate, the numbering plan of the calling party is established in a comparable manner. For a given direction of transmission, either method 1) is used for both called and calling numbers or method 2) is applied in both cases.

1.6.4After a switching system selects an outgoing route, the logical needs of the next switching system must be considered. Interworking between numbering plans may occur. The method used to inform the subsequent switch about applicable numbering plans may need to be adjusted, but numbering content should not be altered. Preference should be given to method 2) when it is practicable to introduce it since method 1) places constraints on maximum number length in some circumstances.

3.SECTION 3 - NUMBERING, ADDRESSING AND ROUTING

3.1Recommendation I.330

ISDN NUMBERING AND ADDRESSING PRINCIPLES

1.Introduction

1.1This Recommendation provides the general concepts, principles, and requirements for addressing reference points located at subscriber premises, for addressing other functions, and for allowing communications with terminals.

1.2Recommendation I.331 (E.164) describes the numbering plan for the ISDN era. Closely related information is contained in Recommendation I.332 on numbering principles for interworking between ISDNs and dedicated networks with different numbering plans. Recommendation I.333 on terminal selection and Recommendation I.334 on principles relating ISDN numbers/subaddresses to the OSI reference model network layer addresses represent additional sources of information having direct application to Recommendation I.330.

1.3The following understanding of relevant nomenclature is established:

a) an ISDN number is one which relates to an ISDN network and ISDN numbering plan;

b) an ISDN address comprises the ISDN number and the mandatory and/or optional additional addressing information;

c) private communications facilities are communication capabilities confined to use by one or more particular subscribers, as opposed to facilities which are shared by subscribers of public networks. Examples of private communications facilities include LANs, PABXs, and other private network arrangements.

1.4Depending on the different cases and stages identifiable within an addressing process, an ISDN number may be (see Figure 10/I.330):

a) an international ISDN number;

b) a national ISDN number;

c) an ISDN subscriber number.

An ISDN address comprises:

i) the ISDN number;

ii) mandatory and/or optional additional addressing information.