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OF ITU

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**INTEGRATED SERVICES DIGITAL
NETWORK (ISDN)
GENERAL STRUCTURE**

VOCABULARY OF TERMS FOR ISDNs

ITU-T Recommendation I.112

(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 I.112 was revised by the ITU-T Study Group XVIII (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 Similarly, in this reform process, the CCIR and the IFRB have been replaced by the Radiocommunication Sector.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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Recommendation I.112**VOCABULARY OF TERMS FOR ISDNs***(Malaga-Torremolinos, 1984; amended at Melbourne, 1988 and at Helsinki, 1993)***1 Introduction**

This Recommendation consists primarily of those terms and definitions that are considered essential to the understanding and application of the principles of an Integrated Services Digital Network (ISDN). They are not exclusive to ISDNs and are also recommended for application, insofar as they are relevant, to other types of telecommunication networks.

Included are some terms that are already defined in other Recommendations. However, the definitions given here embrace only the essential concepts and on that basis it is considered that they are not inconsistent with the more specialized definitions that appear in those other Recommendations.

A small number of the terms and definitions in this Recommendation are duplicated in Recommendation G.701. References to these definitions are given in brackets, for example {1001}, as an aid to ensuring consistency between the two Recommendations in the event of future amendments.

According to the conventions applied in this Recommendation, any term in common usage but whose use is deprecated in the sense defined, is shown as in the following example: "419 functional group [functional grouping]".

Where a truncated term is widely used in an understood context the complete term is quoted following the colloquial form, for example, "111 circuit, telecommunication circuit".

Annex A to this Recommendation contains an alphabetical list of all of the terms contained in this Recommendation.

2 Vocabulary of terms**2.1 General****101 communication***F: communication**S: comunicación*

The transfer of information according to agreed conventions.

NOTE – In French and Spanish the corresponding terms "communications" and "comunicación" have additional specific meanings in telecommunication.

102 signal {1001}*F: signal**S: señal*

A physical phenomenon one or more of whose characteristics may vary to represent information.

103 analogue signal {1002}*F: signal analogique**S: señal analógica*

A signal one of whose characteristic quantities follows continuously the variations of another physical quantity representing information.

104 discretely-timed signal {1003}*F: signal (temporel) discret**S: señal discretamente temporizada*

A signal composed of successive elements in time, each element having one or more characteristics which can convey information, for example, its duration, its waveform and its amplitude.

105 digital signal {2006}*F: signal numérique**S: señal digital*

A discretely-timed signal in which information is represented by a number of well-defined discrete values that one of its characteristic quantities may take in time.

NOTE – The term may be qualified to indicate the digit rate, for example: “140 Mbit/s digital signal”.

106 transmission {1004}*F: transmission**S: transmisión*

The action of conveying signals from one point to one or more other points.

NOTES

1 Transmission can be effected directly or indirectly, with or without intermediate storage.

2 The use of the English word “transmission” in the sense of “emission” is deprecated.

107 digital transmission {3001}*F: transmission numérique**S: transmisión digital*

The transmission of digital signals by means of a channel or channels that may assume in time any one of a defined set of discrete states.

108 channel, transmission channel {1005}*F: voie; voie de transmission**S: canal, canal de transmisión*

A means of unidirectional transmission of signals between two points.

NOTES

1 Several channels may share a common path; for example each channel may be allocated a particular frequency band or a particular time slot.

2 The term may be qualified by the nature of the transmitted signals, by the bandwidth, by the digit rate, or by an arbitrary designation.

3 See also Term 414, access channel.

109 digital channel, digital transmission channel {3002}*F: voie numérique, voie de transmission numérique**S: canal digital, canal de transmisión digital*

The means of unidirectional digital transmission of digital signals between two points.

110 telecommunication {1006}*F: télécommunication**S: telecomunicación*

Any transmission and/or emission and reception of signals representing signs, writing, images and sounds or intelligence of any nature by wire, radio, optical or other electromagnetic systems.

111 circuit, telecommunication circuit {1007}*F: circuit, circuit de télécommunication**S: circuito, circuito de telecomunicación*

A combination of two transmission channels permitting bi-directional transmission of signals between two points, to support a single communication.

NOTES

1 If the telecommunication is by nature unidirectional (for example: long distance television transmission), the term "circuit" is sometimes used to designate the single channel providing the facility.

2 In a telecommunication network use of the term "circuit" is generally limited to a telecommunication circuit directly connecting two switching devices or exchanges, together with associated terminating equipment.

3 A telecommunication circuit may permit transmission in both directions simultaneously (duplex) or not simultaneously (simplex).

4 A telecommunication circuit that is used for transmission in one direction only is sometimes referred to as a unidirectional telecommunication circuit. A telecommunication circuit that is used for transmission in both directions (whether simultaneously or not) is sometimes referred to as a bidirectional telecommunication circuit.

112 digital circuit, digital telecommunication circuit {3003}*F: circuit numérique, circuit numérique de télécommunication**S: circuito digital, circuito de telecomunicación digital*

A combination of two digital transmission channels permitting bidirectional digital transmission between two points, to support a single communication.

NOTES

1 If the telecommunication is by nature unidirectional (for example: long distance television transmission), the term "digital circuit" is sometimes used to designate the single digital channel providing the facility.

2 In a telecommunication network, use of the term "digital circuit" is generally limited to a digital telecommunication circuit directly connecting two switching devices or exchanges, together with associated terminating equipment.

3 A digital telecommunication circuit may permit transmission in both directions simultaneously (duplex), or not simultaneously (simplex).

4 A digital telecommunication circuit that is used for transmission in one direction only is sometimes referred to as a unidirectional digital telecommunication circuit. A digital telecommunication circuit that is used for transmission in both directions (whether simultaneously or not) is sometimes referred to as a bidirectional digital telecommunication circuit.

113 switching*F: commutation**S: conmutación*

The process of interconnecting functional units, transmission channels or telecommunication circuits for as long as is required to convey signals.

114 digital switching*F: commutation numérique**S: conmutación digital*

Switching by means that may assume in time any one of a defined set of discrete signal states, in order to convey digital signals.

115 exchange*F: commutateur [central]**S: central*

An aggregate of traffic carrying devices, switching stages, controlling and signalling means, and other functional units at a network node that enables subscriber lines, telecommunication circuits and/or other functional units to be interconnected as required by individual users.