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**VOCABULARY OF TERMS FOR BROADBAND
ASPECTS OF ISDN**

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NOTES

1 CCITT Recommendation I.113 was published in Fascicle III.7 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 I.113

VOCABULARY OF TERMS FOR BROADBAND ASPECTS OF ISDN

(Melbourne, 1988)

1 Introduction

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

Included are terms that may already be defined in other CCITT/CCIR 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 Recommendations.

According to the conventions applied in this Recommendation, any term in common usage, but whose use is deprecated, is shown in brackets as in the following example: “broadband [wideband]”.

Where a truncated term is widely used in an understood context the complete term is quoted following the colloquial form, for example, “contribution, contribution application”.

Some definitions include terms in bold face to indicate that these terms are defined elsewhere in this Recommendation.

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

2 Vocabulary of terms

(This section is divided into two sub-sections, 2.1 Services, and 2.2 Interfaces, channels and transfer modes. Within each sub-section the terms are listed and defined.)

2.1 Services

101 **broadband [wideband]**

F: large bande

S: banda ancha

A service or system requiring transmission channels capable of supporting rates greater than the primary rate.

102 **broadcast**

F: diffusion

S: difusión

A value of the service attribute “communication configuration”, which denotes unidirectional distribution to all subscribers.

Note – This term should not be confused with the term “broadcasting service” as defined in the ITU Radio Regulations.

103 **connectionless service**

F: service sans connexion

S: servicio sin conexión

A service which allows the transfer of information among service subscribers without the need for end-to-end call establishment procedures.

Note – Connectionless services may be used to support both interactive and distribution services.

104 **contribution, contribution application**

F: contribution

S: contribución, aplicación de contribución

Use of a **broadband** service or channel for transferring audio or video information to user for further **post-production processing** and subsequent **distribution**.

105 **conversational service**

F: service conversationnel

S: servicio conversacional

An **interactive service** which provides for bidirectional communication by means of real-time (no store-and-forward) end-to-end information transfer from user to user or between user and host.

106 **distribution, distribution application**

F: distribution

S: distribución, aplicación de distribución

Use of a **broadband** service or channel for transferring audio or video information to a user or a number of users which will not apply **post-production processing** to the information.

107 **distribution service**

F: service de distribution

S: servicio de distribución

Service characterized by the unidirectional flow of information from a given point in the network to other (multiple) locations. Distribution services are subdivided into two classes: **distribution services without user individual presentation control** and **distribution services with user individual presentation control**.

108 **distribution service with user individual presentation control**

F: service distribué avec contrôle de présentation par l'utilisateur

S: servicio de distribución con control de la presentación por el usuario

A **distribution service** in which the information is provided as a sequence of information entities (e.g., frames) with cyclical repetition, so that the user has the ability to select individual information entities and can control the start and order of the information.

109 **distribution service without user individual presentation control**

F: service distribué sans contrôle de présentation par l'utilisateur

S: servicio de distribución sin control de la presentación por el usuario

A **distribution service** which users can access without having any control over the start and order of the presentation of the distributed information.

110 **enhanced-quality television**

F: télévision de qualité améliorée

S: televisión de calidad mejorada

Television of quality superior to **existing-quality television**, but less than the quality of high-definition television.

111 **existing-quality television**

F: télévision de qualité conventionnelle

S: televisión de calidad convencional

Television as defined in conventional 625-line and 525-line television standards, such as NTSC, PAL and SECAM.

112 **interactive service**

F: service interactif

S: servicio interactivo

A service which provides the means for bidirectional exchange of information between users or between users and hosts. Interactive services are subdivided into three classes of services: **conversational services**, **messaging services** and **retrieval services**.

113 **messaging service**

F: service de messagerie

S: servicio de mensajería

An **interactive service** which offers user-to-user communication between individual users via storage units with store-and-forward, mailbox and/or message handling (e.g. information editing, processing and conversion) functions.

114 **mixed document**

F: document mixte

S: documento mixto

A document that may contain text, graphics, data, image, and moving picture information as well as voice annotation.

115 **multipoint**

F: multipoint

S: multipunto

A value of the attribute “communication configuration” which denotes that the communication involves more than two network terminations.

116 **post-production processing**

F: post-production (traitement après production)

S: tratamiento de posproducción

Further processing of contributed audio and video information, to change the form or presentation of the information prior to its final utilization.

117 **retrieval service**

F: service de consultation

S: servicio de consulta

An **interactive service** which provides the capability of accessing information stored in database centres. This information will be sent to the user on demand only. The information can be retrieved on an individual basis, i.e., the time at which an information sequence is to start is under the control of the user.

118 **sound retrieval service**

F: service de consultation de programmes sonores

S: servicio de consulta de programas sonoros

On-demand (user initiated) retrieval of music and other audio information.

119 **videomessaging**

F: messagerie vidéo

S: videomensajería

A **messaging service** for the transfer for moving pictures.

2.2 *Interfaces, channels and transfer modes*

201 **asynchronous time-division multiplexing**

F: multiplexage temporel asynchrone

S: multiplexación asíncrona por división en el tiempo

A multiplexing technique in which a transmission capability is organized in undedicated slots filled with **cells** with respect to each application's instantaneous real need. In this case, the terminal equipment - i.e. the customer application - defines the actual transmitted bit rate, whatever this rate is, possibly variable during the communication. This technique carries a **labelled interface structure** over a **frame** or a **self-delineating labelled interface**.

202 **asynchronous transfer mode (ATM)**

F: mode de transfert asynchrone (MTA)

S: modo de transferencia asíncrono (MTA)

A **transfer mode** in which the information is organized into **cells**; it is asynchronous in the sense that the recurrence of cells depends on the required or instantaneous bit rate. **Statistical** and **deterministic** values may also be used to qualify the **transfer mode**.

203 **block**

F: bloc

S: bloque

A unit of information consisting of a **header** and an information field.

204 **block payload**

F: charge utile de bloc

S: carga neta del bloque

The user information bits within a **block**.

205 **broadband access**

F: accès à large bande

S: acceso de banda ancha

An ISDN access able to contain at least one channel capable of supporting a rate greater than the primary rate, or supporting an equivalent information transfer rate.

206 **broadband communication channel**

F: voie de communication à large bande

S: canal de comunicación de banda ancha

A standard portion of the **information payload capacity**, available to the user for ISDN services. A **broadband** communication channel exists only during a call, as set-up by a signalling or administrative procedure. The **throughput** supported by the broadband communication channel may be **deterministic** or **statistical**.

207 **cell**

F: cellule

S: célula

A **block** of fixed length identified by a label at layer 1 of the OSI reference model.

208 **circuit transfer mode**

F: mode de transfert par circuit

S: modo de transferencia circuito, modo de transferencia por circuito

A **transfer mode** in which transmission and switching functions are achieved by permanent allocation of channels/bandwidth between the connections.

209 **deterministic, ATM deterministic transfer mode**

F: mode de transfert asynchrone déterministe

S: determinístico, modo de transferencia determinístico MTA

A specific **transfer mode** of the **asynchronous transfer mode** (ATM) in which the maximum information transfer capacity specified for a given service is provided to the user throughout a call.

210 **frame**

F: trame

S: trama

A **block** of variable length identified by a label at layer 2 of the OSI reference model, e.g. an HDLC block.

211 **framed interface**

F: interface tramée

S: interfaz entramado

An interface whose serial bit stream is segmented into **periodic physical frames**. Each frame is divided by a fixed partition into an overhead and an **information payload** portion.

212 **header, block header**

F: en-tête de bloc

S: encabezamiento, encabezamiento de bloque

The bits within a **block** allocated for **labelled multiplexing** functions.

213 **hybrid interface structure**

F: structure d'interface hybride

S: estructura híbrida de interfaz

An interface structure which has a mixture of **labelled channels** and **positioned channels**.

214 **information payload capacity**

F: capacité utile d'information

S: capacidad de carga neta de información

The **interface rate** minus the overhead. The bit rate of the **interface payload**.

215 **interface overhead**

F: charge supplémentaire d'interface

S: tara del interfaz

The remaining portion of the bit stream after deducting the **information payload**. The interface overhead may be essential (e.g. framing for an interface shared by users) or ancillary (e.g. performance monitoring).

216 **interface payload**

F: charge utile d'interface

S: carga neta del interfaz

The portion of the bit stream of a **framed interface** which can be used for telecommunication services. Any signalling is included in the **interface payload**.

217 **interface rate, interface bit rate**

F: débit (binaire) de l'interface

S: velocidad del interfaz, velocidad binaria del interfaz

The gross bit rate at the interface, e.g. the bit rate at the boundary between the physical layer and the physical medium.

218 **labelled channel**

F: voie étiquetée

S: canal etiquetado

A temporally-ordered collection of all **block payloads** having a common label value.

219 **labelled deterministic channel**

F: voie étiquetée déterministe

S: canal etiquetado determinístico

A **labelled channel** that, in each successive interval of specified constant duration, contains on the average a constant number of **blocks**.

220 **labelled interface structure**

F: structure d'interface étiquetée

S: estructura de interfaz etiquetado

An interface structure in which all services and signalling are provided by **labelled channels**. A labelled interface structure can be accommodated within a **framed interface** or a **self-delineating labelled interface**.

221 **labelled multiplexing**

F: multiplexage par étiquetage

S: multiplexación por etiquetado

The multiplexing of **labelled channels** by concatenating the **blocks** of the different channels.

222 **labelled statistical channel**

F: voie étiquetée statistique

S: canal etiquetado estadístico

A **labelled channel** in which the payload of the successive **blocks** of the channel is random and/or the block durations are random.

223 **logical signalling channel**

F: voie logique de signalisation

S: canal lógico de señalización

A logical channel for signalling information with a defined maximum capacity, which is contained within an information channel or a **physical signalling channel**.

224 **network node interface (NNI)**

F: interface de nœud du réseau (INR)

S: interfaz de nodo de red (INR)

The interface between two network nodes (e.g. synchronous digital multiplex equipments, digital exchanges).

225 **packet**

F: paquet

S: paquete

An information **block** identified by a label at layer 3 of the OSI reference model.

226 **packet transfer mode**

F: mode de transfert par paquet

S: modo de transferencia paquete, modo de transferencia por paquete

A **transfer mode** in which the transmission and switching functions are achieved by **packet** oriented techniques, so as to dynamically share network transmission and switching resources between a multiplicity of connections.

227 **payload module**

F: module de charge utile

S: módulo de carga neta, módulo de carga útil, módulo neto

That portion of the **information payload** within which one or more channels entirely exist.

228 **periodic frame**

F: trame périodique

S: trama periódica

A transmission segment which is repeated at intervals of equal duration (e.g. 125 µsec), and may be delineated by incorporating fixed periodic patterns into the bit stream.

229 **physical frame**

F: trame physique

S: trama física

A segment of a serial logical bit stream at an interface, partitioned into successive segments.

230 **physical signalling channel**

F: voie physique de signalisation

S: canal físico de señalización

A dedicated physical channel (e.g. D-channel) used for signalling information. It may be used to carry other information.

231 **positioned channel**

F: voie identifiée par sa position

S: canal posicionado, canal localizado

A channel that occupies bit positions which form a fixed periodic pattern (e.g. B, H and D-channels in ISDN user interfaces).

232 **positioned interface structure**

F: structure d'interface positionnée

S: estructura de interfaz posicionado

A structure in which all services and signalling are provided by **positioned channels**. Such a structure can exist only within a **framed interface**.

233 **self-delineating block**

F: bloc à auto-cadrage

S: bloque autodelimitado

A **block** with the property that its endpoints can be identified by examining the block itself. A defined pattern or flag at the beginning of each block might serve to demarcate the block.

234 **self-delineating labelled interface**

F: interface étiquetée à auto-cadrage

S: interfaz etiquetado autodelimitado

An interface whose entire serial bit stream consists of a self-delineating **labelled multiplexing**.

235 **statistical, ATM statistical transfer mode**

F: statistique, mode de transfert asynchrone statistique

S: estadístico, modo de transferencia estadístico MTA

A specific transfer mode of the **asynchronous transfer mode** (ATM) in which the average information transfer capacity specified for a given service is provided to the user throughout a call.

236 **synchronous time division multiplexing**

F: multiplexage temporel synchrone

S: multiplexación síncrona por división en el tiempo

A multiplexing technique supporting **the synchronous transfer mode (STM)**.

237 **synchronous transfer mode (STM)**

F: mode de transfert (temporel) synchrone (MTS)

S: modo de transferencia síncrono (MTS)

A **transfer mode** which offers periodically to each connection a fixed-length word.

238 **throughput**

F: capacité utile

S: caudal de tráfico, caudal

The number of data bits contained in a **block** (e.g. between the address field and the CRC field of the LAPD-based frames) successfully transferred in one direction across a section per unit time.

239 **transfer mode**

F: mode de transfert

S: modo de transferencia

Aspects covering transmission, multiplexing and switching in a telecommunications network.

240 **transit delay**

F: délai de transfert

S: retardo de tránsito

The time difference between the instant at which the first bit of the address field of a frame crosses one designated boundary, and the instant at which the last bit of the closing flag of the frame crosses a second designated boundary.

241 **virtual circuit**

F: circuit virtuel

S: circuito virtual

A type of **asynchronous transfer mode (ATM)** connection involving establishment and release procedures such that the label associated with each **cell** need not contain complete routing information.

ANNEX A

(to Recommendation I.113)

Alphabetical list of terms contained in this Recommendation¹⁾

201	asynchronous time-division multiplexing	112	interactive service
202	asynchronous transfer mode	217	interface bit rate
202	ATM	215	interface overhead
209	ATM deterministic transfer mode	216	interface payload
235	ATM statistical transfer mode	217	interface rate
203	block	218	labelled channel
212	block header	219	labelled deterministic channel
204	block payload	220	labelled interface structure
101	broadband	221	labelled multiplexing
205	broadband access	222	labelled statistical channel
206	broadband communication channel	223	logical signalling channel
102	broadcast	113	messaging service
207	cell	114	mixed document
208	circuit transfer mode	115	multipoint
103	connectionless service	224	network node interface
104	contribution	224	NNI
104	contribution application	225	packet
105	conversational service	226	packet transfer mode
209	deterministic	227	payload module
106	distribution	228	periodic frame
106	distribution application	229	physical frame
107	distribution service	230	physical signalling channel
108	distribution service with user individual presentation control	231	positioned channel
109	distribution service without user individual presentation control	232	positioned interface structure
110	enhanced-quality television	116	post-production processing
111	existing-quality television	117	retrieval service
210	frame	233	self-delineating block
211	frame interface	234	self-delineating labelled interface
212	header	118	sound retrieval service
213	hybrid interface structure	235	statistical
214	information payload capacity	237	STM
		236	synchronous time division multiplexing

¹⁾ The number against a term indicates its location in the vocabulary.

237	synchronous transfer mode
238	throughput
239	transfer mode
240	transit delay
119	videomessaging
241	virtual circuit
101	wideband (deprecated)

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