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# I.113

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SERIES I: INTEGRATED SERVICES DIGITAL NETWORK

General structure – Terminology

# Vocabulary of terms for broadband aspects of ISDN

ITU-T Recommendation I.113

(Previously CCITT Recommendation)

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**ITU-T RECOMMENDATION I.113**

# VOCABULARY OF TERMS FOR BROADBAND ASPECTS OF ISDN


## Summary

Recommendation I.113, Vocabulary of terms for broadband aspects of ISDN, has been revised during this study period. New terms have been added. All the terms are now classified into a logical order instead of an alphabetical one and are split into eight subclauses:

Subclause 2.1: Services
Subclause 2.2: Transfer modes
Subclause 2.3: Interfaces
Subclause 2.4: Channels
Subclause 2.5: Transport network structure
Subclause 2.6: Operation and maintenance
Subclause 2.7: Traffic and resource management
Subclause 2.8: Quality of service



## Source

ITU-T Recommendation I.113 was revised by ITU-T Study Group 13 (1997-2000) and was approved under the WTSC Resolution No. 1 procedure on the 20th of June 1997.

## FOREWORD

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

The approval of Recommendations by the Members of the ITU-T is covered by the procedure laid down in WTSC Resolution No. 1.

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC.

## NOTE

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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As of the date of approval of this Recommendation, the ITU had/had not received notice of intellectual property, protected by patents, which may be required to implement this Recommendation. However, implementors are cautioned that this may not represent the latest information and are therefore strongly urged to consult the TSB patent database.

## CONTENTS

**Recommendation I.113**

# VOCABULARY OF TERMS FOR BROADBAND ASPECTS OF ISDN

*(revised in 1997)*

## 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 the integrated services digital network (B-ISDN). They are not exclusive to B-ISDN and are recommended also for application, in so far as they are relevant, to other types of telecommunication networks.

Included are terms that may already be defined in other ITU-T/ITU-R 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 italics face to indicate that these terms are defined elsewhere in this Recommendation.

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

Annex B contains a list of abbreviations which are used in B-ISDN Recommendations.

## 2 Vocabulary of terms

This clause is divided into subclauses. Within each subclause the terms are listed and defined.

### 2.1 Services

**101 broadband [wideband]**

*F: large bande*

*S: banda ancha*

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

**102 service bit rate**

*F: débit de service*

*S: velocidad binaria de servicio*

The bit rate which is available to a user for the transfer of user information.

**103 constant bit rate service**

*F: service à débit constant*

*S: servicio de velocidad binaria constante*

A type of telecommunication service characterized by a *service bit rate* specified by a constant value.

**104 variable bit rate service**

*F: service à débit variable*

*S: servicio de velocidad binaria variable*

A type of telecommunication service characterized by a *service bit rate* specified by statistically expressed parameters which allow the bit rate to vary within defined limits.

**105 connectionless service**

*F: service sans connexion*

*S: servicio sin conexión*

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

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

**106 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.

**107 multimedia service**

*F: service multimédia*

*S: servicio multimedia; servicio multimedios*

A service in which the interchanged information consists of more than one type, such as text, graphics, sound, image and video.

**108 broadcast**

*F: diffusion*

*S: difusión*

A value of the service attribute "communication configuration", which denotes unidirectional transmission to all users.

NOTE – This term should not be confused with the term "broadcasting service" as defined in the ITU Radio Regulations.

**109 multipoint**

*F: multipoint*

*S: multipunto*

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

**110 distribution; distribution application**

*F: distribution; application de distribution*

*S: distribución; aplicación de distribución*

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

**111 contribution; contribution application**

*F: contribution; application de contribution*

*S: contribución; aplicación de contribución*

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

**112 post-production processing**

*F: postproduction; 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.

**113 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.*

**114 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.

**115 messaging service; message handling service**

*F: service de messagerie; service de traitement de messages*

*S: servicio de mensajería; servicio de tratamiento de mensajes*

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.

**116 videomessaging**

*F: vidéo messagerie*

*S: videomensajería*

A *messaging service* for the transfer for moving pictures with or without other information.

**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*

A service for on-demand (user initiated) retrieval of music and other audio information.

**119 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*.

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

*F: service de distribution avec commande 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 presentation of the information.

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

*F: service de distribution sans commande 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.

**122 existing-quality television**

*F: télévision de qualité normale*

*S: televisión de calidad convencional*

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

**123 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.

## 2.2 Transfer modes

### 201 transfer mode

*F: mode de transfert*

*S: modo de transferencia*

The whole of the aspects covering transmission, multiplexing and switching in a telecommunications network.

### 202 asynchronous time-division multiplexing

*F: multiplexage temporel asynchrone*

*S: multiplexión asíncrona por división en el tiempo; multiplexión temporal asíncrona*

A multiplexing technique in which a transmission capability is organized in undedicated slots filled with *labelled 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.*

### 203 synchronous time-division multiplexing

*F: multiplexage temporel synchrone*

*S: multiplexión síncrona por división en el tiempo; multiplexión temporal síncrona*

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

### 204 asynchronous transfer mode (ATM)

*F: mode de transfert asynchrone (ATM)*

*S: modo de transferencia asíncrono (ATM)*

A *transfer mode* in which the information is transferred within *labelled cells*; it is asynchronous in the sense that the recurrence of cells containing information from an individual user is not necessarily periodic.

### 205 synchronous transfer mode (STM)

*F: mode de transfert synchrone (STM)*

*S: modo de transferencia síncrono (STM)*

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

### 206 circuit transfer mode

*F: mode de transfert par circuit; mode circuit*

*S: modo de transferencia por circuitos; modo circuito*

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

### 207 packet

*F: paquet*

*S: paquete*

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

**208 packet transfer mode**

*F: mode de transfert par paquets; mode paquet*

*S: modo de transferencia por paquetes; modo 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.

**209 deterministic; ATM deterministic**

*F: déterministe; déterministe (en mode de transfert asynchrone)*

*S: determinístico; determinístico (en el modo de transferencia asíncrono)*

Qualifying an *asynchronous transfer mode* in which a constant information transfer capacity expressed in terms of a predetermined limiting value for a given service is provided to the user throughout a call.

**210 statistical; ATM statistical**

*F: statistique; statistique (en mode de transfert asynchrone)*

*S: estadístico; estadístico (en el modo de transferencia asíncrono*

Qualifying an *asynchronous transfer mode* in which the information transfer capacity specified for a given service and provided to the user throughout a call is expressed in terms of values of parameters such as mean, peak and standard deviation.

## 2.3 Interfaces

**301 block**

*F: bloc*

*S: bloque*

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

**302 self-delineating block**

*F: bloc à autocadrage*

*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.

**303 throughput**

*F: débit*

*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) which are successfully transferred per unit time in one direction across a section.

**304 block payload**

*F: charge utile de bloc*

*S: cabida útil de bloque; contenido útil de bloque*

The bits in the information field within a *block.*

**305 cell**

*F: cellule*

*S: célula*

A *block* of fixed length which is identified by a label at the asynchronous transfer mode layer of the B-ISDN protocol reference model.

**306 cell delineation**

*F: cadrage de cellule*

*S: delimitación de la célula*

The identification of cell boundaries in a cell stream.

**307 header; cell header**

*F: en-tête; en-tête de cellule*

*S: encabezamiento; encabezamiento de célula*

The bits within a cell allocated for functions required to transfer the cell payload within the network.

**308 frame**

*F: trame*

*S: trama*

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

**309 physical frame**

*F: trame physique*

*S: trama física*

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

**310 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.

**311 framed interface**

*F: interface tramée*

*S: interfaz entramada*

An interface where the 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.

**312 interface payload**

*F: charge utile de l'interface*

*S: cabida útil de la 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*.

**313 interface overhead**

*F: charge résiduelle de l'interface; résidu de l'interface*

*S: tara de la 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).

**314 interface rate; interface bit rate**

*F: débit de l'interface; débit à l'interface*

*S: velocidad de la interfaz; velocidad binaria de la interfaz*

The gross bit rate at an interface, that is, the sum of the bit rates of the *interface payload* and the *interface overhead*. Example: the bit rate at the boundary between the physical layer and the physical medium.

**315 information payload capacity**

*F: capacité de charge utile d'information*

*S: cabida útil de información*

The difference between the *interface rate* and the *interface overhead rate*, that is the bit rate of the *interface payload.*

**316 payload module**

*F: module de charge utile*

*S: módulo de cabida útil*

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

**317 invalid cell**

*F: cellule non valide*

*S: célula no válida; célula invalidada*

A cell where the header is declared by the header error control process to contain errors.

**318 valid cell**

*F: cellule valide*

*S: célula válida; célula validada*

A cell where the header is declared by the header error control process to be free of errors.

**319 network node interface (NNI)**

*F: interface de nœud réseau (NNI)*

*S: interfaz de nodo de red (NNI)*

The interface at a network node which is used to interconnect with another network node.

**320 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.

**321 broadband communication channel**

*F: canal de communication à large bande*

*S: canal de comunicación de banda ancha*

A specific 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.

**322 labelled channel**

*F: canal étiqueté*

*S: canal etiquetado*

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

**323 labelled deterministic channel**

*F: canal étiqueté déterministe*

*S: canal etiquetado determinístico*

A *labelled channel* with the property that the aggregated payload capacity of all blocks in each successive interval of specified constant duration is a constant.

**324 labelled statistical channel**

*F: canal étiqueté statistique*

*S: canal etiquetado estadístico*

A *labelled channel* in which the payload of the successive *blocks* of the channel or the block durations, or both, are random variables of the time.

**325 labelled multiplexing**

*F: multiplexage par étiquetage*

*S: multiplexión por etiquetado*

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

**326 self-delineating labelled interface**

*F: interface étiquetée à autocadrage*

*S: interfaz etiquetada autodelimitada*

An interface whose serial bit stream results entirely from a self-delineating *labelled multiplexing*.

**327 labelled interface structure**

*F: structure d'interface étiquetée*

*S: estructura de interfaz etiquetada*

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*.

**328 positioned channel**

*F: canal positionné*

*S: canal ubicado; canal identificado por su posición*

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

**329 positioned interface structure**

*F: structure d'interface positionnée*

*S: estructura de interfaz de canales ubicados*

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

**330 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*.

## 2.4 Channels

**401 virtual channel (VC)**

*F: voie virtuelle; canal virtuel (VC);*

*S: canal virtual (VC)*

A concept used to describe unidirectional transport of ATM cells associated by a common unique identifier value called VCI.

**402 virtual channel link**

*F: liaison par canal virtuel*

*S: enlace de canal virtual*

A means of unidirectional transport of ATM cells between a point where a virtual channel identifier value is assigned and the point where that value is translated or removed.

**403 virtual channel connection**

*F: connexion par canal virtuel*

*S: conexión de canal virtual*

A concatenation of *virtual channel links* that extends between two points where the adaptation layer is accessed.

**404 virtual path (VP)**

*F: conduit virtuel (VP)*

*S: trayecto virtual (VP)*

A concept used to describe unidirectional transport of ATM cells belonging to virtual channels that are associated by a common identifier value called VPI.

**405 virtual path link**

*F: liaison par conduit virtuel*

*S: enlace de trayecto virtual*

The group of virtual channel links, identified by a common value of the virtual path identifier, between the point where the VPI value is assigned and the point where the VPI value is translated or removed.

**406 virtual path connection (VPC)**

*F: connexion par conduit virtuel*

*S: conexión de trayecto virtual*

A concatenation of *virtual path links* that extends between the point where the virtual channel identifier values are assigned and the point where those values are translated or removed.

**407 physical signalling channel**

*F: canal sémaphore; canal 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.

**408 logical signalling channel**

*F: canal logique de signalisation*

*S: canal lógico de señalización*

A logical channel for signalling information which is contained within an information channel or a *physical signalling channel*.

**409 signalling virtual channel**

*F: canal virtuel de signalisation*

*S: canal virtual de señalización*

A virtual channel for transporting signalling information.

**410 general broadcast signalling virtual channel**

*F: canal virtuel de signalisation à diffusion générale*

*S: canal virtual de señalización de difusión general*

A virtual channel independent of service profiles and used for broadcast signalling.

**411 selective broadcast signalling virtual channel**

*F: canal virtuel de signalisation à diffusion sélective*

*S: canal virtual de señalización de difusión selectiva*

A virtual channel allocated to a service profile and used for broadcast signalling.

**412 meta-signalling**

*F: méta-signalisation*

*S: metaseñalización*

The procedure for establishing, checking and releasing signalling virtual channels.

## 2.5 Transport network structure

**501 (digital) transmission path**

*F: conduit de transmission (numérique)*

*S: trayecto de transmisón; trayecto de transmisión digital*

The whole of the means of transmitting and receiving a digital signal of specified rate between two digital distribution frames (or equivalent) at which terminal equipment or switches will be connected. Terminal equipment are those at which the signal originates or terminates. A transmission path is connected through one or more digital sections.

**502 digital section**

*F: section numérique*

*S: sección digital*

The whole of the means of digital transmission of a digital signal of specified rate between two digital distribution frames or equivalent.

**503 regenerator section**

*F: section de régénération*

*S: sección de regeneración*

The portion of a digital section which is located between two adjacent regenerators. (It is a maintenance sub-entity.)

**504 connection**

*F: connexion*

*S: conexión*

A concatenation of links which provides for the capability of transferring information between endpoints. It represents the association between endpoints together with the incremental information which is necessary for verifying information transfer integrity.

**505 ATM connection**

*F: connexion ATM*

*S: conexión modo de transferencia asíncrono*

A concatenation of ATM layer links in order to provide an end-to-end transfer capability in ATM mode between access points.

**506 ATM layer connection**

*F: connexion de couche ATM*

*S: conexión de capa modo de transferencia asíncrono*

An association established by the ATM layer to support communication between two or more entities using an ATM service (i.e. two or more next higher layer entities, or two or more ATM management entities). The communication over an ATM layer connection may be either bidirectional or unidirectional.

**507 ATM link**

*F: liaison ATM*

*S: enlace modo de transferencia asíncronono*

A link provides for the capability of transferring information transparently, and represents the association between two contiguous connecting points or between an endpoint and its contiguous connecting point.

**508 connecting point**

*F: point de connexion*

*S: punto de conexión*

A point inside a connection where the two adjacent links come together. It is located within a level where the information is routed transparently; it provides the connecting functions.

**509 connection end point (CEP)**

*F: point d'extrémité de connecxion (CEP)*

*S: punto extremo de conexión (CEP)*

A point located at the level boundary (e.g. between VC level and VP level) where the level service is provided to the next higher level or to the management plane. A CEP provides the connection termination functions.

**510 level**

*F: niveau*

*S: nivel*

An element used to describe the hierarchical structure of a network from a transport viewpoint. The concept of level corresponds to the concept of layer in OSI.

**511 OAM level**

*F: niveau OAM; niveau exploitation, administration et maintenance*

*S: nivel operaciones, administración y mantenimiento*

A level considered from the viewpoint of network operation, administration and maintenance (OAM). The OAM functions are organized in OAM hierarchical levels associated with ATM and physical layers, to which correspond specific OAM flows.

**512 regenerator section level**

*F: niveau section de régénération*

*S: nivel sección de regeneración*

The first rank OAM level, which extends between regenerator section endpoints.

**513 digital section level**

*F: niveau section numérique*

*S: nivel sección digital*

The second rank OAM level, which extends between digital section endpoints.

**514 transmission path level**

*F: niveau conduit de transmission*

*S: nivel trayecto de transmisión*

The third rank OAM level, which extends between network elements assembling and disassembling the payload of a transmission system and associating it with its OAM functions.

**515 virtual path level**

*F: niveau conduit virtuel*

*S: nivel trayecto virtual*

The fourth rank OAM level, which extends between network elements performing virtual path connection OAM functions.

**516 virtual channel level**

*F: niveau canal virtuel (VC)*

*S: nivel canal virtual*

The fifth rank OAM level, which extends between network elements performing virtual channel connection OAM functions.

**517 VP cross connect**

*F: brasseur de conduits virtuels*

*S: transconector de trayectos virtuales*

A network element which connects virtual path links, translates VPI values and is directed by management plane functions.

**518 VP switch**

*F: commutateur de conduits virtuels*

*S: conmutador de trayectos virtuales*

A network element which connects virtual path links, translates VPI values and is directed by control plane functions.

**519 VC cross connect**

*F: brasseur de canaux virtuels*

*S: transconector de canales virtuales*

A network element which connects virtual channel links, terminates virtual path connections, and is directed by management plane functions.

**520 VC switch**

*F: commutateur de canaux virtuels*

*S: conmutator de canales virtuales*

A network element which connects *virtual channel links*, terminates *virtual path connections*, and is directed by control plane functions.

**521 VP-VC cross connect**

*F: brasseur de conduits virtuels et de canaux virtuels*

*S: transconector de trayectos virtuales y de canales virtuales*

A network element that may act as *VC cross connect* and/or *VP cross connect.*

**522 VP-VC switch**

*F: commutateur de conduits virtuels et de canaux virtuels*

*S: conmutator de trayectos virtuales y de canales virtuales*

A network element that may act as *VP switch* and/or *VC switch*.

**523 message mode**

*F: mode message*

*S: modo mensaje*

A mode of service offered by the AAL type 3/4 and 5, where the AAL SDU is passed across the AAL interface in exactly one AAL IDU.

**524 streaming mode**

*F: mode continu*

*S: modo fluido continuo*

A mode of service offered by the AAL type 3/4 and 5, where the AAL SDU is passed across the AAL interface in one or more AAL IDUs.

## 2.6 Operation and maintenance

**601 defect**

*F: défaut*

*S: defecto*

Limited interruption of the ability of an item to perform a required function. It may or may not lead to maintenance actions depending on the results of additional analysis.

**602 failure**

*F: panne*

*S: fallo*

An event marking the termination of the ability of an item to perform a required function. A failure marks the transition from a state to another state, though a *fault* is a state.

**603 fault**

*F: dérangement*

*S: avería*

The state of an item which is unable to perform a required function, excluding inability due to preventive maintenance, lack of external resources, or planned actions.

**604 configuration management**

*F: gestion de configuration*

*S: gestión de la configuración*

A set of management functions which exercises control over the extensions or reductions of a system, the status of the constituent parts and the identity of their allocation.

**605 management entity**

*F: entité de gestion*

*S: entidad de gestión*

An entity capable of providing management functions (e.g. operation, administration, maintenance and provisioning).

**606 managed entity**

*F: entité gérée*

*S: entidad gestionada*

A physical or a logical resource that is to be managed.

**607 system protection**

*F: protection du système*

*S: protección del sistema*

The action of minimizing the effect of failure of a managed entity, by blocking or changeover to other entities. (As a result, the faulty entity is excluded from operation.)

**608 maintenance event**

*F: événement de maintenance*

*S: evento de mantenimiento*

An instantaneous maintenance occurrence that changes the global status of an object.

**609 OAM cell**

*F: cellule OAM*

*S: célula de operaciones, administración y mantenimento*

An ATM cell that carries OAM information for the performing of specific OAM functions. The term maintenance cell is often used as a synonym for OAM cell.

**610 monitoring cell**

*F: cellule de supervision*

*S: célula de supervisión; célula de monitorización*

Specific OAM cell used for performance monitoring.

**611 fault localization**

*F: localisation des dérangements*

*S: localización de averías*

A specific action for locating a faulty entity, by internal or external test systems when fault information is insufficient.

**612 defect management cell**

*F: cellule de gestion des dérangements*

*S: célula de gestión de defectos*

Specific OAM cell used for defect management. Various types of defect management cells are defined related to specific functions; e.g. alarm indication signal, remote defect indication, continuity check.

**613 OAM flow**

*F: flux OAM*

*S: flujo de operaciones, admistración y mantenimiento*

Bidirectional information flow for providing OAM functions in the network.

**614 continuity check**

*F: contrôle de continuité*

*S: verificación de continuidad*

Mechanism to test the availability of a certain link or connection. Normally used in combination with the object of the testing (e.g. VPC continuity check).

**615 error detection code**

*F: code détecteur d'erreurs*

*S: código de detección de errores*

A redundant code arranged to automatically recognize the presence of errors (e.g. CRC-8 in the cell header, CRC-10 and BIP-16 in the OAM cell payload).

**616 performance management**

*F: gestion de la qualité de fonctionnement*

*S: gestión de la calidad de funcionamiento*

A set of management functions which enables the performance of the network services to be measured and corrective actions to be taken.

**617 performance management cell**

*F: cellule de gestion de la qualité de fonctionnement*

*S: celula de gestión de la calidad de funcionamiento*

Specific OAM cell used for performance management. The following possible functions are identified: forward monitoring, and backward reporting.

**618 performance monitoring**

*F: supervision de la qualité de fonctionnement*

*S: supervisión de la calidad de funcionamiento; monitorización de la calidad de funcionamiento*

The action of continuous or periodic checking of a managed entity to test its normal functioning.

**619 remote defect indication (RDI)**

*F: indication de défaut distant*

*S: indicación de defecto en el extremo distante*

Specific type of indication for defect reporting. It indicates that the defect has occurred at or near to the remote end in the opposite direction.

## 2.7 Traffic and resource management

**701 traffic control**

*F: gestion du trafic*

*S: control de tráfico*

The set of actions taken by the network in all relevant network elements to avoid congestion conditions.

**702 congestion**

*F: encombrement*

*S: congestión*

A set of one or more network elements in which the network is not able to meet the negotiated QOS objective for the already established connections and for the new connection requests.

**703 congestion control**

*F: gestion des encombrements*

*S: control de congestión*

The set of actions taken to relieve congestion by limiting the spread and duration of it.

**704 connection admission control (CAC)**

*F: contrôle d'admission de la connexion (CAC)*

*S: control de admisión de una conexión (CAC)*

The set of actions taken by the network at the call set-up phase (or during call renegotiation phase) in order to establish whether a virtual channel/virtual path connection can be accepted or rejected (or a request for re-allocation can be accommodated). Routing is part of connection admission control actions.

**705 usage parameter control (UPC)**

*F: contrôle des paramètres d'utilisation (UPC)*

*S: control de parámetros de utilización (UPC)*

The set of actions taken by the network to monitor and control traffic at the user network interface, to protect network resources from malicious as well as unintentional misbehaviour by detecting violations of negotiated parameters and taking appropriate actions.

**706 network parameter control (NPC)**

*F: contrôle des paramètres côté réseau (NPC)*

*S: control de parámetros de la red (NPC)*

The set of actions taken by the network to monitor and control traffic at the internetwork node interface, to protect network resources from malicious as well as unintentional misbehaviour by detecting violations of negotiated parameters and taking appropriate actions.

**707 traffic descriptor**

*F: descripteur de trafic*

*S: descriptor de tráfico*

The definition of the characteristic of the traffic that any given requested connection may offer.

**708 ATM traffic descriptor**

*F: descripteur de trafic ATM*

*S: descriptor de tráfico del modo de transferencia asíncrono*

A generic list of traffic parameters that can be used to capture the intrinsic traffic characteristics of an ATM connection.

**709 source traffic descriptor**

*F: descripteur de trafic départ*

*S: descriptor de tráfico en la fuente*

A set of traffic parameters belonging to the ATM traffic descriptor, which is used during the connection set-up to capture the intrinsic traffic characteristics of the connection requested by the source.

**710 traffic contract**

*F: contrat de trafic*

*S: contrato de tráfico*

The request QOS for any given ATM connection and the maximum cell delay variation tolerance allocated to the customer equipment.

## 2.8 Quality of service

**801 transit delay**

*F: temps de transit*

*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.

ANNEX A

**Alphabetical list of terms contained in this Recommendation[1]**

202 asynchronous time-division multiplexing

204 asynchronous transfer mode

505 ATM connection

506 ATM layer connection

507 ATM link

708 ATM traffic descriptor

301 block

304 block payload

101 broadband [wideband]

320 broadband access

321 broadband communication channel

108 broadcast

305 cell

306 cell delineation

206 circuit transfer mode

604 configuration management

702 congestion

703 congestion control

508 connecting point

504 connection

704 connection admission control

105 connectionless service

103 constant bit rate service

509 connection end point

111 contribution; contribution application

114 conversational service

601 defect

209 deterministic; ATM deterministic

502 digital section

513 digital section level

119 distribution service

120 distribution service with user individual presentation control

---

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

121 distribution service without user individual presentation control
110 distribution; distribution application
123 enhanced-quality television
615 error detection code
122 existing-quality television
602 failure
603 fault
611 fault localization
612 fault management cell
308 frame
311 frame interface
410 general broadcast signalling virtual channel
307 header; cell header
330 hybrid interface structure
315 information payload capacity
113 interactive service
313 interface overhead
312 interface payload
314 interface rate; interface bit rate
317 invalid cell
322 labelled channel
323 labelled deterministic channel
327 labelled interface structure
325 labelled multiplexing
324 labelled statistical channel
510 level
408 logical signalling channel
608 maintenance event
606 maintenance entity
605 management entity
523 message mode
115 messaging service
412 meta-signalling
106 mixed document
610 monitoring cell
107 multimedia service

109 multipoint
319 network node interface
706 network parameter control
609 OAM cell
613 OAM flow
511 OAM level
207 packet
208 packet transfer mode
316 payload module
616 performance management
617 performance management cell
618 performance monitoring
310 periodic frame
309 physical frame
407 physical signalling channel
328 positioned channel
329 positioned interface structure
112 post-production processing
503 regenerator section
512 regenerator section level
619 remote defect indication
117 retrieval service
411 selective broadcast signalling virtual channel
302 self-delineating block
326 self-delineating labelled interface
102 service bit rate
409 signalling virtual channel
118 sound retrieval service
709 source traffic descriptor
210 statistical; ATM statistical
524 steaming mode
203 synchronous time-division multiplexing
205 synchronous transfer mode
607 system protection
303 throughput
701 traffic control

710 traffic contract
707 traffic descriptor
201 transfer mode
801 transit delay
501 (digital) transmission path
514 transmission path level
705 usage parameter control
318 valid cell
104 variable bit rate service
116 videomessaging
401 virtual channel
403 virtual channel connection
519 virtual channel cross connect
402 virtual channel link
516 virtual channel level
520 virtual channel switch
404 virtual path
406 virtual path connection
517 virtual path cross connect
521 virtual path-virtual channel cross connect
515 virtual path level
405 virtual path link
518 virtual path switch
522 virtual path-virtual channel switch

ANNEX B

**List of abbreviations used in B-ISDN Recommendations**

| | |
|---|---|
| AAL | ATM Adaptation Layer |
| AAL-PCI | AAL Protocol Control Information |
| AAL-SDU | AAL Service Data Unit |
| ACE | Access Connection Element |
| AIS | Alarm Indication Signal |
| AL | Access Link |
| ATM | Asynchronous Transfer Mode |
| ATM-SDU | ATM Service Data Unit |
| AU | Administrative Unit |

| | |
|---|---|
| B-ISDN | Broadband aspects of Integrated Services Digital Network |
| B-ISDN PRM | Protocol Reference Model of the Broadband aspects of ISDN |
| B-ISPBX | Private Branch Exchange for B-ISDN |
| B-NT | Network Termination for B-ISDN |
| B-NT1 | Network Termination 1 for B-ISDN |
| B-NT2 | Network Termination 2 for B-ISDN |
| B-TA | Terminal Adaptor for B-ISDN |
| B-TE | Terminal Equipment for B-ISDN |
| BER | Bit Error Ratio |
| BIP | Bit Interleaved Parity |
| BOM | Beginning Of Message |
| C-n | Container-n |
| CAD-CAM | Computer Aided Design/Computer Aided Manufacturing |
| CAMC | Customer Access Maintenance Centre |
| CBR | Constant Bit Rate |
| CDV | Cell Delay Variation |
| CE | Connection Element |
| CEQ | Customer Equipment |
| CIME | Customer Installation Maintenance Entities |
| CL | Connectionless |
| CLP | Cell Loss Priority |
| CLSF | Connectionless Service Function |
| CMI | Coded Mark Inversion |
| CN | Customer Network |
| COH | Connection OverHead |
| COM | Continuation Of Message |
| CON | Concentrator |
| CRC | Cyclic Redundancy Check |
| CRF | Connection Related Function |
| CRF(VC) | Virtual Channel Connection Related Function |
| CRF(VP) | Virtual Path Connection Related Function |
| CS | Convergence Sublayer |
| CS-PDU | Convergence Sublayer Protocol Data Unit |
| DPL | Primary Link for Distribution services |
| DS | Digital Section |
| EOM | End Of Message |

| | |
|---|---|
| ET | Exchange Termination |
| FDDI | Fibre Distributed Data Interface |
| FEBE | Far End Block Error |
| GFC | Generic Flow Control |
| HDLC | High-level Data Link Control |
| HDTV | High Definition TeleVision |
| HEC | Header Error Control |
| HLF | Higher Layer Function |
| IPL | Primary Link for Interactive services |
| IRP | Internal Reference Point |
| IT | Information Type |
| LAN | Local Area Network |
| LE | Local Exchange |
| LFC | Local Function Capabilities |
| LI | Length Indicator |
| LT | Line Termination |
| MA | Medium Adaptor |
| MAN | Metropolitan Area Network |
| MCD | Maintenance Cell Description |
| MID | Multiplexing Identification |
| MSB | Most Significant Bit |
| MSP | Maintenance Service Provider |
| MUX | MultipleXer |
| NNI | Network-Node Interface |
| NP | Network Performance |
| NT | Network Termination |
| OAM | Operation And Maintenance |
| OAMC | Operation, Administration and Maintenance Centre |
| OSI | Open Systems Interconnection |
| PCI | Protocol Control Information |
| PDH | Plesiochronous Digital Hierarchy |
| PDU | Protocol Data Unit |
| PL | Physical Layer |
| PL-OAM | Physical Layer Operation And Maintenance (cell) |
| PLK | Primary LinK |
| PM | Physical Medium (sublayer) |

| | |
|---|---|
| POH | Path OverHead |
| PON | Passive Optical Network |
| PRM | Protocol Reference Model |
| PT | Payload Type |
| PTR | Pointer |
| QOS | Quality Of Service |
| RAI | Remote Alarm Indication |
| RDI | Remote Defect Indication |
| RES | Reserved |
| RG | Regenerator |
| ROA | Recognized Operating Agency |
| RS | Regenerator Section |
| RU | Remote Unit |
| SAP | Service Access Point |
| SAR | Segmentation and Reassembly sublayer |
| SDH | Synchronous Digital Hierarchy |
| SDU | Service Data Unit |
| SFET | Synchronous Frequency Encoding Technique |
| SN | Sequence Number |
| SN | Sequence Number protection |
| SOH | Section Overhead |
| SP | Service Provider |
| SPL | Service Provider Link |
| SPN | Subscriber Premises Network |
| SSM | Single Segment Message |
| ST | Segment Type |
| STM | Synchronous Transfer Mode |
| STM-n | Synchronous Transport Module-n |
| SVC | Signalling Virtual Channel |
| TA | Terminal Adaptor |
| TC | Transmission Convergence sublayer |
| TCE | Transit Connection Element |
| TCRF | Transit Connection Related Function |
| TE | Terminal Equipment |
| TMN | Telecommunication Management Network |
| TPE | Transmission Path Endpoint |

| | |
|---|---|
| UNI | User-Network Interface |
| VBR | Variable Bit Rate |
| VC | Virtual Channel |
| VC-n | Virtual Container-n |
| VCC | Virtual Channel Connection |
| VCCE | Virtual Channel Connection Endpoint |
| VCI | Virtual Channel Identifier |
| VP | Virtual Path |
| VPC | Virtual Path Connection |
| VPCE | Virtual Path Connection Endpoint |
| VPI | Virtual Path Identifier |

## ITU-T RECOMMENDATIONS SERIES

| | |
|---|---|
| Series A | Organization of the work of the ITU-T |
| Series B | Means of expression: definitions, symbols, classification |
| Series C | General telecommunication statistics |
| Series D | General tariff principles |
| Series E | Overall network operation, telephone service, service operation and human factors |
| Series F | Non-telephone telecommunication services |
| Series G | Transmission systems and media, digital systems and networks |
| Series H | Audiovisual and multimedia systems |
| **Series I** | **Integrated services digital network** |
| Series J | Transmission of television, sound programme and other multimedia signals |
| Series K | Protection against interference |
| Series L | Construction, installation and protection of cables and other elements of outside plant |
| Series M | TMN and network maintenance: international transmission systems, telephone circuits, telegraphy, facsimile and leased circuits |
| Series N | Maintenance: international sound programme and television transmission circuits |
| Series O | Specifications of measuring equipment |
| Series P | Telephone transmission quality, telephone installations, local line networks |
| Series Q | Switching and signalling |
| Series R | Telegraph transmission |
| Series S | Telegraph services terminal equipment |
| Series T | Terminals for telematic services |
| Series U | Telegraph switching |
| Series V | Data communication over the telephone network |
| Series X | Data networks and open system communication |
| Series Z | Programming languages |