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VOCABULARY OF SWITCHING AND SIGNALLING TERMS

(Geneva, 1980; modified at Malaga-Torremolinos, 1984; Melbourne 1988)

1 This Recommendation provides a vocabulary of terms and definitions which have been studied for application in documentation on switching and signalling. The possible evolution toward integrated digital networks and integrated services digital networks has been taken into account.

2 The terms are grouped in sections and within each section terms belonging to the same area of concepts are assembled. While such grouping in logical order may ease overview, it was not established according to firm principles and arbitrary placing of certain terms was accepted.

3 Part of the terms and definitions in this Recommendation also are contained in specialized glossaries which are attached to certain Recommendations of the G, Q and Z Series. Care has been taken then that identical texts appear in both the Recommendation and the glossary.

Recommendation Q.9

CONTENTS

According to the conventions applied in the lists, indications in round brackets are qualifiers or alternative terms in general use in addition to the principal term.

Examples: **call** (in software)

Examples: **exchange (switching exchange, switching centre)**

Terms in square brackets are deprecated.

The indication *(USA)* | after a term in English means that the term is used in the United States, and is different from that current in the United Kingdom. The indication *(UK)* | means the reverse.

A number (1) or (2) after a term indicates that more than one definition is given (when the term acquires another meaning depending on the context).

Cross-references to the sources in §§ 1 to 9 are given, where of interest, at the right-hand side of the line following the end of a definition.

Sources quoted are ISO, Recommendation G.701 [1] and Recommendation I.112 [7], *List of Essential Telecommunication Terms* [2], the International Electrotechnical Vocabulary (IEV), Recommendations E.100 and E.600 [3]. The name of ISO and Recommendations are mentioned along with a number; the terms derived from the ''List of Essential Telecommunications Terms'' give only a four digit number. The four digit number from E Recommendations [3] is preceded by the designation ''Study Group II''. Numbers beginning with 714 refer to Chapter 714 (Switching), those with 716 to Chapter 716 (ISDN) of IEV.

0 General terms

General terms and definitions as shown in § 0 have in many cases not been elaborated by Study Group XI. However, they need to be used in certain definitions for which the Study Group is responsible. A cross-reference to the source is given wherever possible. If no cross-reference is given, the term is quoted with the provisional meaning that Study Group XI adopted for it. Such definitions will be substituted by the definition of the competent body when available. It should be noted that the terms concerned will not necessarily be classified by the responsible body as ''general'' in the sense applied to § 0.

0001 **communication** (1)

F: communication | (1)

S: comunicaci´on | (1)

Information transfer according to agreed conventions.

Note 1 — In the context of the present vocabulary, the ordinary dictionary meaning of the term is appropriate and sufficient.

Note 2 — The French term ‘‘communication’’ and the Spanish term ‘‘comunicaci´on’’ have the current meaning given in this definition, but they also acquire a more specific meaning in telecommunication (see 0009, 0010 and 0011).

0002 **telecommunication**

F: t´el´ecommunication

S: telecomunicaci´on

Any process that enables a correspondent to pass to one or more given correspondents (telegraphy or telephony), or possible correspondents (broadcasting), information of any nature delivered in any usable form (written or printed matter, fixed or moving pictures, words, music, visible or audible signals, signals controlling the functioning of mechanisms, etc.) by means of any electromagnetic system (electrical transmission by wire, radio transmission, optical transmission, etc., or a combination of such systems).
01.01

0003 **network, telecommunication network**

F: r´eseau, r´eseau de t´el´ecommunications

S: red, red de telecomunicaciones

A set of nodes and links that provides connections between two or more defined points to accommodate telecommunication between them.

0004 **integrated digital network**

F: r´eseau num´erique int´egr´e

S: red digital integrada

A network in which connections established by digital switching are used for the transmission of digital signals.

0005 **integrated digital network, digital network**

F: r´eseau num´erique int´egr´e, r´eseau num´erique

S: red digital integrada, red digital

A combination of digital switching nodes and digital links that uses integrated digital transmission, digital switching and common channel signalling to provide digital connections between two or more points to facilitate telecommunication and possibly other functions.

0007 **channel; transmission channel**

F: voie; voie de transmission

S: canal; canal de transmisi´on

A means of unidirectional communication.

Note — Several channels may share a common path as in frequency division and time division systems; in these cases, each channel is allotted a particular frequency band or a particular time slot which is reserved for it.

0008 **access channel** [channel]

F: voie d’acc`es [voie]

S: canal de acceso [canal]

A designated part of the information transfer capability, having specified characteristics, provided at the user-network interface.

Note 1 — The term ‘‘transmission channel’’ is well understood to imply uni-directional working only, and then is commonly abbreviated to ‘‘channel’’. To avoid confusion with this usage, the term ‘‘access channel’’, which encompasses bi-directional working through the user-network interface, must not be abbreviated to ‘‘channel’’.

Note 2 — The term ‘‘access channel’’ may be qualified, for example, by H, B, or D in which case it is appropriate to abbreviate the term to ‘‘H-channel’’, ‘‘B-channel’’ or ‘‘D-channel’’.

716.0402 .bp

0009 **call** (1)

F: appel | 1)

S: llamada | 1)

In an automatic system, the action performed by a calling party in order to obtain communication with the wanted terminal equipment and by extension, the operations controlled by the action performed.

call (2)

F: communication | 2)

S: comunicaci´on | 2)

The use, or the possible use, of a complete connection set up between a calling party and the called party or service (see Note 2 of 0001).

0010 **(complete) connection in telecommunication**

F: cha | ne de connexion compl`ete, (chemin de) communication

S: conexi´on completa; cadena de conexi´on completa (en telecomunicaciones)

An association of transmission channels or circuits, switching and other functional units set up to provide means for a transfer of information between terminals in a telecommunication network.

Note 1 — A connection is the result of a switching operation.

Note 2 — A connection which allows an end-to-end communication, e.g. a conversation, may be called a ‘‘complete connection’’.

Note 3 — The connection makes a communication possible but is not a communication.

0011 **connection**

F: cha | ne de connexion

S: conexi´on; cadena de conexi´on

An association of transmission channels or circuits, switching and other functional units set up to provide a means for a transfer of information between two or more points in a telecommunication network.

0012 **call attempt** (1) (of a user)

F: (tentative d')appel (d'un usager) (1)

S: tentativa de llamada (de un usuario) (1)

The sequence of operations made by a user of a telecommunication network to obtain another party or a service.

Note — Several call attempts may be required to establish a call.

0013 **circuit, telecommunication circuit**

F: circuit, circuit de t´el´ecommunications

S: circuito, circuito de telecomunicaciones

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

Note 1 — If the telecommunication is by nature unilateral, for example: long distance television transmission, the term ''circuit'' is sometimes used to designate the single channel providing the facility.

Note 2 — In telephony, use of the term ''circuit'' is generally limited to a telecommunication circuit with associated terminating equipment directly connecting two switching devices or exchanges.

Note 3 — A telecommunication circuit does not necessarily permit simultaneous transmission in both directions.

Note 4 — The ''go'' and ''return'' channels may be permanently associated together or may be selected from separate sets for association together throughout a call.

Note 5 — The term circuit may be preceded by other qualifiers than telecommunication, e.g., telephone, digital, etc.

0015 **telephone circuit**

F: circuit t´el´ephonique

S: circuito telef´onico

A permanent electrical connection permitting the establishment of a telephone communication in both directions between two telephone exchanges.
02.06

0016 **hypothetical reference circuit (nominal maximum circuit)**

F: circuit fictif de r´ef´erence

S: circuito ficticio de referencia (circuito m´aximo nominal)

A hypothetical circuit having a defined length and a defined amount of terminal and intermediate equipment, these quantities being reasonably large but not extreme. Such a conception is of value in the study of certain characteristics (noise, for example) of long-distance circuits.
02.08

0017 **virtual circuit**

F: circuit virtuel

S: circuito virtual

A capability in the network between two users that is available to them for exchanging packets of data.

0018 **permanent virtual circuit**

F: circuit virtuel permanent

S: circuito virtual permanente

A capability in the network between two users that is continuously available to them for exchanging packets of data.

0019 **(electric) circuit**

F: circuit (´electrique)

S: circuito (el´ectrico)

A region of electrical action where such action takes place essentially along a path and can be uniquely specified in terms of time and a single dimension.

Note — In contradistinction, an ‘‘electric field’’ implies action which can only be specified uniquely in terms of time and two or three dimensions.
02.01 |)

0020 **. | | circuit** (specific function)

F: circuit de . | |

S: circuito de . | |

Part of an installation forming (or able to form part of) an electric circuit traversed by a current having a definite function, specified in each case, (example: calling, speaking, feeding, etc.).
02.01 |)

0022 **circuit group**

F: faisceau de circuits

S: haz de circuitos

A group of circuits which are traffic-engineered as a unit.

0023 **circuit sub-group**

F: sous-faisceau de circuits

S: subhaz de circuitos

A number of circuits with similar characteristics (e.g. type of signalling, type of transmission path, etc.).

It is not engineered as a unit, but as a part of a circuit group. Circuit sub-groups are provided for reasons of service, protection, equipment limitation, maintenance, etc.

0026 **path, telecommunication path**

F: itinéraire, itinéraire de télécommunications

S: trayecto, trayecto de telecomunicación

The continuous course taken by a transmission signal between two points.

Note 1 — This may be a physical transmission medium, a frequency band in a frequency multiplex, a time slot in a time division multiplex, etc.

Note 2 — The path includes the transmission media and the means used for connecting them together.

0031 **link**

F: liaison

S: enlace

A telecommunication path with specified characteristics between two points.

Note — The nature of the specified characteristics may be added in the form of a qualifier, e.g., digital link, co-axial link, radio link.

0040 **signal** (general sense)

F: signal | (sens général)

S: señal | (sentido general)

Aggregate of waves propaged along a transmission channel and intended to act on a receiving unit.

Note — ''General sense'' applies only to the area of telecommunications. The ordinary dictionary sense is still wider, viz: ''A preconcerted or intelligible sign conveying information or direction at a distance, a physical phenomenon or characteristic quantity of such a phenomenon whose time variations represent information, etc.''

0041 **signal** (in signalling applications)

F: signal | (applications concernant la signalisation)

S: señal | (en aplicaciones de señalización)

A transferable element of information relating to a particular circuit, a particular transaction or to the network management.

Note 1 — A signal as defined above may be generated by a change of state.

Note 2 — A qualification may precede the term, e.g. ‘‘answer signal’’. The qualification represents the name of the signal and generally refers to the kind of information the signal conveys or its main function. A great many of such qualifications are defined in standard signalling system’s specifications.

0042 **forward signal**

F: signal en avant

S: señal hacia adelante

A signal, used for the establishment, release or other control of a connection sent in the same direction as call set-up.

0046 **backward signal**

F: signal en arri`ere

S: señal hacia atr´as

A signal, used for the establishment, release or other control of a connection, sent in the opposite direction to call set-up.

0050 **subscriber's line**

F: ligne d'abonn´e

S: l´inea de abonado

The telephone line connecting the subscriber's equipment to the exchange.

0060 **process** (in a data processing system)

F: processus **|** (dans un traitement de l'information)

S: proceso **|** (en un sistema de procesamiento de datos)

A course of events occurring according to an intended purpose or effect.
(10.01.03 in ISO/TC97/SC1/515, Nov. 1975)

0063 **bidirectional**

F: bidirectionnel

S: bidireccional

A qualification which implies that the transmission of information occurs in both directions.

0064 **unidirectional**

F: unidirectionnel

S: unidireccional

A qualification which implies that the transmission of information always occurs in one direction.

0066 **space division**

F: r´epartition dans l'espace, r´epartition spatiale

S: divisi´on en el espacio; divisi´on espacial

The separation in the space domain of a plurality of transmission channels between two points.

0067 **time division**

F: r´epartition dans le temps, r´epartition temporelle

S: divisi´on en el tiempo; divisi´on temporal

The separation in the time domain of a plurality of transmission channels between two points.

0068 **frequency division**

F: r´epartition en fr´equence, r´epartition fr´equentielle

S: divisi´on de frecuencia

The separation in the frequency domain of a plurality of transmission channels between two points.

0069 **code division**

F: r´epartition en code

S: divisi´on por c´odigo

The separation of a plurality of transmission channels by using specific values of codes belonging to the same set.

0075 **flag**

F: fanion

S: bandera

The unique pattern on the signalling data link used to delimit a signal unit.

0080 **packet switched data transmission service**

F: service de transmission de donn´ees à commutation par paquets

S: servicio de transmissi´on de datos con conmutaci´on de paquetes

A service involving the transmission and, if necessary, the assembly and disassembly of data in the form of packets.

0081 **user packet**

F: paquet d'usager

S: paquete de usuario

A data packet exchanged between users.

0083 **packet switching**

F: commutation par paquets

S: conmutaci´on de paquetes

The function of handling, routing, supervising and controlling user packet data, as required, by an exchange.

0085 **packet handling**

F: traitement des paquets

S: manejo (tratamiento) de paquetes

The function of receiving and transmitting user packets between a user and a packet switching function.

0086 **packet mode operation**

F: fonctionnement en mode paquet

S: funcionamiento (operaci´on) en modo paquete

The transmission of data by means of addressed packets whereby a transmission channel is occupied for the duration of the transmission of the packet only. The channel is then available for use by packets being transferred between different data terminal equipments.

0087 **packet mode operation** (in switching applications)

F: fonctionnement en mode paquet | (dans les applications de commutation)

S: funcionamiento (operaci´on) en modo paquete | (en aplicaciones de conmutaci´on)

The function of handling user packets is an exchange.

0105 **functional unit**

F: unit´e fonctionnelle

S: unidad funcional

An entity of hardware or software, or both, capable of accomplishing a special purpose.

ISO 10.01.01 .bp

0108 **traffic-carrying device**

F: organe de trafic

S: dispositivo de curso de tr´afico

Functional unit used directly or indirectly during the establishment and sustaining of a connection.

0112 **(network) resource(s)**

F: ressource(s) (du r´eseau)

S: recurso(s) (de la red); ´organo de la red

Means of supplying a want or a stock that can be drawn on. In context with the telecommunication network, in particular switching devices, circuit groups, echo and loss control devices, devices for sending recorded announcements, traffic service positions, network integrated data banks, etc.

0115 **software**

F: logiciel

S: soporte l´ogico (software)

Computer programs, procedures, rules and any associated documentation concerned with the operation of a system.

0120 **processor**

F: processeur

S: procesador

A device capable of performing systematic execution of operations upon data. In telecommunication applications, the operations include control of the resources required to provide services.

0124 **operation and maintenance centre processor**

F: processeur de centre d’exploitation et de maintenance

S: procesador de centro de operaci´on y mantenimiento

A centralized *processor* for operation and maintenance purposes which serves one or more switching centres.

0150 **route**

F: route

S: ruta

a) the means of transmission (paths, links via wire, cable, radio) used or to be used for the set-up of permanent or switched connections between two locations;

b) the way within a network followed or to be followed for the transmission of a message or the set-up of a call between two locations.

Note — Two or more routes may be used in tandem. The whole way between the end points then again is called route.

0151 **routing**

F: acheminement

S: encaminamiento

a) the process of determining and using, in accordance with a set of rules, the route for the transmission of a message or the set-up of a call. The process ends when the message or the call has reached the destination location;

b) a qualification implying the above process, e.g.:

— call routing;

— message routing;

— traffic routing.

0205 **seizure**

F: prise

S: toma

A successful bid.

With ‘‘bid’’: a single attempt to obtain the service of a resource.

0208 **busy**

F: occupation

S: ocupado

Condition of a resource which is in use, following its seizure for the time until it is released.

0209 **engaged test** (UK)**; busy test** (USA)

F: test d’occupation

S: prueba de ocupaci´on

An engaged test is a test made to find out whether or not certain facilities which may be desired, such as a subscriber’s line or trunk, are available for use.

17.66

busy test

F: test d’occupation

S: prueba de ocupaci´on

A procedure for determining whether a traffic carrying device is free and available for use.

0212 **release**

F: liberation

S: liberaci´on

The sequence of events which brings about the end of a busy state.

0215 **one-way**

F: à sens unique

S: en un solo sentido

A qualification applying to traffic which implies that call set-ups always occur in one direction.

0216 **both-way**

F: à double sens

S: en ambos sentidos

A qualification applying to traffic which implies that call set-ups occur in both directions.

Note — The amount of traffic flowing in the two directions is not necessarily equal either in the short term or in the long term.

0221 **random errors**

F: erreurs al´eatoires

S: errores aleatorios

Errors distributed over the digital signal so that they can be considered statistically independent from each other.

0222 **error burst**

F: paquet d’erreurs

S: r´afaga de errores

A group of bits in which two successive erroneous bits are always separated by less than a given number (x) of correct bits. The number x should be specified when describing an error burst.

Note — The last erroneous bit in a burst and the first erroneous bit in the following burst are accordingly separated by x correct bits or more.

0225 **bit error ratio**

F: taux d’erreur sur les bits

S: tasa de errores en los bits; tasa de error en los bits

The ratio of the number of digital errors received in a specified period to the total number of digits received in the same period.

Note 1 — Numerical values of error ratio should be expressed in the form

$$n \ | \ (\mathrm{mu} \ |_{p} 0^{D} \mathrm{lF261}$$

where p is a positive integer.

Note 2 — Error ratio may be qualified, for example by the term ‘‘bit’’ or ‘‘block’’.

0226 **cyclic redundancy check (or procedure)**

F: contr **|** *le (ou procedure) de redondance cyclique*

S: verificaci´on por redundancia c´iclica (procedimiento de)

The monitoring of a digital bit stream to detect deviations from the expected bit patterns.

0230 **delay distortion**

F: distorsion de temps de propagation

S: distorsi´on por retardo

Deviation in delay from a reference or an expected value for signals of various frequencies.

0231 **group delay**

F: temps de propagation de groupe

S: retardo de grupo

The time of propagation between two points of a certain point (for example the crest) of the envalope of a wave.

For a given frequency it is equal to the first derivative of the phase shift measured in radians, between these points, with reference to the angular frequency measured in radians per second.

0232 **crosstalk**

F: diaphonie

S: diafon´ia

Electrical interference between non-connected components.

0301 **first-order digital transmission hierarchy**

F: hi´erarchie de transmission num´erique du premier ordre

S: jerarqu´ia de transmisi´on digital de primera orden

Digital signals multiplexed to the 1544 or 2048 kbit/s level (Primary level) for digital transmission.

0302 **second-order digital transmission hierarchy**

F: hi´erarchie de transmission num´erique du deuxi`eme ordre

S: jerarqu´ia de transmisi´on digital de segundo orden

Digital signals multiplexed to the 6312 or 8448 kbit/s level for digital transmission.

0311 **first-order multiplexes** (Suggest that term should be, ‘‘First-order multiplexed signals’’)

F: multiplex du premier ordre

S: m´ultiplex de primer orden

Digital signals that have been multiplexed into 1544 or 2048 kbit/s bit streams.

0312 **second-order multiplexes** (Same comment as above)

F: multiplex du deuxi`eme ordre

S: m´ultiplex de segundo orden

Digital signals that have been multiplexed into 6312 or 8448 kbit/s bit streams.

0400 **pilot**

F: onde pilote

S: piloto

Sinusoidal signal transmitted over analogue FDM links for regulation and supervision purposes.

1 Switching functions and techniques

1001 **exchange (switching exchange, switching centre)**

F: centre — central (centre ou central de commutation)

S: central (central de conmutaci´on, centro de conmutaci´on)

An aggregate of traffic carrying devices, switching stages, controlling and signalling means at a network node that enables subscriber lines and/or other telecommunication circuits to be interconnected as required by individual users. (See Figure 1/Q.9.)

1002 **local exchange** [local central office]

F: central urbain

S: central local

An exchange in which subscribers' lines terminate. (See Figure 1/Q.9.)
15.02

1003 **transit exchange** [tandem exchange, tandem central office, tandem office]

F: centre de transit

S: central de tr´ansito

An exchange used primarily as a switching point for traffic between other exchanges. (See Figure 1/Q.9.)
15.04

1004 **combined local/transit exchange**

F: centre mixte urbain et de transit

S: central combinada local/de tr´ansito

An exchange in which subscribers' lines terminate that also is used as a switching point for traffic between other exchanges. (See Figure 1/Q.9.)

Figure 1/Q.9, p.

1005 **international exchange**

F: centre international

S: central internacional

A transit exchange where international circuits and, in general, national circuits terminate.

1007 **geographically distributed exchange** [geographically dispersed exchange]

F: centre g´eographiquement dispers´e

S: central geogr´aficamente distribuida

An exchange where not all sub-systems such as switching stages and control means are at the same location. (See Figure 1/Q.9.)

1008 **remotely controlled exchange**

F: centre t´el´ecommand´e

S: central controlada a distancia; central telecontrolada

An exchange whose switching functions are wholly or partially controlled by a control unit or a processor in another location. (See Figure 1/Q.9.)

1010 **digital exchange**

F: centre numérique

S: central digital

An exchange that switches information in digital form through its switching devices.

1011 **integrated services exchange**

F: central avec intégration des services

S: central de servicios integrados

An exchange arranged to handle multiple services such as telephone and data using all or part of the switching, signalling and control devices in common.

1013 **satellite exchange**

F: centre satellite

S: central satélite

A local exchange on a low level of the network hierarchy which is associated to another exchange and with no route switching functions except those towards the associated higher level local exchange. A satellite exchange has normally the capability to connect locally subscribers' lines terminating in it. (See Figure 1/Q.9.)

1015 **switching stage**

F: étage de commutation

S: etapa de conmutación

An aggregate of switching devices constituting a subset of the switching network in an exchange and designed to operate as a single unit from a traffic handling point of view. (See Figure 1/Q.9.)

1016 **remote switching stage**

F: étage de commutation distant

S: etapa de conmutación distante

A switching stage associated with and controlled by an exchange in a different location. (See Figure 1/Q.9.)

1018 **exchange concentrator**

F: concentrateur de central

S: concentrador de central

A switching stage wherein a number of subscriber lines or inter-exchange circuits carrying relatively low traffic volumes can be through-connected to a few number of circuits carrying higher traffic volumes. (See Figure 1/Q.9.)

1019 **co-located exchange concentrator**

F: concentrateur de central local

S: concentrador de central local

A concentrator in the same location as the exchange that controls it and to which its higher traffic volume circuits are connected. (See Figure 1/Q.9.)

1020 **remote exchange concentrator**

F: concentrateur de central distant

S: concentrador de central distante

A concentrator located remotely from the exchange that controls it and to which its higher traffic volume circuits are connected. The switching stages comprised normally have no capability to directly interconnect subscriber lines terminating in that concentrator. (See Figure 1/Q.9.)

1025 **line concentrator (stand-alone concentrator)**

F: concentrateur de lignes (concentrateur autonome)

S: concentrador de líneas (concentrador autónomo)

A switching device which concentrates traffic from a number of circuits or subscribers' lines onto a smaller number of circuits to a parent local exchange, where a similar switching device deconcentrates the traffic to the original number of lines. In the case of subscribers' lines, the correspondence of the lines before concentration and after deconcentration must be maintained. The system is both-way working, i.e., traffic from the exchange is concentrated onto the same circuits and deconcentrated to the subscribers as well. (See Figure 1/Q.9.)

1030 **semi-automatic system**

F: système semi-automatique

S: sistema semiautomático

A system in which the calling subscriber's order is given to an operator who completes the call through automatic switches.

16.19

1031 **automatic system**

F: système automatique

S: sistema automático

A system in which the *switching* operations are performed by electrically controlled devices without the intervention of operators.

16.20

1105 **inlet**

F: accès d'arrivée

S: entrada (en conmutación); acceso de entrada

Point through which the incoming traffic flow enters a switching stage.

1106 **outlet**

F: accès de départ

S: salida (en conmutación); acceso de salida

Point through which the outgoing traffic flow leaves a switching stage, or device.

1110 **switching**

F: commutation

S: conmutaci´on

(1) The establishing, on demand, of an individual connection from a desired inlet to a desired outlet within a set of inlets and outlets for as long as is required for the transfer of information.

(2) A qualification implying the action as defined above, e.g.:

switching centre	switching network
switching delay	switching node
switching device	switching point
switching equipment	switching system
switching exchange	switching unit
switching matrix	

1111 **switching node**

F: noeud de commutation

S: nodo de conmutación

An interstitial point in a telecommunication network where temporary interconnection of inlets and outlets may be undertaken as required.

1112 **switching network**

F: réseau de commutation

S: red de conmutación

The switching stages of a telecommunication exchange taken collectively.

1113 **switching matrix**

F: matrice de commutation

S: matriz de conmutación

An array of crosspoints in a space division exchange which, from a traffic point of view, operates as a switch.

1115 **selection stage**

F: étage de sélection

S: etapa de selección

An aggregate of switches enabling an inlet to access one of a plurality of outlets and designed to operate as a single unit from a traffic handling point of view.

1117 **concentration** (in a switching stage)

F: concentration

S: concentración

A configuration wherein the number of inlets into the switching stage is larger than the number of outlets.

1118 **expansion** (in a switching stage)

F: expansion

S: expansión

A configuration wherein the number of inlets into the switching stage is smaller than the number of outlets.

1120 **digital switching**

F: commutation num´erique

S: conmutaci´on digital

A process in which connections are established by operations on digital signals without converting them to analogue signals.

1121 **digital node, digital switching node**

F: point nodal num´erique, point nodal de commutation num´erique

S: nodo digital, nodo de conmutaci´on digital

A point at which digital switching occurs.

1122 **digital circuit**

F: circuit num´erique

S: circuito digital

A circuit which transmits information signals in digital form between two exchanges. It includes termination equipment but not switching stages.

1123 **digital link**

F: liaison num´erique

S: enlace digital

A means of digital transmission between two points.

1125 **circuit switching**

F: commutation de circuits

S: conmutaci´on de circuitos

The switching together of circuits to form a connection which is used for the duration of a call.

1126 **space division switching**

F: commutation par r´epartition dans l'espace (commutation spatiale)

S: conmutaci´on por divisi´on en el espacio; conmutaci´on espacial

The switching of inlets to outlets using space division techniques.

1127 **time division switching**

F: commutation par r´epartition dans le temps (commutation temporelle)

S: conmutaci´on por divisi´on en el tiempo; conmutaci´on temporal

The switching of inlets to outlets using time division (multiplexing) techniques.

1128 **frequency division switching**

F: commutation par r´epartition en fr´equence

S: conmutaci´on por divisi´on de frecuencia

The switching of inlets to outlets using frequency division (multiplexing) techniques.

1129 **channel switching**

F: commutation de voies

S: conmutaci´on de canales

The switching together of single channels to form a connection which is used for the duration of a call.

1130 **message switching; store-and-forward switching**

F: commutation de messages; commutation avec enregistrement et retransmission

S: conmutaci´on de mensajes; conmutaci´on con almacenamiento y reenv´io

The process of routing messages comprising, in certain nodes of the network, a receiving, storing as necessary, and forwarding of messages within a telecommunication network so as to minimize queue and idle times of traffic carrying devices.

1132 **integrated digital transmission and switching**

F: transmission et commutation num´eriques int´egr´ees

S: transmisi´on y conmutaci´on digitales integradas

The direct (digital) concatenation of digital transmission and digital switching, that maintains a continuous digital telecommunication path.

1134 **exchange connection**

F: connexion de commutateur

S: conexi´on de central

A connection that is established through an exchange, between the terminations on that exchange, of two or more circuits or channels.

1135 **digital connection**

F: connexion num´erique

S: conexi´on digital

An association of digital circuits, digital switches and other functional units providing means for the transfer of digitally encoded information signals between two terminal points.

1136 **multislot connection**

F: connexion à intervalles de temps multiples

S: conexi´on multiintervalo

Time slots associated with two or more digital circuits switched in parallel through a digital exchange for use on the same call to provide a wideband service.

1137 **trombone (loop) connection**

F: connexion en boucle

S: conexi´on en bucle

The use for a single call of two circuits in tandem between a remote switching stage and its controlling entity.

1138 **semi-permanent connection**

F: connexion semi-permanente

S: conexi´on semipermanente

A connection established part-time and on a scheduled basis for the use of one user. At other times the connection may be released and available for use in handling traffic of the switched network.

1139 **transit connection**

F: connexion de transit

S: conexi´on de tr´ansito

An exchange connection for a call incoming from one interexchange circuit and outgoing on another.

1140 **originating connection**

F: connexion de d´epart

S: conexi´on de origen

An exchange connection for a call originating on a subscriber line or access channel outgoing to an interexchange circuit.

1141 **terminating connection**

F: connexion d'arriv´ee

S: conexi´on de destino; conexi´on de terminaci´on

An exchange connection for a call incoming from an interexchange circuit and terminating on a subscriber line or channel.

1142 **internal connection**

F: connexion interne

S: conexi´on interna

An exchange connection for a call between subscriber lines or channels on the same exchange.

1143 **through connection**

F: transfert

S: transconexi´on

The processes performed by control and switching equipment in order to establish an exchange connection.

1144 **asymmetrical through connection**

F: transfert asym´etrique

S: transconexi´on asim´etrica

The through connection of only one direction of transmission on a potential both-ways through connection.

1145 **symmetrical through connection**

F: transfert sym´etrique

S: transconexi´on sim´etrica

The through connection of both directions of transmission simultaneously.

1147 **input connection**

F: connexion d'entr´ee

S: conexi´on de entrada

An unidirectional path from an interface of a digital exchange to an exchange test point.

1148 **output connection**

F: connexion de sortie

S: conexi´on de salida

An unidirectional path from an exchange test point to an interface of a digital exchange.

1149 **half connection**

F: demi-connexion

S: semiconexi´on

A bi-directional path comprised of an input connection and an output connection, both having the same exchange interface.

Note 1 — These terms may be qualified by the words analogue or digital, the qualification signifying the property of the exchange interface.

Note 2 — An analogue input (output) (half) connection may be further qualified by the words 2-wire or 4-wire.

1160 **exchange termination (ET)**

F: terminaison de commutateur (TC)

S: terminaci´on de central (TC)

The unit or function on the exchange side of the switching/transmission interface. See Figure 2/Q.9.

Figure 2/Q.9, p.

1161 **line termination (LT)**

F: terminaison de ligne (TL)

S: terminaci´on de l´inea (TL)

Group or functional block containing at least the transmit and receive functions terminating one end of a digital transmission system. See Figure 2/Q.9.

1163 **interface units**

F: unit´es d'interface

S: unidades de interfaz

Units of an exchange on which lines and/or interexchange circuits are terminated, and which are involved in the processing of traffic to/from those lines and/or circuits.

1165 **mediation device**

F: dispositif de m´ediation

S: dispositivo de mediaci´on

A unit or function that is situated between a Network Element and an Operations System in the Telecommunications Management Network that translates the information flow between the two entities as required, provides multiplexing, etc.

1166 **muldex**

F: muldex

S: m´uldex

A contraction of multiplexer-demultiplexer. The term may be used when the multiplexer and demultiplexer are associated in the same equipment.

Note — When used to describe an equipment, the function of the equipment should qualify the title, e.g., PCM muldex, data muldex, digital muldex.

1167 **primary muldex**

F: muldex primaire

S: m´uldex primario

A digital multiplexer-demultiplexer that converts signals between 64 kbit/s and 1544 or 2048 kbit/s bit streams. See Figure 2/Q.9.

1168 **tertiary digital muldex**

F: muldex num´erique tertiaire

S: m´uldex digital terciario

A digital multiplexer-demultiplexer that converts signals between 64 kbit/s and 34 | 68 kbit/s bit streams. See Figure 2/Q.9.

1169 **static multiplex**

F: multiplex statique

S: m´ultiplex est´atico

Digital bit streams between reference points into which lower bit rate channels have been combined, each into an assigned channel or slot.

1170 **two-wire switching**

F: commutation à deux fils

S: conmutaci´on a dos hilos

Switching using the same path, frequency band or time interval for both directions of transmission.

1171 **four-wire switching**

F: commutation à quatre fils

S: conmutaci´on a cuatro hilos

Switching using a separate path, frequency band or time interval for each direction of transmission.

1176 **reentrant trunking**

F: jonction r´eentrante

S: enlace reentrante

The routing of a circuit from outlet to inlet in a switching stage in order to access equipment associated with special services such as operators, auxiliary equipment, etc.

Note — Not to be confused with the action of mutual help where the purpose of re-entering the call is to attempt to reduce the probability of switching congestion on a given call by allowing a new possibility of choice of path from the new inlet to a trunk in the desired route.

1178 **multiple**

F: multiplage

S: m´ultiple

Interconnection of several inlets or outlets in a switching stage to the same traffic carrying device (e.g., other switching stage or circuit).

1205 **crossbar system**

F: syst`eme automatique ‘‘crossbar’’

S: sistema de barras cruzadas

An automatic switching system in which the selecting mechanisms are *crossbar switches* .
16.26

1206 **junctor** (in the crossbar system)

F: joncteur

S: conector

In crossbar systems, a junctor is a circuit extending between frames of a switching unit and terminating in a switching device on each frame.
15.68

1207 **link** (in the crossbar system)

F: maillon

S: enlace

A link is a circuit extending between the primary and secondary selectors of a selection stage.
15.69

1210 **register**

F: enregistreur

S: registrador

The apparatus, in an automatic system, which receives the dialled impulses and controls the subsequent switching operations.

15.56 .bp

1212 **translation**

F: traduction

S: traducci´on

In automatic telephony: the retransmission of received trains of impulses after changing the number of impulses in each train and/or changing the number of trains.
15.58

1213 **translator**

F: traducteur

S: traductor

In automatic telephony: a device used for the *translation* of trains of impulses.
15.57

1305 **(time division) highway** (in switching)**; bus** (USA)

F: canal (`a multiplexage dans le temps)

S: arteria; canal principal (por divisi´on en el tiempo) (en conmutaci´on)

A common path within an apparatus or station over which signals from a plurality of channels pass, separated by time division.

1310 **character signal**

F: signal de caract`ere

S: señal de car´acter

A set of signal elements representing a character, or in PCM representing the quantized value of a sample.

Note — In PCM, the term ‘‘PCM word’’ may be used in this sense.

1314 **quiet code**

F: code silencieux

S: c´odigo de calma

A digital signal used for transmission test purposes.

1315 **cross-exchange check (cross-office)**

F: v´erification du trajet dans le central

S: verificaci´on a trav´es de la central

A check made across the exchange to verify that a speech path exists.

1319 **in-call rearrangement**

F: remaniement des liaisons pendant la communication

S: reestructuraci´on en comunicaci´on

Reassignment of the switched path during the call.

1330 **channel gate**

F: porte de voie

S: puerta de canal

A device for connecting a channel to a highway, or a highway to a channel, at specified times.

1331 **primary block; digroup** (USA)

F: bloc primaire

S: bloque primario

A basic group of PCM channels assembled by time division multiplexing.

Note — The following conventions could be useful:

Primary block μ — a basic group of PCM channels derived from 1544 kbit/s PCM multiplex equipment.

Primary block A — a basic group of PCM channels derived from 2048 kbit/s PCM multiplex equipment.

1332 **frame**

F: trame

S: trama

A set of consecutive digit time slots in which the position of each digit time slot can be identified by reference to a frame alignment signal.

The frame alignment signal does not necessarily occur, in whole or in part, in each frame.

1333 **multiframe**

F: multitrame

S: multitrama

A set of consecutive frames in which the position of each frame can be identified by reference to a multiframe alignment signal.

The multiframe alignment signal does not necessarily occur, in whole or in part, in each multiframe.

1334 **subframe**

F: secteur de trame — sous-trame

S: subtrama

A sequence of noncontiguous sets of digits assembled within a frame, each set occurring at n times the frame repetition rate where n is an integer > 1.

1335 **parallel to serial converter; serializer** (USA) [dynamicizer]

F: convertisseur parallèle/série

S: convertidor paralelo/serie

A device that converts a group of digits, all of which are presented simultaneously, into a corresponding sequence of signal elements.

1336 **serial to parallel converter; deserializer** (USA) [staticizer]

F: convertisseur s´erie/parall`ele

S: convertidor serie/paralelo

A device which converts a sequence of signal elements into a corresponding group of digits, all of which are presented simultaneously.

1337 **μ/A law converter**

F: convertiseur loi μ*/loi A*

S: convertidor de ley μ*/A*

A unit or a function that changes digital signals encoded using either μ or A-law encoding into the corresponding signal for the other.

1405 **frame alignment**

F: verrouillage de trame

S: alineaci´on de trama

The state in which the frame of the receiving equipment is correctly phased with respect to that of the received signal.

1406 **frame alignment signal**

F: signal de verrouillage de trame

S: señal de alineaci´on de trama

The distinctive signal used to secure frame alignment; this signal does not necessarily occur, in whole or in part, in each frame.

1407 **bunched frame alignment signal**

F: signal de verrouillage de trame concentr´e

S: señal de alineaci´on de trama concentrada

A frame alignment signal in which the signal elements occupy consecutive digit time slots.

1408 **distributed frame alignment signal**

F: signal de verrouillage de trame r´eparti

S: señal de alineaci´on de trama distribuida

A frame alignment signal in which the signal elements occupy non-consecutive digit time slots.

1409 **frame alignment recovery time**

F: temps de reprise du verrouillage de trame

S: tiempo de recuperaci´on de la alineaci´on de trama

The time that elapses between a valid frame alignment signal being available at the receive terminal equipment and frame alignment being established.

Note — The frame alignment recovery time includes the time required for replicated verification of the validity of the frame alignment signal.

1410 **out-of-frame alignment time**

F: dur´ee de perte du verrouillage de trame

S: duraci´on de la p´erdida de alineaci´on de trama

The time during which frame alignment is effectively lost. That time will include the time to detect loss of frame alignment and the alignment recovery time.

1414 **time slot**

F: intervalle de temps

S: intervalo de tiempo

Any cyclic time interval that can be recognized and defined uniquely.

1415 **channel time slot**

F: intervalle de temps de voie

S: intervalo de tiempo de canal

A time slot starting at a particular phase in a frame and allocated to a channel for transmitting a character signal and possibly in-slot signalling or other information.

Note — Where appropriate a description may be added, for example ‘‘telephone channel time slot’’.

1416 **signalling time slot**

F: intervalle de temps de signalisation

S: intervalo de tiempo de señalizaci´on

A time slot starting at a particular phase in each frame and allocated to the transmission of signalling.

1417 **frame alignment time slot**

F: intervalle de temps de verrouillage de trame

S: intervalo de tiempo de alineaci´on de trama

A time slot starting at a particular phase in each frame and allocated to the transmission of a frame alignment signal.

1418 **digit time slot**

F: intervalle de temps pour ´el´ement num´erique

S: intervalo de tiempo de d´igito

A time slot allocated to a single digit.

1419 **bit integrity**

F: integrit´e des bits

S: integridad de los bits; integridad de la secuencia de bits

Exists when the values of the bits in each octet of a digital bit stream at the output of a device or system are unchanged from those at the input.

Note — Digital processing devices such as A/μ law converters, echo suppressors and digital pads must be disabled to provide bit integrity.

1420 **octet sequence integrity**

F: integrit´e de la suite des octets

S: integridad de la secuencia de octetos

The property of a digital transmission channel, telecommunication circuit or connection that permits a digital signal to be conveyed over it without change to the order of any octets.

1421 **time slot sequence integrity**

F: int´egrit´e de la s´equence des intervalles de temps

S: integridad de la secuencia de intervalos de tiempo

The assurance that the digital information contained in the *n* time slots of a multislot connection arrives at the output (or terminal) in the same sequence as it was introduced.

1422 **time slot interchange**

F: échange entre intervalles de temps

S: intercambio de intervalos de tiempo

The transfer of information from one time slot to another between incoming and outgoing time division highways.

1425 **retiming**

F: réajustement du rythme

S: reajuste de la temporización

Adjustment of the intervals between corresponding significant instants of a digital signal, by reference to a timing signal.

1426 **timing recovery (timing extraction)**

F: récupération du rythme

S: recuperación de la temporización (extracción de la temporización)

The derivation of a timing signal from a received signal.

1428 **bit timing**

F: rythme des bits

S: temporización de los bits

Timing information sent from the Exchange Termination used by the Line Termination to recover information from the digital bit stream.

In the definitions, ‘‘signal’’ is taken with the general meaning of Definition 02.27. For information, Definition 02.27 is reproduced below: 02.27 **signal** (general sense) Aggregate of waves propagated along a transmission channel and intended to act on a receiving unit.

1430 **synchronous**

F: synchrone

S: síncrono

Signals are synchronous if their corresponding significant instants have a desired phase relationship with each other.

1431 **synchronization**

F: synchronisation

S: sincronización

The process of adjusting the corresponding significant instants of signals to make them synchronous.

1434 **plesiochronous**

F: plésiochrone

S: plesiócrono

Signals are plesiochronous if their corresponding significant instants occur at nominally the same rate, any variation in rate being constrained within specified limits.

In these definitions ‘‘clock’’ is taken with the general meaning of Definition 51.10 and it is assumed that where replicated sources are used for security reasons, the assembly of these is regarded as being a single clock. For information, Definition 51.10 is reproduced below: 51.10 **clock** Equipment providing a time base used in a transmission system to control the timing of certain functions such as the control of the duration of signal elements, the sampling, etc.

Note 1 — Two signals having the same nominal digit rate, but not stemming from the same clock or homochronous clocks, are usually plesiochronous.

Note 2 — There is no limit to the phase relationship between corresponding significant instants.

1446 **synchronized network** [synchronous network]

F: réseau synchronisé | [réseau synchrone]

S: red sincronizada | [red síncrona]

A network in which the corresponding significant instants of nominated signals are adjusted to make them synchronous.

Note — Ideally the signals are synchronous, but they may be mesochronous in practice. By common usage such mesochronous networks are frequently described as synchronized.

1447 **nonsynchronized network**

F: réseau non synchronisé

S: red no sincronizada

A network in which the corresponding significant instants of signals need not be synchronized or mesochronous.

1450 **hierarchic (mutually synchronized) network**

F: réseau hiérarchisé (à synchronisation mutuelle)

S: red jerárquica (mutuamente sincronizada)

A mutually synchronized system in which some clocks exert more control than others, the network operating frequency being a weighted mean of the natural frequencies of the population of clocks.

1505 **transmission delay** (through a digital exchange)

F: temps de transmission | (dans un central numérique)

S: tiempo de transmisión | (a través de una central digital)

The sum of the times necessary for an octet to pass in both directions on a connection through a digital exchange due to buffering, frame alignment and time-slot interchange functions for digital-to-digital connections and in addition, for analogue-to-analogue connections, to the A/D conversions.

1506 **switching delay (processing (handling) time)**

F: temps de commutation (temps de traitement)

S: tiempo de conmutación (tiempo de proceso (tratamiento))

The interval of time attributable to the functions performed in a switching exchange in the process of setting up a call.

1507 **incoming response delay**

F: temps de réponse à la prise d'un circuit d'arrivée

S: duración de la preselección

A characteristic that is applicable where channel associated signalling is used. It is defined as the interval from the instant an incoming circuit seizure signal is recognizable until a proceed-to-send signal is sent backwards by the exchange.

1508 **exchange call set-up delay**

F: temps d’´etablissement de la communication dans le central

S: tiempo de establecimiento de la comunicaci´on por una central

The interval from the instant when the digits required for setting up a call are available in the exchange or the address information is received at the incoming signalling data transmission control of the exchange to the instant when the seizing signal is sent to the subsequent exchange or the corresponding address information is sent from the outgoing signalling data transmission control.

1510 **through-connection delay**

F: temps de transfert

S: demora de transconexi´on; tiempo de transferencia de la central

The interval from the instant at which the information required for setting up a through-connection in an exchange is available for processing in the exchange to the instant that the switching network through-connection is established and available for carrying traffic between the incoming and outgoing 64-kbit/s circuits.

1512 **exchange call-release delay**

F: temps de lib´eration de la communication par le central

S: tiempo de liberaci´on de la comunicaci´on (llamada) por una central

Exchange call release delay is the interval from the instant at which the last information required for releasing a call in an exchange is available for processing in the exchange to the instant that the switching network through-connection is no longer available between the incoming and outgoing 64-kbit/s circuits and the disconnection signal is sent to the subsequent exchange. This interval does not include the time taken to detect the release signal, which might become significant during certain failure conditions, e.g. transmission system failures.

1514 **post-dialling delay**

F: d´elai d’attente apr`es num´erotation

S: periodo de espera despu´es de marcar

Time interval between the end of dialling by the subscriber and the reception by him of the appropriate tone or recorded announcement, or the abandon of the call without tone.

1517 **engineered exchange capacity**

F: capacit´e dimensionn´ee de commutateur

S: capacidad de la central establecida en el diseño

The maximum traffic load that an exchange can handle while meeting specified performance requirements, and performing all normal operational and administrative functions, without entering into an overload condition.

1520 **overload**

F: surcharge

S: sobrecarga

That part of the total load offered to an exchange in excess of the engineered exchange capacity.

1551 **basic access (ISDN basic access)**

F: acc`es de base (acc`es de base RNIS)

S: acceso b´asico (acceso b´asico RDSI)

A user-network access arrangement that corresponds to the interface structure composed of two B-channels and one D-channel. The bit rate of the D-channel for this type of access is 16 kbit/s.

1552 **primary rate access**

F: acc`es au d´ebit primaire

S: acceso a velocidad primaria

A user-network access arrangement that corresponds to the primary rates of 1544 kbit/s and 2048 kbit/s. The bit rate of the D-channel for this type of access is 64 kbit/s.

1560 **reference point**

F: point de r´ef´erence

S: punto de referencia

A conceptual point at the conjunction of two non-overlapping functional groups.

Note — Each reference point is assigned a prefix letter, for example: T reference point.

1561 **V-interface**

F: interface V

S: interfaz V

A digtal exchange interface for subscriber access which coincides with the V reference point.

Note 1 — A specific V interface is denoted by a suffix number.

Note 2 — The V interfaces are internal network interfaces.

2 Signalling functions and techniques

2.0 *Basic signalling terms and techniques*

2001 **signalling**

F: signalisation

S: señalizaci´on

a) The exchange of information (other than by speech) specifically concerned with the establishment, release and other control of calls, and network management, in automatic telecommunications operation.

b) A qualification implying an action as defined above, e.g.:

signalling channel signalling procedure

signalling equipment signalling relation

signalling information signalling route

signalling link signalling system

signalling message   signalling time slot

2004 **speech digit signalling**

F: signalisation par éléments numériques vocaux

S: señalización por dígitos de conversación

A type of channel-associated signalling in which digit time slots primarily used for the transmission of encoded speech are periodically used for signalling.

2005 **in-slot signalling**

F: signalisation dans l'intervalle de temps

S: señalización dentro del intervalo

Signalling associated with a channel and transmitted in a digit time slot permanently (or periodically) allocated in the channel time slot.

2006 **out-slot signalling**

F: signalisation hors intervalle de temps

S: señalizaci´on fuera del intervalo

Signalling associated with a channel but transmitted in one or more separate digit time slots not within the channel time slot.

2008 **common channel signalling**

F: signalisation sur voie commune (signalisation par canal s´emaphore)

S: señalizaci´on por canal com´un

A signalling technique in which signalling information relating to a multiplicity of circuits, and other information such as that used for network management, is conveyed over a single channel by addressed messages.

2009 **channel associated signalling**

F: signalisation voie par voie

S: señalizaci´on asociada al canal

A signalling method in which the signals necessary for the traffic carried by a single channel are transmitted in the channel itself or in a signalling channel permanently dedicated to it.

2010 **in-band signalling**

F: signalisation dans la bande

S: señalizaci´on dentro de banda

A signalling method in which signals are sent over the same transmission channel or circuit as the user's communication and in the same frequency band as that provided for the users.

2011 **out-band signalling**

F: signalisation hors bande

S: señalizaci´on fuera de banda

A signalling method in which signals are sent over the same transmission channel or circuit as the user's communication but in a different frequency band from that provided for the users.

2012 **line signalling**

F: signalisation de ligne

S: señalizaci´on de l´inea

A signalling method in which signals are transmitted between equipments which terminate and continuously monitor part or all of the traffic circuit.

2013 **register signalling** (Signalling System R1)

F: signalisation entre enregistreurs

S: señalizaci´on entre registradores

Link-by-link multifrequency (MF) in-band pulse signalling is used for the transmission of address information. The signalling frequencies are 700 Hz to 1700 Hz, in 200 Hz steps, and combinations of two, and two only, determine the signal. The address information is preceded by a KP signal (start-of-pulsing) and terminated by an ST signal (end-of-pulsing). Either en bloc, or en bloc overlap, or overlap sending may apply. This register signalling arrangement is used extensively with other in-band and out-band line signalling systems.

2014 **link-by-link signalling**

F: signalisation section par section

S: señalizaci´on enlace por enlace

A signalling method in which signals are transmitted one link at a time in a multi-link connection and requiring processing at each intermediate switching point for subsequent transmission.

2015 **link-by-link signalling**

F: signalisation section par section

S: señalizaci´on enlace por enlace

A procedure for the exchange of signalling information directly between two signalling points that are either directly connected or via signalling transfer points.

2017 **end-to-end signalling** (general sense)

F: signalisation de bout en bout | (sens g´en´eral)

S: señalizaci´on de extremo a extremo | (sentido general)

A signalling method in which signals are transmitted from one end of a multi-link connection to the other end where processing of these signals is required.

2018 **end-to-end signalling**

F: signalisation de bout en bout

S: señalizaci´on de extremo a extremo

The capability to transfer signalling information of end point significance directly between signalling end points in order to provide a requesting user with a basic or supplementary service.

2019 **end-to-end signalling**

F: signalisation de bout en bout

S: señalizaci´on de extremo a extremo

A procedure for the exchange of signalling information directly between signalling entities in an originating exchange and a destination exchange for purposes of supporting certain user services.

2020 **pass along method**

F: m´ethode du ‘‘faire passer’’

S: m´etodo de paso de largo

A method for transporting signalling messages, whereby the signalling information is sent along the signalling path of a previously established physical connection.

2021 **signalling system**

F: syst`eme de signalisation

S: sistema de señalizaci´on

The procedures for the interpretation and use of a repertoire of signals together with the hardware and/or software needed for the generation, transmission, and reception of these signals.

2022 **en-bloc signalling**

F: signalisation ‘‘en bloc’’

S: señalizaci´on en bloque

A signalling method in which the address digits are assembled into one block for onward transmission, the block containing all of the address information necessary to route the call to its destination.

2023 **compelled signalling** (general sense)

F: signalisation asservie | (sens g´en´eral)

S: señalizaci´on de secuencia obligada | (sentido general)

A signalling method in which, after one signal (or message) has been sent, the sending of any further signals (or messages) in the same direction is inhibited until the signal sent has been acknowledged in the opposite direction by the receiving terminal and the acknowledgement has been received.

2024 **compelled signalling (fully compelled; continuous compelled)**

F: signalisation asservie (enti`erement asservie; continuellement asservie)

S: señalizaci´on de secuencia obligada (totalmente obligada; continuamente obligada)

A signalling method in which the signal to be transmitted as applied continuously until acknowledged or until a timeout occurs. Upon recognition of the initial signal, the acknowledgement signal is applied continuously until the cessation of the initial signal or until a timeout occurs. The cessation of the aknowledgement signal may provoke the beginning of the next subsequent compelled cycle. In addition to the acknowledgement, the acknowledgement signal may carry other signalling information (e.g. concerning the next cycle).

2025 **overlap address signalling**

F: signalisation d'adresse à recouvrement

S: señalizaci´on de direcci´on con superposici´on

A signalling method in which the onward transmission of address signals from a switching centre may commence before the reception of all the address signals over the preceding link has been completed.

2026 **overlap line signalling**

F: signalisation de ligne à recouvrement

S: señalizaci´on de l´inea con superposici´on

A signalling method in which the onward transmission of a line signal from a switching centre may commence before the recognition time of the line signal being received expires.

2030 **direct current signalling (d.c. signalling)**

F: signalisation en courant continu

S: señalizaci´on en corriente continua (señalizaci´on en c.c.)

A signalling method in which the signalling information may be represented by controlling the direct current magnitude, polarity, and duration or a combination thereof.

2031 **loop/disconnect signalling**

F: signalisation par ouverture de boucle

S: señalizaci´on por interrupci´on del bucle

A direct current signalling method in which the signals are represented by the breaking of a loop circuit.

2032 **alternating current signalling (a.c. signalling)**

F: signalisation en courant alternatif

S: señalizaci´on en corriente alterna (señalizaci´on en c.a.)

A signalling method in which the signalling information is represented by means of pulsed alternating current having a frequency below the telephone speech band.

2033 **voice-frequency signalling (VF signalling)**

F: signalisation à fr´equences vocales

S: señalizaci´on en frecuencia vocal (señalizaci´on FV)

A signalling method in which the signalling information is based on the use of currents which have frequencies within the telephone speech band.

2034 **multi-frequency code signalling (MFC signalling)**

F: signalisation multifr´equences (signalisation MF)

S: señalizaci´on en c´odigo multifrecuencia (señalizaci´on CMF)

A voice-frequency signalling method in which the signalling information is represented by compound signals, each consisting of *n* frequencies from a set of *m* frequencies.

2038 **dual seizure**

F: prise simultan´ee

S: doble toma; toma simult´anea

The condition which occurs when in bothway operation two exchanges attempt to seize the same circuit at approximately the same time.

2039 **interruption control**

F: contr | le d'interruption

S: protecci´on contra las interrupciones

A system which monitors a pilot for interruptions on FDM systems and which transmits an indication to the swiching equipment.

2040 **signal spillover** (in VF signalling)

F: partie d´ebordante d'un signal | (dans un syst`eme de signalisation à fr´equences vocales)

S: rebasamiento de señal | (en señalizaci´on FV)

That part of a VF signal which passes in band from one link to the other in a multi-link connection before the connection between the links has been split at the incoming end.

2041 **signal imitation** (in VF signalling)

F: imitation de signaux | (dans un syst`eme de signalisation à fr´equences vocales)

S: imitaci´on de señal | (en señalizaci´on FV)

An unwanted signal produced within the signalling band by speech or other currents which are not genuine signals causing the response of a signal receiver.

2042 **guarding** (in VF signalling)

F: protection | (dans un syst`eme de signalisation à fr´equences vocales)

S: guarda | (en señalizaci´on FV)

Rendering ineffective the signal imitation by recognizing the simultaneous presence of frequencies outside the signalling band.

2043 **splitting** (in VF signalling)

F: coupure | (dans un syst`eme de signalisation à fr´equences vocales)

S: desprendimiento | (en señalizaci´on FV)

A switching function which provides disconnection or isolation of that part of a channel which:

— preceeds the point where the signalling frequency(ies) is(are) injected;

— succeeds the point where the signal receiver is connected.

Splitting when receiving a signal prevents false operation of signalling equipment by signal reflections and signal spill-over.

Splitting when sending a signal prevents interference from a preceding circuit or near-end equipment.

2050 **signalling information**

F: information de signalisation

S: informaci´on de señalizaci´on

The information content of a signal or a signalling message.

2051 **address**

F: adresse

S: direcci´on

A name which indicates the source or destination of an intended instance of communication.

2052 **band number**

F: num´ero de bande

S: n´umero de banda

A subdivision of the address label, containing the most significant bits, used for routing the signal message and possibly for identifying the circuit group containing the traffic circuit concerned.

2053 **address signal**

F: signal d'adresse

S: señal de direcci´on

A signal containing one element of the part of the selection signals which indicate the destination of a call initiated by a customer, network facility, etc.

2054 **address signal complete**

F: signal d'adresse complet

S: señal de direcci´on completa

A signal sent in the backward direction indicating that signals required for routing the call to the called party have been received and that no called party's line condition signals will be sent.

2055 **address-incomplete signal**

F: signal d'adresse incomplet

S: señal de direcci´on incompleta

A signal sent in the backward direction indicating that the number of address signals received is not sufficient for setting up the call.

2056 **end-of-pulsing (ST) signal**

F: signal de fin de num´erotation

S: señal de fin de numeraci´on (SFN)

An address signal sent in the forward direction indicating that there are no more address signals to follow.

2057 **call-failure signal**

F: signal d'´echec de l'appel

S: señal de llamada infructuosa

A signal sent in the backward direction indicating the failure of a call set-up attempt due to the lapse of a time-out or a fault not covered by specific signals.

2058 **ringing tone; ringback tone** (USA)

F: tonalit´e de retour d'appel

S: tono de llamada

A tone which indicates that the ringing function is being applied at the called end.

2059 **release-guard signal**

F: signal de lib´eration de garde

S: señal de liberaci´on de guarda

A signal sent in the backward direction in response to the clear-forward signal when the circuit concerned is brought into the idle condition.

2060 **clear-forward signal**

F: signal de fin

S: señal de fin (desconexi´on)

A signal sent in the forward direction to terminate the call or call attempt and release the circuit concerned. This signal is normally sent when the calling party clears.

2061 **clear-back signal**

F: signal de raccrochage

S: señal de colgar

A signal sent in the backward direction indicating that the called party has cleared.

2062 **confusion signal**

F: signal de confusion

S: señal de confusi´on

A signal sent in the backward direction indicating that an exchange is unable to act upon a message received from the preceding exchange because the message is considered unreasonable.

2070 **message**

F: message

S: mensaje

An assembly of information within a protocol transferred as an entity in a telecommunication process.

Note — Specific qualifiers may be used to indicate a particular application, e.g., alarm, message.

2071 **signalling message**

F: message (de signalisation)

S: mensaje de señalizaci´on

An assembly of signalling information pertaining to a call, management transaction, etc., comprising also elements for delimitation, sequencing and error control, that is transferred as an entity.

2074 **optional part**

F: partie facultative

S: parte facultativa; parte opcional

Part of a message that contains parameters that may not occur in any particular message type.

Note — Other qualifiers may be used in specific applications, for example, mandatory part.

2080 **initial address message (IAM)**

F: message initial d’adresse (MIA)

S: mensaje inicial de direcci´on (MID)

A type of message sent in the forward direction at call set-up. It contains address information and other information relating to the routing and handling of the call.

initial address message with additional information (IAI)

F: message initial d’adresse avec informations suppl´ementaires (IAI)

S: mensaje inicial de direcci´on con informaci´on adicional (MII)

A type of message sent first in the forward direction at call set-up. It contains address, routing and handling information, such as charging and supplementary services information to be used in the call set-up procedures.

2081 **subsequent address message (SAM)**

F: message subs´equent d’adresse (MSA)

S: mensaje subsiguiente de direcci´on (MSD)

A type of message sent in the forward direction subsequent to the initial address message and containing further address information.

2082 **subsequent address message with one signal**

F: message subs´equent d’adresse à un seul signal

S: mensaje subsiguiente de direcci´on con una señal

A type of message sent in the forward direction subsequent to the initial address message or to the subsequent address message and containing only one address signal.

2083 **NSAP address (OSI-)**

F: adresse NSAP (OSI)

S: direcci´on PASR (de la ISA)

A global address as defined for OSI which is understandable over any network and can be used to address between networks.

2084 **address complete (network)**

F: adresse compl`ete (r´eseau)

S: direcci´on completa (red)

A message sent in the backward direction indicating that all the address (number) signals required by the network for routing the call to the called party have been received.

2085 **address complete (alerting)**

F: adresse compl`ete (alerte)

S: direcci´on completa (aviso)

A message sent in the backward direction indicating that all the address signals required for routing the call to the called party have been received and that the called party is being alerted.

2086 **connect message**

F: message de connexion

S: mensaje de conexi´on

A message sent in the backward direction indicating that all the address signals required for routing the call to the called party have been received, and that the called party has answered.

2087 **continuity check message**

F: message de contr | le de continuit´e

S: mensaje de prueba de continuidad

A type of message containing a continuity signal or a continuity-failure signal.

2088 **end-of-selection signal**

F: signal de fin de s´election

S: señal de fin de selecci´on

A signal sent in the backward direction indicating the successful completion or unsuccessful termination of the call set-up process, and which may contain information or the called party's line condition.

Note — The functions of this signal in Signalling System No. 7 are provided by the Address Complete message, and the Unsuccessful Call Set-up message.

2089 **delayed release message (DRS)**

F: message de lib´eration retard´ee (MLR)

S: mensaje de liberaci´on diferida (LID)

A message sent in either direction, generated by the network, in response to a request to release a call, if the network is applying a hold condition to the connection.

2090 **message sequencing**

F: mise en s´equence des messages

S: secuenciaci´on de mensajes

The procedures for ensuring that received messages are processed in the correct order.

2091 **unreasonable message**

F: message inattendu

S: mensaje irrazonable (o irracional)

A message with an inappropriate signal content, an incorrect signal direction, or an inappropriate place in the message sequence.

2092 **reasonableness check**

F: contr | le de vraisemblance

S: prueba de racionabilidad (o de racionalidad)

A procedure for verfifying whether the signalling information of a received signal message is reasonable in relation to the sequence of previously received signal messages for that circuit.

2093 **call spill-over**

F: empi´etement de communications

S: rebasamiento de llamada

Receipt of an abnormally delayed signalling message from a previous call at a switching centre whilst a new call is being set up on that circuit.

2094 **transaction** (in signalling applications)

F: transaction **|** (dans les applications de signalisation)

S: transacci´on **|** (en aplicaciones de señalizaci´on)

An interchange of enquiry and response messages between signalling points that transfers information.

2095 **enquiry** (in a transaction)

F: demande **|** (dans une transaction)

S: averiguaci´on; indagaci´on **|** (en una transacci´on)

A signal or signals (possibly sent as a sequence of messages) requesting specific information.

2096 **response** (in a transaction)

F: r´eponse **|** (dans une transaction)

S: respuesta **|** (en una transacci´on)

A signal or signals (possibly sent as a sequence of messages) containing information requested by an enquiry.

2.1 *Structure and generic applications*

2101 **message transfer part**

F: sous-syst`eme Transport de Messages

S: parte (de) transferencia de mensajes

The functional part of a common channel signalling system which transfers signal messages as required by all the users, and which performs the necessary subsidiary functions, for example error control and signalling security.

2102 **user part**

F: sous-syst`eme Utilisateur

S: parte (de) usuario

A functional part of the common channel signalling system which transfers signalling messages via the message transfer part. Different types of user parts exist (e.g. for telephone and data services), each of which is specific to a particular use of the signalling system.

2103 **signalling network**

F: r´eseau de signalisation

S: red de señalizaci´on

A network used for signalling and consisting of signalling points and connecting signalling links.

2104 **signalling network**

F: r´eseau s´emaphore

S: red de señalizaci´on

A network used for transfer of signalling messages and consisting of signalling points and connecting common channel signalling links.

2106 **signalling point**

F: point sémaphore

S: punto de señalización

A node in a signalling network which either originates and receives signal messages, or transfers signal messages from one signalling link to another, or both.

Note — Signalling point may be qualified by a prefix, such as International, to denote a specific application.

2107 **(signalling) originating point**

F: point s´emaphore d'origine

S: punto de origen (de la señalizaci´on)

A signalling point in which a message is generated.

2109 **(signalling) destination point**

F: point s´emaphore de destination

S: punto de destino (de la señalizaci´on)

A signalling point to which a message is destined.

2110 **adjacent signalling points**

F: points s´emaphores adjacents

S: puntos de señalizaci´on adyacentes

Two signalling points that are directly interconnected by one or more signalling links.

2111 **connection end-point**

F: point terminal de connexion

S: punto extremo de conexi´on

A signalling point which may be either originating or destination.

2112 **signalling point numbering plan**

F: plan de num´erotage des points s´emaphores

S: plan de numeraci´on de puntos de señalizaci´on

A formal description of the method of translating end-user provided address information into an address understandable by the signalling network.

2113 **signalling point restart**

F: red´emarrage d'un point s´emaphore

S: rearranque de punto de señalizaci´on

A procedure that allows a graceful increase of traffic to a restarting node.

2114 **signalling point code**

F: code d'un point s´emaphore

S: c´odigo de punto de señalizaci´on

A binary code uniquely identifying a signalling point in a signalling network. This code is used, according to its position in the label, either as destination point code or as originating point code.

2116 **signalling link**

F: canal s´emaphore (liaison de signalisation)

S: enlace de señalizaci´on

A transmission means which consists of a signalling data link and its transfer control functions, used for reliable transfer of signalling messages.

2117 **unavailable signalling link**

F: canal s´emaphore indisponible

S: enlace de señalizaci´on indisponible

A signalling link which has been deactivated and cannot therefore carry signalling traffic.

2118 **data channel**

F: voie de donn´ees

S: canal de datos

A unidirectional transmission path for data, with transmission terminal equipment at both ends.

2119 **signalling link group**

F: faisceau de canaux s´emaphores (faisceau de liaisons de signalisation)

S: haz de enlaces de señalizaci´on

A set of signalling link(s) directly connecting two signalling points, and having the same physical characteristics (e.g., bit rate, propagation delay, etc.).

2120 **regular signalling link**

F: canal s´emaphore normal (liaison de signalisation r´eguli`ere)

S: enlace de señalizaci´on regular

The signalling link which normally carries some particular parcel of signalling traffic.

2121 **reserve signalling link**

F: canal s´emaphore de secours (liaison de signalisation de r´eserve)

S: enlace de señalizaci´on de reserva

The signalling link which can be used to carry all, or part of, the signalling traffic of a regular signalling link when the latter has failed or has been withdrawn from service.

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