



INTERNATIONAL TELECOMMUNICATION UNION

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STANDARDIZATION SECTOR
OF ITU

Q.9

**GENERAL RECOMMENDATIONS ON TELEPHONE
SWITCHING AND SIGNALLING**

**INTERNATIONAL AUTOMATIC AND
SEMI-AUTOMATIC WORKING**

**VOCABULARY OF SWITCHING AND
SIGNALLING TERMS**

ITU-T Recommendation Q.9

(Extract from the *Blue Book*)

NOTES

1 ITU-T Recommendation Q.9 was published in Fascicle VI.1 of the *Blue Book*. This file is an extract from the *Blue Book*. While the presentation and layout of the text might be slightly different from the *Blue Book* version, the contents of the file are identical to the *Blue Book* version and copyright conditions remain unchanged (see below).

2 In this Recommendation, the expression “Administration” is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

Recommendation Q.9

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.

CONTENTS

- 0 - General terms (basic terms and terms common to several of the areas covered by the following sections)
- 1 - Switching functions and techniques
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- 5 - Equipment and hardware
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Annex A - Alphabetical list of terms defined in this Recommendation.

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)

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: comunicación (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 "comunicación" 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: télécommunication

S: telecomunicación

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: réseau, réseau de télécommunications

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: réseau numérique intégré

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: réseau numérique intégré, réseau numérique

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 transmisión

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'accès [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

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: comunicación (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: chaîne de connexion complète, (chemin de) communication

S: conexión completa; cadena de conexión 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: chaîne de connexion

S: conexión; cadena de conexión

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 télécommunications

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 téléphonique

S: circuito telefónico

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 référence

S: circuito ficticio de referencia (circuito máximo 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 (électrique)

S: circuito (eléctrico)

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 a)

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 b)

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, coaxial link, radio link.

0040 **signal** (general sense)

F: signal (sens général)

S: señal (sentido general)

Aggregate of waves propagated 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 arrière

S: señal hacia atrás

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'abonné

S: línea 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: répartition dans l'espace, répartition spatiale

S: división en el espacio; división espacial

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

0067 **time division**

F: répartition dans le temps, répartition temporelle

S: división en el tiempo; división temporal

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

0068 **frequency division**

F: répartition en fréquence, répartition fréquentielle

S: división de frecuencia

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

0069 **code division**

F: répartition en code

S: división por código

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 données à commutation par paquets

S: servicio de transmisión de datos con conmutación 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: conmutación 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 (operación) 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 (operación) en modo paquete (en aplicaciones de conmutación)

The function of handling user packets is an exchange.

0105 **functional unit**

F: unité fonctionnelle

S: unidad funcional

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

ISO 10.01.01

0108 **traffic-carrying device**

F: organe de trafic

S: dispositivo de curso de tráfico

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

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

F: ressource(s) (du réseau)

S: recurso(s) (de la red); órgano 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 lógico (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 operación 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 ocupación

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 ocupación

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

0212 **release**

F: libération

S: liberación

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 aléatoires

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: ráfaga 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

$$n \cdot 10^{-p}$$

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: contrôle (ou procédure) de redondance cyclique

S: verificación por redundancia cíclica (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: distorsión 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 envelope 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: diafonía

Electrical interference between non-connected components.

0301 **first-order digital transmission hierarchy**

F: hiérarchie de transmission numérique du premier ordre

S: jerarquía de transmisión 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: hiérarchie de transmission numérique du deuxième ordre

S: jerarquía de transmisión 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: multiplex 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 deuxième ordre

S: múltiplex 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 conmutación, centro de conmutación)

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 tránsito

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

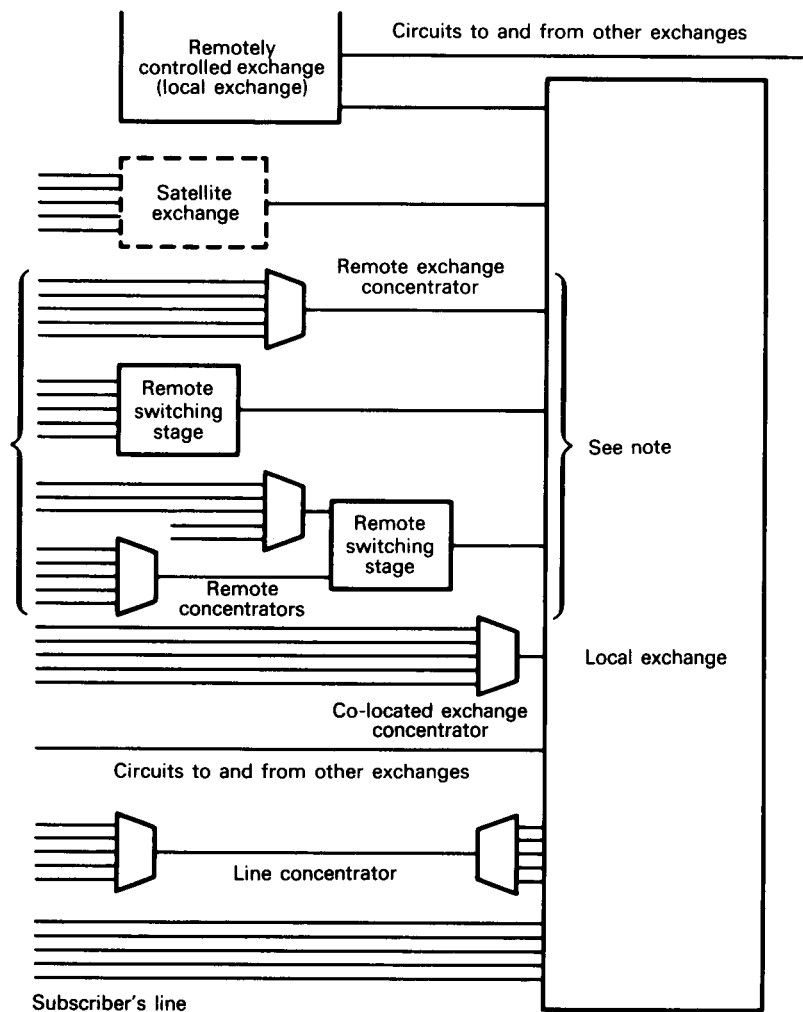
15.04

1004 **combined local/transit exchange**

F: centre mixte urbain et de transit

S: central combinada local/de tránsito

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.)



CCITT - 28650

Note - The brackets comprise the component parts of a geographically distributed exchange.

FIGURE 1/Q.9
Exchange and related terms

1005 **international exchange**

F: centre internationale

S: central internacional

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

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

F: centre géographiquement dispersé

S: central geográficamente 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 télécommandé

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 lineas (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: conmutación

(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 numérique

S: conmutación 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 numérique, point nodal de commutation numérique

S: nodo digital, nodo de conmutación digital

A point at which digital switching occurs.

1122 **digital circuit**

F: circuit numérique

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 numérique

S: enlace digital

A means of digital transmission between two points.

1125 **circuit switching**

F: commutation de circuits

S: conmutación 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 répartition dans l'espace (commutation spatiale)

S: conmutación por división en el espacio; conmutación espacial

The switching of inlets to outlets using space division techniques.

1127 **time division switching**

F: commutation par répartition dans le temps (commutation temporelle)

S: conmutación por división en el tiempo; conmutación temporal

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

1128 **frequency division switching**

F: commutation par répartition en fréquence

S: conmutación por división de frecuencia

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

1129 **channel switching**

F: commutation de voies

S: conmutación 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: conmutación de mensajes; conmutación con almacenamiento y reenvío

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 numériques intégrées

S: transmisión y conmutación 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: conexión 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 numérique

S: conexión 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: conexión 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: conexión 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: conexión 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: conexión de tránsito

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

1140 **originating connection**

F: connexion de départ

S: conexión 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'arrivée

S: conexión de destino; conexión de terminación

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: conexión interna

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

1143 **through connection**

F: transfert

S: transconexión

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

1144 **asymmetrical through connection**

F: transfert asymétrique

S: transconexión asimétrica

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

1145 **symmetrical through connection**

F: transfert symétrique

S: transconexión simétrica

The through connection of both directions of transmission simultaneously.

1147 **input connection**

F: connexion d'entrée

S: conexión 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: conexión de salida

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

1149 **half connection**

F: demi-connexion

S: semiconexión

A bidirectional 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.

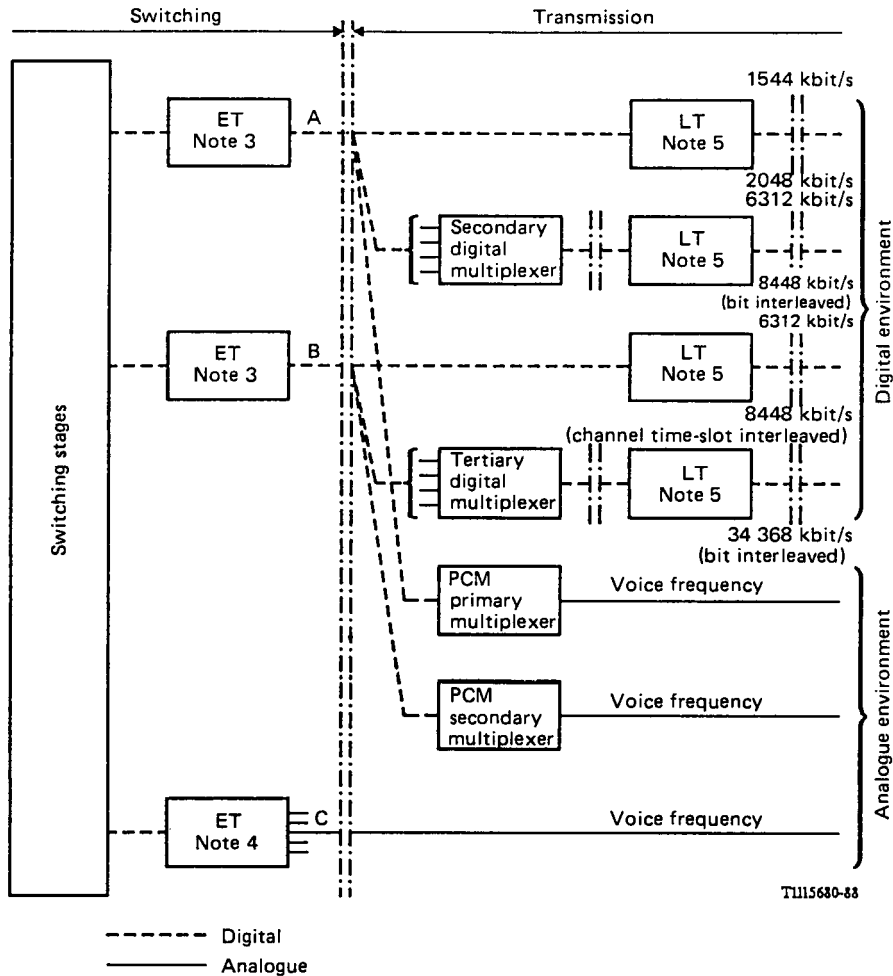
Note 2 - An analogue input (output) (half) connection may be further qualified by the words 2-wire or 4-wire.

1160 **exchange termination (ET)**

F: terminaison de commutateur (TC)

S: terminación de central (TC)

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



Note 1 – The G and Q Series CCITT Recommendations applicable to each interface are detailed in the text.

Note 2 – Other configurations, such as series connection of secondary, tertiary or higher order muldex, may be used.

Note 3 – Examples of functions of Exchange Termination (ET) – interfaces A & B:

- Signalling insertion and extraction
- Code conversion
- Frame alignment
- Alarms and fault indication.

Note 4 – Examples of functions of Exchange Termination (ET) – interface C:

- A/D conversion
- Signalling insertion and extraction
- Multiplexing
- 2-wire/4-wire conversion.

Note 5 – Examples of functions of Line Termination (LT):

- Power feed
- Fault location
- Regeneration
- Code conversion.

Note 6 – Not all interfaces will necessarily exist in every implementation.

FIGURE 2/Q.9

Interfaces towards other exchanges (Q.511)

1161 **line termination (LT)**

F: terminaison de ligne (TL)

S: terminación de línea (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: unités 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 médiation

S: dispositivo de mediación

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: múldex

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: múldex 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 numérique tertiaire

S: múldex digital terciario

A digital multiplexer-demultiplexer that converts signals between 64 kbit/s and 34 368 kbit/s bit streams. See Figure 2/Q.9.

1169 **static multiplex**

F: multiplex statique

S: múltiplex estático

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: conmutación 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: conmutación a cuatro hilos

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

1176 **reentrant trunking**

F: jonction réentrante

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: múltiple

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: système 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

1212 **translation**

F: traduction

S: traducción

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 (à multiplexage dans le temps)

S: arteria; canal principal (por división en el tiempo) (en conmutación)

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 caractère

S: señal de carácter

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: código de calma

A digital signal used for transmission test purposes.

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

F: vérification du trajet dans le central

S: verificación a través 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: reestructuración en comunicación

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: multitrane

S: multitrana

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 série/parallèle

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: convertisseur 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: alineación 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 alineación 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 concentré

S: señal de alineación 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 réparti

S: señal de alineación 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 recuperación de la alineación 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: durée de perte du verrouillage de trame

S: duración de la pérdida de alineación 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 señalización

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 alineación 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 élément numérique

S: intervalo de tiempo de dígito

A time slot allocated to a single digit.

1419 **bit integrity**

F: intégrité 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: intégrité 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: intégrité de la séquence 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.

1430 **synchronous**

F: synchronone

S: síncrono

Signals¹⁾ 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 signals¹⁾ to make them synchronous.

1434 **plesiochronous**

F: plésiochrone

S: plesiócrono

Signals¹⁾ are plesiochronous if their corresponding significant instants occur at nominally the same rate, any variation in rate being constrained within specified limits.

Note 1 - Two signals having the same nominal digit rate, but not stemming from the same clock²⁾ 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 sincrona]

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.

1) 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.

2) 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.

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 clocks³⁾ 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'établissement de la communication dans le central

S: tiempo de establecimiento de la comunicación 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.

³⁾ 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.

1510 **through-connection delay**

F: temps de transfert

S: demora de transconexión; 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 libération de la communication par le central

S: tiempo de liberación de la comunicación (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: délai d'attente après numérotation

S: periodo de espera después 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: capacité dimensionnée 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: accès de base (accès de base RNIS)

S: acceso básico (acceso basico 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: accès au débit 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 référence

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 digital 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: señalización

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: señalización 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 sémaphore)

S: señalización por canal común

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: señalización 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: señalización 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: señalización 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: señalización de línea

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: señalización 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: señalización 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: señalización 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 général)

S: señalización 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: señalización 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: señalización 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: méthode du "faire passer"

S: método 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: système de signalisation

S: sistema de señalización

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: señalización 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 général)

S: señalización 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 (entièrement asservie; continuellement asservie)

S: señalización de secuencia obligada (totalmente obligada; continuamente obligada)

A signalling method in which the signal to be transmitted is 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 acknowledgement 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: señalización de dirección con superposición

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: señalización de línea con superposición

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: señalización en corriente continua (señalización 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: señalización por interrupción 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: señalización en corriente alterna (señalización 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 fréquences vocales

S: señalización en frecuencia vocal (señalización 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 multifréquences (signalisation MF)

S: señalización en código multifrecuencia (señalización 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 simultanée

S: doble toma; toma simultánea

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: contrôle d'interruption

S: protección contra las interrupciones

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

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

F: partie débordante d'un signal (dans un système de signalisation à fréquences vocales)

S: rebasamiento de señal (en señalización 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 système de signalisation à fréquences vocales)

S: imitación de señal (en señalización 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 système de signalisation à fréquences vocales)

S: guarda (en señalización 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 système de signalisation à fréquences vocales)

S: desprendimiento (en señalización FV)

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

- precedes 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: información de señalización

The information content of a signal or a signalling message.

2051 **address**

F: adresse

S: dirección

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

2052 **band number**

F: numéro de bande

S: número 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 dirección

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 dirección 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 dirección 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 numérotation

S: señal de fin de numeración (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'échec 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: tonalité 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 libération de garde

S: señal de liberación 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 (desconexión)

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 confusión

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 señalización

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 dirección (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 supplémentaires (IAI)

S: mensaje inicial de dirección con información 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 subséquent d'adresse (MSA)

S: mensaje subsiguiente de dirección (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 subséquent d'adresse à un seul signal

S: mensaje subsiguiente de dirección 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: dirección 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 complète (réseau)

S: dirección 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 complète (alerte)

S: dirección 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 conexión

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 contrôle de continuité

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 sélection

S: señal de fin de selección

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 libération retardée (MLR)

S: mensaje de liberación 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 séquence des messages

S: secuenciación 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: contrôle de vraisemblance

S: prueba de racionabilidad (o de racionalidad)

A procedure for verifying 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: empiétement 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: transacción (en aplicaciones de señalización)

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

2095 **enquiry** (in a transaction)

F: demande (dans une transaction)

S: averiguación; indagación (en una transacción)

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

2096 **response** (in a transaction)

F: réponse (dans une transaction)

S: respuesta (en una transacción)

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-système 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-système 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: réseau de signalisation

S: red de señalización

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

2104 **signalling network**

F: réseau sémaphore

S: red de señalización

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 sémaphore d'origine

S: punto de origen (de la señalización)

A signalling point in which a message is generated.

2109 **(signalling) destination point**

F: point sémaphore de destination

S: punto de destino (de la señalización)

A signalling point to which a message is destined.

2110 **adjacent signalling points**

F: points sémaphores adjacents

S: puntos de señalización 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 conexión

A signalling point which may be either originating or destination.

2112 **signalling point numbering plan**

F: plan de numérotage des points sémaphores

S: plan de numeración de puntos de señalización

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: redémarrage d'un point sémaphore

S: re arranque de punto de señalización

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

2114 **signalling point code**

F: code d'un point sémaphore

S: código de punto de señalización

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 sémaphore (liaison de signalisation)

S: enlace de señalización

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 sémaphore indisponible

S: enlace de señalización indisponible

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

2118 **data channel**

F: voie de données

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 sémaphores (faisceau de liaisons de signalisation)

S: haz de enlaces de señalización

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 sémaphore normal (liaison de signalisation régulière)

S: enlace de señalización regular

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

2121 **reserve signalling link**

F: canal sémaphore de secours (liaison de signalisation de réserve)

S: enlace de señalización 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.

2122 **signalling channel** (Signalling System No. 6)

F: voie de signalisation

S: canal de señalización

A data channel in combination with the associated signalling terminal equipment at each end.

2123 **signalling data link**

F: liaison sémaphore de données (liaison de données de signalisation)

S: enlace de datos de señalización

A combination of two data channels operating together in a single signalling system. The data channels operate in opposite directions and at the same data rate.

2124 **analogue signalling data link**

F: liaison sémaphore de données analogique

S: enlace de datos de señalización analógico

A data link that provides an interface to signalling terminals and is made up of voice-frequency analogue transmission channels and modems.

2125 **hypothetical signalling reference connection**

F: communication fictive de référence pour la signalisation

S: conexión ficticia de referencia de señalización

A hypothetical reference model of a connection in a signalling network.

2126 **transmission buffer**

F: tampon d'émission

S: memoria tampón de transmisión

Storage in the signalling link control for message signal units not yet transmitted.

2127 **data link**

F: liaison de données

S: enlace de datos

This is an ensemble of terminal installations and the interconnecting network operating in a particular mode that permits information to be exchanged between terminal installations.

A bidirectional transmission path for data, comprising two data channels in opposite directions which operate together at the same data rate.

2130 **changeover**

F: passage sur canal sémaphore de secours (passage sur liaison de réserve)

S: paso a enlace de reserva

The procedure of transferring signalling traffic from one signalling link to one or more different signalling links, when the link in use fails or is required to be cleared of traffic.

2131 **changeback**

F: retour sur canal sémaphore normal (retour sur la liaison normale)

S: retorno al enlace de servicio

The procedure of transferring signalling traffic from one or more alternative signalling links to a signalling link which has become available.

2132 **signalling relation**

F: relation sémaphore

S: relación de señalización

A relation formed by two signalling points involving the possibility of information interchange between corresponding user part functions.

2134 **signalling route**

F: route sémaphore

S: ruta de señalización

A predetermined path described by a succession of signalling points that may be transversed by signalling messages directed by a signalling point towards a specific destination point.

2135 **signalling route set**

F: faisceau de routes sémaphores

S: conjunto de rutas de señalización

The combination of all the permitted signalling routes that may be used to pass signalling messages from a signalling point to a specific destination.

2136 **signalling routing**

F: acheminement de la signalisation

S: encaminamiento de señalización

Procedures for directing the choice and allocation of signalling paths.

2137 **(signalling) message route**
F: route de message (de signalisation)
S: ruta de mensajes (de señalización)

The signalling link or consecutive links connected in tandem that are used to convey a signalling message from an originating point to its destination point.

2140 **associated mode (of signalling)**
F: mode (de signalisation) associé
S: modo (de señalización) asociado

The mode where messages for a signalling relation involving two adjacent signalling points are conveyed over a directly interconnecting signalling link.

2141 **non-associated mode (of signalling)**
F: mode (de signalisation) non associé
S: modo (de señalización) no asociado

The mode where messages for a signalling relation involving two (non-adjacent) signalling points are conveyed, between those signalling points, over two or more signalling links in tandem passing through one or more signalling transfer points.

2142 **quasi-associated mode (of signalling)**
F: mode (de signalisation) quasi associé
S: modo (de señalización) cuasiasociado

A non-associated mode (of signalling) in which the (signalling) message route is determined basically, for each signalling message, by information contained in this message (namely in its routing label) and is fixed in normal operation.

2145 **block (data)**
F: bloc (de données)
S: bloque (de datos)

A group of bits, or *n*-ary digits, transmitted as a unit over which an encoding procedure is generally applied for error-control purposes.

2146 **block (Signalling System No. 6)**
F: bloc
S: bloque

A group of 12 signal units on the signalling channel.

2147 **signal units**
F: trame sémaphore
S: unidad de señalización

A group of bits forming a separately transferable entity used to convey information on a signalling link.

2150 **protocol**
F: protocole
S: protocolo

A set of rules and formats which govern the exchange of information between two peer entities, for purposes of information (signalling or data) transfer.

2151 **(signalling) protocol**
F: protocole (de signalisation)
S: protocolo (de señalización)

A protocol used for effecting the exchange of signalling information between network service users, or between exchanges and/or other network entities.

2152 **invoke**
F: lancement
S: invocar; invocación

A type of component (in a protocol) used to specify particular operations to be carried out between groups of messages having similar functions.

2155 **application**
F: application
S: aplicación

The set of a user's requirements.

2156 **application entity**
F: entité d'application
S: entidad de aplicación

A set of Application Service Elements which together perform all or part of the communications aspects of an application process. The Application Entity is addressed through an SCCP subsystem number.

2157 **application process**
F: processus d'application
S: proceso de aplicación

An element which performs the information processing for a particular application.

2158 **application service element**
F: élément du service d'application
S: elemento de servicio de aplicación

A coherent set of integrated functions within an application entity which provides an OSI environment capability, using underlying services where appropriate.

2160 **layer**

F: couche

S: capa

A group of one or more entities contained within an upper and lower logical boundary. Layer (N) has boundaries to the layer ($N + 1$) and to the layer ($N - 1$).

2161 **layer interface**

F: interface entre couches

S: interfaz de capa

The boundary between two adjacent layers of the model.

2162 **(layer) service**

F: service (de couche)

S: servicio (de capa)

A set of functions offered or performed by an entity at one layer in a protocol on behalf of an entity at another layer.

2163 **layer service**

F: service de couche

S: servicio de capa

A capability of the (N) layer and the layers beneath it, which is provided to ($N + 1$) entities, at the boundary between the (N) layer and the ($N + 1$) layer.

2164 **layer service element**

F: élément du service de couche

S: elemento de servicio de capa

An indivisible component of the layer service made visible to the service user via layer service primitives.

2165 **layer service primitives**

F: primitives du service de couche

S: primitivas de servicio de capa

A means for specifying in detail the adjacent layer interactions.

2166 **peer entities**

F: entités homologues

S: entidades pares

Entities in the same layer but in different systems (nodes) which must exchange information to achieve a common objective.

2167 **peer control**

F: commande homologue

S: control entre (entidades) pares

A formal language used by peer entities to exchange information.

2.2 *Service processing*

2201 **call** (in signalling)

F: appel (en signalisation)

S: llamada (en señalización)

An association between two or more users, or between a user and a network entity, that is established by use of network capabilities. This association may have zero or multiple information exchange mechanisms established within this call, for example in connection-oriented or in connectionless modes.

2202 **connection-oriented network service**

F: service de réseau en mode connexion

S: servicio de red con conexión

A network service that establishes logical connections between end users before transferring information.

2203 **connectionless** (service)

F: sans connexion (service)

S: sin conexión (servicio)

A mode of transferring information across a network, between users, without establishing a logical connection or a virtual circuit.

2205 **user (of a signalling system)**

F: utilisateur d'un système de signalisation

S: usuario (de un sistema de señalización)

A functional reply, typically a telecommunication service, which uses a signalling network to transfer information.

2206 **call clear-down (connection release)**

F: libération de la communication (libération de la connexion)

S: liberación de la llamada

A sequence of events that follows initiation of a release condition by one or more of the parties or entities involved in a call, which leads to the disconnection of communication paths used for that call.

2207 **call establishment (connection establishment)**

F: établissement de l'appel (établissement de connexion)

S: establecimiento de llamada; compleción de llamada; establecimiento de conexión

The sequence of events in an exchange and/or signalling system necessary to establishing a call, in response to a call attempt generated by a user.

2208 **call set-up**

F: établissement de la communication

S: establecimiento de la comunicación

The state reached in establishing a communications path between the calling and called parties, and/or network entities, when information can be passed.

2220 **service indicator**

F: indicateur de service

S: indicador de servicio

Information within a signalling message identifying the user to which the message belongs.

2221 **country-code indicator**

F: indicateur d'indicatif de pays

S: indicador de indicativo de país

Information sent in the forward direction indicating whether or not the country code is included in the address information.

2222 **calling party's category indicator**

F: indicateur de catégorie du demandeur

S: indicador de la categoría del abonado llamante

Information sent in the forward direction denoting the category of the calling party which is used together with other call set-up information to select the appropriate call treatment.

2223 **address separator**

F: séparateur d'adresse

S: separador de dirección

The character which separates the different addresses in the selection signals.

2224 **label**

F: étiquette

S: etiqueta

Information within a signalling message used to identify typically the particular circuit, call or management transaction to which the message is related.

2.3 *Interworking (of signalling)*

(No terms yet defined.)

2.4 *Operation, maintenance and performance*

2420 **continuity check**

F: contrôle de continuité

S: prueba de continuidad

A check made to a circuit in a connection to verify that an acceptable path (for transmission of data, speech, etc.) exists.

2421 **check bit**

F: bit de contrôle

S: bit de control

A bit associated with a character or block for the purpose of checking the absence of error within the character or block.

2422 **check loop**

F: boucle pour contrôle de continuité

S: bucle de pruebas de continuidad

A device which is attached to interconnect the Go and Return paths of a circuit at the incoming end of a circuit to permit the outgoing end to make a continuity check on a loop basis.

2423 **cross-office check**

F: contrôle de continuité à travers un commutateur

S: prueba (verificación) de continuidad a través de la central

A check made of a circuit across an exchange to verify that a transmission path exists.

2425 **continuity check transponder**

F: répondeur pour contrôle de continuité

S: transpondedor (transmisor-respondedor) para pruebas de continuidad

A device which is used to interconnect the Go and Return paths of a circuit at the incoming and which on detection of a check tone, returns another check tone to the originating end to permit a continuity checking of a 2-wire circuit.

2426 **transceiver**

F: émetteur-récepteur

S: transceptor (transmisor-receptor)

A tone device inserted in the outgoing end of a circuit which performs the transmitter and receiver check test through a check loop.

2430 **processor outage**

F: processeur hors service

S: interrupción del procesador

A situation in which a signalling link becomes unavailable, due to factors at a functional level higher than level 2. This may be because of, of example, a central processor failure.

2435 **forced retransmission (procedure)**

F: retransmission forcée (procédure de)

S: retransmision forzada (procedimiento de)

An error correction procedure used to complement the preventive cyclic retransmission procedure.

2440 **message routing**

F: acheminement des messages

S: encaminamiento de mensajes

The process for selecting, for each signalling message to be sent, the signalling link to be used.

2441 **normal routing (of signalling)**

F: acheminement normal (de signalisation)

S: encaminamiento normal (de señalización)

The routing of a given signalling traffic flow in normal conditions (i.e., in the absence of failures).

2442 **alternative routing (of signalling)**

F: acheminement (de signalisation) de secours

S: encaminamiento alternativo (de señalización)

The routing of a given signalling traffic flow in case of failures affecting the signalling links, or routes, involved in the normal routing of that signalling traffic flow.

2443 **circular routing**

F: acheminement circulaire

S: encaminamiento circular

A situation where signal units destined to a particular signalling point (SP) are transferred in a never-ending loop.

2444 **controlled rerouting**

F: retour sous contrôle sur route normale

S: reencaminamiento controlado

A procedure of transferring in a controlled way, signalling traffic from an alternative signalling route to the normal signalling route, when this has become available.

2445 **forced rerouting**

F: passage sous contrainte sur route de secours

S: reencaminamiento forzado

A procedure of transferring signalling traffic from one signalling route to another, when the signalling route in use fails or is required to be cleared of traffic.

2449 **load sharing (general)**

F: partage de la charge (en général)

S: compartición de carga (en general)

A process by which signalling traffic is distributed over two or more signalling or message routes, in view of traffic equalization or security.

2450 **signalling route management functions**

F: fonctions de gestion des routes sémaphores

S: funciones de gestión de rutas de señalización

Functions that transfer information about changes in the availability of signalling routes in the signalling network.

2451 **signalling route-set-test procedure**

F: procédure de test de faisceau de routes sémaphores

S: procedimiento de prueba de conjunto de rutas de señalización

A procedure, included in the signalling route management which is used to test the availability of a given signalling route, previously declared unavailable.

2452 **signalling traffic management functions**

F: fonctions de gestion du trafic sémaphore

S: funciones de gestión del tráfico de señalización

Functions that control and, when required, modify routing information used by the Message routing function and control the transfer of signalling traffic in a manner that avoids irregularities in message flow.

2453 **transfer-allowed (procedure)**

F: transfert autorisé (procédure de)

S: autorización de transferencia (o transferencia autorizada) (procedimiento de)

A procedure, included in the signalling route management, which is used to inform a signalling point that a signalling route has become available.

2454 **transfer-controlled (procedure)**

F: transfert sous contrôle (procédure de)

S: control de transferencia (o transferencia controlada) (procedimiento de)

A procedure included in signalling route management which does inform a signalling point of the congestion status of a signalling route.

2455 **transfer-restricted (procedure)**

F: transfer restreint (procédure de)

S: restricción de transferencia (o transferencia restringida) (procedimiento de)

A procedure, included in the signalling route management, which is used to inform a signalling point that a signalling route is not optimal and should be avoided where possible (national option).

2456 **transfer-prohibited (procedure)**

F: transfert interdit (procédure de)

S: prohibición de transferencia (o transferencia prohibida) (procedimiento de)

A procedure, included in the signalling route management, which is used to inform a signalling point of the unavailability of a signalling route.

2460 **signalling network management functions**

F: fonctions de gestion du réseau sémaphore

S: funciones de gestión de la red de señalización

Functions that, on the basis of predetermined data and information about the status of the signalling network, control the current message routing and configuration of signalling network facilities.

2461 **flow control**

F: contrôle de flux

S: control de flujo

A function in a protocol used to control the flow of signalling messages between adjacent layers of a protocol, or between peer entities. The function permits, for example, a receiving entity to control signalling message flow from a sending entity (or between or within different users, and the MTP).

- 2462 **(signalling) traffic flow control**
F: contrôle de flux de trafic (sémaphore)
S: control del flujo del tráfico (de señalización)

Actions and procedures intended to limit signalling traffic at its source in the case when the signalling network is not capable of transferring all signalling traffic offered by the User Parts, because of network failures or overload situations.

- 2470 **signalling message transfer delay**
F: temps de transfert d'un message sémaphore
S: tiempo de transferencia de mensaje de señalización

The time a message will take to pass through the signalling network.

- 2471 **cross-office (transit) delay**
F: temps (de transit) dans le commutateur
S: tiempo (de tránsito) a través de la central

The time a signalling message will take to pass through an exchange.

- 2472 **data channel propagation time**
F: temps de propagation sur la voie de données
S: tiempo de propagación de un canal de datos

The period which starts when the last bit of the signal unit has entered the data channel at the sending side and ends when the last bit of the signal unit leaves the data channel at the receiving end, irrespective of whether the signal unit is disturbed or not.

3 Control functions

3.0 General

- 3000 **stored program control (SPC)**
F: commande par programme enregistré (SPC)
S: control por programa almacenado (CPA)

The control of an exchange by means of a set of instructions which are stored and can be modified.

- 3001 **exchange control system**
F: système de commande du commutateur
S: sistema de control de la central

The central control *system* of a stored program controlled switching *system*. It may consist of one or more *processors*.

- 3002 **multi-processor exchange**
F: commutateur à plusieurs processeurs
S: central multiprocesadora

An exchange design that uses two or more processors to perform call processing functions.

3004 **central processing unit**

F: unité centrale de traitement

S: unidad central de procesamiento

A processor which controls and coordinates the processing of traffic in an exchange.

3007 **utility processor**

F: processeur utilitaire

S: procesador utilitario

A processor in multi-processor exchange design that is used to perform administrative tasks (e.g., processing and storing billing data).

3010 **operations system**

F: système d'exploitation

S: sistema de operaciones

A system whose function it is to receive operational data from network elements and to analyze such data to provide information and/or commands to facilitate the operation, administration and/or engineering of the network.

3012 **operations and maintenance centre (OMC)**

F: centre d'exploitation et de maintenance (CEM)

S: centro de operaciones y mantenimiento (COM)

A control location for an operations system, usually attended by operations personnel.

3.1 *Input/output*

3100 **human-machine interface**

F: interface homme-machine

S: interfaz hombre-máquina; interfaz persona-máquina

The interface between a person and a system (e.g., video display unit used for interacting with an operations system).

3101 **input/output devices (I/O devices)**

F: dispositif d'entrée/sortie (dispositif E/S)

S: dispositivos de entrada/salida (dispositivos E/S)

Memory and keyboard devices for entering or receiving data to or from the *system*. Can be controlled manually for entering or receiving data.

3102 **CCITT MML**

F: langage homme-machine du CCITT

S: LHM del CCITT

The man-machine language (MML) for stored program controlled switching systems developed by the International Telegraph and Telephone Consultative Committee (CCITT).

3103 **system** (in MML)

F: système

S: sistema

Refers to a stored program controlled switching *system* and also to its man-machine communication facility.

3105 **command** (in MML)

F: commande

S: instrucción; orden; comando

A specification of an expected action or function by the system.

3110 **control character** (in MML)

F: caractère de commande

S: carácter de control

A character whose occurrence in a particular context initiates, modifies, or stops an action that affects the recording, processing or interpretation of data.

3115 **function** (in MML)

F: fonction

S: función

A function is an action which various groups of staff wish to carry out, e.g., add subscriber's line, initiate a testing routine, read a subscriber's class of service. To carry out one function, one or more *commands* may be necessary. The function is characterized by the *command code(s)*.

3.2 *Techniques*

3210 **processing capacity**

F: capacité de traitement

S: capacidad de procesamiento

The total capacity of a unit available for performing processing functions.

3213 **fixed overhead**

F: servitude fixe

S: tasa fija (elementos auxiliares fijos)

Capacity used for performing functions other than, and in addition to, traffic handling that are always required.

3215 **call processing tasks**

F: tâches de traitement des appels

S: tareas de procesamiento de llamada

Functions performed in handling traffic.

3217 **base level tasks**

F: tâches au niveau de base

S: tareas de nivel de base

Deferrable tasks that are performed when capacity is available (e.g., routine maintenance functions.)

3220 **register function**

F: fonction d'enregistreur

S: función de registrador; función de registro

The functions of receiving, storing, analyzing and possibly translating and transmitting address and other information for the purpose of controlling the setting up of a call.

3223 **service control point**

F: point de commande du service

S: punto de control de servicio

A function or entity in the telecommunications network which has access to data and logic for controlling the processing of a call in order to provide a supplementary service.

3226 **hold**

F: maintien

S: retención

The function of not releasing a resource or call but retaining it for possible reconnection.

4 Interfaces and interface functions (machine-machine)

4001 **interface**

F: jonction, interface

S: interfaz

A shared boundary, for example, the boundary between two subsystems or two devices.

Note 1 - An interface is used to specify once the interconnection between the two sides of it. The specification includes the type, quantity and function of the interconnecting means and the type, form and sequencing order of the signals to be interchanged via those means.

Note 2 - Recommendation G.703, as an example, refers to physical, functional and electrical characteristics of interfaces that are necessary to interconnect digital network components to form a digital path or connection.

4002 **physical interface**

F: interface physique

S: interfaz físico

The interface between two equipments.

4003 **interface specification**

F: spécification d'interface

S: especificación de interfaz

A formal statement of the type, quantity, form and order of the interconnections and interactions between two associated systems, at their interface.

4004 **physical interface specification (physical interface)**

F: spécification d'interface physique

S: especificación de interfaz físico (interfaz físico)

A formal statement of the mechanical, electrical, electromagnetic and optical characteristics of the interconnections and interactions between two associated equipments, at their interface.

4006 **codirectional interfaces**

F: jonction codirectionnelle

S: interfaz codireccional

An interface across with the information and its associated timing signal are transmitted in the same direction (see Figure 3/Q.9).

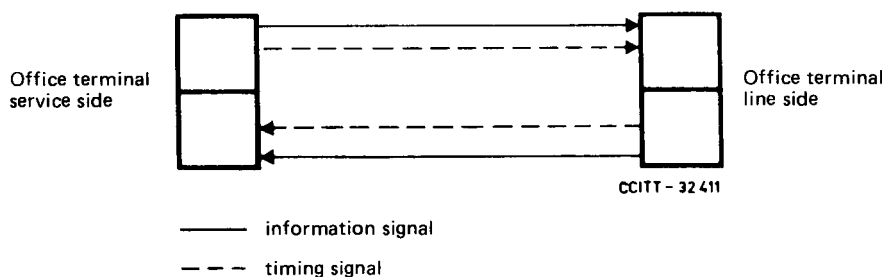


FIGURE 3/Q.9

Codirectional interface (G.703)

4007 **centralized clock interface**

F: jonction à horloge centrale

S: interfaz de reloj centralizado

An interface wherein for both directions of transmission of the information signal, the associated timing signals of both the exchange terminal on the line side and the exchange terminal on the service side are supplied from a centralized clock, which may be derived for example from certain incoming line signals (see Figure 4/Q.9).

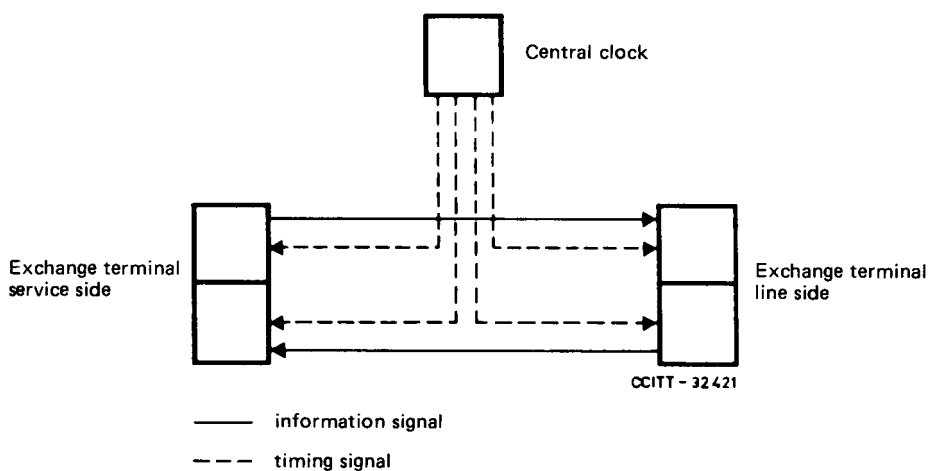


FIGURE 4/Q.9

Centralized clock interface (G.703)

4008 **contradirectional interface**

F: jonction contradirectionnelle

S: interfaz contradireccional

An interface across which the timing signals associated with both directions of transmission are directed towards the service side (e.g., data or signalling) of the interface (see Figure 5/Q.9).

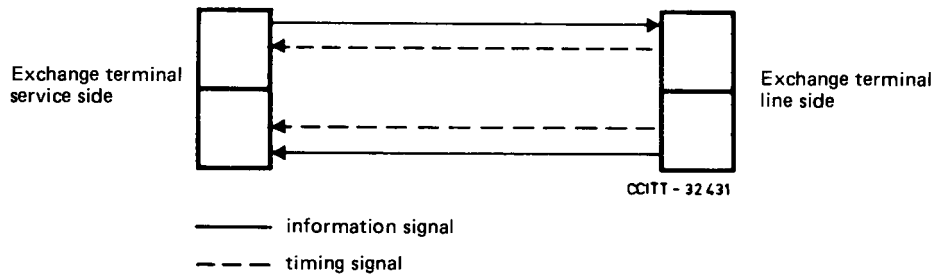


FIGURE 5/Q.9

Contradirectional interface (G.703)

4020 **protocol**

F: protocole

S: protocollo

A formal statement of the procedures that are adopted to accommodate communication between two or more functions within the same layer of a hierarchy of functions.

4022 **access protocol**

F: protocole d'accès

S: protocolo de acceso

A defined set of procedures that is adopted at an interface at a specified reference point between a user and a network to enable the user to employ the services and/or facilities of that network.

4025 **user-user protocol**

F: protocole usager-usager

S: protocolo usuario-usuario

A protocol that is adopted between two or more network users in order to accommodate communication between them.

5 Equipment and hardware

5001 **automatic switching equipment**

F: commutateur automatique

S: equipo de conmutación automática

Equipment in which *switching* operations are performed by electrically controlled apparatus without the intervention of operators.

5004 **distribution frame**

F: répartiteur

S: repartidor

A structure for terminating wires and connecting them together in any desired order.

15.20

5005 **main distribution frame**

F: répartiteur d'entrée

S: repartidor principal

A *distribution frame* to which are connected on one side the lines exterior to the exchange, and on the other side the internal cabling of the exchange.

15.21

5006 **intermediate distribution frame**

F: répartiteur intermédiaire

S: repartidor intermedio

A *distribution frame* intermediate between the main distribution frame and the switchboard, or the switching apparatus or intermediate between two ranks of switches in an automatic exchange.

15.22

5012 **crossbar switch**

F: commutateur crossbar

S: conmutador de barras cruzadas

A *switch* having a plurality of vertical paths, a plurality of horizontal paths, and electromagnetically operated mechanical means for interconnecting any one of the vertical paths with any of the horizontal paths.

15.45

6 Executive software

6.1 *Basic software concepts*

6102 **algorithm**

F: algorithme

S: algoritmo

A prescribed finite set of well-defined rules or processes for the solution of a problem in a finite number of steps.

ISO 01.04.10

6103 **real-time** (adjective)

F: en temps réel

S: en tiempo real

Pertaining to the processing of data by a computer in connection with another process outside the computer according to time requirements imposed by the outside process.

ISO 10.03.04

- 6104 **file**
F: fichier
S: fichero
- A set of related records treated as a unit.
- ISO 04.11.05**
- 6105 **record**
F: enregistrement
S: registro
- A set of related data or words treated as a unit.
- ISO 04.11.03**
- 6106 **field**
F: zone
S: campo
- In a record, a specified area used for a particular category of data.
- ISO 04.11.11**
- 6107 **key (tag) (label)**
F: clé (étiquette) (label)
S: clave (rótulo) (etiqueta)
- One or more characters within or attached to a set of data, that contains information about the set, including its identification.
- ISO 04.12.04**
- 6108 **identifier**
F: identificateur
S: identificador
- A character, or group of characters, used to identify or name an item of data and possibly to indicate certain properties of that data.
- ISO 07.04.01**
- 6109 **parameter**
F: paramètre
S: parámetro
- A variable that is given a constant value for a specified application and that may denote the application.
- ISO 02.02.04**

6110 **call** (in software), **procedure call**

F: appel (en logiciel); appel de procédure

S: llamada (en soporte lógico); llamada de procedimiento

The use of a procedure name in an expression or statement which causes the execution of the procedure when encountered.

6111 **address**

F: adresse

S: dirección

A character or group of characters that identifies a storage or a device without the use of any intermediate reference.

ISO 07.01.11

6112 **absolute address**

F: adresse absolue

S: dirección absoluta

An address in a computer language that identifies a storage or a device without the use of any intermediate reference.

ISO 07.19.03

6113 **indirect address**

F: adresse indirecte

S: dirección indirecta

An address that designates the storage location of an item of data to be treated as the address of an operand but not necessarily as its direct address.

ISO 07.19.11

6114 **direct address**

F: adresse directe

S: dirección directa

An address that designates a storage location of an item of data to be treated as an operand.

ISO 07.19.10

6115 **base address**

F: adresse de base; adresse base

S: dirección de base

A numeric value that is used as a reference in the calculation of addresses in the execution of a computer program.

ISO 07.19.05

6116 **relocatable address**
F: adresse translatable
S: dirección reubicable

An address that is adjusted when the computer program containing it is relocated.

ISO 07.19.08

6117 **monitor**
F: moniteur
S: monitor

A functional unit that observes and records selected activities within a system for analysis.

ISO 11.03.02 mod

6118 **direct access** [random access]
F: accès sélectif
S: acceso directo

The facility to obtain data from a storage device or to enter data into a storage device in such a way that the process depends only on a reference to data previously accessed.

ISO 12.05.03

6.2 *Software organization*

6201 **operating system**
F: système d'exploitation
S: sistema operativo

Software that controls the management and the execution of programs.

ISO 01.04.07 mod

6202 **conversational mode**
F: mode dialogué
S: modo conversacional

A mode of operation of a data processing system in which a sequence of alternating entries and responses between a user and the system takes place in a manner similar to a dialogue between two persons.

ISO 10.03.03 mod

6203 **time sharing** [time slicing]
F: partage de temps
S: tiempo compartido

A mode of operation of a data processing system that provides for the interleaving in time of two or more processes in one processor.

ISO 10.04.05 mod

6204 **time slicing** [time sharing]

F: découpage de temps

S: segmentación de tiempo

A mode of operation in which two or more processes are assigned quanta of time on the same processor.

ISO 10.04.04

6205 **to pack**

F: condenser

S: compactar

To store data in a compact form in a storage medium by taking advantage of known characteristics of the data and of the storage medium, in such a way that the original form of the data can be recovered.

Example: To make use of bit or byte locations that would otherwise go unused.

ISO 06.03.12

6206 **to map (over)**

F: appliquer

S: hacer corresponder

To establish a set of values having a defined correspondence with the quantities or values of another set.

ISO 02.04.04

6207 **to relocate**

F: translater

S: reubicar

To move a computer program or part of a computer program, and to adjust the necessary address references so that the computer program can be executed after being moved.

ISO 07.12.03

6208 **chaining search**

F: recherche en chaîne

S: búsqueda en cadena

A search in which each item contains means for locating the next item to be considered in the search.

ISO 06.04.08

6209 **dichotomizing search**

F: recherche dichotomique

S: búsqueda dicotómica

A search in which an ordered set of items is partitioned into two parts, one of which is rejected, the process being repeated on the accepted part until the search is completed.

ISO 06.04.04

6210 **interrupt; interruption**

F: interruption

S: interrupción

A suspension of a process, such as the execution of a computer program, caused by an event external to that process and performed in such a way that the process can be resumed.

ISO 10.01.09

6211 **to dump**

F: vider

S: vaciar

To write the contents of a storage, or part of a storage, usually from an internal storage, on to an external medium for a specific purpose such as to allow other use of the storage, as a safeguard against faults or errors, or in connection with debugging.

ISO 07.14.01

6212 **to patch**

F: rapiécer

S: parchear

To make an improvised modification.

ISO 07.15.06

6.3 *Programming*

6301 **to assemble**

F: assembler

S: ensamblar

To translate a program expressed in an assembly language and perhaps to link subroutines.

ISO 07.03.04

6302 **assembler; assembly program**

F: assembleur; programme d'assemblage

S: ensamblador; programa de ensamblaje

A program used to assemble.

ISO 07.03.05 mod

- 6303 **to compile**
F: compiler
S: compilar
- To translate a program expressed in a high level language into a program expressed in a computer language.
- ISO 07.03.06 mod**
- 6304 **compiler; compiling program**
F: compilateur
S: compilador; programa compilador
- A program used to compile.
- ISO 07.03.07 mod**
- 6305 **link** (in programming)
F: lien
S: enlace (vinculación)
- A part of a program that passes control and parameters between separate portions of the program.
- ISO 07.09.09 mod**
- 6306 **to link** (in programming)
F: relier
S: enlazar (vincular)
- To provide a link.
- ISO 07.09.10**
- 6307 **programming system**
F: système de programmation
S: sistema de programación
- One or more programming languages and the necessary software for using these languages with particular automatic data processing equipment.
- ISO 07.01.01**
- 6308 **routine**
F: routine
S: rutina
- An ordered set of instructions that may have some general or frequent use.
- ISO 01.04.08 mod**

6309 **subroutine**

F: sous-programme

S: subrutina

A sequence set of statements which taken as an entity may be used in one or more programs and at one or more points in a program, as required for repetitive occurrence of the same task.

ISO 07.08.01 mod

6310 **executive program; supervisory program; supervisor**

F: (programme) superviseur

S: programa ejecutivo; programa supervisor; supervisor

A program, usually part of an operating system, that controls the execution of other programs and regulates the flow of work in a data processing system.

ISO 07.06.01 mod

6311 **reusable program (routine)**

F: programme (routine) réutilisable

S: programa (rutina) reutilizable

A program (A routine) that may be loaded once and executed repeatedly subject to the requirements that any instructions that are modified during its execution are returned to their states and that its external program parameters are preserved unchanged.

ISO 07.08.05 mod

6312 **reentrant program (routine) (subroutine); reenterable program (routine) (subroutine)**

F: programme (routine); (sous-programme) reentrant

S: programa (rutina) (subrutina) reentrante; programa (rutina) (subrutina) reintroducible

A program (A routine) (A subroutine) that may be entered repeatedly and may be entered before prior executions of the same program (routine) (subroutine) have been completed, subject to the requirement that neither its external program parameters nor any instructions are modified during its execution.

Note - A reentrant program, routine or subroutine may be used by more than one computer program simultaneously.

ISO 07.08.06

6313 **target program; object program**

F: programme résultant; programme-objet

S: programa objeto; programa resultante

A program in a target language that has been translated from a source language.

ISO 07.03.02 mod

6314 **microinstruction**

F: micro-instruction

S: microinstrucción

An instruction of a microprogram.

ISO 07.16.13

6315 **microprogram**

F: microprogramme

S: microprograma

A sequence of elementary instruction that corresponds to a specific computer operation, maintained in special storage, whose execution is initiated by the instruction register of a computer.

ISO 07.01.13

6316 **to debug** (in programming)

F: mettre au point

S: depurar

To detect, to trace, to eliminate mistakes in programs or in other software.

ISO 07.15.01

6.4 *Languages*

6401 **computer language; machine language**

F: langage-machine

S: lenguaje de computador; lenguaje de máquina

A low level language whose instructions consist only of computer instructions.

ISO 07.02.15 mod

6402 **macroinstruction; macro (instruction)**

F: macro-instruction

S: macroinstrucción

An instruction in a source language that is to be replaced by a defined sequence of instructions in the same source language.

Note - The macroinstruction may also specify values for parameters in the instructions that are to replace it.

ISO 07.16.05

6403 **command language**

F: langage de commande

S: lenguaje de instrucciones; lenguaje de órdenes

A source language consisting primarily of procedural operators that indicate the functions to be performed by an operating system.

ISO 10.02.09 mod

6404 **assembly language**

F: langage d'assemblage

S: lenguaje de ensamblaje

A low level language whose instructions are usually in one-to-one correspondence with computer instructions and that may provide facilities such as the use of macroinstructions.

ISO 07.02.16 mod

6405 **syntax**

F: syntaxe

S: sintaxis

The relationships among characters or groups of characters, independent of their meanings or the manner of their interpretation and use.

ISO 07.02.04

6406 **object language; target language**

F: langage résultant; langage-objet

S: lenguaje objeto; lenguaje resultante

A language into which statements are translated.

ISO 07.02.11

6407 **source language**

F: langage d'origine; langage-source

S: lenguaje fuente

A language from which statements are translated.

ISO 07.02.10

6408 **high level language (HLL)**

F: langage évolué

S: lenguaje de alto nivel

A programming language that does not reflect the structure of any given computer or any given class of computers.

ISO 07.02.17

6409 **low level language**

F: langage lié au calculateur

S: lenguaje de bajo nivel

A programming language that reflects the structure of a computer or that of a given class of computers.

ISO 07.02.14

6410 **man-machine language (MML)**

F: langage homme-machine (LHM)

S: lenguaje hombre-máquina (LHM)

A language designed to facilitate direct user control of a computer.

6411 **mnemonic (abbreviation)**

F: (abréviation) mnémonique

S: (abreviatura) nemotécnica; (abreviatura) nemónica

A representation of an entity by one or more characters, so chosen that the character representation has a relationship to normal language usage such that the name of the entity serves as an aid to the memory of a human operator in remembering the appropriate coded representation used.

6501 **CHILL**

F: CHILL

S: CHILL

A high-level programming language for programming SPC telephone exchanges, developed by CCITT and fully described in Recommendation Z.200 [4].

Note - For details of the individual terms and definitions used in CHILL see Appendix 6 to Recommendation Z.200 [4].

6901 **comment** (in MML)

F: commentaire

S: comentario

A character string enclosed between the separator strings /* (solidus asterisk) and */ (asterisk solidus). Has no MML syntactical or semantical meaning.

6902 **format**

F: format

S: formato

The arrangement or layout of data on a data medium.

6903 **header**

F: en-tête

S: encabezamiento

The header provides general information which could comprise identification information, date and time, etc.

6904 **identifier** (in MML)

F: identificateur

S: identificador

An identifier is a representation of an entity, typically consisting of one or more *characters*. It is used to identify or name a unique item of data. In the *man-machine language*, the first character is a letter.

6905 **mnemonic abbreviation**

F: abréviation mnémonique

S: abreviatura nemotécnica

A representation of an entity typically consisting of one or more *characters* chosen to assist the human memory.

6906 **arithmetic expression** (in MML)

F: expression arithmétique

S: expresión aritmética

A combination of *arithmetic delimiters, numerals (decimal, hexadecimal, octal or binary)* and *identifiers* enclosed by parentheses.

6907 **binary numeral**

F: nombre binaire

S: numeral binario

A *numeral* in the binary (base 2) *numbering system*, represented by the characters 0 (zero), 1 (one) and optionally preceded by B' (B apostrophe).

6908 **character**

F: caractère

S: carácter

A member of the *character set* which is used for the organization, control or representation of data.

6910 **character set** (in MML)

F: ensemble de caractères

S: juego de caracteres; conjunto de caracteres

The finite set of different characters used in *CCITT MML*.

6911 **decimal numeral**

F: nombre décimal

S: numeral decimal

A *numeral* in the decimal (base 10) *numbering system*, represented by the *characters* 0 (zero), 1, 2, 3, 4, 5, 6, 7, 8, 9 optionally preceded by D' (D apostrophe).

6912 **digit**

F: chiffre

S: cifra; dígito

A *character* of the *character set* representing an integer, listed in Table 1/Z.314 [5], column 3, positions 0 (zero) to 9.

6913 **flow line** (in MML)

F: ligne de liaison

S: línea de flujo

A line representing a connection path between *symbols* in a *syntax diagram*.

6914 **graphic characters**

F: caractères graphiques

S: caracteres gráficos

Graphic characters are a collection of *characters* with the *characters set* used to improve readability of *output*.

6915 **hexadecimal numeral**

F: nombre hexadécimal

S: numeral hexadecimal

A numeral in the hexadecimal (base 16) numbering system, represented by the characters 0 (zero), 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, E, F, optionally preceded by H' (H apostrophe).

6916 **input** (in MML)

F: entrée

S: entrada

The process that constitutes the introduction of data into a data processing system or any part of it.

6917 **letter**

F: lettre

S: letra

A character of the character set representing the alphabet, listed in Table 1/Z.314 [5], columns 4, 5, 6 and 7 excluding table positions 5/15 and 7/15.

6918 **metalanguage** (in MML)

F: métalangage

S: metalenguaje

A symbolic method for defining MML input and output syntax.

6919 **octal numeral**

F: nombre octal

S: número octal

A numeral in the octal (base 8) numbering system, represented by the characters 0, 1, 2, 3, 4, 5, 6, 7, optionally preceded by O' (letter O apostrophe).

6920 **output** (in MML)

F: sortie

S: salida

The process that consists of the delivery of data from a data processing system or from any part of it.

6921 **parameter** (in MML)

F: paramètre

S: parámetro

A parameter identifies and contains a piece of necessary information to execute a *command*.

6922 **separator** (in MML)

F: séparateur

S: separador

A character used to delimit syntax elements.

6923 **symbol**

F: symbole

S: símbolo

A conventional representation of a concept or a representation of a concept upon which agreement has been reached.

6924 **syntax diagram**

F: diagramme syntaxique

S: diagrama sintáctico

The syntax diagrams are a method of defining the *syntax* of the *input and output* language by pictorial representation.

6925 **comment** (in SDL)

F: commentaire

S: comentario

Information which is in addition to or clarifies an SDL diagram. Comments may be attached by a single square bracket connected by a dashed line to a *symbol* or *flow line*. (Recommendation Z. 100, § 2.2.6 [6].)

6926 **connector** (in SDL)

F: connecteur

S: conector

A connector (O) is either an *in-connector* or an *out-connector*. A *flow line* may be broken by a pair of *associated connectors*, with the flow assumed to be from the *out-connector* to its associated *in-connector*. (Recommendation Z.100, § 2.6.6 [6].)

6927 **decision** (in SDL)

F: décision

S: decisión

A decision is an *action* within a *transition* which asks a question to which the answer can be obtained at that instant and chooses one of several paths to continue the *transition*. (Recommendation Z.100, § 2.7.5 [6].)

6928 **description** (in SDL)

F: description

S: descripción

The implementation of the requirements of a system is described in a description of the system. Descriptions consist of *general parameters* of the system as implemented and the *functional description (FD)* of its actual behaviour. (Recommendation Z.100, § 1.1 [6].)

6929 **flow line** (in SDL)

F: ligne de liaison

S: linea de flujo

A flow line (——— or ———>) connects every *symbol* to the symbol(s) it follows. (Recommendation Z.100, § 2.2.4 [6].)

6930 **functional block** (in SDL)

F: bloc fonctionnel

S: bloque funcional

A functional block is an object of manageable size and relevant internal relationship, containing one or more *processes*.

6931 **functional description (FD)** (in SDL)

F: description fonctionnelle (DF)

S: descripción funcional (DF)

The functional description (FD) of a system describes the actual behaviour of the implementation of the functional requirements of the system in terms of the internal structure and logic processes within the system.

6932 **functional specification (FS)** (in SDL)

S: spécification fonctionnelle (SF)

F: especificación funcional (EF)

The functional specification (FS) of a system is a specification of the total functional requirements of that system from all significant points of view.

6933 **general parameters** (in SDL)

F: caractéristiques générales

S: parámetros generales

The general parameters in both a *specification* and a *description* of a system relate to such matters as temperature limits, construction, exchange capacity, grade of service, etc. (Recommendation Z.100, § 1.1 [6].)

6934 **input** (in SDL)

F: entrée

S: entrada

An input is an incoming *signal* which is *recognized* by a *process*. (Recommendation Z.100, § 2.6.4 [6].)

6935 **output** (in SDL)

F: sortie

S: salida

An output in an *action* within a *transition* which generates a *signal* which in turn acts as an *input* elsewhere. (Recommendation Z.100, § 2.7.4 [6].)

6936 **pictorial element (PE)**

F: élément graphique (EG)

S: elemento pictográfico (EP)

One of a number of standardized graphical entities used within *state pictures* to represent switching system concepts. (Annex E to Recommendation Z.100 [6].)

6937 **process** (in SDL)

F: processus

S: proceso

A process performs a logic function that requires a series of information items to proceed, where these items become available at different points in time. In the context of SDL, a process is an object that either is in a *state* awaiting an *input* or in a *transition*.

6938 **save** (in SDL)

F: mise en réserve

S: conservación (salvaguarda)

A save is the postponement of *recognition of a signal* when a *process* is in a *state* in which *recognition of that signal* does not occur. (Recommendation Z. 100, § 2.6.5 [6].)

6939 **signal** (in SDL)

F: signal

S: señal

A signal is a flow of data conveying information to a *process*. (Recommendation Z.100, § 2.5.4 [6].)

6940 **specification** (in SDL)

F: spécification

S: especificación

The requirements of a system are defined in a specification of that system. A specification consists of *general parameters* required of the system and the *functional specification (FS)* of its required behaviour. (Recommendation Z.100, §§ 1.1 [6].)

6941 **specification and description language (SDL)**

F: langage de spécification et de description (LDS)

S: lenguaje de especificación y descripción (LED)

The CCITT language used in the presentation of the *functional specification* and *functional description* of the internal logic processes in stored programmed control (SPC) switching systems.

6942 **state** (in SDL)

F: état

S: estado

A state is a condition in which the action of a *process* is *suspended* awaiting an *input*. (Recommendation Z.100, § 2.6.3 [7].)

6943 **symbol** (in SDL)

F: symbole

S: símbolo

In the context of SDL, a symbol is a representation of the concept of either a *state*, *input*, *task*, *output*, *decision* or *save*.

6944 **task** (in SDL)

F: tâche

S: tarea

A task is any action within a *transition* which is neither a *decision* nor an *output*. (Recommendation Z.100, § 2.7.1 [7].)

6945 **transition** (in SDL)

F: transition

S: transición

A transition is a sequence of *actions* which occurs when a *process* changes from one *state* to another in response to an *input*. (Recommendation Z.100, § 2.6.7 [7].)

7 **Functions for basic and supplementary services**

7011 **service, telecommunication service**

F: service, service de télécommunications

S: servicio, servicio de telecomunicación

That which is offered by an Administration or RPOA to its customers in order to satisfy a specific telecommunication requirement.

Note - Bearer service and teleservice are types of telecommunication service. Other types of telecommunication service may be identified in the future.

7012 **bearer service**

F: service support

S: servicio portador

A type of telecommunication service that provides the capability for the transmission of signals between user-network interfaces.

Note - The ISDN connection type used to support a bearer service may be identical to that used to support other types of telecommunication service.

7015 **teleservice** [telecommunication service]

F: téléservice

S: teleservicio; servicio final

A type of telecommunication service that provides the complete capability, including terminal equipment functions, for communication between users according to protocols established by agreement between Administrations and/or RPOAs.

7018 **basic service**

F: service de base

S: servicio básico

The fundamental type of service, or the most commonly provided service in a telecommunications network. It forms the basis upon which supplementary services may be added.

7019 **supplementary service**
F: service supplémentaire
S: servicio suplementario

Any service provided by a network in addition to its basic service or services.

7110 **entity**
F: entité
S: entidad

A part, device, subsystem, functional unit, equipment or system that can be individually considered. In ISDN the term is used to refer to a particular system or subsystem such as a user terminal or a digital exchange. It is also used to refer to a set of functions of a particular system at a location, e.g., the Layer 2 functions of a signalling system at a user terminal.

7112 **functional entity**
F: entité fonctionnelle
S: entidad funcional

An entity that comprises a specific set of functions at a given location.

7113 **functional entity** (in telecommunication service provision applications)
F: entité fonctionnelle (dans les applications de prestation de services de télécommunications)
S: entidad funcional (en aplicaciones de prestación de servicios de telecomunicación)

A grouping of service-providing functions in a single location and subset of the total set of functions required to provide the service.

7114 **network element**
F: élément de réseau
S: elemento de red

An entity in the telecommunications network.

7115 **exchange function**
F: fonction de commutateur
S: función de central

A process which performs a specific action in support of a telecommunications service or network operation in exchanges or at other network-associated locations such as STPs or a data base.

7116 **exchange function set**
F: ensemble de fonction de commutateur
S: conjunto de funciones de central

An organized assembly of exchange functions in a given location. Usually an exchange function set is associated to one or more phase(s) in call handling or other network operations.

7120 **information flow**
F: flux d'information
S: flujo de información

An interaction between a communicating pair of functional entities. The relationship between any pair of functional entities is the complete set of information flows between them.

8 Mobile station networks

8.0 *Public land mobile network structure*

8003 public land mobile services

F: services mobiles terrestres publics

S: servicios móviles terrestres públicos

Telecommunication services provided to moving subscribers (terrestrial applications).

8010 base station (BS)

F: station de base (SB)

S: estación de base (EB)

The common name for all radio equipment located at one and the same place used for serving one or several *cells*.

8011 base station area

F: zone de la station de base

S: zona de estación de base

The area covered by all the *cells* served by a base station.

8012 cell

F: cellule

S: célula (o celda)

The area covered by a base station, or by a sub-system (sector antenna) of that base station corresponding to a specific logical identification on the radio path, whichever is smaller.

Every mobile station in a cell may be reached by the corresponding radio equipment of the base station.

8014 mobile services switching centre (MSC)

F: centre de commutation pour les services mobiles (CCM)

S: centro de conmutación de los servicios móviles (CCM)

An exchange which performs all necessary signalling and switching functions in order to establish calls to and from mobile subscribers located in its area.

8015 MSC area

F: zone du CCM

S: zona de CCM

The part of the network covered by an MSC. An MSC area may consist of several location areas.

8016 mobile station (MS)

F: station mobile (SM)

S: estación móvil (EM)

The interface equipment used to terminate the radio path at the user side.

8017 **public land mobile network (PLMN)**

F: réseau mobile terrestre public (RMTP)

S: red móvil terrestre pública (RMTP)

A collection of *mobile service switching centre* areas within a common numbering plan and a common routing plan operated by an administration of a RPOA in order to provide public land mobile services to its subscribers.

8018 **service area**

F: zone de service

S: zona de servicio

An area in which a mobile subscriber reachable by any other subscriber of a public network without the calling subscriber's knowledge of the actual location.

8020 **system area**

F: zone du système

S: zona de sistema

A service area or a collection of service areas accessible by fully compatible mobile stations.

8025 **location area**

F: zone de localisation

S: zona de posición

An area in which a mobile station may move freely without updating the location register. A location area may comprise several cells.

8040 **gateway mobile service switching centre (MSC)**

F: centre de commutation pour les services mobiles (CCM) tête de ligne

S: centro de conmutación de los servicios móviles (CCM) de cabecera

The MSC which receives a call from a fixed subscriber, via a public switched network, for extension to a mobile station. The gateway MSC may vary for interconnection with different public networks.

The gateway MSC could be the home MSC or the visited MSC or any other.

8.1 *Identification and numbering*

8111 **national mobile station identity (NMSI)**

F: identité nationale de la station mobile (INSM)

S: identidad nacional de estación móvil (INEM)

The mobile station identification uniquely identifying the mobile station nationally.

The NMSI consists of the MNC followed by the MSIN.

8112 **mobile network code (MNC)**

F: indicatif de réseau mobile (IRM)

S: indicativo de red móvil (IRM)

A digit or a combination of digits in the national part of the mobile station identification uniquely identifying the home PLMN of the mobile station.

8113 **mobile station identification number (MSIN)**

F: numéro d'identification de la station mobile (NISM)

S: número de identificación de estación móvil (NIEM)

The part of the mobile station identification following the Mobile Network Code uniquely identifying the mobile station within a PLMN.

8114 **mobile country code (MCC)**

F: indicatif de pays de la station mobile (IPSM)

S: indicativo de país de la estación móvil (IPM)

The part of the mobile station identification uniquely identifying the country of domicile of the mobile station.

8115 **international mobile station identity (IMSI)**

F: identité internationale de la station mobile (IISM)

S: identidad internacional de estación móvil (IEM)

The mobile station identification uniquely identifying the mobile station internationally.

The IMSI consists of the MCC followed by the NMSI.

8120 **mobile subscriber international ISDN number**

F: numéro RNIS international d'un abonné mobile

S: número RDSI internacional de abonado móvil

The number which has to be dialled in order to reach a mobile subscriber in service area.

8125 **national (significant) mobile number**

F: numéro national (significatif) de la station mobile

S: número móvil nacional (significativo)

The national (significant) mobile number could have the following form depending upon the way in which the land mobile numbering plan is integrated with the telephone numbering plan:

- i) The land mobile numbering plan could be fully integrated with the telephone numbering plan. In this case the mobile stations will be allocated a *subscriber number* as defined in § 5 of Recommendation E.160. The *national (significant) mobile number* then consists of the *trunk code* allocated to the numbering area corresponding to the home area of the mobile station followed by the *subscriber number* allocated to it.
- ii) The public land mobile network could be regarded as a separate numbering area within the telephone network. In this case the national (significant) mobile number will consist of the *trunk code* allocated to the PLMN and the *subscriber number* within the PLMN.

8130 **mobile station roaming number**

F: numéro itinérant de station mobile

S: número itinerante de estación móvil

The network internal number used for routing of calls to the mobile station.

8.2 *Roaming (in public mobile service)*

8230 **home MSC (HMSC)**

F: CCM de rattachement (CCMR)

S: centro de conmutación de servicio móvil (CCM) propio (CCMP)

May be used in cases where the home location register is implemented in an MSC.

8232 **home PLMN**

F: RMTP de rattachement

S: red propia móvil terrestre pública (RMTP)

The PLMN in which a mobile station is permanently registered.

8237 **visited PLMN**

F: RMTP visité

S: red móvil terrestre pública (RMTP) visitada

The PLMN, other than the home PLMN, in which a roaming subscriber is currently located.

8251 **location register**

F: enregistreur de localisation

S: registro de posiciones

A network data base used for handling of calls in a PLMN.

8252 **home location register (HLR)**

F: enregistreur de localisation nominal (ELN)

S: registro de posiciones propio (RPP)

The location register to which a mobile station is assigned for record purposes such as subscriber information.

8253 **visitor location register (VLR)**

F: enregistreur de localisation pour visiteurs (ELV)

S: registro de posiciones de visitantes (RPV)

The location register, other than the home location register used by an MSC to retrieve, for instance, information for handling of calls to or from a roaming mobile station, currently located in its area.

equipment identity register

F: enregistreur d'identité d'équipement

S: registro de identidades de equipo

The register to which an international mobile equipment identity is assigned for record purposes.

8.3 *Handover techniques in public land mobile service*

8301 **handover**

F: relais de communication

S: traspaso

Handover is the action of switching a call in progress.

- 8321 **MSC-A (controlling MSC)**
F: CCM-A (CCM de commande)
S: CCM-A (CCM que ejerce el control)

The MSC which first established the radio connection to or from a mobile station.

- 8322 **MSC-B**
F: CCM-B
S: CCM-B

The first MSC to which a call is handed over.

- 8323 **MSC-B'**
F: CCM-B'
S: CCM-B'

The second (or subsequent) MSC to which a call is handed over.

8.4 *Mobile satellite systems*

- 8405 **aeronautical (ground) earth station (GES)**
F: station terrienne au sol aéronautique (STS)
S: estación terrena aeronáutica (situada en tierra)

An earth station in the fixed satellite service or, in some cases, in the aeronautical mobile-satellite service, located at a specified fixed point on land to provide a feeder link for the aeronautical mobile-satellite service (see Radio Regulations, Article 1).

- 8406 **aircraft earth station (AES)**
F: station terrienne d'aéronef (STA)
S: estación terrena de aeronave

A mobile earth station in the aeronautical mobile-satellite service located on board an aircraft (see Radio Regulations, Article 1).

- 8415 **coast earth station (CES)**
F: station terrienne côtière (STC)
S: estación terrena costera (ETC)

An earth station operating in the fixed satellite service frequency bands or, in some cases, in the maritime mobile-satellite service frequency bands located at a specified fixed point on land to provide a feeder link for the maritime mobile-satellite service (see also Radio Regulations, Article 1).

- 8416 **ship earth station (SES)**
F: station terrienne de navire (STN)
S: estación terrena de barco (ETB)

A station in the maritime mobile satellite service intended to be used while in motion or during halts at unspecified points and which is located on board a ship (see Radio Regulations Article 1).

- 8440 **mobile satellite switching centre (MSSC)**
F: centre de commutation du service mobile par satellite (CCMS)
S: centro de conmutación del servicio móvil por satélite (CCMS)

Indicates the signalling interworking point between the fixed networks and the mobile satellite system which works to a single ocean area. The MSSC may be located at the antenna site of the aeronautical ground earth station or coast earth station, in which case it may operate as an independent international switching centre (ISC) connected to one or more ISCs, on national switching centres. It may also be located remotely from the antenna site, as a supplement to, or a part of an ISC. The term MSSC may also indicate a *maritime* satellite switching centre, with an identical functional definition to the above.

9 Telephone subscriber's equipment and local lines

(Still to be prepared.)

ANNEX A

(to Recommendation Q.9)

Alphabetical list of terms defined in this Recommendation

6112	absolute address	2146	block (Signalling System No. 6)
0008	access channel	0216	both-way
4022	access protocol	1407	bunched frame alignment signal
6111	address	1305	bus (USA)
2051	address	0208	busy
2085	address complete (alerting)	0209	busy test (USA)
2084	address complete (network)	0009	call (1)
2055	address-incomplete signal	0009	call (2)
2223	address separator	0012	call attempt (1) (of a user)
2053	address signal	2206	call clear-down (connection release)
2054	address signal complete	2207	call establishment (connection establishment)
2110	adjacent signalling points	2057	call-failure signal
8405	aeronautical (ground) earth station (GES)	2201	call (in signalling)
8406	aircraft earth station (AES)	3215	call processing tasks
6102	algorithm	6110	call (in software); procedure call
2032	alternating current signalling (a.c. signalling)	2208	call set-up
2442	alternative routing (of signalling)	2093	call spill-over
2124	analogue signalling data link	2222	calling party's category indicator
2155	application	3102	CCITT MML
2156	application entity	8012	cell
2157	application process	4007	centralized clock interface
2158	application service element	3004	central processing unit
6906	arithmetic expression (in MML)	6208	chaining search
6302	assembler; assembly program	2131	changeback
6404	assembly language	2130	changeover
6302	assembly program	0007	channel; transmission channel
2140	associated mode (of signalling)	2009	channel associated signalling
1144	asymmetrical through connection	1330	channel gate
5001	automatic switching equipment	1129	channel switching
1031	automatic system	1415	channel time slot
0046	backward signal	6908	character
2052	band number	6910	character set (in MML)
6115	base address	1310	character signal
3217	base level tasks	2421	check bit
8011	base station area	2422	check loop
8010	base station (BS)	6501	CHILL
7012	bearer service	2443	circular routing
1551	basic access (ISDN basic access)	0022	circuit group
7018	basic service	0020	... circuit (specific function)
0063	bidirectional	0023	circuit sub-group
6907	binary numeral	1125	circuit-switching
0225	bit error ratio	0013	circuit, telecommunication circuit
1419	bit integrity	2061	clear-back signal
1428	bit timing	2060	clear-forward signal
2145	block (data)	8415	coast earth station (CES)

0069	code division	6912	digit
4008	contradirectional interface	1418	digit time slot
4006	contradirectional interfaces	1122	digital circuit
1019	co-located exchange concentrator	1135	digital connection
1004	combined local/transit exchange	1010	digital exchange
3105	command (in MML)	1123	digital link
6403	command language	1121	digital node, digital switching node
6901	comment (in MML)	1120	digital switching
6925	comment (in SDL)	1331	digroup (USA)
2008	common channel signalling	6118	direct access [random access]
0001	communication (1)	6114	direct address
2024	compelled signalling (fully compelled; continuous compelled)	2030	direct current signalling (d.c. signalling)
2023	compelled signalling (general sense)	1408	distributed frame alignment signal
6304	compiler; compiling program	5004	distribution frame
6304	compiling program	2038	dual seizure
0010	(complete) connection in telecommunication	0019	(electric) circuit
6401	computer language; machine language	2022	en-bloc signalling
1117	concentration (in switching stage)	2056	end-of-pulsing (ST) signal
2062	confusion signal	2088	end-of-selection signal
0011	connection	2017	end-to-end signalling (general sense)
2203	connectionless (service)	2018	end-to-end signalling
2111	connection end-point	2019	end-to-end signalling
2202	connection-oriented network service	0209	engaged test (UK); busy test (USA)
2086	connect message	1517	engineered exchange capacity
6926	connector (in SDL)	2095	enquiry (in a transaction)
2420	continuity check	7110	entity
2087	continuity check message	8253	equipment identity register
2425	continuity check transponder	0222	error burst
2024	continuous compelled	1512	exchange call-release delay
3110	control character (in MML)	1508	exchange call set-up delay
2444	controlled rerouting	1018	exchange concentrator
6202	conversational mode	1134	exchange connection
2221	country-code indicator	7115	exchange function
2423	cross-office check	7116	exchange function set
5012	crossbar switch	3001	exchange control system
1205	crossbar system	1001	exchange (switching exchange, switching centre)
1315	cross-exchange check (cross-office)	1160	exchange termination (ET)
2471	cross-office (transit) delay	6310	executive program ; supervisory program supervisor
0232	crosstalk	1118	expansion (in a switching stage)
0226	cyclic redundancy check (or procedure)	6106	field
2118	data channel	6104	file
2472	data channel propagation time	0301	first-order digital transmission hierarchy
2127	data link	0311	first-order multiplexes
6911	decimal numeral	3213	fixed overhead
6927	decision (in SDL)	0075	flag
0230	delay distortion	2461	flow control
2089	delayed release message (DRS)	6913	flow line (in MML)
1336	deserializer (USA) [staticizer]	6969	flow line (in SDL)
6928	description (in SDL)	2445	forced rerouting
6209	dichotomizing search		

2435	forced retransmission (procedure)	1105	inlet
6902	format	2005	in-slot signalling
0042	forward signal	6916	input (in MML)
1171	four-wire switching	6934	input (in SDL)
1332	frame	1147	input connection
1405	frame alignment	3101	input/output devices (I/O devices)
1409	frame alignment recovery time	0004	integrated digital network
1406	frame alignment signal	0005	integrated digital network, digital network
1417	frame alignment time slot	1132	integrated digital transmission and switching
0068	frequency division	1011	integrated services exchange
1128	frequency division switching	4001	interface
2024	fully compelled	4003	interface specification
3115	function (in MML)	1163	interface units
6930	functional block (in SDL)	5006	intermediate distribution frame
6931	functional description (FD) (in SDL)	1142	internal connection
7112	functional entity	1005	international exchange
7113	functional entity (in telecommunication service provision applications)	8115	international mobile station identity (IMSI)
6932	functional specification (FS) (in SDL)	6210	interrupt ; interruption
0105	functional unit	6210	interruption
8040	gateway mobile service switching centre (MSC)	2039	interruption control
6933	general parameters (in SDL)	3101	I/O devices
1007	geographically distributed exchange [geographically dispersed exchange]	2152	invoke
6914	graphic characters	1206	junctor (in the crossbar system)
0231	group delay	6107	key (tag) (label)
2042	guarding (in VF signalling)	2224	label
1149	half connection	2160	layer
8301	handover	2161	layer interface
6903	header	2162	(layer) service
6915	hexadecimal numeral	2163	layer service
1450	hierarchic (mutually synchronized) network	2164	layer service element
6408	high level language (HLL)	2165	layer service primitives
3226	hold	6917	letter
8252	home location register (HLR)	1025	line concentrator (stand alone concentrator)
8230	home MSC (HMSC)	2012	line signalling
8232	home (PLMN)	1161	line termination (LT)
3100	human-machine interface	0031	link
0016	hypothetical reference circuit (nominal maximum circuit)	2014	link-by-link signalling
2125	hypothetical signalling reference connection	2015	link-by-link signalling
6108	identifier	6305	link (in programming)
6904	identifier (in MML)	1207	link (in the crossbar system)
2010	in-band signalling	2449	load-sharing (general)
1319	in-call rearrangement	1002	local exchange [local central office]
1507	incoming response delay	8025	location area
6113	indirect address	8251	location register
7120	information flow	2031	loop/disconnect signalling
2080	initial address message (IAM)	6409	low level language
2080	initial address message with additional information	6401	machine language
		6402	macroinstruction ; macro (instruction)
		6402	macro (instruction)
		5005	main distribution frame

6410	man-machine language (MML)	1140	originating connection
1165	mediation device	2074	optional part
2070	message	2011	out-band signalling
2440	message routing	1106	outlet
2090	message sequencing	1410	out-of-frame alignment time
1130	message switching; store-and-forward switching	6920	output (in MML)
2101	message transfer part	6935	output (in SDL)
6918	metalanguage (in MML)	1148	output connection
6314	microinstruction	2006	out-slot signalling
6315	microprogram	2025	overlap address signalling
6411	mnemonic (abbreviation)	2026	overlap line signalling
6905	mnemonic abbreviation	1520	overload
8114	mobile country code (MCC)	0080	packet switched data transmission service
8112	mobile network code (MNC)	0083	packet switching
8440	mobile satellite switching centre (MSSC)	0085	packet handling
8014	mobile services switching centre (MSC)	0086	packet mode operation
8120	mobile subscriber international ISDN number	0087	packet mode operation (in switching applications)
8113	mobile station identification number (MSIN)	1335	parallel to serial converter; serializer (USA) [dynamicizer]
8016	mobile station (MS)	6109	parameter
8130	mobile station roaming number	6921	parameter (in MML)
8321	MSC-A (controlling MSC)	2020	pass along method
8015	MSC area	0026	path, telecommunication path
6117	monitor	2166	peer entities
8322	MSC-B	2167	peer control
8323	MSC-B'	0018	permanent virtual circuit
1166	muldex	4002	physical interface
1333	multiframe	4004	physical interface specification (physical interface)
2034	multi-frequency code signalling (MFC signalling)	6936	pictorial element (PE)
3002	multi-processor exchange	0400	pilot
1178	multiple	1434	plesiochronous
1136	multislot connection	1514	post dialling delay
8111	national mobile station identity (NMSI)	1331	primary block; digroup (USA)
8125	national (significant) mobile number	1167	primary muldex
7114	network element	1552	primary rate access
0112	(network) resources	6110	procedure call
0003	network, telecommunication network	0060	process (in a data processing system)
2141	non-associated mode (of signalling)	6937	process (in SDL)
1447	nonsynchronized network	3210	processing capacity
2441	normal routing (of signalling)	0120	processor
2083	NSAP address (OSI-)	2430	processor outage
6406	object language; target language	6307	programming system
6313	object program	2150	protocol
6919	octal numeral	4020	protocol
1420	octet sequence integrity	8017	public land mobile network (PLMN)
0215	one-way	8003	public land mobile services
6201	operating system	2142	quasi-associated mode (of signalling)
3012	operations and maintenance centre (OMC)	1314	quiet code
0124	operation and maintenance centre processor	0221	random errors
3010	operations system		

6103	real time (adjective)	2122	signalling channel (Signalling System No. 6)
2092	reasonableness check	2123	signalling data link
6105	record	2109	(signalling) destination point
6312	reenterable program (routine) (subroutine)	2050	signalling information
6312	reentrant program (routine) (subroutine); reenterable program (routine) (subroutine)	2116	signalling link
1176	reentrant trunking	2119	signalling link group
1560	reference point	2071	signalling message
1210	register	2137	(signalling) message route
3220	register function	2470	signalling message transfer delay
2013	register signalling (Signalling System R1)	2103	signalling network
2120	regular signalling link	2104	signalling network
0212	release	2460	signalling network management functions
2059	release-guard signal	2107	(signalling) originating point
6116	relocatable address	2106	signalling point
1020	remote exchange concentrator	2114	signalling point code
1016	remote switching stage	2112	signalling point number plan
1008	remotely controlled exchange	2113	signalling point restart
2121	reserve signalling link	2151	(signalling) protocol
2096	response (in a transaction)	2132	signalling relation
1425	retiming	2134	signalling route
6311	reusable program (routine)	2450	signalling route management functions
2058	ringback tone (USA)	2135	signalling route set
2058	ringing tone; ringback tone (USA)	2451	signalling route set test procedure
0150	route	2136	signalling routing
6308	routine	2021	signalling system
0151	routing	1416	signalling time slot
1013	satellite exchange	2462	(signalling) traffic flow control
6938	save (in SDL)	2452	signalling traffic management functions
0302	second-order digital transmission hierarchy	0115	software
0312	second-order multiplexes	6407	source language
0205	seizure	0066	space division
1115	selection stage	1126	space division switching
1030	semi-automatic system	6941	specification and description language (SDL)
1138	semi-permanent connection	6940	specification (in SDL)
6922	separator (in MML)	2004	speech digit signalling
1336	serial to parallel converter; deserializer (USA) [staticizer]	2043	splitting (in VF signalling)
1335	serializer (USA) [dynamicizer]	6942	state (in SDL)
8018	service area	1169	static multiplex
3223	service control point	1130	stored-and-forward switching
7011	service, telecommunication service	3000	stored program control (SPC)
2220	service indicator	1334	subframe
8416	ship earth station (SES)	6309	subroutine
0040	signal (general sense)	0050	subscriber's line
2041	signal imitation (in VF signalling)	2081	subsequent address message (SAM)
6939	signal (in SDL)	2082	subsequent address message with one signal
0041	signal (in signalling applications)	6310	supervisor
2040	signal spillover (in VF signalling)	6310	supervisory program
2147	signal units	7019	supplementary service
2001	signalling	1110	switching
		1506	switching delay (processing (handling) time)

1113	switching matrix	6206	to map (over)
1112	switching network	6205	to pack
1015	switching stage	6212	to patch
6923	symbol	6207	to relocate
6943	symbol (in SDL)	0108	traffic-carrying device
1145	symmetrical through connection	2094	transaction (in signalling applications)
1430	synchronous	2426	transceiver
1431	synchronization	2453	transfer-allowed (procedure)
1446	synchronized network [synchronous network]	2454	transfer-controlled (procedure)
6405	syntax	2456	transfer-prohibited (procedure)
6924	syntax diagram	2455	transfer-restricted (procedure)
3103	system (in MML)	1139	transit connection
8020	system area	1003	transit exchange [tandem exchange, tandem central office, tandem office]
6406	target language	6945	transition (in SDL)
6313	target program; object program	1212	translation
6944	task (in SDL)	1213	translator
0002	telecommunication	2126	transmission buffer
0015	telephone circuit	0007	transmission channel
7015	teleservice [telecommunication service]	1505	transmission delay (through a digital exchange)
1141	terminating connection	1137	trombone (loop) connection
1168	tertiary digital muldex	1170	two-wire switching
1143	through connection	1337	μ/A law converter
1510	through connection delay	0064	unidirectional
0067	time division	2091	unreasonable message
1305	(time division) highway	2117	unavailable signalling link
1127	time division switching	2205	user (of a signalling system)
6203	time sharing [time slicing]	0081	user packet
6204	time slicing [time sharing]	2102	user part
1414	time slot	4025	user-user protocol
1422	time slot interchange	1561	V-interface
1421	time slot sequence integrity	0017	virtual circuit
1426	timing recovery (timing extraction)	3007	utility processor
6301	to assemble	8237	visited PLMN
6303	to compile	8253	visitor location register (VLR)
6316	to debug (in programming)	2033	voice-frequency signalling (VF signalling)
6211	to dump		
6306	to link (in programming)		

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