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Recommendation M.60

MAINTENANCE TERMINOLOGY AND DEFINITIONS

Introduction

This Recommendation consists primarily of those terms and definitions that are considered essential to the understanding of the maintenance of services and networks. Reference is provided to relevant Recommendations from which these terms are derived.

The terms and definitions are given with a section number. Annex A presents the list of terms in alphabetical order with the section number.

For additional definitions concerning transmission systems, see Recommendation M.300; for additional definitions concerning maritime systems, see Recommendation M.1100; and for additional definitions concerning international sound-programme transmission, see Recommendation N.1, N.51 and N.81. Also, complementary definitions concerning transmission restoration can be found in Recommendation M.495.

1 alarm indication signal (AIS)

F: signal d’indication d’alarme (SIA)

S: señal de indicación de alarma (SIA)

An alarm indication signal is a signal associated with a prompt maintenance alarm of a defective maintenance entity and is, when possible, transmitted in the direction affected (downstream direction) as a substitute for the normal signal, indicating to other non-effective entities that a failure has been identified and that other maintenace alarms consequent to this failure should be inhibited. (Rec. M.20)

2 anomaly

F: anomalie

S: anomalía

An anomaly is a discrepancy between the actual and desired characteristic of an item.

The desired characteristic may be expressed in the form of a specification.

An anomaly may or may not affect the ability of an item to perform a required function. (Rec. M.20)

3 automatic switching equipment

F: équipement de commutation automatique

S: equipo de conmutación automática

That part of an international exchange concerned with switching operations for routing the call in the desired direction. (Rec. M.700, *Red Book*)

4 availability (performance)

F: disponibilit´e

S: disponibilidad

The availability of an item to be in the state to perform a required function at a given instant of time or at any instant of time within a given time interval, assuming that the external resources, if required, are provided.

Note 1 — This ability depends on the combined aspects of the reliability performance, the maintainability performance and the maintenance support performance of an item.

Note 2 — In the definition of the item the external resources required must be delineated.

Note 3 — The term availability is used as an availability performance measure. (Supplement No 6, Fascicle II.3)

5 bit error ratio (BER)

F: taux d'erreur sur les bits (TEB)

S: tasa de errores en los bits; tasa de error en los bits (TEB)

The ratio of the number of bit errors to the total number of bits transmitted in a given time interval. (Rec. E.800)

6 bridging loss

F: affaiblissement d | à la d´erivation

S: p´erdida por derivaci´on

A term frequently used when a measuring instrument is connected (bridged) across a transmission path or telephone channel. The bridging loss is the resulting reduction in the signal level, and is usually expressed in dBs.

7 channel; access channel

F: canal d'acc`es [canal]

S: canal de acceso [canal]

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

Note 1 — The information transfer may be, and usually is, bi-directional.

Note 2 — See also the definition for transmission channel. (Rec. I.112)

8 channel; transmission channel

F: voie de transmission

S: canal; canal de transmisi´on

See Recommendation M.300 for the definition of analogue channel, digital channel and mixed analogue digital channel.

9 circuit; telecommunication circuit

F: circuit; circuit de t´el´ecommunications

S: circuito; circuito de telecomunicaci´on

A combination of two transmission channels permitting bidirectional communication 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 of associations together throughout the call.

Note 5 — The term circuit may be preceded by other qualifiers than telecommunication e.g. telephone, digital, etc. (Rec. Q.9)

10 circuit; digital circuit

F: circuit num´erique

S: circuito; circuito digital

A circuit which transmits information signals in digital form between two exchanges. It includes termination equipment but not switching stages. (Rec. Q.9)

11 circuit access points

F: points d’accès au circuit

S: puntos de acceso al circuito

Four-wire access points so located that as much as possible of the international circuit is included between corresponding pairs of these access points at the two centres concerned. These points, and their relative level (with reference to the transmission reference point) are determined in each case by the Administration concerned. They are taken as the basic practical reference points of known relative level to which other transmission measurements will be related. In other words, for measurement and lining-up purposes, the level at the appropriate circuit access point is the relative level with respect to which other levels are adjusted. (Rec. M.565)

12 circuit control station

F: station directrice de circuit

S: estación directora de circuito

The circuit control station is the point within the general maintenance organization for the international automatic and semi-automatic telephone service that fulfils the control responsibilities for the automatic circuits assigned to it. (Rec. M.723)

13 circuit sub-control station

F: station sous-directrice de circuit

S: estación subdirectora de circuito

The circuit sub-control station is a point within the general maintenance organization for the international automatic and semi-automatic telephone service that assists the circuit control station and fulfils the control responsibilities for a circuit section assigned to it. (Rec. M.724)

14 code violation

F: violation du code

S: violación de código

Definition for code violation:

a) AMI — Two consecutive marks of the same polarity. This may not be the absolute number of errors.

b) HDB3 — Two consecutive bipolar violations of the same polarity. This may not be the absolute number of errors.

c) B6ZS — Two consecutive marks of the same polarity excluding violations caused by the zero substitution code. This may not be the absolute number of errors.

d) B8ZS — Two consecutive marks of the same polarity excluding violations caused by the zero substitution code. This may not be the absolute number of errors. (Rec. O.161)

15 connection

F: cha | ne de connexion

S: conexi´on

An association of transmission channels or circuits, switching and other functional units set up to provide a means of transfer of information between two or more points in a telecommunication network. (Rec. Q.9)

16 connection; digital connection

F: connexion num´erique

S: conexi´on digital

A concatenation of digital transmission channels or digital telecommunication circuits, switching and other functional units set up to provide for the transfer of digital signals between two or more points in a telecommunication network, to support a single communication. (Rec. G.701)

17 connection; international connection

F: communication internationale

S: conexi´on internacional

Whole of the means joining temporarily two subscribers and enabling them to exchange information. (Rec. M.700, *Red Book*)

18 connection; international telephone connection

F: communication t´el´ephonique internationale

S: conexi´on telef´onica internacional

A complete international telephone connection has three parts, as shown in Figure 1/M.560:

— an international chain

— two national systems, one on each end. (Rec. M.560)

19 continuity check

F: contr | le de continuit´e

S: prueba de continuidad

A check made to a circuit or circuits in a connection to verify that an acceptable path (for transmission of data, speech, etc.) exists. (Rec. Q.9)

20 continuous checking

F: contr | le continu

S: comprobaci´on continua

At the time an item is active, it is being checked for good performance. If the item does not fulfill the test requirements, it is considered to have failed. (Rec. M.20)

21 control station

F: station directrice

S: estaci´on directora

A control station is that point within a general maintenance organization which fulfills the control responsibilities for the circuit, group, supergroup, digital section, etc., assigned to it. (Rec. M.80)

22 data communication network

F: r´eseau de communication de donn´ees

S: red de comunicaci´on de datos

A data network which is established and operated either by Administrations or by private organizations. (Rec. X.15 *Red Book*)

23 data communications network (DCN)

F: réseau de communication de données (RCD)

S: red de comunicación de datos (RCD)

A DCN is a communications network within the TMN which supports the DCF at reference point q_3. (Rec. M.30)

24 data communications function (DCF) block

F: bloc de fonction de communication de donn´ees (FCD)

S: bloque de funciones de comunicaciones de datos (FCD)

The DCF block provides the means for data communication to transport information related to telecommunications management between function blocks. Details of the DCF are given in § 5.3 of Recommendation M.30. (Rec. M.30)

25 dead time

F: temps mort

S: tiempo muerto

The dead time is defined for the purpose of Recommendations O.61 and O.62 as the time after which the counter is ready to record another interruption following the end of the preceding interruption. (Rec. O.61)

26 defect

F: faute (ou d´efaut)

S: defecto

A defect is a limited interruption of the ability of an item to perform a required function. It may or may not lead to maintenance action depending on the results of additional analysis. (Rec. M.20)

27 deferred maintenance alarm (DMA)

F: alarme de maintenance diff´er´ee (AMD)

S: alarma de mantenimiento diferido (AMD)

A deferred maintenance alarm is generated when immediate action is not required by maintenance personnel, e.g. when performance falls below standard but the effect does not warrant removal from service, or generally if automatic changeover to standby equipment has been used to restore service. (Rec. M.20)

28 degraded minute (DM)

F: minutes d´egrad´ees (MD)

S: minuto degradado (MD)

A degraded minute is a group of 60 consecutive seconds, after excluding SES (severely errored seconds), with a BER (bit error ratio) of 10^{D}lF261^{6} or worse.

A pseudo-degraded minute is a group of 60 consecutive seconds, after excluding SES, with at least N2 anomalies or at least one slip (when the anomaly is not a binary error). N2 is calculated similarly to N1, to detect a BER of 10^{D}lF261^{6} in one minute. (Rec. M.550)

29 echo

F: ´echo

S: eco

An electric, acoustic or electromagnetic wave which arrives at a given point, after reflection or indirect propagation, with sufficient magnitude and delay for it to be perceptible at the given point, as a wave distinct from that directly transmitted. (Rec. G.601)

30 echo canceller

F: annuleur d'´echo

S: compensador de eco; cancelador de eco

A voice operated device placed in the 4-wire portion of a circuit and used for reducing near-end echo present on the send path, by subtracting an estimation of that echo from the near-end echo. (Rec. G.165)

31 echo suppressor

F: suppresseur d’´echo

S: supresor de eco

A voice-operated device placed in the 4-wire portion of a circuit and used for inserting loss in the transmission path to suppress echo. The path in which the device operates may be an individual circuit path or a path carrying a multiplexed signal. (Rec. G.164)

32 error

F: erreur

S: error

An inconsistency between a digit in a transmitted digital signal and the corresponding digit in the received digital signal. (Rec. G.701)

33 error; random error

F: erreur al´eatoire

S: error aleatorio

Errors distributed over the digital signal so that they can be considered statistically independent from each other. (Rec. Q.9)

34 error burst

F: paquet d’erreurs

S: r´afaga de errores

A group of bits in which two successive erroneous bits are always separated by less than a given number (x) of correct bits. The number (x) should be specified when describing an error burst. (Rec. Q.9)

35 error free seconds (EFS)

F: secondes sans erreur (SSE)

S: segundos sin error (SSE)

The ratio of the number of one-second intervals during which no bits are received in error to the total number of one-second intervals in the time interval.

Note 1 — The length of the time interval needs to be specified.

Note 2 — This ratio is usually expressed as a percentage. (Rec. E.800)

36 errored seconds

F: secondes erron´ees (SE)

S: segundos con error (SE)

An errored second is a second with at least one anomaly or defect. (Rec. M.550)

37 exchange

F: commutateur [central]

S: central

An aggregate of traffic carrying devices, switching stages, controlling and signalling means, and other functional units at a network node that enables subscriber lines, telecommunication circuits and/or other functional units to be interconnected as required by individual users. (Rec. I.112)

38 failure

F: défaillance

S: fallo

The termination of the ability of an item to perform a required function.

Note — After failure the item has a fault. (Supplement No 6, Fascicle II.3; Rec. M.20)

39 fault

F: panne; dérangement

S: avería

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

Note — A fault is often the result of a failure of the item itself, but may exist without prior failure. (Supplement No 6, Fascicle II.3; Rec. M.20)

40 fault; intermittent fault

F: panne intermittente

S: avería intermitente

A fault of an item which persists for a limited time duration following which the item recovers the ability to perform a required function without being subjected to any action of corrective maintenance.

Note — Such a fault is often recurrent. (Supplement No 6, Fascicle II.3)

41 fault correction

F: correction (de panne)

S: corrección (de una avería)

Actions taken after a fault localization intended to restore the ability of the faulty item to perform a required function. (Supplement No 6, Fascicle II.3)

42 fault localization; localization of faults

F: localisation des dérangements

S: localización (de una avería)

The broad localization of fault consists in finding the general part of the equipment in which it exists. Fault finding consists of determining the faulty item of the equipment. (Rec. M.700, *Red Book*)

43 fault report point (circuit)

F: service de signalisation des d´erangements sur les circuits

S: punto de avisos de aver´ias en los circuitos

The fault report point (circuit) is an element within the general maintenance organization for the international automatic and semi-automatic telephone service at each international centre or common for more than one international centre.

The fault report point (circuit) is equipped with all the necessary facilities and arranged in such a way that it may receive fault reports relating to one or more specifically identified circuits from different sources or make such fault reports to other points and initiate the fault localization and clearing operations.

The fault report point (circuit) will undertake its given responsibilities and functions for circuits provided by wholly analogue transmission and switching systems, and those provided by a mixture of analogue and digital systems. (Rec. M.715)

44 fault report point (network)

F: service de signalisation des d´erangements dans le r´eseau

S: punto de avisos de aver´ias en la red

The fault report point (network) is an element within the general maintenance organization for the international automatic and semi-automatic telephone service at each international centre or for more than one international centre. If more than one international centre is associated with a given relation, it is desirable to designate one fault report point (network) as the principle one for that relation. If such is not practical, one of the fault report points (network) or a central organization may be nominated to coordinate the activities of the various fault report points (network) that are involved.

Such arrangements provide the maintenance organization of other Administrations with a single point of contact for directing fault reports and service problems which involve more than one international centre.

While the fault report point (network) is essentially a maintenance element, it will in fact receive reports of network difficulties which may result in network management actions. In other cases, network fault reports may be explained by information already available to the network management (implementation and control point) and collected as a result of its network surveillance responsibility. Therefore, to avoid duplication of report points, considerable benefit is derived from close liaison between the fault report point (network) and the network management (implementation and control point). (See Recommendation E.413.)

The fault report point (network) is equipped with all the necessary facilities and arranged in such a way as to enable it:

a) to receive from different sources, fault reports of difficulties on the international telephone network or of problems with the international telephone service that, at the time of reporting, cannot be related to specific circuits or, in some cases, even to a specific international centre; and

b) to make such fault reports to other points and initiate the fault location and clearing operations. (Rec. M.716)

45 interface

F: interface

S: interfaz

The common boundary between two associated systems. (Rec. I.112)

46 international automatic circuit

F: circuit automatique international

S: circuito autom´atico internacional

The whole of the international line and the outgoing and incoming equipment (or both-way equipments) proper to the automatic circuit considered. The ends of this circuit are defined by the circuit access points (see definition for *circuit access points*). (Rec. M.700, *Red Book*)

47 international chain

F: cha | ne internationale

S: cadena internacional

An international chain is made up of one or more 4-wire international circuits. These are connected on a 4-wire basis to international circuits (in transit international centres) or to national systems (in terminal international centres). See Figure 1/M.560. (Rec. M.560)

48 international leased circuit

F: circuit international loué

S: circuit internacional arrendado

The whole of the assembly of lines and apparatus connecting the renter’s terminal equipment (e.g. data modem) in one country to the renter’s terminal equipment in another. The interfaces between the circuit and the renter’s terminal equipment will be defined by the respective Administrations. See Figure 2/M.1010. (Rec. M.1010)

49 international main section

F: section internationale principale

S: sección principal internacional

The whole of the assembly of national and international group or supergroup sections, between the defined test access points at the two terminal international centres (see Recommendation M.460). These access points should be the same points as those for the ends of the national main sections involved in the leased link. See Figure 1/M.900. (Rec. M.900)

50 interruption; break of service

F: interruption; coupure (d’un service)

S: interrupción (de un servicio); corte (de un servicio)

Temporary inability of a service to be provided persisting for more than a given time duration, characterized by a change beyond given limits in at least one parameter essential for service.

Note 1 — An interruption of a service may be caused by disabled states of the items used for the service or by external reasons such as high service demands.

Note 2 — An interruption of a service is generally an interruption of the transmission, which may be characterized by an abnormal value of power level, signal distortion, error rate, etc. (Rec. E.800)

51 interruption

F: interruption

S: interrupción

For the purpose of Recommendation O.61, an interruption shall be regarded as a break in transmission or drop in the level of a test tone below a designated threshold. (Rec. O.61)

52 interruption

F: interruption

S: interrupción

For the purpose of Recommendation O.62, an interruption shall be regarded as a break in transmission or drop in the level of a 2 kHz test tone below a designated threshold. (Rec. O.62)

53 line; international line

F: ligne internationale

S: l´inea internacional

The transmission system contained between the line access points (see § 2 of Recommendation M.565) of the two terminal international centres. Where a digital international centre is interfaced by primary (or higher order) digital paths, a line access point on a per circuit basis may not exist. In such cases, the international line is deemed to end at the digital path access point nearest the international centre. (Rec. M.700, *Red Book*)

54 line; international line

F: ligne internationale

S: línea internacional

The whole of the assembly of international and national circuit sections between terminal international centres. See Figure 2/M.1010. (Rec. M.1010)

55 line; national line

F: ligne nationale

S: línea nacional

The whole of the assembly of national circuit sections connecting the terminal national centre to the terminal international centre. When a distinction is needed to indicate the transmission direction in one country, the expressions national sending line, that is, outgoing from the render, and national receiving line, that is, incoming to the renter, may be used. See Figure 2/M.1010. (Rec. M.1010)

56 line access point

F: points d'accès à la ligne

S: puntos de acceso a la línea

A point used by the CCITT to define the limits of an international line and from which measurements are made. Only one ''line access point'' exists at each end of an international line. The precise location of each such point depends on the Administration concerned. (Rec. M.565)

57 link; international link

F: liaison internationale

S: enlace internacional

The whole of the assembly of international and national circuit sections between terminal national centres. See Figure 2/M.1010. (Rec. M.1010)

58 link; transmission link

F: liaison de transmission

S: enlace de transmisión

A means of transmission with specified characteristics between two points.

Note — The type of the transmission path or the capacity is normally indicated, e.g. radio link, coaxial link, or 2048 kbit/s link. (Rec. I.112)

59 logistic delay

F: d´elai logistique

S: retardo log´istico; demora log´istica

The logistic delay is the period of time between the fault localization and arrival of the maintenance staff on site. In case of an ISDN, the logistic delay will depend on the type of failures and how they are reported, i.e. by prompt maintenance alarm (PMA), deferred maintenance alarm (DMA) or maintenance event information (MEI). (Rec. M.20)

60 loopback

F: mise en boucle

S: bucle

A mechanism incorporated into a terminal or into the network whereby the transmit path of a communication may be connected back upon the receive path.

61 loopback; complete loopback

F: mise en boucle, compl`ete

S: bucle completo

A complete loopback is a layer 1 [of the open system interconnection (OSI) model] mechanism which operates on the full bit stream. At the loopback point, the received bit stream shall be transmitted back towards the transmittting station without modification. (Rec. M.125)

62 loopback; digital loopback

F: mise en boucle num´erique

S: bucle digital

A digital loopback is a mechanism incorporated into a piece of equipment whereby a bidirectional communication path may be connected back upon itself so that some or all of the information contained in the bit stream sent on the transmit path is returned on the receive path. (Rec. M.125)

63 loopback; logical loopback

F: mise en boucle logique

S: bucle l´ogico

A logical loopback acts selectively on certain information within a specified channel or channels and may result in some specified modification of the looped information. Logical loopbacks may be defined at any layer of the OSI model depending on the detailed maintenance procedure specified. (Rec. M.125)

64 loopback; non-transparent loopback

F: boucle non transparente

S: bucle no transparente

A non-transparent loopback is one in which the signal transmitted beyond the loopback point (the forward signal) when the loopback is activated is not the same as the received signal at the loopback point. The forward signal may be a defined signal or unspecified. (Rec. M.125)

65 loopback; partial loopback

F: mise en boucle partielle

S: bucle parcial

A partial loopback is a layer 1 mechanism which operates on one or more specified channels multiplexed within the full bit stream. At the loopback point, the received bit stream associated with the specified channel(s) shall be transmitted back towards the transmitting station without modification. (Rec. M.125)

66 loopback; transparent loopback

F: boucle transparente

S: bucle transparente

A transparent loopback is one in which the signal transmitted beyond the loopback point (the forward signal) when the loopback is activated, is the same as the received signal at the loopback point. (Rec. M.125)

67 loopback application

F: application de la mise en boucle

S: aplicaci´on de bucle

The maintenance phase for which the loopback operation is used. (Rec. M.125)

68 loopback control mechanism

F: mécanisme de commande de mise en boucle

S: mecanismo de control de bucle

The means by which the loopback is operated and released from the loopback control point. (Rec. M.125)

69 loopback control point

F: point de commande de mise en boucle

S: punto de control de bucle

The loopback control point is the point which has the ability to directly control loopbacks.

The loopback control point may receive requests for loopback operation from several loopback requesting points. (Rec. M.125)

70 loopback point

F: point de mise en boucle

S: punto de bucle

A loopback point is the location of the loopback. (Rec. M.125)

71 loopback requesting point

F: point de demande de mise en boucle

S: punto de petición de bucles

The loopback requesting point is the point which requests the loopback control point to operate loopbacks.

Note 1 — Loopback requests should be subject to identification and authorization.

Note 1 — Possible locations of loopback requesting points are: in the network, in the TMN, in maintenance service providers (MSP). (Rec. M.125)

72 loopback test pattern

F: signal destiné à l'essai de mise en boucle

S: secuencia de prueba de bucle

The information transmitted during the operation of the loopback in the channel or channels which are to be re-directed by the loopback. (Rec. M.125)

73 maintainability (performance)

F: maintenabilité

S: mantenibilidad

The ability of an item under stated conditions of use, to be retained in, or restored to, a state in which it can perform a required function, when maintenance is performed under given conditions and using stated procedures and resources.

Note — The term maintainability is used as a measure of maintainability performance. (Supplement No 6, Fascicle II.3)

74 maintenance

F: maintenance

S: mantenimiento

The whole of the operations required for setting up and maintaining, within prescribed limits, any element entering into the setting-up of a connection. In the international automatic telephone service, maintenance is particularly concerned with circuits and automatic switching equipment. Circuit and automatic equipment maintenance includes:

a) carrying out setting-up measurements and adjustments;

b) planning and programming a maintenance scheme;

c) carrying out the prescribed routine preventive maintenance measurements and all other tests and measurements deemed necessary;

d) locating and clearing faults. (Rec. M.700, *Red Book*)

75 maintenance

F: maintenance

S: mantenimiento

The combination of all technical and corresponding administrative actions, including supervision actions, intended to retain an item in, or restore it to, a state in which it can perform a required function. (Supplement No 6, Fascicle II.3)

76 maintenance; automatic maintenance

F: maintenance automatique

S: mantenimiento automático

Maintenance accomplished without human intervention. (Supplement No 6, Fascicle II.3)

77 maintenance; controlled maintenance

F: maintenance dirigée

S: mantenimiento dirigido

A method to sustain a desired quality of service by the systematic application of analysis techniques using centralized supervisory facilities and/or sampling to minimize preventive maintenance and to reduce corrective maintenance. (Rec. M.20)

78 maintenance; corrective maintenance

F: maintenance corrective

S: mantenimiento correctivo

The maintenance carried out after fault recognition and intended to restore an item to a state in which it can perform a required function. (Rec. M.20)

79 maintenance; deferred maintenance

F: maintenance différée

S: mantenimiento diferido

Such corrective maintenance which is not immediately initiated after a fault recognition, but is delayed in accordance with given maintenance rules. (Supplement No 6, Fascicle II.3)

80 maintenance; preventive maintenance

F: maintenance pr´eventive

S: mantenimiento preventivo

The maintenance carried out at predetermined intervals or according to prescribed criteria and intended to reduce the probability of failure or the degradation of the functioning of an item. (Rec. M.20)

81 maintenance entity (ME)

F: entit´e de maintenance (EM)

S: entidad de mantenimiento (EM)

Maintenance entities are defined by the following principles:

— The different equipments of the telecommunications network constituting the MEs are interconnected to consecutive and easily identifiable interface points, at which points the interface conditions defined for these equipments apply and which possesses the means of detecting maintenance events and failures;

— If the telecommunication equipment supports bidirectional transmission, normally consisting of telecommunications equipment trasmitting in both directions, then both directions are considered part of the same ME;

— When a failure occurs within a network it is desirable that the maintenance alarm information indication appears at the failed maintenance entity. When this is not practical, the indication should appear at the closest possible entity;

— Maintenance alarm information indications in an entity should not cause related alarm information indications at other entities. In the event that such indications are permitted to occur, they should clearly indicate that the failure has occurred upstream, and not in the other entities displaying the information. (Rec. M.20)

82 maintenance entity assembly (MEA)

F: assemblage d'entit´es de maintenance (AEM)

S: conjunto de entidades de mantenimiento (CEM)

The maintenance entity assembly is defined by the following principles:

— An MEA contains a group of MEs assembled for additional maintenance purposes;

— Principles that apply to MEs apply also to MEAs;

— An MEA may detect failures and maintenance event information which can not be detected by MEs;

— An MEA may provide end-to-end maintenance alarm information which can not be provided by MEs.

End-to-end information may be collected by using additional supervision means. (Rec. M.20)

83 maintenance sub-entity (MSE)

F: sous-entit´e de maintenance (SEM)

S: subentidad de mantenimiento (SEM)

The maintenance sub-entity is defined by the following principles:

— The different parts of an MSE constituting the MEs are interconnected at consecutive and easily identifiable interface points;

— When a failure occurs within an MSE it is desirable that the maintenance alarm information indication appears at the failed maintenance entity containing the MSE;

— A failed MSE should be identified as failed by the fault location process, but should lead only to the identification of the failed ME by the supervision process;

— An MSE generally corresponds to the item which is replaceable during routine operations in the event of failure. (Rec. M.20)

84 maintenance event information (MEI)

F: information sur les ´ev´enements de maintenance (IEM)

S: informaci´on de evento de mantenimiento (IEM)

This information has to be generated as a consequence of events when no immediate actions by the maintenance staff are required, because the total performance is not endangered. The maintenance actions can be performed on a scheduled basis or after the accumulation of maintenance event information indications. (Rec. M.20)

85 maintenance philosophy

F: philosophie de maintenance

S: filosof´ia de mantenimiento

A system of underlying principles for the organization and execution of the maintenance. (Supplement No 6, Fascicle II.3)

86 maintenance policy

F: politique de maintenance

S: pol´itica de mantenimiento

A description of the interrelationship between the maintenance echelons, the indenture levels and the levels of maintenance to be applied for the maintenance of an item. (Supplement No 6, Fascicle II.3)

87 maintenance service provider (MSP)

F: fournisseur de service de maintenance (FSM)

S: proveedor de servicios de mantenimiento (PSM)

The MSP represents a group of functions, equipment and maintenance staff, that together have the responsibility for maintaining the subscriber installation or a part of the subscriber installation. A MSP cannot control the maintenance functions of the subscriber access. If authorized, it can request information from the SAMC about the subscriber access. (Rec. M.36)

88 maintenance strategy

F: stratégie de maintenance

S: estrategia de mantenimiento

A plan for the organization and execution of maintenance.

89 maintenance support (performance)

F: logistique de maintenance

S: logística de mantenimiento

The ability of a maintenance organization, under given conditions, to provide upon demand the resources required to maintain an item, under a given maintenance policy.

Note — The given conditions are related to the item itself and to the conditions under which the item is used and maintained. (Supplement No 6, Fascicle II.3)

90 management entities

F: entités de gestion

S: entidades de gestión

Management entities are groups of capabilities that collectively provide management functions, such as operations, administration, maintenance and provisioning. For the network part, the functions may be implemented by a combination of capabilities in the network elements and operations systems. For the subscriber part, management functions may be contained within the subscriber installations. (Rec. M.36)

91 measurement

F: mesure

S: medida; medición

The numerical assessment, in suitable units, of the value of a simple or complex quantity or magnitude. (Rec. M.700, *Red Book*)

92 mediation device (MD)

F: dispositif de m´ediation (DM)

S: dispositivo de mediaci´on (DM)

The MD is the stand alone device which performs mediation functions (MFs). MDs can be implemented as hierarchies of cascaded devices. (Rec. M.30)

93 mediation function (MF) block

F: bloc de fonction de m´ediation (FM)

S: bloque de funciones de mediaci´on (FM)

The MF block acts on information passing between network element function blocks (NEFs) and operations system function blocks (OSFs) to achieve smooth and efficient communication. Major MFs include communication control, protocol conversion and data handling, communication of primitive functions, processes involving decision making, and data storage. Details of the MF are given in § 5.4 of Recommendation M.30. (Rec. M.30)

94 multiterminal service circuit

F: circuit de service multiterminal

S: circuito de servicio multiterminal

A telephone or teleprinter (teletypewriter) service circuit serving more than two stations and having at least one branching point. On each branch of this circuit a certain number of stations can be connected in series. Every station served can enter the circuit individually. See Figure 2/M.100. (Rec. M.100)

95 national main section

F: section nationale principale

S: sección principal nacional

The whole of the assembly of national group or supergroup sections containing the defined test access points at the terminal national centre and defined test access points at the terminal international centre (see Figure 1/M.900). (Rec. M.900)

96 national system

F: système national

S: sistema nacional

This system may comprise one or more 4-wire amplified national circuits with a 4-wire interconnection, and circuits with 2-wire connection to terminal exchanges and subscribers. See Figure 1/M.560. (Rec. M.560)

97 network analysis point

F: centre d'analyse du réseau

S: punto de análisis de la red

The network analysis point is an element within the general maintenance organization for the international automatic and semi-automatic telephone service associated with one or more international centres.

It receives information concerning service quality and faults not associated with specific circuits. It analyses all relevant information to investigate the problems involved. It may request the fault report point (network) to initiate investigatory and/or remedial actions in one or more maintenance centres in the home country or via a fault report point (network) in another country.

The network analysis point acts as a single point of contact for general enquiries concerning the day-to-day maintenance of the international telephone network, as may be made by the maintenance organizations of other Administrations. (Rec. M.720)

98 network element (NE)

F: élément de réseau (ER)

S: elemento de red (ER)

The NE is comprised of telecommunication equipment (or groups/parts of telecomunication equipment) and support equipment that performs network element functions (NEFs) and has one or more standard Q-type interfaces.

(Rec. M.30)

99 network element function (NEF) block

F: bloc de fonction d'´el´ement de r´eseau (FER)

S: bloque de funciones de elemento de red (FER)

The NEF block communicates with a telecommunication management network (TMN) for the purpose of being monitored and/or controlled. Details of the NEF are given in § 5.5 of Recommendation M.30. (Rec. M.30)

100 omnibus service circuit

F: circuit de service omnibus

S: circuito de servicio ómnibus

A telephone or teleprinter (teletypewriter) service circuit serving more than two stations connected in series, any or all of which may make connection to the service circuit simultaneously. See Figure 1/M.100. (Rec. M.100)

101 operation, administration and maintenance centre (OAMC)

F: centre de gestion, d'exploitation et de maintenance (CGEM)

S: centro de operaciones, administración y mantenimiento (COAM)

The OAMC is an administration's centre with the responsibility for the general operation, administration and maintenance of the network. It includes both the staff and associated operations systems. The functions may be distributed among many centres and operation systems. (Rec. M.36)

102 operations systems (OS)

F: système d'exploitation (SE)

S: sistema de operaciones (SO)

The OS is the stand alone system which performs operation system functions (OSFs). (Rec. M.30)

103 operations system function (OSF) block

F: bloc de fonction de système d'exploitation (FSE)

S: bloque de funciones de sistema de operaciones (FSO)

The OSF block processes information related to telecommunication management to support and/or control the realization of various telecommunication management functions. Details of the OSF are given in § 5.2 of Recommendation M.30. (Rec. M.30)

104 path; telecommunication path

F: itinéraire de télécommunications

S: trayecto de telecomunicación

The continuous course taken by a transmission signal beween 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. (Rec. Q.9)

105 path; digital path

F: conduit; conduit num´erique

S: trayecto digital

The whole of the means of transmitting and receiving a digital signal of specified rate between those two digital distribution frames (or equivalent) at which terminal equipments or switches will be connected. Terminal equipments are those at which signals at the specified bit rate originate or terminate.

Note 1 — A digital path comprises one or more sections.

Note 2 — Where appropriate, the bit rate should qualify the title.

Note 3 — Digital paths interconnected by digital switches form a digital connection. (Rec. M.300)

106 point

F: point

S: punto

a) to identify an element within a maintenance organization where specified functions are carried out. Examples of its use in this context are: fault report point-circuit, restoration control point, testing point-transmission;

b) to identify an electrical location in a circuit, group, digital path, etc., where access is required for testing purposes. Examples of its use in this context are: circuit access point, analogue link access point, digital path access point. (Rec. M.700, *Red Book*)

107 prompt maintenance alarm (PMA)

F: alarme de maintenance immédiate (AMI)

S: alarma de mantenimiento inmediato (AMI)

A prompt maintenance alarm is generated in order to initiate maintenance activities (normally immediately) by maintenance personnel to remove from service a defective equipment for the purpose of restoring good service and effecting repair of the failed equipment. (Rec. M.20)

108 propagation performance

F: caractéristiques de propagation

S: característica de propagación

The ability of a propagation medium, in which a wave propagates without artificial guide, to transmit a signal within the given tolerances.

Note — The given tolerances may apply to variations in signal level, noise, interference levels, etc. (Rec. E.800)

109 protection switching

F: commutation sur liaison de réserve

S: conmutación de protección

Note — This term was used in the CCITT *Red Book* and has been deleted in the *Blue Book* . For more information, see the definitions for terms relating to direct transmission restoration (protection link switching) and automatic and semi-automatic transmission restoration (protection network switching) in Recommendation M.495.

110 protected monitoring point

F: point de surveillance protégé

S: punto de monotorización protegido

A protected monitoring point provides a digital interface at which it is possible to monitor the transmitted signal and to make measurements with suitable test equipments (described in Fascicle IV.4, *Red Book*).

The degree of protection is considered to be sufficient when a variation of the pulse mask as given in Recommendation G.703 is less than x % with a short circuit at the protected monitoring point. (The value of x is for further study in connection with the electrical characteristics.)

Note — The above definition is a working definition and is under study in Study Groups IV and XV.

111 quality of service (QOS)

F: qualité de service (QDS)

S: calidad de servicio (CDS)

The collective effect of service performances which determine the degree of satisfaction of a user of the service.

Note — The quality of service is characterized by the combined aspects of service support performance, service operability performance, service integrity and other factors specific to each service. See Figure 1/E.800. (Rec. E.800)

112 redundancy, standby

F: redondance en attente; redondance passive; redondance en secours

S: redundancia pasiva; redundancia de reserva

That redundancy wherein one means for performing a required function is intended to operate while the alternative means are inoperative until needed. (Supplement No. 6, Fascicle II.3)

113 reliability (performance)

F: fiabilité

S: fiabilidad

The ability of an item to perform a required function under given conditions for a given time period.

Note 1 — It is generally assumed that the item is in a state to perform this required function at the beginning of the time interval.

Note 2 — The term reliability is used as a measure of reliability performance. (Supplement No. 6, Fascicle II.3)

114 restoration; recovery

F: rétablissement

S: restablecimiento

That event when the item regains the ability to perform a required function after a fault. (Supplement No. 6, Fascicle II.3)

113 restoration control point (RCP)

F: centre de commande de rétablissement du service (CCR)

S: punto de control del restablecimiento (PCR)

The restoration control point (RCP) is an element within the general maintenance organization for the international telecommunication services. It initiates and coordinates service restoration activities in case of failures or planned outages of transmission systems in accordance with plans and ad hoc arrangements agreed by the technical services of the Administration concerned. (Rec. M.725)

116 routine or periodic testing

F: essai de routine ou périodique

S: pruebas periódicas; pruebas de rutina

Items are tested periodically, initiated either by the system or by the maintenance staff. The frequency of the test depends on the importance of the item, the failure rate and the number of items of that type present in the element. (Rec. M.20)

117 serveability performance

F: servibilité (d'un service)

S: servibilidad (de un servicio)

The ability of a service to be obtained, within specified tolerances and other given conditions, when requested by the user and continue to be provided for a requested duration.

Note — Serveability performance may be subdivided into the service accessibility performance and the service retainability performance. (Rec. E.800)

118 service

F: service

S: servicio

A set of functions offered to a user by an organization. (Rec. E.800)

119 service; 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. (Rec. I.112)

120 service; telecommunication service

F: service de télécommunications

S: servicio de telecomunicación

That which is offered by an Administration 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. (Rec. I.112)

121 service; teleservice

F: téléservice

S: teleservicio; servicio final

A type of telecommunication service that provides the complete compatibility including terminal equipment functions, for communications between users according to protocols established by agreement between Administrations. (Rec. I.112)

122 service alarm (SA)

F: alarme de service (AS)

S: alarma de servicio (AS)

A service alarm is generated at maintenance entities at which the service originates and/or terminates to indicate that the particular service is no longer available (e.g., when a primary block is no longer available for setting up connections, the PCM muldex will extend a service alarm indication to the exchange equipment). The service alarm should be generated when performance falls below a level specified for a particular service. This level may coincide with that for initiating also a prompt maintenance alarm. (Rec. M.20)

123 service accessibility performance

F: accessibilité (d'un service)

S: accesibilidad (de un servicio)

The ability of a service to be obtained, within specified tolerances and other given conditions, when requested by the user.

Note — This takes into account the transmission tolerance and the combined aspects of propagation performance, trafficability performance and availability performance of the related systems. (Rec. E.800)

124 service integrity

F: intégrité de service

S: integridad del servicio

The degree to which a service is provided without excessive impairments, once obtained.

Note — This service is characterized by the transmission performance of the system. (Rec. E.800)

125 service operability performance

F: facilit´e d'utilisation (d'un service)

S: facilidad de utilizaci´on (de un servicio)

The ability of a service to be successfully and easily operated by a user. (Rec. E.800)

126 service retainability performance

F: continuabilit´e (d'un service)

S: retenibilidad (de un servicio)

The ability of service, once obtained, to continue to be provided under given condition for a requested duration.

Note — Generally this depends on the transmission tolerances, the propagation performance and reliability performance of the related systems. For some services, for example packet switching, this also depends on the trafficability performance and the availability performance of the related systems. (Rec. E.800)

127 service support performance

F: logistique de service

S: logística del servicio

The ability of an organization to provide a service and assist in its utilization.

Note — An example of service support performance is the ability to provide assistance in commissioning a basic service, or a supplementary service such as the call waiting service or directory enquiries service. (Rec. E.800)

128 severely errored seconds (SES)

F: secondes gravement erronées (SGE)

S: segundos con muchos errores (SME)

A severly errored second is a second with a binary error ratio [as can be measured using a QRSS (quasi-randon signal source)] greater than or equal to 10^{-3}, or at least one defect (except slips).

A pseudo-severely errored second is a second with at least N1 anomalies (when the anomaly is not a binary error, i.e. when it is an error indicator such as a code violation, CRC error, etc.), or one defect (except slips). The value of N1 is an estimator defined to correspond to a BER of 10^{-3} in one second. N1 is a function of the accuracy of the anomaly detectors. (Rec. M.550)

129 sub-control station

F: station sous-directrice

S: estación subdirectora

A sub-control station is a point within the general maintenance organization which fulfills the sub-control responsibilities of the circuit, group, supergroup, etc., digital section assigned to it. (Rec. M.90)

130 subscriber access maintenance centre (SAMC)

F: centre de maintenance d'accès d'abonné (CMAA)

S: centro de mantenimiento de accesos de abonado (CMAA)

The SAMC represents a group of functions, network equipment elements and staff controlled by the Administration, which together have the responsibility and capability for maintenance functions and maintenance actions within the subscriber access. (Rec. M.36)

131 subscriber access maintenance entity (SAME)

F: entité de maintenance d'accès d'abonné (EMAA)

S: entidad de mantenimiento de accesos de abonado (EMAA)

The SAME controls the subscriber access maintenance functions and provides communications for such activities. The SAME might be distributed. (Rec. M.36)

132 subscriber installation maintenance entity (SIME)

F: entit´e de maintenance d’installation d’abonn´e (EMIA)

S: entidad de mantenimiento de instalaciones de abonado (EMIA)

A SIME represents a group of dedicated functions contained within the functional groups (as specified in Recommendation I.411) of the subscriber insallation (i.e. TE1 and NT2) which have the following purposes; e.g.

— interaction with the (human) user;

— handling of maintenance protocol from the SAME and/or MSP;

— control of internal testing and maintenance mechanisms. (Rec. M.36)

133 system availability information point

F: service collectant les informations relatives a la disponibilit´e des syst`emes

S: punto de informaci´on sobre disponibilidad del sistema

The system availability information point is an element within the general maintenance organization for the international automatic and semi-automatic telephone service associated with one or more international centres. It collects and disseminates information concerning the non-availability of telecommunications systems which affects the international service. The term availability is used here in the broadest sense of the word. (Rec. M.721)

134 telecommunication

F: t´el´ecommunication

S: telecomunicaci´on

Any transmission and/or emission and reception of signals representing signs, writing, images and sounds or intelligence of any nature by wire, radio, optical or other electromagnetic systems. (Recs. G.701, I.112)

135 telecommunication Administration

F: Administration des t´el´ecommunications

S: Administraci´on de telecomunicaciones

An Administration, or the part of a combined postal and telecommunication Administration, concerned with the provision of telecommunication service. (Rec. D.70)

136 telecommunications management network (TMN)

F: r´eseau de gestion des t´el´ecommunications (RGT)

S: red de gesti´on de las telecomunicaciones (RGT)

A telecommunications management network provides the means used to transport and process information related to management functions for the telecommunications network. (Rec. M.30)

137 terminal international centre

F: centre terminal international

S: centro terminal internacional

The international centre (for example, an international repeater station) serving the renter in the country in which the renter's installation is situated. There will be two terminal international centres in an international leased group or supergroup link, or more in the case of a multiterminal link (see Figure 1/M.900) (Rec. M.900)

138 terminal international centre

F: centre terminal international

S: centro terminal internacional

The terminal international centre (TIC) for leased and special circuits is the international centre serving the renter in the country in which the renter's installation is situated. It marks the interface of the international and national lines and is normally located in association with a terminal international centre for the international public telephony circuits.

Some Administrations may wish to locate the TIC for international leased and special circuits indepen dently of that for public telephony circuits.

In all cases there will be a transmission maintenance point (international line) (MTP-IL) (see Recommendation M.1014) located at each TIC for leased and special circuits.

There will be two TICs in a point-to-point international circuit. There may be more in a multiterminal circuit. See Figure 2/M.1010. (Rec. M.1010)

139 terminal national centre

F: centre terminal national

S: centro terminal nacional

The nearest national installation (for example, a repeater station) to which the renter's equipment is connected by the terminal national section. This centre will normally be staffed and equipped to make transmission measurements (see Figure 1/M.900). (Rec. M.900)

140 terminal national centre

F: centre terminal national

S: centro terminal nacional

The national centre (e.g., repeater station, telephone exchange) that is:

— nearest to the renter's installation;

— provided with a circuit test point, so that transmission measurements can be made by appropriate staff. See Figure 2/M.1010. (Rec. M.1010)

141 terminal national section

F: section nationale terminale

S: secci´on terminal nacional

The lines and apparatus between the defined test access points at the interface in the renter's premises and corresponding defined access points at the terminal national centre (see Figure 1/M.900). (Rec. M.900)

142 terminal national section

F: section nationale terminale

S: secci´on terminal nacional

The lines and apparatus connecting the renter's installation with the terminal national centre concerned. There may be intermediate installations (e.g., telephone exchanges) in the terminal national section but they are assumed to have no testing facilities normally available. See Figure 2/M.1010. (Rec. M.1010)

143 test

F: essai

S: prueba

A direct practical trial in whatever manner it may be made. (Rec. M.700, *Red Book*)

144 test; functional test

F: essai de fonctionnement

S: prueba de funcionamiento

A *yes or no* test made to indicate whether a circuit, equipment or part of an equipment will function or not function under actual working conditions. (Rec. M.700, *Red Book)*

145 test; limit test

F: essai aux limites

S: prueba en los l´imites

A test made to indicate whether a quantity would fall within or outside a pair of limits or boundaries. (Rec. M.700, *Red Book)* .bp

146 test; yes or no test

F: essai par ‘‘tout ou rien’’

S: prueba de viabilidad

A test made to indicate whether a quantity or magnitude would fall above or below a specified limit or boundary defined to distinguish pass and fail conditions. (Rec. M.700, *Red Book)*

147 testing point (line signalling)

F: centre pour les essais de la signalisation de ligne

S: punto de pruebas de la señalizaci´on de l´inea

The testing point (line-signalling) is an element within the general maintenance organization for the international automatic and semi-automatic telephone service at each international centre. It carries out line signalling tests on international circuits using channel-associated signalling systems, e.g., R2, No. 5, whether provided by wholly analogue transmission and switching systems or by a mixture of analogue and digital systems.

Note — In practice, at digital international exchanges, a line access point at the circuit level may not exist when the exchanges is interfaced by primary (or higher order) digital paths. Thus, all signalling testing may need to be carried out from one location — generally the testing point (switching and interregister signalling). Signalling tests on Signalling System No. 6 are controlled and coordinated by the administrative control (see Recommendation M.762). (Rec. M.718)

148 testing point (switching and interregister signalling)

F: centre pour les essais de commutation et de la signalisation entre enregistreurs

S: punto de pruebas de conmutaci´on y señalizaci´on entre registradores

The testing point (switching and interregister signalling) is an element within the general maintenance organization for the international automatic and semi-automatic telephone service at each international centre. It carries out tests concerned with switching and interregister signalling functions associated with international circuits, whether provided by wholly analogue transmission and switching systems or by a mixture of analogue and digital systems.

Note — In practice, at digital international exchanges, a line access point at the circuit level may not exist when the exchange is interfaced by primary (or higher order) digital paths. Thus, all signalling testing may need to be carried out from one location, generally the testing point (switching and interregister signalling). This would include line signalling aspects, if any. (Rec. M.719)

149 testing point (transmission)

F: centre pour les essais de la transmission

S: punto de pruebas de la transmisión

The testing point (transmission) is an element within the general maintenance organization for the international automatic and semi-automatic telephone service at each international centre. It carries out transmission testing on international circuits whether provided by wholly analogue transmission and switching systems or by a mixture of analogue and digital systems. (Rec. M.717)

150 trafficability performance

F: traficabilité; capacité d'écoulement du trafic

S: aptitud para cursar tráfico

The ability of an item to meet a traffic demand of a given size and other characteristics, under given internal conditions.

Note — Given internal conditions refer, for example, to any combination of faulty and non-faulty sub-items. (Rec. E.800)

151 transmission

F: transmission

S: transmisión

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

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

Note 2 — The use of the English word ‘‘transmission’’ in the sense of emission is deprecated. (Recs. G.701, I.112)

152 transmission performance

F: qualité de transmission

S: calidad de transmisión

The level of reproduction of a signal offered to a telecommunications system, under given conditions, when this system is in an up state. (Rec. E.800)

153 transmission restoration

F: rétablissement de la transmission

S: restablecimiento de la transmisión

The different actions taken in order to restore the transmission of a signal affected by a transmission fault. (Rec. M.495)

154 transmission route

F: trajet de transmission

S: ruta de transmisión

A transmission facility on a specific medium used by a certain number of transmission systems between two stations.

Note 1 — For example, one cable between two stations could be regarded as one transmission route (whatever the number of systems using this cable is) and a radio system between these two points could be regarded as another route.

Note 2 — This represents a physical route; this is different from the term ‘‘route’’ which is defined in the E.600, Q.9 and Z.341 Recommendations, which represents a logical route. (Rec. M.495)

155 transmission route diversity

F: diversité de routage de transmission

S: diversidad de rutas de transmisión

The provision of at least two links between two nodes in a transmission network which are routed over different transmission routes.

Note — In case of a failure of one link, transmission route diversity allows some traffic between the two nodes still to be carried over the remaining link(s). (Rec. M.495)

156 upstream failure indication (UFI)

F: indication de défaillance en amont (IDA)

S: indicación de fallo atrás (IFA)

The upstream failure indication given by a maintenance entity indicates that the signal arriving at that maintenance entity is defective. The UFI indicates that the failure has occurred upstream of this point and no unnecessary maintenance activities are initiated. (Rec. M.20)

ANNEX A
(to Recommendation M.60)

List of maintenance terms

This Annex presents the maintenance terms in alphabetical order together with their section number.

Section No.	*Term*
1	Alarm indication signal (AIS)
2	Anomaly
3	Automatic switching equipment
4	Availability (performance)
5	Bit error ratio (BER)
6	Bridging loss
7	Channel; access channel
8	Channel; transmission channel
10	Circuit; digital circuit
9	Circuit; telecommunication circuit
11	Circuit access points
12	Circuit control station
13	Circuit sub-control station
14	Code violation
15	Connection
16	Connection; digital connection
17	Connection; international connection
18	Connection; international telephone connection
19	Continuity check
20	Continuous checking
21	Control station
22	Data communication network
23	Data communications network (DCN)
24	Data communications function (DCF)

25 Dead time

26 Defect

27 Deferred maintenance alarm (DMA)

28 Degraded minute (DM)

29 Echo

30 Echo canceller

31 Echo suppressor

32 Error

33 Error; random error

34 Error burst

35 Error free seconds (EFS)

36 Errored seconds

37 Exchange

38 Failure

39 Fault

40 Fault; intermittent fault

Section No.	Term
41	Fault correction
42	Fault localization; localization of faults
43	Fault report point (circuit)
44	Fault report point (network)
45	Interface
46	International automatic circuit
47	International chain
48	International leased circuit
49	International main section
51	Interruption
52	Interruption
50	Interruption; break of service
53	Line; international line
54	Line; international line
55	Line; national line
56	Line access point
57	Link; international link
58	Link; transmission link
59	Logistic delay
60	Loopback
61	Loopback; complete loopback
62	Loopbback; digital loopback
63	Loopback; logical loopback
64	Loopback; non-transparent loopback
65	Loopback; partial loopback
66	Loopback; transparent loopback
67	Loopback application
68	Loopback control mechanism
69	Loopback control point

70 Loopback point

71 Loopback requesting point

72 Loopback test pattern

73 Maintainability (performance)

74 Maintenance

75 Maintenance

76 Maintenance; automatic maintenance

77 Maintenance; controlled maintenance

78 Maintenance; corrective maintenance

79 Maintenance; deferred maintenance

80 Maintenance; preventive maintenance

Section No. Term

81	Maintenance entity (ME)
82	Maintenance entity assembly (MEA)
84	Maintenance event information (MEI)
85	Maintenance philosophy
86	Maintenance policy
87	Maintenance service provider (MSP)
88	Maintenance strategy
83	Maintenance sub-entity (MSE)
89	Maintenance support (performance)
90	Management entities
91	Measurement
92	Mediation device (MD)
93	Mediation function (MF) (block)
94	Multiterminal service circuit
95	National main section
96	National system
97	Network analysis point
98	Network element (NE)
99	Network element function (NEF) block
100	Omnibus service circuit
101	Operation, administration and maintenance centre (OAMC)
102	Operations system (OS)
103	Operations system function (OSF) block
105	Path; digital path
104	Path; telecommunication path
106	Point
107	Prompt maintenance alarm
108	Propagation performance
110	Protected monitoring point

109 Protection switching

111 Quality of service (QOS)

112 Redundancy; standby

113 Reliability (performance)

115 Restoration control point

114 Restoration recovery

116 Routine or periodic testing

117 Serveability performance

118 Service

119 Service; bearer service

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Section No. Term

120	Service; telecommunication service
121	Service; teleservice
123	Service accessibility performance
122	Service alarm (SA)
124	Service integrity
125	Service operability performance
126	Service retainability performance
127	Service support performance
128	Severely errored seconds (SES)
129	Sub-control station
130	Subscriber access maintenance centre (SAMC)
131	Subscriber access maintenance entity (SAME)
132	Subscriber installation maintenance entity (SIME)
133	System availability information point
134	Telecommunication
135	Telecommunication Administration
136	Telecommunications management network (TMN)
137	Terminal international centre
138	Terminal international centre
139	Terminal national centre
140	Terminal national centre
142	Terminal national section
142	Terminal national section
143	Test
144	Test; functional test
145	Test; limit test
146	Test; yes or no test
148	Testing point (switching and interregister signalling)
149	Testing point (transmission)

147 Testing point (line signalling)

150 Trafficability performance

151 Transmission

152 Transmission performance

153 Transmission restoration

154 Transmission route

155 Transmission route diversity

156 Upstream failure indication (UFI)

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