

## RECOMMENDATION ITU-R M.1224

**VOCABULARY OF TERMS FOR INTERNATIONAL MOBILE  
TELECOMMUNICATIONS-2000 (IMT-2000)**

(Question ITU-R 39/8)

(1997)

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**1 Introduction**

International Mobile Telecommunications-2000 (IMT-2000) are third generation mobile systems, which are scheduled to start service around the year 2000 subject to market considerations. They will provide access, by means of one or more radio links, to a wide range of telecommunication services supported by the fixed telecommunication networks (e.g. PSTN/ISDN), and to other services which are specific to mobile users.

A range of mobile terminal types is encompassed, linking to terrestrial and/or satellite-based networks, and the terminals may be designed for mobile or fixed use.

Key features of IMT-2000 are:

- high degree of commonality of design worldwide,
- compatibility of services within IMT-2000 and with fixed networks,
- high quality,
- use of a small pocket-terminal with worldwide roaming capability.

IMT-2000 will operate in the worldwide bands identified in the Radio Regulations (1 885-2 025 MHz and 2 110-2 200 MHz, with the satellite component limited to 1 980-2 010 MHz and 2 170-2 200 MHz).

IMT-2000 are defined by a set of interdependent ITU Recommendations of which this one is a member. This Recommendation contains a vocabulary of terms used in the ITU Recommendations on IMT-2000.

**2 Scope**

This Recommendation consists primarily of those terms and definitions that are considered essential to the understanding and application of the principles of IMT-2000. Included are terms that may already be defined in other ITU Recommendations. However, the definitions given here embrace only the essential concepts and on this basis it is considered that they are not inconsistent with the more specialized definitions that appear in those Recommendations.

The terms defined below are not exclusive to IMT-2000, and so far as they are relevant, may also apply to other radiocommunication systems and services. Where a truncated term is widely used in an understood context, the complete term is quoted following the colloquial form.

### **3 Structure of the Recommendation**

Section 4.1 contains the definitions of terms related to IMT-2000. Section 4.2 contains a list of abbreviations and acronyms which are used in IMT-2000 Recommendations.

### **4 Recommendation**

For the purposes of IMT-2000 Recommendations the following terms should have the meaning defined below. These terms and definitions do not, however, necessarily apply for other purposes.

#### **4.1 Definitions of terms related to IMT-2000**

##### **Abbreviated dialling (ABD)**

A supplementary service or a service feature where for a given user identification or in some cases for a given line, the network stores a list of numbers which it dials on receipt of a predefined shorter code.

##### **Access control for service profile data**

A feature by which there are restrictions in the access to the personal service profile of an IMT-2000 user or subscriber stored in the network.

##### **Access control for subscription data**

A feature by which there are restriction in the access to the personal data of an IMT-2000 user or subscriber stored in the network.

##### **Account card calling (ACC)**

A supplementary service which allows a user to make a call from any card reading phone to any destination and have the call charges debited to an account of the related subscriber as depicted by the card content.

##### **Accounting**

A function which apportions the revenue obtained by the service providers to network operators in line with commercial arrangements.

##### **Acknowledged operation**

The type of operation by which layer 3 information is transmitted in the frames that are acknowledged at the data link layer. Error recovery procedures based on retransmission of unacknowledged frames are specified. In case of error which cannot be corrected by the data, a report to the management entity is made. Flow control procedures are also defined.

NOTE 1 – The term “layer” refers to the OSI (Open Systems Interconnection) reference model.

##### **Adaptive terminal**

Terminal equipment with the capability of adapting to more than one type of network.

NOTE 1 – Adapting to different networks could be accomplished by using a combination of techniques such as analogue-to-digital/digital-to-analogue conversion, multiband antennas and/or software radio architectures.

**Advice-of-charge (AoC)**

A supplementary service offering the possibility for a mobile user to reach charging information related to the used telecommunications services.

NOTE 1 – This service may include one or more of the following cases:

- charging information at the end of the call;
- charging information during a call;
- charging information at call set-up time.

**Anonymity**

The process of hiding a user's identity, and location.

**Assignment source point (ASP)**

The point of the layer management where the network is entitled for SMSI assignment.

**Associated control channel (ACCH)**

A point-to-point, bidirectional control channel that supports both signalling and packet data. The ACCH is always associated with the traffic channel (TCH) and provides for call control mobile management and RF transmission management signalling.

**Asynchronous transfer mode (ATM)**

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

**Attendant (ATT)**

A service feature allowing VPN users to access an attendant position for providing VPN service information.

**Authentication**

The process of verifying the identity of a user, terminal, or service provider.

**Authentication algorithm**

A sequence of security information known by the user, or maintained in an access device. It is used to provide secure access to the service. This may involve complex algorithms.

**Authentication random number**

The random pattern sent from the network to the mobile station for authentication check of the mobile station and/or mobile subscriber.

**Authentication response**

The resultant bit pattern obtained through the operation by the mobile station using the authentication random number.

**Authentication service feature (AUTC)**

A service feature by which it can be verified that a user is allowed to exercise certain options.

NOTE 1 – AUTC does not include authorization code or credit extension.

**Authorization (AUTZ)**

A property by which the rights to resources are established and enforced.

**Authorization code (AUTS)**

A service feature which allows a user to override calling restrictions of the station from which the call is made. Different sets of calling privileges can be assigned to different authorization codes and a given authorization code can be shared by multiple users.

**Automatic link transfer**

The process of automatically re-routing the radio portion of a call for signal quality, traffic management, or other reasons.

**Availability performance**

The ability of an item to be in a state to perform a required function at a given instant of time or at any instant of time within a given time interval.

**Barring of incoming calls (BAIC)**

A supplementary service which enables a subscriber or a mobile user to have barring of certain categories of incoming calls according to a barring program which is selected from a set of one or more barring programs chosen at provision time and is valid for all incoming calls, or just those associated with a specific basic service. The ability of the served mobile user to set up outgoing calls remains unaffected.

**Barring of outgoing calls (BAOC)**

A supplementary service which enables a subscriber to have barring of certain categories of outgoing calls according to a barring program which is selected from a set of one or more barring programs chosen at provision time and is valid for all outgoing calls, or just those associated with a specific basic service. The ability of the served mobile user to receive calls and to set up emergency calls remains unaffected.

**Base station (BS)**

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

**Base station area**

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

**Basic retransmission control**

A retransfer control which is carried out for all layer 2 under HDLC procedure using N(S) and N(R).

NOTE 1 – The terms “layer” and “HDLC”, N(S), and N(R) refer to the OSI (Open Systems Interconnection) reference model.

**Bearer capability**

A transmission function which the mobile station requests to the network.

**Bearer service**

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

NOTE 1 – The ISDN connection type used to support a bearer service may be identical to that used to support other types of telecommunication services.

**Billing**

A function whereby charging information generated by the charging function is transformed into bills requiring payment. Billing also includes collecting payments from the subscribers.

**Bit interleave**

The method to create radio signals which have strong burst error resistance: a matrix is provided in which the data are written horizontally (row direction) whereas they are read vertically (column direction).

**Bit transparency**

A process of transferring the bit series as it is sent from the originating party to the called party.

**Broadcast call**

A point-to-multipoint call in which the same information is transmitted simultaneously by the calling user to all intended users.

**Broadcast control channel (BCCH)**

The BCCH provides the broadcast capability for a variety of information streams from base stations to mobile stations, including information necessary for the MS to register in the system.

**Burst ID number**

The number used to distinguish between “synchronization burst” and “end burst”.

**Call**

The use, or possible use, of one or more connections set up between two or more users and/or services.

**Call control (CC)**

A function in layer 3 which carries out call proceeding.

NOTE 1 – The term “layer” refers to the OSI (Open Systems Interconnection) reference model.

**Call distribution (CD)**

A supplementary service or a service feature which allows to have incoming calls distributed to different locations as specified by the served user.

**Call forwarding (CF)**

A supplementary service or a service feature which allows the user to have his incoming calls addressed to another number.

**Call forwarding on mobile subscriber busy (CFB)**

A supplementary service which permits a called mobile subscriber to have the network send all incoming calls, or just those associated with a specific basic service, addressed to the called mobile subscriber’s directory number and which meet mobile subscriber busy to another directory number.

**Call forwarding unconditional (CFU)**

A supplementary service which permits a called mobile subscriber to have the network send all incoming calls, or just those associated with a specific basic service, addressed to the called mobile subscriber's directory number regardless of the condition of the termination at that time.

**Call gapping (GAP)**

A service feature introducing a spacing of calls to ensure that a defined time has elapsed between consecutive attempts.

**Call hold (CH)**

A supplementary service which allows a served mobile user to interrupt communication on an existing active call and then subsequently, if desired, re-establish communication.

**Call hold with announcement (CHA)**

A service feature allowing a user to place a call on hold with options to play music or customized announcement to the held party.

**Call limiter (LIM)**

A service feature which counts the total number of calls routed to a given destination in a given period and diverts or blocks when the parameter is exceeded.

**Call logging (LOG)**

A service feature which allows for a record to be prepared every time that a call is received to a specified number.

**Call management**

The ability of a user to indicate to the network how to handle incoming calls according to certain parameters such as the originator of the call, the time of day and the nature of the call.

NOTE 1 – The call management functionality is “set up” through the user's service profile.

**Call number**

A number used to identify each call over the user-network interface.

**Call queueing (QUE)**

A service feature which allows a user to have calls meeting busy held in queue and connected when the line becomes free. It includes delivery of “originating user prompters” to the caller and destination user prompters to the called party.

**Call rerouting distribution (CRD)**

A supplementary service which permits the subscriber to have incoming calls re-routed to a predefined choice upon encountering a busy, a specified number of rings, queuing overload or a call limiter.

**Call transfer (CT)**

A supplementary service or a service feature which enables the served mobile user to transfer an established incoming or outgoing call to a third party.

**Call waiting (CW)**

A supplementary service or a service feature which permits the possibility for a mobile user to be notified of an incoming call while the termination is in the busy state. Subsequently, the subscriber can either answer, reject, or ignore the incoming call.

**Calling number identification presentation (CNIP)**

A supplementary service which provides for the ability to indicate the number of the calling party with possible additional address information to the called party.

**Calling number identification restriction (CNIR)**

A supplementary service offered to the calling party to restrict presentation of the calling party's number with possible additional address information to the called party.

**Calling party identification presentation (CPIP)**

A supplementary service which allows a UPT user to specify that the identity of the calling user or terminal access shall be announced on the alerting terminal in the case of an incoming UPT call. The identity of terminal access must never be presented if the calling party is a UPT user.

**Capability**

The ability of an item to meet a service demand of given quantitative characteristics under given internal conditions.

**Cause indication**

An information field used for indicating the cause for the interruption call connection.

**Cell**

The radio coverage area of a satellite spot beam or a base station, or of a subsystem (e.g. sector antenna) of that base station corresponding to a specific logical identification on the radio path, whichever is smaller.

NOTE 1 – Every mobile station in a cell may be reached by the corresponding radio equipment.

**Channel identifier**

An information field which is used for identifying the channel controlled by the signalling protocol.

**Charging**

A function, whereby information is gathered, recorded or transferred in order to make it possible to determine and to collate usage for which the subscriber may be billed.

**Circuit transfer mode**

A transfer mode in which transmission and switching functions are achieved by permanent or quasi-permanent allocation of channels, bandwidth or codes between identified points of a connection.

**Closed user group (CUG)**

A supplementary service or a service feature which allows users to form groups to and from which access is restricted. A specific user may be a member of more than one CUG. Members of a specific CUG can communicate among themselves but not, in general, with users outside the group.

NOTE 1 – Specific users of a CUG may have additional capabilities or additional restrictions that apply.

**Code excited linear prediction (CELP)**

A type of speech coding system where voice wave forms are analysed into parameters before they are transmitted.

**Collision control bits**

The bits which are used for random access control of the SCCH uplink channel.

**Colour code**

A code which is assigned to each cluster (frequency repetition unit) to discern signals sent from a station which is causing interference.

**Common access channel (CAC)**

A channel which is composed of BCCH, PCH, SCCH and UPCH. One physical channel is commonly used by several users.

**Common control channel (CCCH)**

A point-to-multipoint, bidirectional control channel. A CCCH is primarily intended to support signalling information for call control, mobility management and RF transmission management.

**Common platform**

A function for which CC, MM and RT information are sent simultaneously on one signal in order to increase signal transfer efficiency on layer 3.

NOTE 1 – The term “layer” refers to the OSI (Open Systems Interconnection) reference model.

**Compatibility**

A degree of transparency sufficient to support an acceptable grade of service with respect to a connection between system entities. Full compatibility implies full transparency.

**Completion of calls to busy subscriber (CCBS)**

A supplementary service which allows a calling user to be informed upon encountering a busy destination and to complete the call when that destination becomes free, without re-dialling.

**Completion of calls when subscriber not reachable (CCNRc)**

A supplementary service which relates to the user/terminal mobility and can be used to complete a call when the network locates a user or terminal which the network could not previously locate.

**Conference calling (CON)**

A supplementary service which allows the engagement of multiple parties in a single conversation.



**Confidentiality**

A property by which information relating to an entity or party is not made available or disclosed to unauthorized individuals, entities or processes.

**Confirm primitive**

A service primitive which is used to indicate that a service request has been completed.

**Connected number identification presentation (CONP)**

A supplementary service which provides for the ability to indicate the number of the connected party with possible additional address information to the calling party during the call establishment phase.

**Connected number identification restriction (CONR)**

A supplementary service which is offered to the connected party's number with possible additional address information to the calling party. The service may be offered during a permanent period or on a per call basis.

**Connectionless service**

A service which allows the transfer of information among users without the need for end-to-end call establishment procedures. Connectionless services may be used to support both interactive and distribution services.

**Consultation calling (COC)**

A service feature offering the ability to place a call on hold, make another call and toggle between the two.

NOTE 1 – This service feature is equivalent to an inquiry call in private networks.

**Control channel structure information**

An information element which indicates the physical structure (frequency, slot, etc.) of the control channel (CCH) for each radio channel.

**Control field extension bit**

The first bit of each control field octet, which is added to extend the control field length.

**Conversational service**

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

**Credit card calling (CCC)**

A supplementary service which allows the caller to have the call charged to the account specified by the CCC number.

**Customized recorded announcement (CRA)**

A service feature which allows the call to be completed to a recorded announcement instead of a subscriber link. The served user may define different announcements for unsuccessful call completion due to different reasons (e.g. no answer, busy).

**Customized ringing (CRG)**

A service feature offering the invocation of distinct ringing cadences based upon origin of call. This is used to give an indication of where the call comes from.

**Data integrity**

The property that the data has not been altered or destroyed in an unauthorized manner.

**Dependability**

The collective term used to describe the availability performance and its influencing factors, such as, reliability performance, maintainability performance and maintenance support performance. Dependability is used only for general descriptions in non-quantitative terms.

**Destinating user prompter (DUP)**

A service feature delivering an announcement to the called party, and manages dialogue. It includes requesting and accepting additional information (e.g. key strokes) for use by the service logic to continue to process the call. It also includes all voice announcements to a called party.

**Destination call routing (DCR)**

A supplementary service which allows the subscriber to have incoming calls re-routed to destinations based upon the geographic locations of the calling parties, time of day, day of week, etc., calling line identity of customer, service attributes against the customer, priority, charge rates applicable to the destinations or proportional routing of traffic.

**Distribution service**

A service characterized by the unidirectional flow of information from a given point in the network to the other (multiple) locations. Distribution service are subdivided into two classes:

- without user individual presentation control;
- with user individual presentation control.

**Downlink (satellite)**

A radio transmission link in the direction of space-to-Earth.

**Downlink (terrestrial)**

A unidirectional radio pathway for the transmission of signals from one base station to one or more mobile stations.

**Dual mode stations (DMS)**

An entity which is both a mobile station and a mobile earth station. This allows the user to access IMT-2000 services using either a terrestrial or a satellite mode.

**Emergency service**

A telecommunication service, which is used to access a public emergency centre, characterized by a locally significant access number, high priority, and distinctive feature interactions.

**Encryption**

A function used to transform data so as to hide its information content to prevent its unauthorized use.

**Evolution**

A process of change and development of a mobile radio system towards enhanced capabilities.

**Evolution towards IMT-2000**

A process of change and development of a mobile radio system towards the capabilities and functionalities of IMT-2000.

**Feeder link (satellite)**

A radio transmission link between land earth station and space station.

**Fixed personal terminal**

A terminal operating in the wireline-access mode, supporting personal communications.

**Fixed-access**

A terminal access to a network in which there is a set relationship between the terminal and the access interface. A single "identifier" serves for both the access interface and the terminal. If the terminal moves to another access interface, it assumes the identity of that interface.

**Fixed-mounted station**

A station which is fixed mounted and which is not intended to be operated while in motion; however, it behaves otherwise in the system like a mobile station.

**Flow control function**

A signal transfer function which transfers signals while acknowledging whether or not the signal is received by the other party and if the other party is ready to receive signals.

**Follow-me diversion (FMD)**

A supplementary service or a service feature which gives the user the capability to remotely control the redirection of incoming calls from any point in the network.

**Frame**

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

NOTE 1 – The terms "layer" and "HDLC" refer to the OSI (Open Systems Interconnection) reference model.

**Frame synchronization word**

The bits which are used for synchronization of the frame. Several words are used within one frame to identify the slot to be used in the carrier.

**Freephone (FPH)**

A supplementary service which allows a subscriber to offer a call free of charge to a caller at the subscriber's expense for that call.

**Functional architecture**

A functional configuration which identifies and defines network entities and the functional interfaces between these network entities.

**Functional entity**

A grouping of service providing functions at a single location. It is a subset of the total set of functions required to provide the service.

**Functional interface**

The application layer protocol between a pair of network entities.

**Functional model**

A model which identifies and defines functional entities and relationships between these functional entities.

**Geostationary satellite orbit (GSO)**

The orbit of a geosynchronous satellite whose circular and direct orbit lies in the plane of the Earth's equator.

**Global service area**

Worldwide service area.

**Handover**

The action of switching a call in progress from one cell to another (intercell) or between radio channels in the same cell (intracell) without interruption of the call.

NOTE 1 – Handover is used to allow established calls to continue when mobile stations move from one cell to another (or as a method to minimize co-channel interference).

**Highly inclined elliptical orbit (HEO)**

An elliptical orbit most typically with a perigee of 500 km or more and a apogee of 50 000 km or less altitude above the Earth's surface with an inclination angle greater than 40° from the equatorial plane.

**Home location register (HLR)**

The location database to which a mobile station is assigned for record purposes such as the service profile information of a subscriber or user.

**Hot spot capacity**

The number of users who may be instantaneously supported per isolated cell (or satellite spot beam) per unit spectrum. This must be specified at a stated spectrum allocation, quality and grade of service.

**Housekeeping bit**

The layer 1 information which is used for real-time transmission of control bits, such as interference level report, transmitter power control, that are used for keeping the radio link.

NOTE 1 – The term “layer” refers to the OSI (Open Systems Interconnection) reference model.

**ID control field**

A control area which is used by the network to assign or cancel the SMSI to the mobile station.

**ID display field**

A display field used for identifying the MSI and SMSI contained in the address field.

**Identification**

A step in a procedure used to identify a user or terminal to a service provider for the purposes of broad prevention.

**Idle-signal casting multiple access with partial echo (ICMA-PE)**

An access control which is intended to prevent collisions and acknowledges whether the access signal from the mobile station is successfully received or not at the base station by means of partial echo.

**IMT-2000**

Those systems that conform to the corresponding series of ITU Recommendations and Radio Regulations.

**IMT-2000 access provider**

A person or entity that provides IMT-2000 radio access to a telecommunication network in order that some or all of the services provided by that network may be available to users.

**IMT-2000 network operator**

A legal person or entity ultimately responsible for providing complete IMT-2000 network functionality to IMT-2000 user. Parts of the complete IMT-2000 network functionality may however, be provided by other parties.

**IMT-2000 radio interface**

The means of realizing the wireless electromagnetic interconnection between an IMT-2000 mobile station (or mobile earth station) and an IMT-2000 base station (or space station).

NOTE 1 – The IMT-2000 radio interface specification consists of a statement of the form and content of the signals transmitted from stations. The specification contains the definition of functional characteristics, common radio (physical) interconnection characteristics, signal characteristics, and other characteristics, as appropriate.

**IMT-2000 service profile**

A record containing the information related to an IMT-2000 user in order to provide that user with the IMT-2000 service.

NOTE 1 – Each IMT-2000 service profile is associated with a single IMT-2000 number.

**IMT-2000 service provider**

A legal person or entity responsible for providing IMT-2000 subscriptions to IMT-2000 subscriber.

**IMT-2000 subscriber**

A legal person or entity associated with the IMT-2000 subscription and responsible for the charges incurred by his associated IMT-2000 user.

NOTE 1 – IMT-2000 subscriber may be responsible for several IMT-2000 users.

**IMT-2000 user**

A person, entity or process actually using the IMT-2000 services. An IMT-2000 user is associated with a unique user identity.

**IMT-2000 user mobility**

A feature which enables an IMT-2000 user to transfer his/her identity between IMT-2000 mobile terminals.

**Incall modification (IM)**

A supplementary service which enables a user to change within an established (i.e. active) call from one type of call characterized by one set of bearer capability, low layer and/or high layer capabilities to another type of call with another set without changing the end-to-end connection.

**Indication primitive**

A service primitive which is used by the service-provider to notify the service-user of a request for a service or action initiated by the service-provider.

**Information capacity**

The total number of user-channel information bits that can be supported by a single cell (or spot beam) which is part of an infinite set of identical cells (or large number of satellite spot beams) in a uniform two-dimensional (or three-dimensional) pattern.

NOTE 1 – The information capacity, typically measured in “Mbit/s/cell or Mbit/s/satellite spot beam”, must be specified at a stated spectrum allocation, quality and grade of service, assuming an appropriate propagation model. This metric is valuable for comparing systems with identical user channel requirements.

**Information flow**

An interaction between functional entities required to support their joint operation. The complete set of “information flows” between a pair of functional entities describes fully and sufficiently the relationship between them.

**Information security**

The combination of confidentiality, validity, authenticity, integrity and information availability.

**Integration**

The act or process or an instance of forming, coordinating, or blending into a functioning or unified whole.

**Integrity**

A property by which the information contents of an object is prevented from being modified.

**Intelligent network (IN)**

A telecommunication network based on an architecture that provides flexibility for facilitating the introduction of new capabilities and services, including those under customer control.

**Intended recipient identification presentation (IRID)**

A service by which the identity of the intended recipient (UPT number or name etc., specified by the called UPT user) is presented at the alerting terminal.

**Interactive service**

A service which provides the means for the bidirectional exchange of information between users or between users and hosts.

NOTE 1 – Interactive services are subdivided into three classes of services: conversational services, messaging services and retrieval services.

**Intercell handover**

(See “Handover”).

**International charged subscriber identifier (ICSI)**

A unique identifier allocated to each IMT-2000 subscriber and used to identify the subscriber that is to be charged by the IMT-2000 operator.

**International mobile equipment identity (IMEI)**

A code allocated to each IMT-2000 MT when manufactured and used to uniquely identify the IMT-2000 MT to the network for the purpose of terminal equipment validation or other similar tasks.

**International mobile user identity (IMUI)**

The unique identifier allocated to each IMT-2000 user which is used to identify the user to the IMT-2000 operator.

**International mobile user number (IMUN)**

A dialable number allocated to an IMT-2000 user.

**Interoperability**

The ability of multiple entities in different networks or systems to operate together without the need for additional conversion or mapping of states and protocols.

**Interworking**

The means of supporting communications and interactions between entities in different networks or systems.

**Interworking functions**

Mechanisms which mask the differences in physical, link, and network technologies by converting or mapping states and protocols into consistent network and user services.

**Intracell handover**

(See “Handover”).

**Land earth station (LES)**

A part of the feeder-link system of a satellite network which provides for traffic and signalling connections between the space and terrestrial infrastructure segments of the satellite system.

NOTE 1 – Generally, the LES does not operate within the IMT-2000 frequency bands 1 885-2 200 MHz.

**Limited service area**

A service area which is limited to a part of a country.

**Link access procedure for digital cordless (LAPDC)**

A link access procedure (layer 2) on the CCH for the digital cordless telephone system.

NOTE 1 – The term “layer” refers to the OSI (Open Systems Interconnection) reference model.

**Link access procedure for digital mobile channel (LAPDM)**

A link access procedure (layer 2) on the CCH for the digital mobile communications system.

NOTE 1 – The term “layer” refers to the OSI (Open Systems Interconnection) reference model.

**Location confidentiality**

A function by which the information about the location of an entity is accessible only to the authorized parties.

**Location identity**

An identification number that indicates the location registration area in which the mobile station is located.

**Location service**

A particular mobility service in which location information can be provided to authorized users or to relevant authorities in case of emergency calls or for vehicular traffic management.

**Logical channel**

An information stream dedicated to the transmission of a type of information supported by a radio bearer connection. Multiple logical channels can be mapped onto a single physical channel. One logical channel can also be mapped or duplicated on multiple physical channels.

**Low-Earth orbit (LEO)**

A circular or elliptical orbit of about 700 to 3 000 km altitude above the Earth's surface.

**Macro cells**

Cells with a large cell radius, typically several tens of km. (Radius of 35 km.)

NOTE 1 – The radius of a cell can be extended by the use of directional antennas.

NOTE 2 – Macro cells are characterized by low-to-medium traffic density, support for moderate mobile station speeds and narrow band services.

NOTE 3 – A typical macro cell may be situated in a rural or suburban environment, with moderate building blockage, and, depending on terrain, significant foliage blockage.

**Macro diversity**

A family of diversity techniques where diversity is provided by using multiple physical channels forming in the general case a point-to-multipoint RF connection in the uplink and a multipoint-to-point connection in the downlink carrying a single data transmission.

NOTE 1 – Such techniques include base station diversity, soft hand-off, simulcast, etc. At the mobile terminal side, macro-diversity and micro-diversity reception may in certain cases be similar.



**Maintainability performance**

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.

**Maintenance support performance**

The ability of a maintenance organization, under given conditions, to provide upon demand the resources required to maintain an item, under given maintenance policy. The given conditions are related to the item itself and to the conditions under which the item is used and maintained.

**Malicious call identification (MCI)**

A supplementary service which allows the user to request that the source of an incoming call be identified and presented to an authorized entity.

**Masquerade**

The pretence by an entity to be a different entity.

**Mass calling (MAS)**

A supplementary service or a service feature which involves instantaneous, high-volume traffic which is routed to one or more multiple destination(s). The network operator can temporarily allocate a single directory number to the served user and each time a call is made an announcement will be played to initiate the served user to input a further digit to indicate a preference.

**Measurement mode**

An information field which is used to specify the measuring time of the reception level to the mobile station.

**Mediation function (MF)**

The MF block acts on information passing between an OSF and NEF (or QAF) to ensure that the information conforms to the expectations of the functional blocks attached to the MF. This may be necessary as the scope of the same reference point can differ. Mediation functional blocks may store, adapt, filter, threshold and condense information.

**Medium-Earth orbit (MEO)**

A circular or elliptical orbit of about 8 000 to 20 000 km altitude above the Earth's surface.

**Mega (satellite) cells**

Cells which provide coverage to large areas and are particularly useful for remote areas with low traffic density. Due to their size, mega cells will provide coverage in many kinds of environment, from remote to urban, in areas without access to terrestrial telecommunications networks and in developing countries (even in urban areas) where this may be the only cell type available.

NOTE 1 – Currently, mega cells can only be practically provided by satellite (the term “satellite cell” is sometimes used interchangeably with mega cell); however, it may be possible in the future for satellites to provide macro cell coverage.

**Message field**

An information field which is used to identify the function of the transferred messages.

**Messaging service**

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

**Micro cells**

Cells with low antenna sites, predominantly in urban areas, with a typical cell radius of up to 1 km.

NOTE 1 – Micro cells are characterized by medium-to-high traffic density, low mobile station speeds and narrow-band services.

NOTE 2 – Blockage by man-made structures may be significant in a micro cell environment.

**Micro diversity**

Micro diversity is a family of diversity techniques which can be implemented on top of a single point-to-point RF transmission using a single physical channel. Such techniques include: antenna diversity, polarization diversity, multipath diversity, etc.

**Migration to IMT-2000**

Movement of users and/or service delivery from existing telecommunication networks to IMT-2000.

**Mobile earth station (MES)**

An entity capable of accessing a set of IMT-2000 satellite services. This entity may be stationary or in motion within the IMT-2000 service area while accessing IMT-2000 satellite services and may simultaneously serve one or more user.

NOTE 1 – A user of a mobile earth station may also have several simultaneous connections with the network.

**Mobile earth station (fixed) (MESf)**

A mobile earth station operating only in a fixed environment.

**Mobile service switching entity network architecture**

A group of functions providing switched connections for mobile services user.

**Mobile services switching centre (MSC)**

In an automatic system, the MSC constitutes the interface between the radio system and the public switched telephone network. The MSC performs all necessary signalling functions in order to establish calls to and from mobile stations.

**Mobile station (MS)**

A station in the mobile service intended to be used while in motion or during halts at unspecified points.

**Mobile station (fixed) (MSf)**

A mobile station operating only in a fixed terrestrial environment.

**Mobile station identifier (MSI)**

An identifier which distinguishes the specific mobile station from others.

**Mobile termination (MT)**

The part of the mobile station which terminates the radio path at the mobile side and adapts the capabilities of the radio path to the capabilities of the terminal equipment.

**Mobility management (MM)**

A function in the layer 3 which carries out registration and authentication for the mobile station.

NOTE 1 – The term “layer” refers to the OSI (Open Systems Interconnection) reference model.

**Mobility manager**

A repository of information and its associated processes accessed by personal mobility management or terminal mobility management.

NOTE 1 – A mobility manager is used for location management, terminal registration and personal registration. A mobility manager is a functional concept which may be implemented in different ways, for example, as a database or in a signalling transfer point.

**Mobility manager identifier**

A code which unambiguously distinguishes a mobility manager.

**Mobility service**

Services which are directly related to the mobility of a user including terminal mobility.

**Multiband terminal**

Terminal equipment with the capability of accessing services using different frequency bands.

**Multiframe operation mode**

A acknowledged information transfer mode using the “modulo  $n$ ” sequence number.

**Multimedia service**

A service in which the interchanged information consists of more than one type (e.g. video, data, voice, graphics). Multimedia services have multivalued attributes which distinguish them from traditional telecommunication services such as voice or data. A multimedia service may involve multiple parties, multiple connections, the addition/deletion of resources and users within a single communication session.

NOTE 1 – In IMT-2000 specifications or reports, multimedia is used in the sense of multiple information types supported within what the user sees as a single call.

**Multimode terminal**

Terminal equipment with the capability of accessing services using different radio interfaces and/or techniques.

**Multiple subscriber number (MSN)**

A supplementary service which provides the possibility for assigning multiple numbers to a single interface.

**Multiplex number of location registration area**

The number of location registration areas multiplexed in a particular radio zone.

**National service area**

A service area consisting of a single country.

**Network**

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

**Network architecture**

A network configuration which identifies and defines physical entities and physical interfaces between these physical entities.

**Network element function; TMN related (NEF)**

The functionality providing the communication with the TMN being managed required for monitoring and control purpose.

**Network entity**

A set of functional entities that is mapped onto a single piece of equipment in all anticipated system implementations. A network entity always relates to one physical entity of the network architecture.

**Network integration**

Integration as applied to networks.

**Network operators**

A provider of network capabilities needed to support the services offered to subscribers.

**Network performance (NP)**

The ability of a network or network portion to provide the functions related to communications between users; it contributes to service accessibility, service retainability and service integrity. Network performance parameter values are usually derived from quality of service (QoS) parameter values.

**Network provider**

A person or another entity that provides the network capabilities to support a service or a set of services.

**Non-fixed access**

A terminal access to a network in which there is no set relationship between the terminal and the access interface. The access interface and the terminal each have their own separate "identifiers". The terminal may be moved from one access interface to another while maintaining its unique identity.

**Off-net access (OFA)**

A service feature which allows a user to access his/her VPN from any non-VPN station by using a personal identification number (PIN).

NOTE 1 – Different sets of calling privileges can be assigned to different PINS, and a given PIN can be shared by multiple users.

**Off-net calling (ONC)**

A service feature which allows the user to call outside the VPN network.

NOTE 1 – Calls from one VPN to another are also considered off-net.

**One number (ONE)**

A service feature enabling that the same logical number dialled from different physical areas will connect to different physical destinations.

**Operational system function (OSF)**

The functionality for processing information related to telecommunication management for the purposes of monitoring, coordinating and/or controlling telecommunication functions to include management functions (i.e. the TMN itself).

**Operational system function (OSF) block**

The OSF block process information related to telecommunications management for the purpose of monitoring/coordinating and/or controlling telecommunication functions to include management functions (i.e. the TMN itself).

**Operations system (OS)**

The OS is the system which performs OSFs. The OS may optionally provide MFs, QSFs and WSFs.

**Origin dependent routing (ODR)**

A service feature managing acceptance/rejection and/or routing of a call depending on where in the network it originated.

NOTE 1 – ODR does not include OCS.

**Originating call screening (OCS)**

A supplementary service or a service feature which allows the subscriber to specify that outgoing calls can be either restricted or allowed, according to a screening list and, optionally, a number of parameters.

**Originating user prompter (OUP)**

A service feature which delivers an announcement to the called party, and manages dialogue. It includes requesting and accepting additional information (e.g. key strokes) for use by the service logic to continue to process the call. It also includes all voice announcements to the calling party.

**Outstanding number**

The number of message signal units which can be transmitted until a positive acknowledgement is received.

**Packet**

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

NOTE 1 – The term “layer” refers to the OSI (Open Systems Interconnection) reference model.

**Packet transfer mode**

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

**Paging**

Paging is the non-speech, one-way, selective transfer of a simple alert message (e.g. tone only) or a message (e.g. numeric, alphanumeric or transparent data) to a mobile receiver or pager.

NOTE 1 – The feature “Paging with Acknowledgement” is also possible.

**Paging channel (PCH)**

A unidirectional channel on which the network transfers the same information to mobile terminals throughout the paging area.

**Partial echo (PE)**

A signal which the base station returns on downlink to acknowledge whether the access signal which the mobile station transmitted on a previous slot is successfully received or not at the base station.

**Partial retransmission control**

Retransmission control to recover the error by means of retransmitting the unacknowledged unit in layer 2 frame.

NOTE 1 – The term “layer” refers to the OSI (Open Systems Interconnection) reference model.

**Path**

The continuous series of positions or configurations of a mobile radio system that can be assumed in the process of change when moving towards an IMT-2000.

**PCS system**

A collection of facilities which provide some combination of terminal mobility, personal mobility, and service profile management.

NOTE 1 – The term facilities should be understood to include hardware, software, and network components, such as transmission, switching and signalling facilities, databases, etc.

**Perch channel**

A candidate channel for the BCCH for which the mobile station starts searching when the power is turned on.

**Peripheral level measurement**

A measurement for the reception level of the frequency from the peripheral cell to acknowledge the cell domain where the mobile station on standby or communication is located.

**Personal communications service (PCS)**

A set of capabilities that allows some combination of terminal mobility, personal mobility, and service profile management.

NOTE 1 – The acronym PCS should be taken to refer to personal communication services.

**Personal identification number (PIN)**

A personal code used for authentication of the user against the UIM to prevent its unauthorized use.

**Personal mobility**

The ability of a user to access telecommunication services at any terminal on the basis of a personal telecommunication identifier, and the capability of the network to provide those services according to the user's service profile.

NOTE 1 – Personal mobility involves the network capability to locate the terminal associated with the user for the purposes of addressing, routing, and charging of the user's calls.

NOTE 2 – The word "access" is intended to convey the concepts of both originating and terminating services.

NOTE 3 – Management of the service profile by the user is not part of personal mobility.

**Personal mobility management**

It provides authentication of user identification and maintains user location information in the service profile. Controls the completion of calls based on user-specified incoming call management contained in the service profile. Provides translation between user identification and identification of the terminal currently associated with the user for the completion of calls to the user's current location. Controls the services and features available to the user based on the user's subscription and in conjunction with the user-specified terminal access configurations.

**Personal number**

A number that uniquely identifies an IMT-2000 or UPT user and is used to place, or forward, a call to that user.

NOTE 1 – Before the full implementation of the UPT service, the use of the term UPT number may, in some contexts, be subject to misinterpretation. The personal number is a UPT number, and is the basis of the personal mobility aspects of IMT-2000. The term is provided as an alternative term for use where appropriate to avoid such a misinterpretation.

**Personal numbering (PN)**

A service feature supporting a number that uniquely identifies particular user and is used by the caller to reach that user. A user may have more than one number for different applications (e.g. a business number for business calls and a private number for private calls). A subscriber may have personal numbers per charging account. UPT users have personal numbers.

**Personal registration**

The process of associating a user with a specific terminal.

**Personal terminal**

A light-weight, small, portable terminal providing the capability for the user to be either stationary or in motion while accessing and using telecommunication services.

**Physical channel**

A path through a communication space defined in time, frequency and code, which is established for a given period of time. Multiple physical channels can be mapped onto a single radio-frequency channel. One physical channel can also be mapped or duplicated on multiple radio-frequency channels.

**Physical entity**

A set of zero or more functional entities which are mapped onto a single piece of equipment in all anticipated system implementations, together with the required communication functionality. A "physical entity" corresponds to a single network entity, or it only implements lower-layer communication functions.

**Physical interface**

It defines the physical aspects of the communication between physical entities. For each “physical interface” a complete protocol stack is needed which determines how physical entities can communicate.

**Pico cells**

Small cells with a typical cell radius of less than 50 m that are predominantly situated indoors.

NOTE 1 – Pico cells are characterized by medium to high traffic density support for mobile low speed stations and wide band services.

**Pocket-sized station**

A small size, light weight mobile station with relatively low power consumption that can comfortably be carried around by a person.

**Portable station**

A mobile station that is portable but cannot comfortably be carried around by a person due to weight and/or size, or having relatively high power consumption.

**Position determination**

The process of determining geographic coordinates/location based on measurements or other information received.

**Pre-IMT-2000**

Mobile systems that are currently in service or will be introduced prior to IMT-2000.

**Priority identifier**

An identifier used to determine which message unit has higher priority when the message unit sent from layer 2 to layer 1 is competing.

NOTE 1 – The term “layer” refers to the OSI (Open Systems Interconnection) reference model.

**Privacy**

The right of individuals to control or influence what information related to them may be collected and stored and by whom and to whom that information may be disclosed.

NOTE 1 – National laws may apply in matters dealing with the protection of privacy.

**Private network operator**

A provider of network capabilities, not offered to the general public, needed to support the services offered to a closed group of subscribers.

**Private numbering plan (PNP)**

A service feature allowing the subscriber to maintain a numbering plan within his private network, which is separate from the public numbering plan.

**Private service provider**

A service provider which offers services to a closed group of subscribers, i.e. not to the general public.

**Program sound transmission service**

A teleservice which supports the transmission of sound signals with transmission quality comparable to AM radio broadcasting (lowest level) up to compact disc sound (highest level).



**Progress indicator**

An information supplied to indicate the progress of a call.

**Propagation performance**

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

NOTE 1 – The given tolerances may apply to variations in signal level, noise, interference levels, etc.

**Protocol discriminator**

A discriminator to distinguish messages for user-network call control from other messages.

**Public land mobile network (PLMN)**

A network established and operated by an administration or Recognized Operating Agency (ROA) for the specific purpose of providing land mobile telecommunication services to the public. A PLMN may be regarded as an extension of a fixed network (e.g. PSTN) or as an integral part of the PSTN.

NOTE 1 – A PLMN may comprise terrestrial cells or a combination of terrestrial and satellite cells.

**Public mobile satellite network**

A network analogous to a PLMN which serves users via satellite only.

**Public network operator**

A provider of the network capabilities needed to support the services offered to the general public.

**Public service provider**

A service provider which offers services to the general public.

**Q adapter function (QAF)**

The QAF block is used to connect as part of the TMN those non-TMN entities which are NEF-like and OSF-like. The responsibility of the QAF is to translate between a TMN reference point and a non-TMN (e.g. proprietary) reference point and hence this latter activity is shown outside the TMN.

**Quality of service (QoS)**

The collective effect of service performances which determine the degree of satisfaction of a user of a service. It is characterized by the combined aspects of performance factors applicable to all services, such as:

- service operability performance,
- service accessibility performance,
- service retainability performance,
- service integrity performance,
- other factors specific to each service.

**Radio bearer connection (RBC)**

The radio bearer connection is the connection between the MRBC (mobile radio bearer connection) functional entity and the RBC (radio bearer connection) functional entity. It is the element of the end-to-end connection whose configuration is conditioned by radio related attributes. A radio bearer connection may be built consisting of several connection elements.

**Radio-frequency (RF) channel**

A specified portion of the RF spectrum with a defined bandwidth and a carrier frequency and is capable of carrying information over the radio interface.

**Radio interface**

The common boundary between the mobile station and the radio equipment in the network, defined by functional characteristics, common radio (physical) interconnection characteristics, and other characteristics, as appropriate.

NOTE 1 – An interface standard specifies the bidirectional interconnection between both sides of the interface at once. 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 by those means. The term “air interface” is synonymous with the term “radio interface”. See also “IMT-2000 radio interface”.

**Radio interface protocol**

The protocol used across the radio interface (usually a collection of protocols supporting various layers of the protocol reference model).

**Radio port**

A device that provides the transmission and reception of signals over the radio interface.

**Radio port identifier**

A code that globally and unambiguously distinguishes a radio port in a terminal registration area.

**Radio resource**

A radio resource is a portion of spectrum available in a limited geographical area (cell). This portion of spectrum can be further divided into radio-frequency channels.

**Radio resource unit**

A portion of spectrum available in a limited geographical area (cell). This portion of spectrum can be further divided into radio-frequency channels.

**Radio transmission control (RT)**

A control function to set, maintain and switch (change) the radio channel.

**Regional service area**

A service area that covers several countries and/or ocean regions of comparable size.

**Registration**

A process by which an IMT-2000 network becomes aware of the existence and location of a terminal and its associated user.

**Reliability performance**

The probability that an item can perform a required function under given conditions for a given time interval.

**Report condition**

An information field to specify the conditions which are necessary to report the quality of communications detected at the mobile stations.

**Reporting channels**

The channels which the mobile station uses for reporting the reception level from the cells to the network.

**Request primitive**

A service primitive which is used by the service-user to request a service.

**Response primitive**

A service primitive which is used by the service-user to respond to a request for a service.

**Restriction indicator**

An indicator to notify the network conditions regarding restrictions to mobile stations.

**Retrieval service**

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

**Reverse charging (REVC)**

A service feature which allows the service subscriber (e.g. freephone) to receive calls at its expense and be charged for the entire cost of the call.

**Roaming**

The ability of a user to access wireless telecommunication services in areas other than the one(s) where the user is subscribed.

**Robustness**

The ability to withstand random errors, burst errors and high bit error ratios over the whole service area.

NOTE 1 – Robustness of a system is an important attribute.

NOTE 2 – The ranking of potential speech/channel codec combinations may be different under good and marginal conditions.

**Scramble code**

A code used in the scrambler for energy dispersal of RF signal.

**Security**

The protection of information availability, integrity and confidentiality.

**Security architecture**

The architecture of parties and entities relevant to security, and the complete set of secure procedures and information flows for the realization of security features.

**Security feature**

A feature that gives some assurance against one or several potential security threats.

**Security management**

The handling of the network and service management aspects of security, including administrative, operational and maintenance issues.

**Security mechanism**

A means of providing a security feature.

**Security policy**

A set of rules which define and constrain the types of security-relevant activities of entities and parties.

**Security screening (SEC)**

A supplementary service which allows the network to perform security screening before an end-user gains access to the network.

**Security service**

A service releasing a particular security feature as a supplementary service.

**Service**

A set of functions offered to a user by an organization.

**Service access point (SAP)**

An access point at which the layer ( $N - 1$ ) provides the ( $N - 1$ ) services to ( $N$ ) entities.

**Service access point identifier (SAPI)**

SAPI are used to identify the service access point at the network side or user side on the user-network interface.

**Service accessibility performance**

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

**Service area**

The area within which a mobile station can access the IMT-2000 services. A service area may consist of several IMT-2000 networks. One service area may consist of one country, be a part of a country or comprise of several countries.

**Service feature**

A network function associated with a particular basic or supplementary service in order to upgrade such services in the interest of higher comfort to the users but, in general, not offered to them as a service on its own.

**Service integrity performance**

The ability of a service to perform without excessive impairments, once obtained. Service integrity is mainly influenced by the transmission performance of the network.

**Service link**

A bidirectional radio transmission link between space station and MES/PES/SP.

**Service operability**

The ability of a service to be easily and successfully operated by a user.

**Service primitive**

An abstract, implementation independent interaction between a service user and service provider.

**Service profile**

A record containing information related to a user in order to provide that user with IMT-2000 services.

**Service profile management (SPM)**

The ability to access and interrogate and modify the IMT-2000 service profile.

NOTE 1 – IMT-2000 service profile management can be performed by the IMT-2000 user, IMT-2000 subscriber or IMT-2000 service provider.

NOTE 2 – The above definition pertains to IMT-2000. In general, service profile management may also apply to other service profiles such as the mobile terminal's service profile.

**Service profile verification (SPV)**

A supplementary service which provides the capability to read the service profile information across the user-network interface. This service is a component of configuration management.

**Service provider**

A person or an other entity that has the overall responsibility for the provision of a service or a set of services to the users and for negotiating network capabilities associated with the service(s) he/she provides.

**Service retainability performance**

The ability of a service once obtained, to continue to be provided under given conditions for a requested duration. Generally this depends on the transmission tolerances, the propagation performance and reliability performance of the related systems.

**Service support performance**

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

**Set of radio transmission technologies**

A complete combination of radio transmission technologies that encompass the transmission dependent functions of a radio system which has potential capabilities to meet IMT-2000 requirements in one or more test environments.

**Short message**

An information block transferred as a whole by means of the Short Message Service.

**Short message delivery**

The conveyance by the short message system of a short message to a potential recipient.

**Short message handling system**

A function responsible for storing and relaying a short message between an IMT-2000 user and another user (other IMT-2000 user or user of a fixed network).

**Short message originator**

The user that is the ultimate source of the short message.

**Short message recipient**

Potential recipient – any user to which a short message is conveyed.

Actual recipient – any potential recipient for which delivery of a short message takes place.

**Short message submission**

The conveyance of a short message by the originator to the short message system.

**Short message validity period**

A period assigned to a short message by the originator, starting at the submission date and time and at the end of which the short message is to be considered obsolete by the short message system if not already delivered to its potential recipient(s).

**Short mobile station identifier (SMSI)**

One octet mobile station identifier temporally assigned to the mobile station by the network in order to simplify the searching MSI.

**Signal disassembly/assembly bits**

Bit series which indicate the top and last flags of the message, the number of units remaining in the message and the number of valid octets in the last unit and used for disassembly and assembly of messages.

**Signalling information confidentiality**

A feature by which the signalling information is protected against disclosure over an IMT-2000 radio interface.

**Single cell signalling channel (SCCH)**

A point-to-multipoint bidirectional channel used for signalling information between the network and mobile stations. This channel is used when the network knows the cell domain where the mobile station is located.

**Split charging (SPL)**

A supplementary service (SPL) or a service feature (SPLC) which allows the calling and called party to split charges for a call.

**Spot beam**

Satellite antenna beam directed to a cell in a satellite system.

**Steal flag**

A flag to identify whether the TCH is used as the FACCH.

**Subscriber**

A person or other entity that has a contractual relationship with a service provider on behalf of one or more users. (A subscriber is responsible for the payment of charges due to that service provider.)

NOTE 1 – Sometimes the term “IMT-2000 subscriber” is used interchangeably with “subscriber”, especially where it is necessary to distinguish a person or organization which subscribes directly to an IMT-2000 service from one which benefits from IMT-2000 services.

**Subscriber access to service profile**

A feature by which the IMT-2000 subscriber has direct and limited access to the personal service profile of his associated users, by means of which he may be able to restrict access to services, etc.

**Super synchronization word (SSW)**

A word to establish the superframe synchronization. The SSW informs where BCCH, PCH and SCCH are allocated on the control channel.

**Supplementary service**

A service which modifies or supplements a basic telecommunication service. Consequently, it can not be offered to a customer as a standalone service, rather, it must be offered together with or in association with a basic telecommunication service. The same supplementary service may be common to a number of telecommunication services.

**Synchronization burst**

A burst signal transmitted to establish synchronization when setting the information channel or handover.

**Synchronous transfer mode (STM)**

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

**System**

A regularly interacting or interdependent group of items forming a unified whole technology.

**System identity**

An information field which reports system identification.

**System integration**

Integration as applied to systems.

**System integrity**

The property (in the context of security) that data and the methods of handling the data cannot be altered or destroyed in an unauthorized manner.

**Telecommunication management network (TMN)**

A network supposed to support the management requirements of an operator (e.g. service provider, network provider, backbone network provider, access provider) to plan, provision install, maintain, operate and administer telecommunications and services.

**Teleconference**

A teleservice which provides the ability for several parties to be engaged in speech. These parties may speak simultaneously and several parties may use the same terminal equipment.

**Telephone service**

A public telecommunication service primarily intended for the exchange of information in the form of speech, whereby users can communicate directly and temporarily between themselves in conversational mode, and should be provided in accordance with the International Telecommunication Regulations, and the relevant ITU-T Recommendations.

NOTE 1 – The international telephone service can also support a number of non-voice services such as facsimile and data transmission.

**Teleservice**

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 ROAs.

**Televoting (VOT)**

A supplementary service which allows subscribers to survey public opinion using telecommunications. The number of calls to one or more multiple destinations are counted.

**Temporary mobile terminal identity (TMTI)**

An identifier temporarily allocated to a terminal when visiting an IMT-2000 network in order to provide a mutually agreed address for paging a user of that terminal or other mobility related network functions.

**Terminal**

The equipment which interfaces the end user with IMT-2000.

**Terminal alerting**

The process of signalling from the network to a terminal for the purpose of delivering a call or another message.

**Terminal alerting identifier**

A code distinguishing a wireless terminal within the registered terminal registration area for alerting purposes.

NOTE 1 – The terminal alerting identifier may be in some cases the same as the terminal identifier.



**Terminal data**

Data maintained for each terminal including the current terminal location (and capabilities).

**Terminal equipment**

A device or functionality which provides the capabilities for user applications, e.g. telephony, including the user interface.

NOTE 1 – There may be various types of TEs used, some of which may be incompatible with the mobile termination (MT) equipment. Adaptation of these TEs to incompatible RTs may be accomplished through the use of a terminal adapter.

**Terminal identifier**

A code identifying a specific terminal.

**Terminal location integrity**

A feature by which the home IMT-2000 service provider, the visited IMT-2000 service provider and/or the IMT-2000 network operator can have some assurance that the IMT-2000 mobile terminal location related information cannot be modified by intruders.

NOTE 1 – Terminal location integrity may effectively be implemented by the user location integrity.

**Terminal mobility**

The ability of a terminal to access telecommunications services from different locations and while in motion, and the capability of the network to identify and locate that terminal or the associated subscriber.

NOTE 1 – This ability implies the availability of telecommunication services, ideally, in all areas and at all times. Terminal mobility may be provided according to the mobile terminal's service profile.

**Terminal mobility management**

It provides authentication of terminal information and maintains terminal location (and capability) information in the terminal data. Provides translation between terminal identification and location (routing address) for the completion of calls to terminals.

**Terminal registration**

The process of associating a wireless terminal with a terminal registration area.

**Terminal registration area**

A territory in which a wireless terminal is registered for terminal mobility.

**Terminal registration area identifier**

A code distinguishing a terminal registration area.

**Terminal roaming**

The movement of a terminal (associated with at least one user) from one cell, location area, area served by one visitor location database, exchange area, sub network or network to another, respectively, while the network keeps track of the terminal's location.

**Terminating call screening (TCS)**

A supplementary service or a service feature which allows the subscriber or user to permit certain incoming calls and restrict other incoming calls.

**Time alignment control**

A function which is performed to force to adjust the transmission timing in the mobile station according to the phase deviation between the standard timing and received burst signal at the base station in order to prevent the collision for the burst signal.

**Time dependent routing (TDR)**

A service feature enabling differential routing of an incoming call dependent on time/day/date.

**TMN management service**

An area of management activity which provides for the support of operations, maintenance or administration of the network being managed, described from the user perception of the OAM requirements.

**Traffic ability**

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

**Traffic capacity**

The total traffic that can be supported by a single cell (or spot beam), which is part of an infinite set of identical cells (or large number of satellite spot beams) in a uniform two-dimensional (or three-dimensional) pattern.

NOTE 1 – The traffic capacity must be specified at a stated spectrum allocation, quality and grade of service, assuming an appropriate propagation model. This metric, is measured in Erlang/cell or Erlang/satellite spot beam, and is valuable for comparing systems with identical user channel requirements.

**Traffic channel (TCH)**

A point-to-point bidirectional channel which transfers user information and the user information control signal. The TCH transfers voice and facsimile information.

**Transfer mode**

An information transfer attribute covering transmission, multiplexing and switching in a telecommunication network.

**Transmission performance**

The reproducibility of a signal input to a telecommunications network under given conditions. The given conditions may include the effect of propagation performance where applicable.

**Transmitter power control**

The output power control is a feature that is performed to reduce interference within communication system and to save the battery power consumption of portable units.

**UIM holder verification**

A feature by which the human user of the UIM is authenticated. This feature only applies when the UIM is used for the user association with the IMT-2000 mobile terminals.

**Unacknowledged operation**

With this type operation, layer 3 information is transmitted in unnumbered information (UI) frames. At the data link layer the UI frames are not acknowledged. Even if transmission and format errors are detected, error recovery and flow control is undefined.

NOTE 1 – The term “layer” refers to the OSI (Open System Interconnection) reference model.

**Universal access number (UAN)**

A supplementary service which allows a subscriber having a number of terminals to be reached at a number of locations using the same directory number.

**Universal personal telecommunications (UPT) service**

A service which provides personal mobility and service profile management.

NOTE 1 – This involves the network capability of uniquely identifying a UPT user by means of a UPT number.

**Uplink (satellite)**

A radio transmission link in the direction of Earth-to-space.

**Uplink (terrestrial)**

A unidirectional radio pathway for the transmission of signals from one or more mobile stations to one base station.

**UPT database**

A repository for information, such as a service profile, that is related to a set of UPT subscribers and UPT users for the purpose of providing UPT service.

**UPT number**

A number that uniquely identifies a UPT user and is used to place, or forward, a call to that user.

NOTE 1 – A user may have more than one UPT number (for example, a business UPT number for business calls and a private UPT number for private calls). In that case, from a network point of view, each UPT number is considered to identify a distinct UPT user, even if they all happen to identify the same person or entity.

**UPT routing address**

A number used by the network to direct a call according to the users UPT service profile.

NOTE 1 – The only differentiation with a (non-UPT) network routing address is that the UPT routing address is used for delivery of UPT calls.

**UPT service profile**

A record containing all of the information related to a UPT user in order to provide that user with the UPT service.

NOTE 1 – Each UPT service profile is associated with a single UPT number.

**UPT service provider**

A legal person or entity responsible for providing UPT subscriptions to UPT subscribers.

**UPT service provider authentication**

A procedure by which a UPT service provider can be verified to be the one claimed.

**UPT subscriber**

A person who, or entity which, obtains a UPT service from a UPT service provider on behalf of one or more UPT users.

**UPT user**

A person who, or entity which, has access to Universal Personal Telecommunication (UPT) services and has been assigned a UPT number.

**UPT user identity authentication**

A procedure by which the UPT user identity can be verified to be the one claimed.

**User**

A person or other entity authorized by a subscriber to use some or all of the services subscribed to by that subscriber.

**User event reports**

A feature by which the IMT-2000 user will receive warning announcements or indications at critical moments in the operation of IMT-2000 services (e.g. information about accumulated charges, that his communication is unencrypted, etc.).

**User identification**

The process which enables an IT system to recognize a user as corresponding to one previously described to the system.

**User identity module (UIM)**

In IMT-2000 it is a logical entity which could be removable from a unit (mobile or fixed) or with functionality contained in a unit. It contains information elements needed by the system to identify, authenticate and permit the users registration. The UIM can also be used to store user specific data.

**User location integrity**

A feature by which the home IMT-2000 service provider, the visited IMT-2000 service provider and/or the IMT-2000 network operator can have some assurance that the IMT-2000 user location related information cannot be modified by the intruders.

**User packet channel (UPCH)**

A point-to-multipoint bidirectional channel which transfers the control signal information and user packet data.

**User registration state**

A potential service delivery condition resulting from a personal registration.

**User roaming**

The movement of the user identity from one terminal to another whereby the relation between the first terminal and the user in the relevant network is deleted and the relation between the second terminal and the user is created in the relevant network.

**User-defined routing (UDR)**

UDR allows the subscriber to specify the desired routing of outgoing calls, e.g. through a public, private or virtual network.

**User-to-user signalling (UUS)**

A supplementary service which allows a mobile user to send/receive a limited amount of information to/from another PLMN or ISDN user over the signalling channel in association with a call to the other user.

**Validation (messages)**

The process of checking the integrity of a message or selected parts of a message.

**Validation (user/terminal)**

The process of verifying that a user or terminal is authorized to access services.

**Value added service provider**

A service provider which offers services that add value to other (primitive) services. (A value added service cannot be used alone, i.e. with another primitive service.)

**Vehicle-mounted station**

A mobile station which is mounted and operated in a vehicle where the antenna is mounted at the outside of the vehicle.

**Virtual circuit**

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

**Virtual home environment (VHE)**

A system concept for service portability in IMT-2000 across network borders. Service offerings in a visited network could differ from those of the home network.

NOTE 1 – The visited network should be able to emulate for each user their home system or network in such a way that these users will not notice the fact that they are no longer in their respective home networks.

**Virtual private network (VPN)**

A system configuration, where the subscriber is able to build a private network via connections to different network switches that may include private network capabilities.

**Visitor location register (VLR)**

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

**VOX control**

A function that the mobile station in communications turns on/off transmission output according as the voice is in put or not in order to reduce the power consumption for the mobile station.

**Vector sum excited linear prediction (VSELP)**

VSELP is a variation of CELP (code excited linear predictive). VSELP uses a code book which has a predefined structure, so that the computations required for the code book search process can be reduced. Therefore the mass of memory can be also reduced.

**Wireless access**

A terminal access to the network which uses wireless technology.

**Wireless mobility management**

Assigning and controlling wireless links for terminal network connections. Provides the “alerting” function for call completion to a wireless terminal. Monitors wireless link performance to determine when an automatic link transfer (handover) is required and coordinates link transfers between wireless access interfaces.

**Wireless terminal**

A general term used for any mobile station, mobile terminal, personal station or personal terminal, with which non-fixed access to the network is used.

**Wireless-access mode**

Interfacing with a network access point by means of a standardized radio interface without a hardwired connection to the network.

**Wireline access**

A terminal access to the network which uses wireline technology.

NOTE 1 – For example conventional telephone sets and subscriber lines are means of access to the wireline network.

**Wireline-access mode**

Interfacing with the network via a physical wired connection.

NOTE 1 – This mode can be employed by a wired terminal or a wireless terminal operating in the wired mode via a standard physical interface.

**Work station function (WSF)**

The functionality which provides interaction between O&M personnel and the OSFs.

**4.2 Acronyms and abbreviations used in IMT-2000 specifications****A**

AAB	Automatic alternative billing
AAC	Authentication and access control
AAL	ATM adaptation layer
ABD	Abbreviated dialling
AC	Ciphering algorithm
ACB	Automatic call back
ACC	Account card calling
ACCF	Access and control function
ACCH	Associated control channel
ACI	Access core network interface
AK	Ciphering key generation algorithm
ALS	Application layer structure
AoC	Advice-of-charge
ARIB	Association of Radio Industries and Businesses (formerly RCR)
AS	Value added services
ASE	Application service elements
ASP	Assignment source point
AT	Terminal authentication algorithm
ATM	Asynchronous transfer mode
ATT	Attendant (service feature)
AU	User authentication algorithm
AUTC	Authentication service feature
AUTS	Authorization code
AUTZ	Authorization (service feature)

**B**

B-ISDN	Broadband ISDN
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BA	Basic access
BAIC	Barring of incoming calls
BAOC	Barring of outgoing calls
BC	Bearer control
BCAF	Bearer control agent function
BCCH	Broadcast control channel
BCF	Bearer control function
BCPN	Business CPN
BCSM	Basic call state model
BER	Bit error ratio
BIC-Roam	Barring of incoming calls when roaming outside the home PLMN country
BOIC	Barring of outgoing international calls
BS	Base station
BSI	Base station identifier
BT	Terminal session key generation algorithm (session key schemes)
BU	User session key generation algorithm (session key schemes)
<b>C</b>	
CAC	Common access channel
CC	Call control
CCAF	Call control agent function
CCBS	Completion of calls to busy subscriber
CCBU	Completion of calls to busy users
CCC	Credit card calling
CCCH	Common control channel
CCF	Connection (call) control function
CCH	Control channel
CCIR	International Radio Consultative Committee (now ITU-R)
CCITT	International Telegraph and Telephone Consultative Committee (now ITU-T)
CCNRc	Completion of calls when subscriber not reachable
CD	Call distribution
CDMA	Code-division multiple access
CELP	Code excited linear prediction
CF	Call forwarding
CFB	Call forwarding on mobile subscriber busy
CFU	Call forwarding unconditional
CH	Call hold
CHA	Call hold with announcement
CHIC	Confidentiality and integrity control
CHIP	Common management information protocol

CNIP	Calling number identification presentation
CNIR	Calling number identification restriction
CNN	Cipher text for MN
COC	Consultation calling
COMA	Customer network management access
CON	Conference calling
CONP	Connected number identification presentation
CONR	Connected number identification restriction
CPT	Control point transfer
CPE	Customer premises equipment
CPM	Customer profile management
CPIP	Calling party identification presentation
CPN	Customer premises network
CRA	Customized recorded announcement (service feature)
CRD	Call rerouting distribution
CRG	Customized ringing
CS	Capability set
CT	Call transfer
CUG	Closed user group
CW	Call waiting

**D**

DCCH	Dedicated control channel
DCPN	Domestic customer premises network
DCR	Destination call routing
DDB	Distributed database
DMS	Dual mode stations
DS	Direct sequence
DTCH	Dedicated traffic channel
DTMF	Dual tone multiple frequency
DUP	Destinating user prompter (service feature)

**E**

EFS	Error free seconds
EIA	Electronic Industry Association
e.i.r.p.	Equivalent isotropic radiated power
EMC	Electromagnetic compatibility
ERP	Equivalent radiated power
ETR	ETSI technical report
ETS	ETSI technical specification



**F**

FACH	Forward access channel
FDD	Frequency division duplex
FDMA	Frequency division multiple access
FE	Functional entity
FEC	Forward error correction
FFS	For further study temporary entry
FH	Frequency hop
FMD	Follow-me diversion
FPH	Freephone
FSS	Fixed-satellite service

**G**

GAP	Call gapping
GDMO	Guidelines for the definition of managed objects
GMPCS	Global mobile personal communications by satellite
GPS	Global positioning system
GSM	Global system for mobile communications
GSO	Geostationary satellite orbit

**H**

HC	Handover criteria
HEC	Header error control
HEO	Highly inclined elliptical orbit
HLR	Home location register
HOC	Handover control
HUP	Handover user profile

**I**

IBCN	Integrated broadband communications network
ICMA-PE	Idle-signal casting multiple access with partial echo
ICO	Intermediate circular orbit
ICSI	International charged subscriber identifier
ID	Handover initiation and decision
IM	Incall modification
IMEI	International mobile equipment identity
IMSI	International mobile station identity
IMT	International mobile telecommunications
IMT-2000	International mobile telecommunications-2000

IMTI	International mobile terminal identity
IMUI	International mobile user identity
IMUN	International mobile user number
IN	Intelligent network
INAP	Intelligent network application protocol
IP	Intelligent peripheral
IRID	Intended recipient identification presentation
IS	Interim standard
ISCP	ISDN control part
ISDN	Integrated services digital network
ISL	Inter-satellite links
ISO	International Organization for Standardization
IT	Information technology
ITU	International Telecommunication Union
ITU-T	ITU Telecommunication Standardization Sector
IUN	International UMTS number
IWF	Interworking function
IWU	Interworking unit
<b>K</b>	
KAT	Terminal session key
KAU	User session key
KC	Ciphering key
KPN	Public network encryption key (public key schemes)
KPSP	Public service provider authentication key (certified public key schemes)
KPT	Public terminal authentication key (public key schemes)
KPU	Public user authentication key (public key schemes)
KSN	Secret network encryption key (public key schemes)
KSSP	Secret service provider authentication key (certified public key schemes)
KST	Secret terminal authentication key (public key schemes)
KSU	Secret user authentication key (public key schemes)
KT	Terminal authentication key (secret key schemes)
KU	User authentication key (secret key schemes)
KX	Intermediate ciphering key (public key schemes)
<b>L</b>	
LAC	Link access control layer
LAI	Location area identifier

LAPDC	Link access procedure for digital cordless
LAPDM	Link access procedure for digital mobile channel
LAV	Least acceptable value
LCA	Local configuration analysis
LE	Local exchange
LEI	Local exchange identifier
LEO	Low-Earth orbit
LES	Land earth station
LIM	Call limiter (service feature)
LOCM	Location management
LOG	Call logging (service feature)
LOS	Line-of-sight (path)

**M**

MAC	Medium access control layer
MAD	Management administrative domain
MAS	Mass calling
MBCF	Mobile bearer control function
MCCF	Mobile call control function
MCF	Mobile control function
MCI	Malicious call identification
MDC	Manipulation detection code
MEF	Measurement function
MEO	Medium-Earth orbit
MES	Mobile earth station
MESf	Mobile earth station (fixed)
MF	Mediation function
MM	Mobility management
MMC	Meet-me conference
MN	Message sent from network
MOS	Mean opinion score
MoU	Memorandum of understanding
MRBC	Mobile radio bearer control
MRLC	Mobile radio link control
MRRA	Mobile radio resource allocation
MRRC	Mobile radio resource control
MRTR	Mobile radio transmission and reception
MS	Mobile station

MSC	Mobile services switching centre
MSCP	Mobility and service control point
MSf	Mobile station (fixed)
MSF	Mobile storage function
MSI	Mobile station identifier
MSN	Multiple subscriber number
MSS	Mobile satellite system
MT	Mobile termination
MTRN	Mobile terminal roaming number
MWC	Multiway calling
<b>N</b>	
NADC	North American digital cellular system
NEF	Network element function
NP	Network performance
NTWK	Network layer
<b>O</b>	
O&M	Operations and maintenance
OAM	Operations, administration and maintenance
OCS	Originating call screening
ODR	Origin dependent routing
OFA	Off-net access
ONC	Off-net calling
ONE	One number
OS	Operations system
OSF	Operational system function
OSI	Open Systems Interconnection
OSS	Operations support system
OUP	Originating user prompter
<b>P</b>	
PABX	Private automatic branch exchange
PAI	Paging area identifier
PC	Personal computer
PCH	Paging channel
PCS	Personal communications service
PDC	Personal digital cellular
PDN	Public data network

PE	Partial echo
PES	Personal earth station
PHY	Physical layer
PIN	Personal identification number
PLMN	Public land mobile network
PM	Physical medium (sublayer)
PMSN	Public mobile satellite network
PN	Personal numbering
PNP	Private numbering plan
POTS	Plain ordinary telephone service
PRA	Primary rate access
PRM	Premium rate
PRMC	Premium rate charging PTN private telecommunications network
PS	Personal station
PSN	Public switched network
PSPDN	Packet switched public data network
PSTN	Public switched telephone network
PUI	Public user identity
<b>Q</b>	
QAF	Q adapter function
QoS	Quality of service
QUE	Call queueing
<b>R</b>	
RA	Call transfer
RACE	Research and development in advanced communications for Europe
RACH	Random access channel
RAS	Radio access system
RBC	Radio bearer connection
RESu, REST:	Result of authentication algorithm on RND
REVAL	Radio evaluation
REVC	Reverse charging
RF	Radio frequency
RFTR	Radio-frequency transmission and reception
RLC	Radio link control
RMTI	Random mobile terminal identity
RMUI	Random mobile user identity

RNDu, RNDT, CHALL:	Random numbers
ROA	Recognized Operating Agency (previously RPOA)
RRA	Radio resource allocation
RRC	Radio resource control
RRT	Rerouting triggering
RSPC	Radio specification
RT	Radio transmission control
RTCH	Random traffic channel
<b>S</b>	
SAP	Service access point
SAPI	Service access point identifier
SAR	Segmentation and reassembly (sublayer)
SCAF	Service control access function
SCCH	Single cell signalling channel
SCEF	Service creation environment function
SCF	Service control function
SCF(M)	Service control function (mobile)
SCF-BY/DA	Selective CF on busy/don't answer
SDCCH	Stand alone dedicated control channel
SDF	Service data function
SDF(M)	Service data function (mobile)
SEC	Security screening
SHR	Special handover request
SIB	Service independent building block
SMAF	Service management access (agent) function
SMF	Service management function
SMSI	Short mobile station identifier
SN	Multiple subscriber number
SP	Satellite pager
SPID	IMT-2000 service provider identity SAP (service access point)
SPL	Split charging (supplementary service)
SPLC	Split charging (service feature)
SPM	Service profile management
SPV	Service profile verification
SRF	Specialized resource function
SSF	Service switching function

SSP	Service switching point
SSW	Super synchronization word
STM	Synchronous transfer mode
SUI	Secret user identity
<b>T</b>	
TC	Transmission convergence (sublayer)
TCC	Target cells and connections
TCH	Traffic channel
TCRTR	Technical Committee reference technical report
TCS	Terminating call screening
TDD	Time division duplex
TDMA	Time division multiple access
TDR	Time dependent routing
TE	Terminal equipment
TIA	Telecommunication Industry Association
TIM	Terminal identity module
TMN	Telecommunication management network
TMTI	Temporary mobile terminal identity
TMUI	Temporary mobile user identity (IMT-2000 user identity)
TO	Telecommunication operator
TSC	Technical Subcommittee
TTC	Telecommunication Technology Committee
<b>U</b>	
UAN	Universal access number
UDR	User-defined routing
UI	Un-numbered information
UIM	User identity module
UMTS	Universal mobile telecommunications system
UNI	User network interface
UPCH	User packet channel
UPT	Universal personal telecommunications
UPTN	Universal personal telecommunication number
UUI	UMTS user identity
UUM	UMTS user mobility
UUS	User-to-user signalling

**V**

VC	Virtual channel
VHE	Virtual home environment
VLR	Visitor location register
VOT	Televoting
VP	Virtual path
VPI	Virtual path identifier
VPN	Virtual private network
VSELP	Vector sum excited linear prediction

**W**

WSF	Work station function
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