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Technical Report

Universal Mobile Telecommunications System (UMTS);
Vocabulary for 3GPP Specifications
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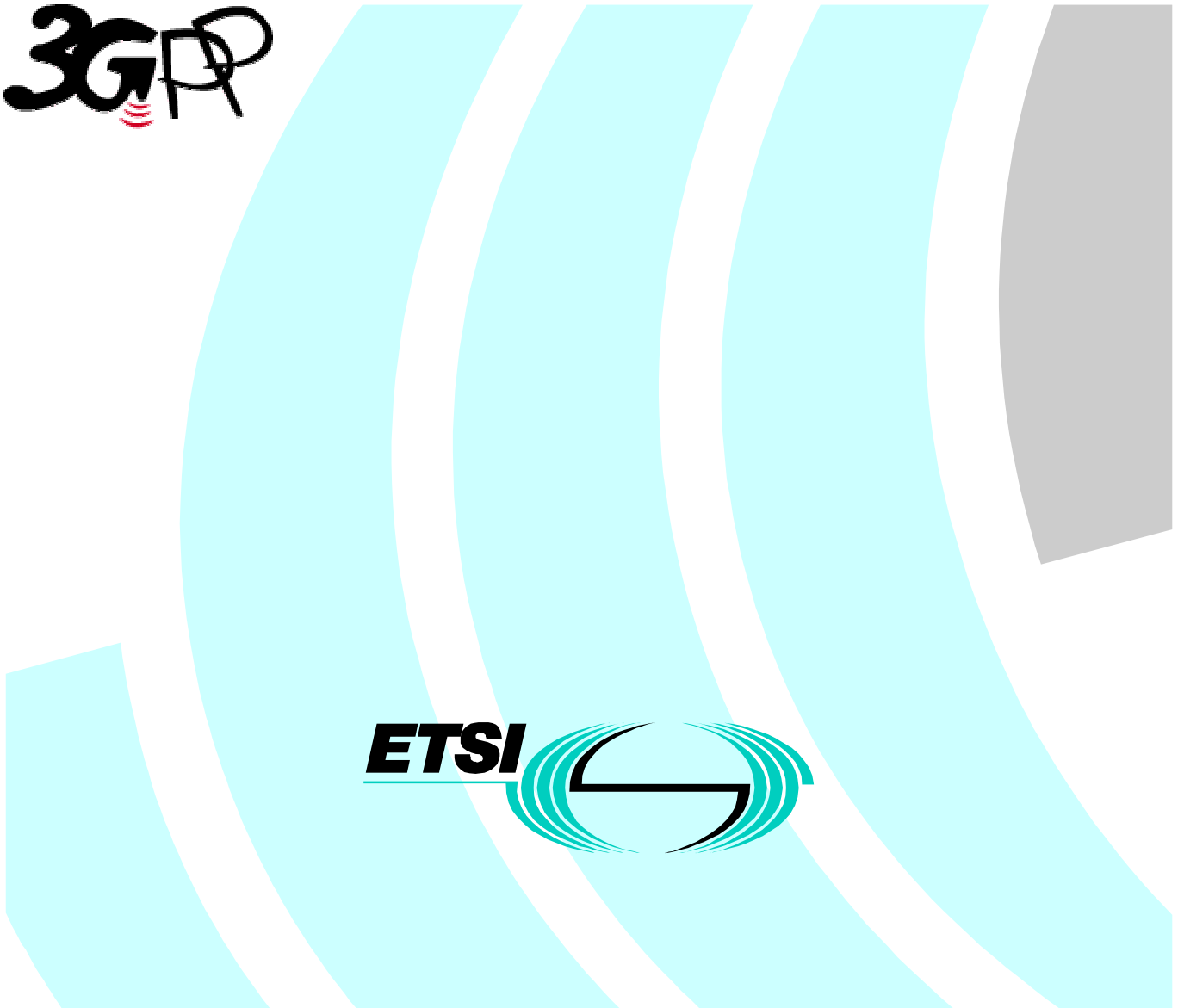

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Foreword

This Technical Report (TR) has been produced by the ETSI 3rd Generation Partnership Project (3GPP).

The present document may refer to technical specifications or reports using their 3GPP identities, UMTS identities or GSM identities. These should be interpreted as being references to the corresponding ETSI deliverables.

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Contents

Foreword

This Technical Specification has been produced by the 3GPP.

The contents of the present document are subject to continuing work within the TSG and may change following formal TSG approval. Should the TSG modify the contents of this TS, it will be re-released by the TSG with an identifying change of release date and an increase in version number as follows:

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where:

x the first digit:

1 presented to TSG for information;

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y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.

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1 Scope

The purpose of this report is to identify specialist technical terms used within the 3GPP project for the purposes of specifying service requirements. The motivations for this are:

- To ensure that editors use terminology that is consistent across specifications.
- To provide a reader with convenient reference for technical terms that are used across multiple documents.
- To prevent inconsistent use of terminology across documents.

This document is a collection of terms, definitions and abbreviations related to the baseline documents defining 3GPP objectives and systems framework. This document provides a tool for further work on 3GPP technical documentation and facilitates their understanding.

The terms, definitions and abbreviations as given in this document are either imported from existing documentation (ETSI, ITU or elsewhere) or newly created by 3GPP experts whenever the need for precise vocabulary was identified.

2 References

References may be made to:

a) specific versions of publications (identified by date of publication, edition number, version number, etc.), in which case, subsequent revisions to the referenced document do not apply; or

b) all versions up to and including the identified version (identified by "up to and including" before the version identity); or

c) all versions subsequent to and including the identified version (identified by "onwards" following the version identity); or

d) publications without mention of a specific version, in which case the latest version applies.

A non-specific reference to an ETS shall also be taken to refer to later versions published as an EN with the same number.

[1] GSM 01.04: "Digital cellular telecommunication system (Phase 2+); Abbreviations and acronyms".

[2] TS 25.990: "Technical Specification Group (TSG) RAN; Vocabulary ".

3 Terms and definitions

0-9

3V technology Smart Card: A Smart Card operating at 3V± 10% and 5V ± 10%.

1.8V technology Smart Card: A Smart Card operating at 1.8V ± 10% and 3V ± 10%.

3V technology Terminal: A terminal operating the Smart Card - Terminal interface at 3V-± 10% and 5V ± 10%.

1.8V technology Terminal: A terminal operating the Smart Card - Terminal interface at 1.8V ± 10% and 3V ± 10%.

A

Acceptable Cell: A cell that the UE may camp on to make emergency calls. It must satisfy certain conditions.

Access conditions: A set of security attributes associated with a file.

Access delay: The value of elapsed time between an access request and a successful access (source: ITU-T X.140).

Access Stratum SDU (Service Data Unit): Unit of data transferred over the access stratum SAP (Service Access Point) in the Core Network or in the User Equipment.

Access protocol: A defined set of procedures that is adopted at an interface at a specified reference point between a user and a network to enable the user to employ the services and/or facilities of that network (source: ITU-T I.112).

Accounting: The process of apportioning charges between the Home Environment, Serving Network and User.

Accuracy: A performance criterion that describes the degree of correctness with which a function is performed. (The function may or may not be performed with the desired speed.) (source: ITU-T I.350).

Active communication: a UE is in active communication when it has a CS connection established. For PS active communication is defined by the existence of one or more Activated PDP contexts. Either one or both of the mentioned active communications may occur in the UE.

Active Set: Set of radio links simultaneously involved in a specific communication service between an UE and a UTRAN access point.

Air Interface User Rate: The user rate between Mobile Termination and IWF. For T services it is the maximum possible AIUR not including padding. For NT services it is the maximum possible AIUR.

ALCAP: Generic name for the transport signaling protocols used to set-up and tear-down transport bearers.

Allowable PLMN: A PLMN which is not in the list of forbidden PLMN in the UE.

Applet: A small program that is intended not to be run on its own, but rather to be embedded inside another application

Application: An application consists of a set of security mechanisms, files, data and protocols (excluding transmission protocols).

Applications / Clients: These are services, which are designed using service capability features.

Application Interface: Standardised Interface used by application/clients to access service capability features.

Application protocol: The set of procedures required by the application.

Authentication: A property by which the correct identity of an entity or party is established with a required assurance. The party being authenticated could be a user, subscriber, home environment or serving network.

Available PLMN: A PLMN where the UE has found a cell that satisfies certain conditions.

Average transmit power: The average transmitter output power obtained over any specified time interval, including

periods with no transmission.

Average Transmitter Power Per Traffic Channel (dBm): The mean of the total transmitted power over an entire transmission period.

B

Baseline capabilities: Capabilities that are required for a service-less UE to operate within a network. The baseline capabilities for a UE include the capabilities to search for, synchronise with and register (with authentication) to a network. The negotiation of the UE and the network capabilities, as well as the maintenance and termination of the registration are also part of the required baseline capabilities.

Baseline Implementation Capabilities: Set of Implementation capabilities, in each technical domain, required to enable a UE to support the required Baseline capabilities.

Basic telecommunication service: This term is used as a common reference to both bearer services and teleservices.

Bearer: A information transmission path of defined capacity, delay and bit error rate, etc.

Bearer capability: A transmission function which the UE requests to the network.

Bearer service: A type of telecommunication service that provides the capability of transmission of signals between access points.

Best effort QoS: The lowest of all QoS traffic classes. If the guaranteed QoS cannot be delivered, the bearer network delivers the QoS which can also be called best effort QoS.

Best effort service: A service model which provides minimal performance guarantees, allowing an unspecified variance in the measured performance criteria.

Billing: A function whereby CDRs generated by the charging function are transformed into bills requiring payment.

Broadcast: A value of the service attribute "communication configuration", which denotes unidirectional distribution to all users (source: ITU-T I.113).

C

Cable, Connector, and Combiner Losses (Transmitter) (dB): The combined losses of all transmission system components between the transmitter output and the antenna input (all losses in positive dB values).

Cable, Connector, and Splitter Losses (Receiver) (dB): The combined losses of all transmission system components between the receiving antenna output and the receiver input.

CAC (Connection Admission Control): A set of measures taken by the network to balance between the QoS requirements of new connections request and the current network utilisation without affecting the grade of service of existing/already established connections.

Call: a logical association between several users (this could be connection oriented or connection less).

Call Detail Record (CDR): A formatted collection of information about a chargeable event (e.g. time of call set-up, duration of the call, amount of data transferred, etc) for use in billing and accounting. For each party to be charged for parts of or all charges of a chargeable event a separate CDR shall be generated, i.e more than one CDR may be generated for a single chargeable event, e.g. because of its long duration, or because more than one charged party is to be charged.

Camped on a cell: The UE is in idle mode and has completed the cell selection/reselection process and has chosen a cell. The UE monitors system information and (in most cases) paging information. Note that the services may be limited, and that the PLMN may not be aware of the existence of the UE within the chosen cell.

Capability Class: A piece of information which indicates general UMTS mobile station characteristics (e.g. supported radio interfaces,...) for the interest of the network.

Card session: A link between the card and the external world starting with the ATR and ending with a subsequent reset

or a deactivation of the card.

CBS DRX cycle: The time interval between successive readings of BMC messages.

Cell: A geographical area that can be identified by a UE from a (cell) identification that is broadcast from one UTRAN Access Point.

Cell Radio Network Temporary Identifier (C-RNTI): The C-RNTI is a UE identifier allocated by a controlling RNC and it is unique within one cell controlled by the allocating CRNC. C-RNTI can be reallocated when a UE accesses a new cell with the cell update procedure.

Chargeable Event: An activity utilising telecommunications network infrastructure and related services for user to user communication (e.g. a single call, a data communication session or a short message), or for user to network communication (e.g. service profile administration), or for inter-network communication (e.g. transferring calls, signalling, or short messages), or for mobility (e.g. roaming or inter-system handover), which the network operator wants to charge for. The cost of a chargeable event may cover the cost of sending, transporting, delivery and storage. The cost of call related signalling may also be included.

Charged Party: A user involved in a chargeable event who has to pay parts or the whole charges of the chargeable event, or a third party paying the charges caused by one or all users involved in the chargeable event, or a network operator.

Charging: A function whereby information related to a chargeable event is formatted and transferred in order to make it possible to determine usage for which the charged party may be billed.

Cipher key: A code used in conjunction with a security algorithm to encode and decode user and/or signalling data.

Closed group: A group with a pre-defined set of members. Only defined members may participate in a closed group.

Coded Composite Transport Channel (CCTrCH): A data stream resulting from encoding and multiplexing of one or several transport channels.

Common Channel: A Channel not dedicated to a specific UE.

Confidentiality: The avoidance of disclosure of information without the permission of its owner.

Connected Mode: Connected mode is the state of User Equipment switched on and an RRC connection established.

Connection: A communication channel between two or more end-points (e.g. terminal, server etc.).

Connection mode: The type of association between two points as required by the bearer service for the transfer of information. A bearer service is either connection-oriented or connectionless. In a connection oriented mode, a logical association called *connection* needs to be established between the source and the destination entities before information can be exchanged between them. Connection oriented bearer services lifetime is the period of time between the establishment and the release of the connection. In a connectionless mode, no connection is established beforehand between the source and the destination entities; the source and destination network addresses need to be specified in each message. Transferred information cannot be guaranteed of ordered delivery. Connectionless bearer services lifetime is reduced to the transport of one message.

Connectionless (for a bearer service): In a connectionless bearer, no connection is established beforehand between the source and the destination entities ; the source and destination network addresses need to be specified in each message. Transferred information cannot be guaranteed of ordered delivery. Connectionless bearer services lifetime is reduced to the transport of one message.

Connectionless service: A service which allows the transfer of information among service users without the need for end-to-end call establishment procedures (source: ITU-T I.113).

Control channel: A logical channel that carries system control information.

Controlling RNC: A role an RNC can take with respect to a specific set of UTRAN access points. There is only one Controlling RNC for any UTRAN access point. The Controlling RNC has the overall control of the logical resources of its UTRAN access point's.

Conversational service: An interactive service which provides for bi-directional communication by means of real-time (no store-and-forward) end-to-end information transfer from user to user (source: ITU-T I.113).

Core network: An architectural term relating to the part of UMTS which is independent of the connection technology of the terminal (eg radio, wired).

Corporate code: Code which when combined with the network and SP codes refers to a unique Corporate. The code is provided in the GID2 file on the SIM (see Annex A.1.) and is correspondingly stored on the ME.

Corporate personalisation: Allows a corporate customer to personalise MEs that he provides for his employees or customers use so that they can only be used with the company's own SIMs.

Coverage area (of a mobile cellular system): An area where mobile cellular services are provided by that mobile cellular system to the level required of that system.

Coverage area: Area over which a UMTS service is provided with the service probability above a certain threshold.

Current directory: The latest MF or DF selected.

Current EF: The latest EF selected.

D

Data field: Obsolete term for Elementary File.

Data Object: Information coded as TLV objects, i.e. consisting of a Tag, a Length and a Value part.

Dedicated Channel: A channel dedicated to a specific UE.

De-personalisation: Is the process of deactivating the personalisation so that the ME ceases to carry out the verification checks.

Dedicated File (DF): A file containing access conditions and, optionally, Elementary Files (EFs) or other Dedicated Files (DFs).

Delivered QoS: Actual QoS parameter values with which the content was delivered over the lifetime of a QoS session.

Demand service: A type of telecommunication service in which the communication path is established almost immediately, in response to a user request effected by means of user-network signalling (source: GSM 01.04, ITU-T I.112).

Dependability: A performance criterion that describes the degree of certainty (or surety) with which a function is performed regardless of speed or accuracy, but within a given observational interval (source: ITU-T I.350).

Destination user: Entity to which calls to the General Packet Radio Service (GPRS) are directed.

Directory: General term for MF and DF.

Directory Number: A string consisting of one or more of the characters from the set {0, 1, 2, 3, 4, 5, 6, 7, 8, 9, *, #, a, b, c} associated with a nature of address indicator and number plan indicator. When using the public MMI for the control of supplementary services however, * and # cannot be part of any SC or SI field.

NOTE 1: No such restriction on the SC and SI fields exists when using other (e.g. menu-driven) MMI for the control of supplementary services.

NOTE 2: When using the public MMI, certain limitations on the use of one and two digit directory numbers may apply. The use of other MMI can remove these restrictions.

NOTE 3: This definition is not intended to require the support of all these characters in the MMI itself.

Distribution service: Service characterised by the unidirectional flow of information from a given point in the network to other (multiple) locations (source: ITU-T I.113).

Domain: The highest-level group of physical entities. Reference points are defined between domains.

Donor network: The subscription network from which a number is ported in the porting process. This may or may not be the number range owner network.

Downlink: Unidirectional radio link for the transmission of signals from a UTRAN access point to a UE. Also in general the direction from Network to UE.

Drift RNS: The role an RNS can take with respect to a specific connection between a UE and UTRAN. An RNS that supports the Serving RNS with radio resources when the connection between the UTRAN and the User Equipment need to use cell(s) controlled by this RNS is referred to as Drift RNS.

E

Elementary File (EF): A file containing access conditions and data and no other files.

Essential UE Requirement (Conditional): Requirement which has to be implemented under certain Service conditions. e.g. AMR codec in UE which supports speech service

Essential UE Requirement (Unconditional): Requirement which has to be implemented in any 3G UE in order to exist in and communicate with 3G network (e.g. Chiprate of 3.84Mcps).

Explicit Diversity Gain (dB): The effective gain achieved using diversity techniques.

Extra SDU delivery probability: The ratio of total (unrequested) extra service data units (SDUs) to total service data units received by a destination user in a specified sample (source: ITU-T X.140).

NOTE: the term "user information unit" has been replaced by the term "service data unit".

F

File: A directory or an organized set of bytes or records in the SIM.

File identifier: The 2 bytes, which address a file in the SIM

Fixed Network User Rate: The user rate between IWF and the fixed network.

FC (Flow Control): A set of mechanisms used to prevent the network from becoming overloaded by regulating the input rate transmissions.

Functional group: A set of functions that may be performed by a single equipment (source: ITU-T I.112).

G

Geographical routing: The conversion of the PDU's geographical area definition, which specifies the area in which the PDU will be broadcast, into an equivalent radio coverage map.

Group: A set of members allowed to participate in the group call service. The group is defined by a set of rules that identifies a collection of members implicitly or explicitly. These rules may associate members for the purpose of participating in a group call, or may associate members who do not participate in data transfer but do participate in management, security, control, or accounting for the group.

Group call: The relationship that exists between the members of a group for the purpose of transferring data. More than one group call may exist in a group. A group call establishes an active group.

Group call initiator: A member (or third party) authorised to initiate a group call. More than one member may initiate group calls.

Group call participant: A member of a group participating in a particular group call at a given time.

Group call server: A logical entity that provides the group call service to the members.

Group call service: A PTM service in which a relationship exists between participants of the group, and in which a single data unit transmitted by a source participant is received by multiple destination participants; it is a one-in, many-out service.

Group controller: The member (or third party) responsible for the group creation and membership control.

GSM BSS: refers in this specification to the GSM/GPRS access network.

GSM core network: refers in this specification to the GSM NSS and GPRS backbone infrastructure.

GSM coverage: an area where mobile cellular services are provided in accordance with GSM standards

GSM session: That part of the card session dedicated to the GSM operation.

Guaranteed service: A service model which provides highly reliable performance, with little or no variance in the measured performance criteria.

H

Handoff Gain/Loss (dB): This is the gain/loss factor (+ or -) brought by handoff to maintain specified reliability at the cell boundary.

Handover: The transfer of a user's connection from one radio channel to another (can be the same or different cell).

Handover: The process in which the radio access network changes the radio transmitters or radio access mode or radio system used to provide the bearer services, while maintaining a defined bearer service QoS.

Hard Handover: Hard handover is a category of handover procedures where all the old radio links in the UE are abandoned before the new radio links are established.

HE-VASP: Home Environment Value Added Service Provider. This is a VASP that has an agreement with the Home Environment to provide services.

Home Environment: The home environment is responsible for enabling a user to obtain UMTS services in a consistent manner regardless of the user's location or terminal used (within the limitations of the serving network and current terminal).

Home PLMN: PLMN where the Mobile Country Code (MCC) and Mobile Network Code (MNC) of the PLMN identity are the same as the MCC and MNC of the IMSI.

I

IC Card: A card holding an Integrated Circuit containing subscriber, end user, authentication and/or application data for one or more applications.

IC card SIM: Obsolete term for ID-1 SIM.

ID-1 SIM: The SIM having the format of an ID-1 card (see ISO 7816-1 [24]).

Idle mode: The state of UE switched on but which does not have any established RRC connection.

Implementation capability: A capability that relates to a particular technical domain. Examples: a spreading factor of 128 (in the domain of the physical layer); the A5 algorithm; a 64 bit key length (in the domain of security); a power output of 21 dBm (in the domain of transmitter performance); support of AMR Codec (in the domain of the Codec); support of CHV1 (in the domain of the USIM).

Information Data Rate: Rate of the user information, which must be transmitted over the Air Interface. For example, output rate of the voice codec.

Initial paging information: This information indicates if the UE needs to continue to read more paging information and eventually receive a page message.

Initial paging occasion: The paging occasion the UE uses as starting point for its paging DRX cycle.

Integrity: (in the context of security) The avoidance of unauthorised modification of information.

Inter-cell handover: A handover between different cells. An inter-cell handover requires network connections to be altered.

Inter PLMN handover: Handover between different PLMNs, ie having different MCC-MNC.

Inter system handover: Handover between networks using different radiosystems , e.g. UMTS – GSM.

Interactive service: A service which provides the means for bi-directional exchange of information between users. Interactive services are divided into three classes of services: conversational services, messaging services and retrieval services (source: ITU-T I.113).

Interface: The common boundary between two associated systems (source: GSM 01.04, ITU-T I.112).

International Mobile Station Equipment Identity (IMEI): An "International Mobile Station Equipment Identity" is a unique number which shall be allocated to each individual mobile station equipment in the PLMN and shall be unconditionally implemented by the MS manufacturer.

International mobile user number (IMUN): The International Mobile User Number is a diallable number allocated to a UMTS user.

Interference Signal Code Power (ISCP): Given only interference power is received, the average power of the received signal after despreading and combining.

Intra-cell handover: A handover within one sector or between different sectors of the same cell. An intra-cell handover does not require network connections to be altered.

Intra PLMN handover: Handover within the same network, ie having the same MCC-MNC regardless of radio access system. Note: this includes the case of UMTS <>GSM handover where MCC-MNC are the same in both cases.

Iu: Interconnection point between an RNC and a Core Network. It is also considered as a reference point.

Iub: Interface between an RNC and a Node B.

Iur: A logical interface between two RNC. Whilst logically representing a point to point link between RNC, the physical realisation may not be a point to point link.

J

<void>

K

Key pair: Key pairs are matching private and public keys. If a block of data is encrypted using the private key, the public key from the pair can be used to decrypt it. The private key is never divulged to any other party, but the public key is available, e.g. in a certificate.

L

Local Service: A service, which can be exclusively provided in the current serving network by a Value added Service Provider.

Localised Service Area (LSA): A LSA is an operator-defined group of cells, for which specific access conditions apply. This may correspond to an area in which the Core Network offers specific services. A LSA may be defined within a PLMN or globally. Therefore, a LSA may offer a non-contiguous radio coverage.

Location Registration (LR): The UE registers its presence in a registration area, for instance regularly or when entering a new registration area.

Logical Channel: A logical channel is an information stream dedicated to the transfer of a specific type of information over the radio interface. Logical Channels are provided on top of the MAC layer.

Logical Model: A Logical Model defines an abstract view of a network or network element by means of information objects representing network element, aggregations of network elements, the topological relationship between the elements, endpoints of connections (termination points), and transport entities (such as connections) that transport information between two or more termination points.
The information objects defined in the Logical Model are used, among others, by connection management functions. In this way a physical implementation independent management is achieved.

Logical O&M: Logical O&M is the signaling associated with the control of logical resources (channels, cells,) owned by the RNC but physically implemented in the Node B. The RNC controls these logical resources. A number of O&M procedures physically implemented in Node B impact on the logical resources and therefore require an information exchange between RNC and Node B. All messages needed to support this information exchange are classified as Logical O&M forming an integral part of NBAP.

LSA exclusive access cell: A UE may only camp on this cell if the cell belongs to the LSAs to which the user has subscribed. Nevertheless, if no other cells are available, the UE of non-LSA users may originate emergency calls from this cell.

LSA only access: When LSA only access applies to the user, the UE can only access cells that belong to the LSAs to which the user has subscribed. Outside the coverage area of the subscribed LSAs, the UE may camp on other cells and limited services apply.

LSA preferential access cell: A LSA preferential access cell is a cell which is part of the LSA. UEs of users that have subscribed to a LSA of a LSA-preferential-access cell have higher priority to resources than non-LSA users in the same cell.

M

Macro cells: "Macro cells" are outdoor cells with a large cell radius.

Macro diversity handover: "Macro diversity" is a operation state in which a User Equipment simultaneously has radio links with two or more UTRAN access points for the sole aim of improving quality of the radio connection or providing seamless.

Mandatory UE Requirement: Regulatory requirement which is applicable to 3G UEs. It is determined by each country/region and beyond the scope of 3GPP specification (e.g. spurious emission in UK).

Master File (MF): The unique mandatory file containing access conditions and optionally DFs and/or EFs.

Maximum output Power: This refers to the measure of average power at the maximum power setting.

Maximum peak power: The peak power observed when operating at a given maximum output power.

Maximum possible AIUR: The highest possible AIUR that the multiple TCH/F can provide, e.g. 2 TCH/F using TCH/F9.6 provides a maximum possible AIUR of 19,2 kbit/s.

Maximum Power Setting: The highest value of the Power control setting which can be used.

Maximum Total Transmitter Power (dBm): The aggregate maximum transmit power of all channels.

Maximum Transmitter Power Per Traffic Channel (dBm): The maximum power at the transmitter output for a single traffic channel.

Mean bit rate: A measure of throughput. The average (mean) bit rate available to the user for the given period of time (source: ITU-T I.210).

Mean transit delay: The average transit delay experienced by a (typically) large sample of PDUs within the same service category.

Medium Access Control: A sublayer of radio interface layer 2 providing unacknowledged data transfer service on logical channels and access to transport channels.

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 conversion) functions (source: ITU-T I.113).

MExE Classmark: A MExE classmark identifies a category of MExE MS supporting MExE functionality with a minimum level of processing, memory, display, and interactive capabilities. Several MExE classmarks may be defined to differentiate between the functionalities offered by different MExE MSs. A MExE application or applet defined as being of a specific MExE Classmark indicates that it is supportable by a MExE MS of that Classmark.

MExE executable: an executable is an applet, application, or executable content, which conforms to the MExE specification and may execute on the ME.

MExE Server: A node supporting MExE services in the MExE service environment.

MExE service: a service enhanced (or made possible) by MExE tecnology.

MExE service environment: Depending on the configuration of the PLMN, the operator may be able to offer support to MExE services in various ways. Examples of possible sources are from traditional GSM nodes, IN nodes, operator-specific nodes, operator franchised nodes and services provider nodes, together with access to nodes external (i.e. vendor-specific) to the PLMN depending on the nature of the MExE service. These nodes are considered to constitute the MExE service environment. The MExE service environment shall support direct MExE MS to MExE MS interaction of MExE services.

MExE service provider: an organisation which delivers MExE services to the subscriber. This is normally the PLMN operator, but could be an organisation with MExE responsibility (which may have been delegated by the PLMN operator).

MExE SIM: A SIM that is capable of storing a security certificate that is accessible using standard mechanisms.

MExE subscriber: The owner of a subscription who has entered into an agreement with a MExE service provider for MExE services.

Micro cells: "Micro cells" are small cells.

Mobile evaluated handover: Mobile evaluated handover (MEHO) is a type of handover triggered by an evaluation made in the mobile. The mobile evaluates the necessity of handover based on the measured radio environment and based on criteria defined by the network. When the evaluation meets the hand-off criteria the necessary information is sent from the mobile to the network. The network then decides on the necessity of the handover based on the reported evaluation result and other conditions, e.g. uplink radio environment and/or availability of network resources, the network may then execute the handover.

Mobile number portability: The ability for a mobile subscriber to change subscription network within the same country whilst retaining their original MSISDN(s).

Mobile Station: A "Mobile Station" (MS) is an entity capable of accessing a set of UMTS services via one or more radio interfaces. This entity may be stationary or in motion within the UMTS service area while accessing the UMTS services, and may simultaneously serve one or more users.

Mobile termination: the mobile termination is the component of the mobile station which supports functions specific to management of the radio interface (Um).

Mobility: The ability for the user to communicate whilst moving independent of location.

Mobility Management: A relation between the mobile station and the UTRAN that is used to set-up, maintain and release the various physical channels.

Multi mode terminal: UE that can obtain service from at least one UTRA radio access mode, and one or more different systems such as GSM bands or possibly other radio systems such IMT-2000 family members.

Multicast service: A unidirectional PTM service in which a message is transmitted from a single source entity to all subscribers currently located within a geographical area. The message contains a group identifier indicating whether the message is of interest to all subscribers or to only the subset of subscribers belonging to a specific multicast group.

Multipoint: A value of the service attribute "communication configuration", which denotes that the communication involves more than two network terminations (source: ITU-T I.113).

Multimedia service: Services that handle several types of media such as audio and video in a synchronised way from the user's point of view. A multimedia service may involve multiple parties, multiple connections, and the addition or deletion of resources and users within a single communication session.

N

Name: A name is an alpha numeric label used for identification of end users and may be portable.

Negotiated QoS: In response to a QoS request, the network shall negotiate each QoS attribute to a level that is in

accordance with the available network resources. After QoS negotiation, the bearer network shall always attempt to provide adequate resources to support all of the negotiated QoS profiles.

Network code: MCC and MNC.

Network code group: Same as network code.

Network connection: An association established by a network layer between two users for the transfer of data, which provides explicit identification of a set of network data transmissions and agreement concerning the services to be provided by the set (source: ITU-T X.213 / ISO-IEC 8348).

Network operator: A PLMN operator.

Network personalisation: Allows the network operator to personalise a ME so that it can only be used with that particular network operator's SIMs

Network service data unit (NSDU): A unit of data passed between the user and the GPRS network across a Network Service Access Point (NSAP).

Network subset code: digits 6 and 7 of the IMSI.

Network subset code group: Combination of a network subset code and the associated network code.

Network subset personalisation: A refinement of network personalisation, which allows network operators to limit the usage of a ME to a subset of SIMs

Network termination: A functional group on the network side of a user-network interface (source: ITU-T I.112).

Node B: A logical node responsible for radio transmission / reception in one or more cells to/from the User Equipment. Terminates the Iub interface towards the RNC.

Nomadic Operating Mode: Mode of operation where the terminal is transportable but being operated while stationary and may in addition require user co-operation (e.g. close to open spaces, antenna setup...).

Non-Access Stratum: Protocols between UE and the core network that are not terminated in the UTRAN.

Normal GSM operation: Relating to general, CHV related, GSM security related and subscription related procedures.

Normal mode of operation: The mode of operation into which the ME would have gone if it had no personalisation checks to process.

Number: A string of decimal digits that uniquely indicates the public network termination point. The number contains the information necessary to route the call to this termination point.

A number can be in a format determined nationally or in an international format. The international format is known as the International Public Telecommunication Number which includes the country code and subsequent digits, but not the international prefix.

Number portability: Where the provision of diallable numbers is independent of home environment and/or serving network.

Number range owner network: The network to which the number range containing the ported number has been allocated.

O

One Stop Billing: One bill for all charges incurred using UMTS.

Open group: A group that does not have a pre-defined set of members. Any user may participate in an open group.

Open Service Architecture: Concept for introducing a vendor independent means for introduction of new services.

Optional UE Requirement: Any other requirements than mandatory UE requirement, essential UE requirement (conditional), essential UE requirement (unconditional). It is totally up to individual manufacturer to decide whether it should be implemented or not (e.g. Network initiated MM connection establishment).

Originating network: The network where the calling party is located.

OSA Interface: Standardised Interface used by application/clients to access service capability features.

P

Packet: An information unit identified by a label at layer 3 of the OSI reference model (source: ITU-T I.113). A network protocol data unit (NPDU).

Packet data protocol (PDP): Any protocol which transmits data as discrete units known as packets, e.g., IP, or X.25.

Packet transfer mode: Also known as packet 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 (source: ITU-T I.113).

Padding: One or more bits appended to a message in order to cause the message to contain the required number of bits or bytes.

Paging DRX cycle: The individual time interval between monitoring Paging Occasion for a specific UE

Paging: Paging is the act of seeking a User Equipment.

Paging Block Periodicity (PBP): The period of the occurrence of Paging Blocks. (For FDD, PBP = 1).

Paging Message Receiving Occasion: The frame where the UE receives actual paging message.

Paging occasion: The frame where the UE monitors in FDD or the paging block, which consists of several frames, for TDD. For Paging Blocks, the value of Paging Occasion is equal to the first frame of the Paging Block.

Peak Power: The instantaneous power of the RF envelope which is not expected to be exceeded for [99.9%] of the time.

Peak bit rate: A measure of throughput. The maximum bit rate offered to the user for a given time period (to be defined) for the transfer of a bursty signal (source: ITU-T I.210). (The maximum user information transfer rate achievable by a user for a single service data unit transfer.)

Performance: The ability to track service and resource usage levels and to provide feedback on the responsiveness and reliability of the network.

Personal Service Environment: contains personalised information defining how subscribed services are provided and presented towards the user. The Personal Service Environment is defined in terms of one or more User Profiles.

Personalisation: The process of storing information in the ME and activating the procedures which verify this information against the corresponding information stored in the SIM whenever the ME is powered up or a SIM is inserted, in order to limit the SIMs with which the ME will operate.

Personalisation entity: Network, network subset, SP, Corporate or SIM to which the ME is personalised

Phonebook: A dataset of personal or entity attributes. The simplest form is a set of name-subscriber pairs as supported by GSM SIMs.

Physical channel data stream: In the uplink, a data stream that is transmitted on one physical channel. In the downlink, a data stream that is transmitted on one physical channel in each cell of the active set.

Physical Channel: In FDD mode, a physical channel is defined by code, frequency and, in the uplink, relative phase (I/Q). In TDD mode, a physical channel is defined by code, frequency, and time-slot.

Pico cells: "Pico cells" are cells, mainly indoor cells, with a radius typically less than 50 metres.

PICH Monitoring Occasion: The time instance where the UE monitors PICH within Paging Occasion.

PLMN Area: The PLMN area is the geographical area in which a PLMN provides communication services according to the specifications to mobile users. In the PLMN area, the mobile user can set up calls to a user of a terminating network. The terminating network may be a fixed network, the same PLMN, another PLMN or other types of PLMN. Terminating network users can also set up calls to the PLMN. The PLMN area is allocated to a PLMN. It is determined

by the service and network provider in accordance with any provisions laid down under national law. In general the PLMN area is restricted to one country. It can also be determined differently, depending on the different telecommunication services, or type of MS. If there are several PLMNs in one country, their PLMN areas may overlap. In border areas, the PLMN areas of different countries may overlap. Administrations will have to take precautions to ensure that cross border coverage is minimized in adjacent countries unless otherwise agreed.

PLMN Operator: Public Land Mobile Network operator. The entity which offers a GPRS.

point-to-multipoint (PTM) service: A service type in which data is sent to ”all service subscribers or a pre-defined subset of all subscribers” within an area defined by the Service Requester.

Plug-in SIM: A Second format of SIM (specified in clause 4).

Point-to-point (PTP): A value of the service attribute "communication configuration", which denotes that the communication involves only two network terminations.

Point-to-point (PTP) service: A service type in which data is sent from a single network termination to another network termination.

Ported number: A MSISDN that has undergone the porting process.

Ported subscriber: The subscriber of a ported number.

Porting process: A description of the transfer of a number between network operators.

Power Setting: The value of the control signal, which determines the desired transmitter, output Power. Typically, the power setting would be altered in response to power control commands.

Predictive service: A service model which provides reliable performance, but allowing a specified variance in the measured performance criteria.

Proactive SIM: A SIM, which is capable of issuing commands to the Terminal. Part of SIM Application Toolkit (see clause 11).

Protocol: A formal set of procedures that are adopted to ensure communication between two or more functions within the within the same layer of a hierarchy of functions (source: ITU-T I.112).

Protocol data unit (PDU): In the reference model for OSI, a unit of data specified in an (N)-protocol layer and consisting of (N)-protocol control information and possibly (N)-user data (source: ITU-T X.200 / ISO-IEC 7498-1).

Public land mobile network (PLMN): A telcommunications network providing mobile cellular services.

Q

QoS profile: a QoS profile comprises a number of QoS parameters. A QoS profile is associated with each QoS session. The QoS profile defines the performance expectations placed on the bearer network.

QoS session: Lifetime of PDP context. The period between the opening and closing of a network connection whose characteristics are defined by a QoS profile. Multiple QoS sessions may exist, each with a different QoS profile.

Quality of Service: The collective effect of service performances which determine the degree of satisfaction of a user of a service. It is characterised 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; and
- other factors specific to each service.

R

Radio access bearer: The service that the access stratum provides to the non-access stratum for transfer of user data between User Equipment and CN.

Radio Access Mode: Mode of the cell, FDD or TDD.

Radio Access Network Application Part: Radio Network Signalling over the Iu.

Radio Access Technology: UTRA, GERAN etc.

Radio Bearer: The service provided by the Layer 2 for transfer of user data between User Equipment and UTRAN.

Radio frame: A radio frame is a numbered time interval of 10 ms duration used for data transmission on the radio physical channel. A radio frame is divided into 15 time slots of 0.666 ms duration. The unit of data that is mapped to a radio frame (10 ms time interval) may also be referred to as radio frame.

Radio interface: The "radio interface" is the tetherless interface between User Equipment and a UTRAN access point. This term encompasses all the functionality required to maintain such interfaces.

Radio link: A "radio link" is a logical association between single User Equipment and a single UTRAN access point. Its physical realization comprises one or more radio bearer transmissions.

Radio link addition: The procedure where a new radio link is added to the active set.

Radio Link Control;

Radio Link Control: A sublayer of radio interface layer 2 providing transparent, unacknowledged and acknowledged data transfer service.

Radio link removal: The procedure where a radio link is removed from the active set.

Radio Network Controller: This equipment in the RNS is in charge of controlling the use and the integrity of the radio resources.

Radio Network Subsystem Application Part: Radio Network Signaling over the Iur.

Radio Network Subsystem: Either a full network or only the access part of a UTRAN offering the allocation and the release of specific radio resources to establish means of connection in between an UE and the UTRAN.
A Radio Network Subsystem is responsible for the resources and transmission/reception in a set of cells.

Radio Network Temporary Identifier (RNTI): A Radio Network Temporary Identifier is a generic term of an identifier for a UE when an RRC connection exists. Following types of RNTI are defined: Cell RNTI (C-RNTI), Serving RNC RNTI (S-RNTI) and UTRAN RNTI (U-RNTI).

Radio Resource Control: A sublayer of radio interface layer 3 existing in the control plane only which provides information transfer service to the non-access stratum. RRC is responsible for controlling the configuration of radio interface layers 1 and 2.

Radio system: the selected 2^{nd} or 3^{rd} generation radio access technology, eg UMTS or GSM.

Real time: Time, typically in number of seconds, to perform the on-line mechanism used for fraud control and cost control.

Received Signal Code Power (RSCP): Given only signal power is received, the average power of the received signal after despreading and combining.

Receiver Antenna Gain (dBi): The maximum gain of the receiver antenna in the horizontal plane (specified as dB relative to an isotropic radiator).

Receiver Noise Figure (dB): Receiver noise figure is the noise figure of the receiving system referenced to the receiver input.

Receiver Sensitivity (dBm): This is the signal level needed at the receiver input that just satisfies the required Eb/(No+Io).

Recipient network: The network which receives the number in the porting process. This network becomes the subscription network when the porting process is complete.

Record: A string of bytes within an EF handled as a single entity (see clause 6).

Record number: The number, which identifies a record within an EF.

Record pointer: The pointer, which addresses one record in an EF.

Reference configuration: A combination of functional groups and reference points that shows possible network arrangements (source: GSM 01.04, ITU-T I.112).

Reference point: A conceptual point at the conjunction of two non-overlapping functional groups (source: GSM 01.04, ITU-T I.112).

Regionally Provided Service: A service entitlement to only certain geographical part(s) of a PLMN, as controlled by the network operator.

Registered PLMN (RPLMN): This is the PLMN on which the UE has performed a location registration successfully.

Registration Area: A (NAS) registration area is an area in which the UE may roam without a need to perform location registration, which is a NAS procedure.

Relay: Terminal devices capable of ODMA relay communications.

Relay/Seed Gateway: Relay or Seed that communicates with the UTRAN, in either TDD or FDD mode.

Relaylink: Relaylink is a communications link between two ODMA relay nodes.

Release 99 (R99): A particular version of the UMTS standards produced by the 3GPP project. Also: release 00, release 01, release 02 etc.

Repeater: A "repeater" is a radio transceiver used to extend the transmission of a base station beyond its normal range.

Requested QoS: a QoS profile is requested at the beginning of a QoS session. QoS modification requests are also possible during the lifetime of a QoS session.

Required Eb/(No+Io) (dB): The ratio between the received energy per information bit to the total effective noise and interference power density needed to satisfy the quality objectives.

Residual error rate: A parameter describing service accuracy. The frequency of lost SDUs, and of corrupted or duplicated network SDUs delivered at the user-network interface.

Retrieval service: An interactive service which provides the capability of accessing information stored in data base centres. The information will be sent to the user on demand only. The information is retrieved on an individual basis, i.e., the time at which an information sequence is to start is under the control of the user (source ITU-T I.113).

Roaming: The ability for a user to function in a serving network different from the home network.

Root directory: Obsolete term for Master File.

Root Relay: ODMA relay node where communications originate or terminate.

RRC Connection: A point-to-point bi-directional connection between RRC peer entities on the UE and the UTRAN sides, respectively. An UE has either zero or one RRC connection.

S

SDU error probability: The ratio of total incorrect service data units (SDUs) to total successfully transferred service data units plus incorrect service data units in a specified sample (source: ITU-T X.140).

NOTE: the source document term "user information unit" has been replaced by the term "service data unit".

SDU loss probability: The ratio of total lost service data units (SDUs) to total transmitted service data units in a specified sample (source: ITU-T X.140).

NOTE: the source document term "user information unit" has been replaced by the term "service data unit".

SDU misdelivery probability: The ratio of total misdelivered service data units (SDUs) to total service data units transferred between a specified source and destination user in a specified sample (source: ITU-T X.140).

NOTE: the source document term "user information unit" has been replaced by the term "service data unit".

SDU transfer delay: The value of elapsed time between the start of transfer and successful transfer of a specified service data unit (SDU) (source: ITU-T X.140).

NOTE: the source document term "user information unit" has been replaced by the term "service data unit".

SDU transfer rate: The total number of successfully transferred service data units (SDUs) in a transfer sample divided by the input/output time for that sample. The input/output time is the larger of the input time or the output time for the sample (source: ITU-T X.140).

NOTE: the source document term "user information unit" has been replaced by the term "service data unit".

Seamless handover: "Seamless handover" is a handover without perceptible interruption of the radio connection.

Sector: A "sector" is a sub-area of a cell. All sectors within one cell are served by the same base station. A radio link within a sector can be identified by a single logical identification belonging to that sector.

Security: The ability to prevent fraud as well as the protection of information availability, integrity and confidentiality.

Seed: Deployed ODMA relay node with or without a display/keypad.

Selected PLMN: This is the PLMN that has been selected by the non-access stratum, either manually or automatically.

Service: Set of functions offered to a user by an organisation.

Service-less UE: A UE that has only the Baseline capabilities.

Service Access Point: A conceptual point where a protocol layer offers access to its services to upper layer.

Service Area: The Service Area is defined in the same way as the Service Area according to ITU-T Recommendation Q.1001 [4]. In contrast to the PLMN area it is not based on the coverage of a PLMN. Instead it is based on the area in which a fixed network user can call a mobile user without knowing his location. The Service Area can therefore change when the signalling system is being extended, for example.

Service attribute: A specified characteristic of a telecommunication service (source: ITU-T I.112).

NOTE: the value(s) assigned to one or more service attributes may be used to distinguish that telecommunications service from others.

Service bit rate: The bit rate that is available to a user for the transfer of user information (source: ITU-T I.113).

Service Capabilities: Bearers defined by parameters, and/or mechanisms needed to realise services. These are within networks and under network control.

Service Capability Feature: Functionality offered by service capabilities that are accessible via the standardised application interface

Service Capability Server: Network functionality providing open interfaces towards the functionality offered by UMTS service capabilities.

Service category or service class: A service offered to the users described by a set of performance parameters and their specified values, limits or ranges. The set of parameters provides a comprehensive description of the service capability.

Service Control: The ability of the user, home environment or serving environment to determine what a particular service does, for a specific invocation of that service, within the limitations of that service.

Service Data Unit (SDU): In the reference model for OSI, an amount of information whose identity is preserved when transferred between peer (N+1)-layer entities and which is not interpreted by the supporting (N)-layer entities (source: ITU-T X.200 / ISO-IEC 7498-1).

Service delay: The time elapsed from the invocation of the service request, to the corresponding service request

indication at the Service Receiver, indicating the arrival of application data.

Service Execution Environment: A platform on which an application or programme is authorised to perform a number of functionalities; examples of service execution environments are the user equipment, integrated circuit card and a network platform or any other server.

Service Feature: Functionality that a UMTS system shall offer to enable provision of services. Services, are made up of different service features.

Service Implementation Capabilities: Set of implementation capabilities, in each technical domain, required to enable a UE to support a set of UE Service Capabilities.

Service model: A general characterisation of services based upon a QoS paradigm, without specifying the actual performance targets.

Service receiver: The entity which receives the service request indication primitive, containing the SDU.

Service relationship: The association between two or more entities engaged in the provision of services.

Service request: This is defined as being one invocation of the service through a service request primitive.

Service requester: The entity which requests the initiation of a GPRS operation, through a service request.

Service subscriber: Entity which subscribes to the General Packet Radio Service (GPRS) service.

Services (of a mobile cellular system): The set of unctions that the mobile cellular system can make available to the user.

Serving Network: The serving network provides the user with access to the services of home environment.

Serving RNS: A role an RNS can take with respect to a specific connection between an UE and UTRAN. There is one Serving RNS for each UE that has a connection to UTRAN. The Serving RNS is in charge of the RRC connection between a UE and the UTRAN. The Serving RNS terminates the Iu for this.

Settlement: Payment of amounts resulting from the accounting process.

Shared Channel: A radio resource (transport channel or physical channel) that can be shared dynamically between several UEs.

Short time: Time, typically in number of minutes, to perform the off-line mechanism used for accounting.

Signalling: The exchange of information specifically concerned with the establishment and control of connections, and with management, in a telecommunications network (source: ITU-T I.112).

Signalling connection: An acknowledged-mode link between the user equipment and the core network to transfer higher layer information between the entities in the non-access stratum**.**

Signaling link: Provides an acknowledged-mode link layer to transfer the UE-UTRAN signaling messages as well as UE - Core Network signaling messages (using the signaling connection.

SIM application toolkit procedures: Defined in GSM 11.14 [27].

SIM code: Code which when combined with the network and NS codes refers to a unique SIM. The code is provided by the digits 8 to 15 of the IMSI

SIM code group: Combination of the SIM code and the associated network subset and network codes (it is equivalent to the IMSI).

SIM personalisation: Enables a user to personalise a ME so that it may only be used with particular SIM(s).

Simultaneous use of services: The concurrent use of a circuit-mode service (voice or data) and packet-mode services (GPRS) by a single mobile station.

Soft Handover: Soft handover is a category of handover procedures where the radio links are added and abandoned in such manner that the UE always keeps at least one radio link to the UTRAN.

SP code: code which when combined with the network code refers to a unique SP. The code is provided in the GID1

file on the SIM (see Annex A.1.) and is correspondingly stored on the ME.

SP code group: Combination of the SP code and the associated network code.

Corporate code group: combination of the Corporate code and the associated SP and network codes.

SP personalisation: Allows the service provider to personalise a ME so that it can only be used with that particular service provider's SIMs.

Speed: A performance criterion that describes the time interval required to perform a function or the rate at which the function is performed. (The function may or may not be performed with the desired accuracy.) (source: ITU-T I.350).

SRNC Radio Network Temporary Identifier (S-RNTI): S-RNTI is UE identifier which is allocated by the Serving RNC and unique within this SRNC. It is allocated for all UEs having a RRC connection. S-RNTI is reallocated always when the Serving RNC for the RRC connection is changed and deallocated when the RRC connection is released.

SRNS Relocation: The change of Iu instance and transfer of the SRNS role to another RNS.

Stratum: Grouping of protocols related to one aspect of the services provided by one or several domains.

Subscribed QoS: The network will not grant a QoS greater than the subscribed. The QoS profile subscription parameters are held in the HLR. An end user may have several QoS subscriptions. For security and the prevention of damage to the network, the end user cannot directly modify the QoS subscription profile data.

Subscriber: The responsibility for payment of charges incurred by one or more users may be undertaken by another entity designated as a subscriber. This division between use of and payment for services has no impact on standardisation.

Suitable Cell: This is a cell on which an UE may camp. It must satisfy certain conditions.

Supplementary service: Is a service which modifies or supplements a basic telecommunication service. Consequently, it cannot be offered to a user as a standalone service. 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 basic telecommunication services.

System Area: The System Area is defined as the group of PLMN areas accessible by MSs. Interworking of several PLMNs and interworking between PLMNs and fixed network(s) permit public land mobile communication services at international level.

T

Teleaction service: A type of telecommunication service that uses short messages, requiring a low transmission rate, between the user and the network (source: ITU-T I.112).

Telecommunication service: That which is offered by a PLMN operator or service provider to its customers in order to satisfy a specific telecommunication requirement. (source: GSM 01.04, ITU-T I.112). Telecommunication services are divided into two broad families: bearer services and teleservices (source: ITU-T I.210).

Teleservice: Is a type of telecommunication service that provides the complete capability, including terminal equipment functions, for communication between users according to standardised protocols and transmission capabilities established by agreement between operators.

Terminal: A device into which a UICC can be inserted and which is capable of providing access to UMTS services to users, either alone or in conjunction with a UICC.

Terminal equipment: Equipment that provides the functions necessary for the operation of the access protocols by the user (source: GSM 01.04). A functional group on the user side of a user-network interface (source: ITU-T I.112).

Test environment: A "test environment" is the combination of a test propagation environment and a deployment scenario, which together describe the parameters necessary to perform a detailed analysis of a radio transmission technology.

Throughput: A parameter describing service speed. The number of data bits successfully transferred in one direction between specified reference points per unit time (source: ITU-T I.113).

Traffic channel: A "traffic channel" is a logical channel which carries user information.

Transit delay: A parameter describing service speed. The time difference between the instant at which the first bit of a protocol data unit (PDU) crosses one designated boundary (reference point), and the instant at which the last bit of the PDU crosses a second designated boundary (source: ITU-T I.113).

Transmission Time Interval: Transmission Time Interval is defined as the inter-arrival time of Transport Block Sets, i.e. the time it shall take to transmit a Transport Block Set.

Transmitter Antenna Gain (dBi): The maximum gain of the transmitter antenna in the horizontal plane (specified as dB relative to an isotropic radiator.

Transport Block: Transport Block is defined as the basic data unit exchanged between L1 and MAC. An equivalent term for Transport Block is “MAC PDU”.

Transport Block Set: Transport Block Set is defined as a set of Transport Blocks that is exchanged between L1 and MAC at the same time instance using the same transport channel. An equivalent term for Transport Block Set is “MAC PDU Set”.

Transport Block Set Size: Transport Block Set Size is defined as the number of bits in a Transport Block Set.

Transport Block Size: Transport Block Size is defined as the size (number of bits) of a Transport Block.

Transport channel: The channels offered by the physical layer to Layer 2 for data transport between peer L1 entities are denoted as Transport Channels. Different types of transport channels are defined by how and with which characteristics data is transferred on the physical layer, e.g. whether using dedicated or common physical channels.

Transport Format: A Transport Format is defined as a format offered by L1 to MAC for the delivery of a Transport Block Set during a Transmission Time Interval on a Transport Channel. The Transport Format constitutes of two parts – one dynamic part and one semi-static part.

Transport Format Combination: A Transport Format Combination is defined as the combination of currently valid Transport Formats on all Transport Channels of an UE, i.e. containing one Transport Format from each Transport Channel.

Transport Format Combination Set: A Transport Format Combination Set is defined as a set of Transport Format Combinations to be used by an UE.

Transport Format Combination Indicator (TFCI): A Transport Format Combination Indicator is a representation of the current Transport Format Combination.

Transport Format Identification (TFI): A label for a specific Transport Format within a Transport Format Set.

Transport Format Set: A set of Transport Formats. For example, a variable rate DCH has a Transport Format Set (one Transport Format for each rate), whereas a fixed rate DCH has a single Transport Format.

U

UE Service Capabilities: Capabilities that can be used either singly or in combination to deliver services to the user. The characteristic of UE Service Capabilities is that their logical function can be defined in a way that is independent of the implementation of the UMTS system (although all UE Service Capabilities are of course constrained by the implementation of UMTS). Examples: a data bearer of 144 kbps; a high quality speech teleservice; an IP teleservice; a capability to forward a speech call.

UMTS core network: refers in this specification to an evolved GSM core network infrastructure or any new UMTS core network infrastructures, integrating circuit and packet switched traffic..

UMTS coverage: an area where mobile cellular services are provided in accordance with UMTS standards.

UMTS IC Card (UICC): An IC card (or 'smartcard') of defined electromechanical specification which contains at least one USIM.

UMTS mobile termination: part of the UMTS Mobile Station which provides functions specific to the management of the radio interface (Um).

UMTS network: Network operated by a single network operator and consisting of UTRAN access networks (WCDMA and/or TD-CDMA), optionally GSM BSS access networks, an UMTS core network.

Universal Mobile Telecommunications System (UMTS): The telecommunications system, incorporating mobile cellular and other functionality, that is the subject of standards produced by 3GPP.

Universal Subscriber Identity Module (USIM): An application residing on the UICC used for accessing UMTS services with appropriate security.

Universal Terrestrial Radio Access Network: UTRAN is a conceptual term identifying that part of the network which consists of RNCs and Node Bs between Iu and Uu interfaces.

UPC (Usage Parameter Control): Set of actions taken by the network to monitor and control the offered traffic and the validity of the connection with respect to the traffic contract negotiated between the user and the network.

Uplink: An "uplink" is a unidirectional radio link for the transmission of signals from a UE to a base station, from a Mobile Station to a mobile base station or from a mobile base station to a base station.

URA updating: URA updating is a family of procedures that updates the UTRAN registration area of a UE when a RRC connection exists and the position of the UE is known on URA level in the UTRAN.

User: A logical, identifiable entity which uses UMTS services.

User-network interface: The interface between the terminal equipment and a network termination at which interface the access protocols apply (source: ITU-T I.112).

User-user protocol: A protocol that is adopted between two or more users in order to ensure communication between them (source: ITU-T I.112).

User access or user network access: The means by which a user is connected to a telecommunication network in order to use the services and/or facilities of that network (source: GSM 01.04, ITU-T I.112).

User Equipment: A Mobile Equipment with one or several UMTS Subscriber Identity Modules(s).

User Interface Profile: Contains information to present the personalised user interface within the capabilities of the terminal and serving network.

User Profile: The set of information necessary to provide a user with a consistent, personalised service environment, irrespective of the user's location or the terminal used (within the limitations of the terminal and the serving network).

User Services Profile: Contains identification of subscriber services, their status and reference to service preferences.

UTRA Radio access mode: the selected UTRA radio access mode ie UTRA-FDD;UTRA-TDD.

UTRAN access point: A conceptual point within the UTRAN performing radio transmission and reception. A UTRAN access point is associated with one specific cell, i.e. there exists one UTRAN access point for each cell. It is the UTRAN-side end point of a radio link.

UTRAN Registration Area (URA): The UTRAN Registration Area is an area covered by a number of cells. The URA is only internally known in the UTRAN.

UTRAN Radio Network Temporary Identifier (U-RNTI): The U-RNTI is a unique UE identifier that consists of two parts, an SRNC identifier and a C-RNTI. U-RNTI is allocated to an UE having a RRC connection. It identifies the UE within UTRAN and is used as an UE identifier in cell update, URA update, RRC connection reestablishment and (UTRAN originated) paging messages and associated responses on the radio interface.

User Profile: Is the set of information necessary to provide a user with a consistent, personalised service environment, irrespective of the user's location or the terminal used (within the limitations of the terminal and the serving network).

User: An entity, not part of UMTS, which uses UMTS services. Example: a person using a UMTS mobile station as a portable telephone.

Uu: The Radio interface between UTRAN and the User Equipment.

V

Value Added Service Provider: Provides services other than basic telecommunications service for which additional charges may be incurred.

Variable bit rate service: A type of telecommunication service characterised by a service bit rate specified by statistically expressed parameters which allow the bit rate to vary within defined limits (source: ITU-T I.113).

Virtual Home Environment: A concept for personal service environment portability across network boundaries and between terminals.

Visited PLMN of home country: This is a PLMN, different from the home PLMN, where the MCC part of the PLMN identity is the same as the MCC of the IMSI.

W

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X

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Y

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Z

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4 Abbreviations

0-9

2G	2nd Generation
3G	3rd Generation

A

A-SGW	Access Signalling Gateway
AAL	ATM Adaptation Layer
AAL2	ATM Adaptation Layer type 2
AAL5	ATM Adaptation Layer type 5
AC	Access Condition
ACCH	Associated Control Channel
ACIR	Adjacent Channel Interference Ratio
ACK	Acknowledgement
ACLR	Adjacent Channel Leakage Power Ratio
ACS	Adjacent Channel Selectivity
ADF	Application Dedicated File
ADM	Access condition to an EF which is under the control of the authority which creates this file
ADN	Abbreviated Dialling Numbers

AESA	ATM End System Address
AI	Acquisition Indicator
AICH	Acquisition Indicator Channel
AID	Application IDentifier
AIUR	Air Interface User Rate
AK	Anonymity key
ALCAP	Access Link Control Application Protocol
ALW	ALWays
AM	Acknowledged Mode
AMF	Authentication Management Field
AMR	Adaptive Multi Rate
AN	Access Network
AP	Access preamble
APDU	Application Protocol Data Unit
API	Application Programming Interface
ARP	Address Resolution Protocol
ARQ	Automatic Repeat Request
AS	Access Stratum
ASC	Access Service Class
ASN.1	Abstract Syntax Notation One
ATM	Asynchronous Transfer Mode
ATR	Answer To Reset
AuC	Authentication Centre
AUTN	Authentication token
AWGN	Additive White Gaussian Noise

B

B-ISDN	Broadband ISDN
BCCH	Broadcast Control Channel
BCFE	Broadcast Control Functional Entity
BCH	Broadcast Channel
BER	Bit Error Rate
BGT	Block Guard Time
BIC	Baseline Implementation Capabilities
BID	Binding Identity
BLER	Block Error Rate
BMC	Broadcast/Multicast Control
BOC	Bell Operating Company
BPSK	Binary Phase Shift Keying
BS	Base Station
BSC	Base Station Controller
BSS	Base Station System
BTS	Base Transceiver Station
BWT	Block Waiting Time

C

Control-	
C-APDU	Command APDU
C-RNTI	Cell Radio Network Temporary Identity
C-TPDU	Command TPDU
CA	Capacity Allocation Certification Authority
CAA	Capacity Allocation Acknowledgement
CAMEL	Customised Application for Mobile network Enhanced Logic
CAP	CAMEL Application Part
CB	Cell Broadcast
CBR	Constant Bit Rate

CBS	Cell Broadcast Service
CC	Call Control
CC/PP	Composite Capability/Preference Profiles
CCBS	Completion of Calls to Busy Subscriber
CCCH	Common Control Channel
CCF	Call Control Function
CCH	Control Channel
CCK	Corporate Control Key
CCM	Certificate Configuration Message
CCPCH	Common Control Physical Channel
CCTrCH	Coded Composite Transport Channel
CD	Capacity Deallocation
	Collision Detection
CDA	Capacity Deallocation Acknowledgement
CDMA	Code Division Multiple Access
CDR	Call Detail Record
CFN	Connection Frame Number
CGI	Common Gateway Interface
CLA	CLAss
CLK	Clock
CN	Core Network
CNAP	Calling Name Presentation
CNL	Co-operative Network List
CLNP	Connectionless network protocol
CLNS	Connectionless network service
CONS	Connection-oriented network service
CORBA	Common Object Request Broker Architecture
CP-Admin	Certificate Present (in the MExE SIM)-Administrator
CP-TP	Certificate Present (in the MExE SIM)-Third Party
CPICH	Common Pilot Channel
CPCH	Common Packet Channel
CPCS	Common Part Convergence Sublayer
CPS	Common Part Sublayer
CPU	Central Processing Unit
CRC	Cyclic Redundancy Check
CRNC	Controlling Radio Network Controller
CS-GW	Circuit Switched Gateway
CS	Circuit Switched
CSCF	Call Server Control Function
CSE	Camel Service Environment
CTCH	Common Traffic Channel
CTDMA	Code Time Division Multiple Access
SCTP	S Common Transport Protocol CHECK WITH wg3
CW	Continuous Wave (unmodulated signal)
CWI	Character Waiting Integer
CWT	Character Waiting Time

D

DAD	Destination ADress
DAM	DECT Authentication Module
DC	Dedicated Control (SAP)
DCA	Dynamic Channel Allocation
DCCH	Dedicated Control Channel
DCH	Dedicated Channel
DDI	Direct Dial In
DTMF	Dual Tone Multiple Frequency
DECT	Digital Enhanced Cordless Telecommunications
DF	Dedicated File
DHCP	Dynamic Host Configuration Protocol

DHO	Diversity Handover
diff-serv	Differentiated services
DL	Downlink (Forward Link)
DN	Destination Network
DNS	Directory Name Service
DO	Data Object
DPCCH	Dedicated Physical Control Channel
DPCH	Dedicated Physical Channel
DPDCH	Dedicated Physical Data Channel
DRAC	Dynamic Resource Allocation Control
DRNC	Drift Radio Network Controller
DRNS	Drift RNS
DRX	Discontinuous Reception
DS-CDMA	Direct-Sequence Code Division Multiple Access
DSCH	Downlink Shared Channel
DTCH	Dedicated Traffic Channel
DTMF	Dual Tone Multiple Frequency
DTX	Discontinuous Transmission

E

E-GGSN	Enhanced GGSN
E-HLR	Enhanced HLR
ECTRA	European Committee of Telecommunications Regulatory Affairs
EDC	Error Detection Code byte
EDGE	Enhanced Data rates for GSM Evolution
EFS	Error free seconds
EGPRS	Enhanced GPRS
EIRP	Equivalent Isotropic Radiated Power
EF	Elementary File
eMLPP	enhanced Multi-Level Precedence and Pre-emption
ETNS	European Telecommunications Numbering Space
ETSI	European Telecommunications Standards Institute
etu	elementary time unit

F

FACH	Forward Access Channel
FAUSCH	Fast Uplink Signaling Channel
FAX	Facsimile
FBI	Feedback Information
FCI	File Control Information
FCS	Frame Check Sequence
FDD	Frequency Division Duplex
FDMA	Frequency Division Multiple Access
FEC	Forward Error Correction
FER	Frame Erasure Rate, Frame Error Rate
FFS	For Further Study
FN	Frame Number
FNUR	Fixed Network User Rate
FP	Frame Protocol

G

GC	General Control (SAP)
GGSN	Gateway GPRS Support Node
GID1	Group Identifier (level 1)
GID2	Group Identifier (level 2)

GMSC	Gateway MSC
GMSK	Gaussian Minimum Shift Keying
GP	Guard Period
GPRS	General Packet Radio Service
GSM	Global System for Mobile communications
GSN	GPRS Support Nodes
GTP	GPRS Tunneling Protocol

H

H-CSCF	Home CSCF
HCS	Hierarchical Cell Structure
HE-VASP	Home Environment Value Added Service Provider
HF	Human Factors
HHO	Hard Handover
HLR	Home Location Register
HN	Home Network
HO	Handover
HPLMN	Home Public Land Mobile Network
HPS	Handover Path Switching
HRR	Handover Resource Reservation
HSCSD	High Speed Circuit Switched Data
HSS	Home Subscriber Server
HTTP	Hyper Text Transfer Protocol
HTTPS	Hyper Text Transfer Protocol Secure (https is http/1.1 over SSL, i.e. port 443)

I

I-Block	Information Block
I/O	Input/Output
IC	Integrated Circuit
ICC	Integrated Circuit Card
ICGW	Incoming Call Gateway
ID	Identifier
IE	Information Element
IEC	International Electrotechnical Commission
IETF	Internet Engineering Task Force
IF	Infrastructure
IFS	Information Field Sizes
IFSC	Information Field Size for the UICC
IFSD	Information Field Size for the Terminal
IK	Integrity key
IMA	Inverse Multiplexing on ATM
IMEI	International Mobile Equipment Identity
IMGI	International mobile group identity
IMSI	International Mobile Subscriber Identity
IMT-2000	International Mobile Telecommunications 2000
IMUN	International Mobile User Number
IN	Intelligent Network
INAP	Intelligent Network Application Part
INF	INFormation field
IP	Internet Protocol
IP-M	IP Multicast
ISCP	Interference Signal Code Power
ISDN	Integrated Services Digital Network
ISO	International Organisation for Standardisation
ISP	Internet Service Provider
ISUP	ISDN User Part
ITU	International Telecommunication Union

IUI	International USIM Identifier

J

JAR file	Java Archive File
JD	Joint Detection
JNDI	Java Naming Directory Interface
JP	Joint Predistortion
JPEG	Joint Photographic Experts Group
JTAPI	Java Telephony Application Programming Interface

K

kbps	kilo-bits per second
ksps	kilo-symbols per second

L

L1	Layer 1 (physical layer)
L2	Layer 2 (data link layer)
L3	Layer 3 (network layer)
LAC	Link Access Control
LAI	Location Area Identity
LAN	Local Area Network
LATA	Local Access and Transport Area
LCD	Low Constrained Delay
LCS	Location Services
LEN	LENgth
LLC	Logical Link Control
LN	Logical Name
LSA	Localised Service Area
LSB	Least Significant Bit
LTZ	Local Time Zone

M

MA	Multiple Access
MAC-A	MAC used for authentication and key agreement (TSG T WG3 context)
MAC-I	MAC used for data integrity of signalling messages (TSG T WG3 context)
MAC	Medium Access Control (protocol layering context)
MAC	Message authentication code (encryption context)
MAHO	Mobile Assisted Handover
MAP	Mobile Application Part
MCC	Mobile Country Code
Mcps	Mega-chips per second
MCU	Media Control Unit
MDS	Multimedia Distribution Service
ME	Mobile Equipment
MEHO	Mobile evaluated handover
MER	Message Error Rate
MExE	Mobile station (application) Execution Environment
MF	Master File
MGCF	Media Gateway Control Function
MGCP	Media Gateway Control Part
MGT	Mobile Global Title
MGW	Media GateWay
MHEG	Multimedia and Hypermedia Information Coding Expert Group

MIPS	Million Instructions Per Second
MM	Mobility Management
MMI	Man Machine Interface
MNC	Mobile Network Code
MNP	Mobile Number Portability
MO	Mobile Originated
MOHO	Mobile Originated Handover
MOS	Mean Opinion Score
MPEG	Moving Pictures Experts Group
MRF	Media Resource Function
MS	Mobile Station
MSB	Most Significant Bit
MSC	Mobile Switching Centre
MSE	MExE Service Environment
MSID	Mobile Station Identifier
MSIN	Mobile Station Identification Number
MSP	Multiple Subscriber Profile
MT	Mobile Terminated
MTP	Message Transfer Part
MTP3-B	Message Transfer Part level 3
MUI	Mobile User Identifier

N

NAD	Node Address byte
NAS	Non-Access StratumNBAP Node B Application Part
NCK	Network Control Key
NDC	National Destination Code
NDUB	Network Determined User Busy
NEHO	Network evaluated handover
NEV	NEVer
NITZ	Network Identity and Time Zone
NMSI	National Mobile Station Identifier
NNI	Network-Node Interface
NO	Network Operator
NP	Network Performance
NPA	Numbering Plan Area
NPI	Numbering Plan Identifier
NRT	Non-Real Time
NSAP	Network Service Access Point
NSCK	Network Subset Control Key
NSDU	Network service data unit
NSS	Network Sub System
Nt	Notification (SAP)
NT	Non Transparent
NUI	National User / USIM Identifier
NW	Network

O

O&M	Operations and Maintenance
OCCCH	ODMA Common Control Channel
OCF	Open Card Framework
ODB	Operator Determined Barring
ODCCH	ODMA Dedicated Control Channel
ODCH	ODMA Dedicated Channel
ODMA	Opportunity Driven Multiple Access
ORACH	ODMA Random Access Channel
ODTCH	ODMA Dedicated Traffic Channel

OSA	Open Service Architecture
OVSF	Orthogonal Variable Spreading Factor

P

PBP	Paging Block Periodicity
PBX	Private Branch eXchange
PC	Power Control
	Personal Computer
PCB	Protocol Control Byte
PCCC	Parallel Concatenated Convolutional Code
PCCH	Paging Control Channel
PCH	Paging Channel
PCK	Personalisation Control Key
PCMCIA	Personal Computer Memory Card International Association
PCPCH	Physical Common Packet Channel
PCCPCH	Primary Common Control Physical Channel
PCS	Personal Communication System
PCU	Packet Control Unit
PDCP	Packet Data Convergence Protocol
PDH	Plesiochronous Digital Hierarchy
PDN	Public Data Network
PDP	Packet Data Protocol
PDSCH	Physical Downlink Shared Channel
PDU	Protocol Data Unit
PG	Processing Gain
PHS	Personal Handyphone System
PHY	Physical layer
PhyCH	Physical Channel
PI	Page Indicator
PICH	Page Indicator Channel
PID	Packet Identification
PIN	Personal Identification Number
PLMN	Public Land Mobile Network
PMD	Physical Media Dependent
PN	Pseudo Noise
PNP	Private Numbering Plan
POTS	Plain Old Telephony Service
PPM	Parts Per Million
PPS	Protocol and Parameter Select (response to the ATR)
PRACH	Physical Random Access Channel
PS	Packet Switched
PSC	Primary Synchronization Code
PSCH	Physical Shared Channel
PSE	Personal Service Environment
PSTN	Public Switched Telephone Network
PTM	Point-to-Multipoint
PTM-G	PTM Group Call
PTM-M	PTM Multicast
PTP	Point to point
PU	Payload Unit
PUSCH	Physical Uplink Shared Channel

Q

QoS	Quality of Service
QPSK	Quadrature (Quaternary) Phase Shift Keying

R

R-APDU	Response APDU
R-Block	Receive-ready Block
R-SGW	Roaming Signalling Gateway
R-TPDU	Response TPDU
R00	Release 2000-01-18
R99	Release 1999
RA	Routing Area
RAB	Radio Access Bearer
RACH	Random Access Channel
RAI	Routing Area Identity
RAN	Radio Access Network
RANAP	Radio Access Network Application Part
RB	Radio Bearer
RDF	Resource Description Format
RF	Radio Frequency
RFC	Request For Comments
RFE	Routing Functional Identity
RFU	Reserved for Future Use
RL	Radio Link
RLC	Radio Link Control
RLCP	Radio Link Control Protocol
RNC	Radio Network Controller
RNS	Radio Network Subsystem
RNSAP	Radio Network Subsystem Application Part
RNTI	Radio Network Temporary Identity
RRC	Radio Resource Control
RRM	Radio Resource Management
RSCP	Received Signal Code Power
RSSI	Received Signal Strength Indicator
RST	Reset
RSVP	Resource ReserVation Protocol
RT	Real Time
RTP	Real Time Protocol
RU	Resource Unit
RX	Receive

S

S-Block	Supervisory Block
S-CSCF	Serving CSCF
S-RNTI	SRNC Radio Network Temporary Identity
SAAL	Signaling ATM Adaptation Layer
SACCH	Slow Associated Control Channel
SAD	Source ADdress
SAP	Service Access Point
SAPI	Service Access Point Identifier
SAR	Segmentation and Reassembly
SAT	SIM Application Toolkit
SCCH	Synchronization Control Channel
SCCPCH	Secondary Common Control Physical Channel
SCF	Service Control Function (IN context), Service Capability Feature (VHE/OSA context)
SCH	Synchronization Channel
SCI	Subscriber Controlled Input
SCP	Service Control Point
SDCCH	Stand-Alone Dedicated Control Channel
SDH	Synchronous Digital Hierarchy
SDU	Service Data Unit
SE	Security Environment

SF	Spreading Factor
SFI	Short EF Identifier
SFN	System Frame Number
SGSN	Serving GPRS Support Node
SHCCH	Shared Channel Control Channel
SIC	Service Implementation Capabilities
SIM	GSM Subscriber Identity Module
SIP	Session Initiated Protocol
SIR	Signal-to-Interference Ratio
SLA	Service Level Agreement
SMS	Short Message Service
SMS-CB	SMS Cell Broadcast
SN	Serving Network
SNDCP	Sub-Network Dependent Convergence Protocol
SoLSA	Support of Localised Service Area
SP	Switching Point Service Provider
SPCK	Service Provider Control Key
SQN	Sequence number
SRNC	Serving Radio Network Controller
SRNS	Serving RNS
SS7	Signaling System No. 7
SSC	Secondary Synchronization Code
SSCOP	Service Specific Connection Oriented Protocol
SSCF	Service Specific Co-ordination Function
SSCF-NNI	Service Specific Coordination Function – Network Node Interface
SSCS	Service Specific Convergence Sublayer
SSDT	Site Selection Diversity Transmission
SSF	Service Switching Function
SSSAR	Service Specific Segmentation and Re-assembly sublayer
STC	Signaling Transport Converter
STTD	Space Time Transmit Diversity
SVC	Switched virtual circuit
SW	Status Word

T

T-SGW	Transport Signalling Gateway
T	Transparent
TC	Transmission Convergence
TCH	Traffic Channel
TCP	Transmission Control Protocol
TD-CDMA	Time Division-Code Division Multiple Access
TDD	Time Division Duplex
TDMA	Time Division Multiple Access
TE	Terminal Equipment
TE9	Terminal Equipment 9 (ETSI sub-technical committee)
TF	Transport Format
TFC	Transport Format Combination
TFCI	Transport Format Combination Indicator
TFCS	Transport Format Combination Set
TFI	Transport Format Indicator
TFS	Transport Format Set
TLLI	Temporary Link Level Identity
TLS	Transport Layer Security
TLV	Tag Length Value
TMSI	Temporary Mobile Subscriber Identity
TN	Termination Node
TP	Third Party
TPC	Transmit Power Control

TPDU	Transfer Protocol Data Unit
TR	Technical Report
TrCH	Transport Channel
TS	Technical Specification
TSTD	Time Switched Transmit Diversity
TTI	Transmission Timing Interval
TX	Transmit

U

U-RNTI	UTRAN Radio Network Temporary Identity
UARFCN	UTRA Absolute Radio Frequency Channel Number
UARFN	UTRA Absolute Radio Frequency Number
UCS2	Universal Character Set 2
UDD	Unconstrained Delay Data
UDP	User Datagram Protocol
UE	User Equipment
UE_R	User Equipment with ODMA relay operation enabled
UI	User Interface
UICC	Universal Integrated Circuit Card
UL	Uplink (Reverse Link)
UM	Unacknowledged Mode
UMS	User Mobility Server
UMTS	Universal Mobile Telecommunications System
UNI	User-Network Interface
UP	User Plane
UPT	Universal Personal Telecommunication
URA	User Registration Area
URAN	UMTS Radio Access Network
URI	Uniform Resource Identifier
URL	Uniform Resource Locator
USC	UE Service Capabilities
USCH	Uplink Shared Channel
USIM	Universal Subscriber Identity Module
USSD	Unstructured Supplementary Service Data
UT	Universal Time
UTRA	Universal Terrestrial Radio Access
UTRAN	Universal Terrestrial Radio Access Network
UUI	User-to-User Information
UUS	Uu Stratum

V

VA	Voice Activity factor
VASP	Value Added Service Provider
VBR	Variable Bit Rate
VBS	Voice Broadcast Service
VC	Virtual Circuit
VGCS	Voice Group Call Service
VHE	Virtual Home Environment
VoIP	Voice Over IP
VPLMN	Visited Public Land Mobile Network
VPN	Virtual Private Network

W

WAE	Wireless Application Environment
WAP	Wireless Application Protocol

WCDMA	Wideband Code Division Multiple Access
WDP	Wireless Datagram Protocol
WIN	Wireless Intelligent Network
WSP	Wireless Session Protocol
WTA	Wireless Telephony Applications
WTAI	Wireless Telephony Applications Interface
WTLS	Wireless Transport Layer Security
WTP	Wireless Transaction Protocol
WTX	Waiting Time eXtenstion
WWT	Work Waiting Time
WWW	World Wide Web

X

XRES	EXpected user RESponse

Y

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Z

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5 Equations

$DPCH\_E_c$	Average energy per PN chip for DPCH.
$\frac{DPCH\_E_c}{I_{or}}$	The ratio of the received energy per PN chip of the DPCH to the total transmit power spectral density at the BS antenna connector.
E_b	Average energy per information bit for the PCCPCH, SCCPCH and DPCH, at the UE antenna connector.
$\frac{E_b}{N_t}$	The ratio of combined received energy per information bit to the effective noise power spectral density for the PCCPCH, SCCPCH and DPCH at the UE antenna connector. Following items are calculated as overhead: pilot, TPC, TFCI, CRC, tail, repetition, convolution coding and turbo coding.
E_c	Average energy per PN chip.
$\frac{E_c}{I_{or}}$	The ratio of the average transmit energy per PN chip for different fields or physical channels to the total transmit power spectral density.
F_{uw}	Frequency of unwanted signal
I_o	The total received power spectral density, including signal and interference, as measured at the UE antenna connector.
I_{oc}	The power spectral density of a band limited white noise source (simulating interference from other cells) as measured at the UE antenna connector.
I_{or}	The total transmit power spectral density of the Forward link at the base station antenna connector.
$\hat{I}_{or}$	The received power spectral density of the Forward link as measured at the UE antenna connector.
N_t	The effective noise power spectral density at the UE antenna connector.
$OCNS\_E_c$	Average energy per PN chip for the OCNS.
$\frac{OCNS\_E_c}{I_{or}}$	The ratio of the average transmit energy per PN chip for the OCNS to the total transmit power spectral density.
$PCCPCH\ \frac{E_c}{I_o}$	The ratio of the received PCCPCH energy per chip to the total received power spectral density at the UE antenna connector.
$\frac{PCCPCH\_E_c}{I_{or}}$	The ratio of the average transmit energy per PN chip for the PCCPCH to the total transmit power spectral density.
$SCCPCH$	Secondary Common Control Physical Channel.
$SCCPCH\_E_c$	Average energy per PN chip for SCCPCH.

Annex A:
Change history

Change history										
TSG SA#	SA Doc.	SA1 Doc	Spec	CR	Rev	Rel	Cat	Subject/Comment	Old	New
SA#07	-	-	21.905	-	-	-	-	Approved at SA#07 as version 3.0.0		3.0.0

History

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V3.0.0	March 2000	Publication