

Acronyms and Terms in Technical Architecture

Acronym /Term	Definition	Explanation	Web resources
3GPP	3rd Generation Partnership Project	Group of the standards bodies ARIB and TTC (Japan), CCSA (People's Republic of China), ETSI (Europe), T1 (USA) and TTA (Korea). Established in 1999 with the aim to produce and maintain the specifications for a third generation mobile communications system called UMTS. Note that 3GPP itself is not a standardisation organisation and that all produced standards must be ratified by a standardisation organisation. A permanent project support group called the Mobile Competence Centre (MCC) is in charge of the day-to-day running of 3GPP. The MCC is based at the ETSI headquarters in Sophia Antipolis, France.	http://www.3gpp.org
3GPP2	3rd Generation Partnership Project 2	A collaborative third generation (3G) telecommunications specifications-setting project comprising North American and Asian interests developing global specifications for ANSI/TIA/EIA-41 Cellular Radiotelecommunication Intersystem Operations network evolution to 3G and global specifications for the radio transmission technologies (RTTs) supported by ANSI/TIA/EIA-41. 3GPP2 was initiated as a result of the International Telecommunication Union's (ITU) International Mobile Telecommunications IMT-2000 initiative, covering high speed, broadband, and Internet Protocol (IP)-based mobile systems featuring network-to-network interconnection, feature/service transparency, global roaming and seamless services independent of location. 3GPP2 is a collaborative effort between five officially recognised Standards Development organisations (SDO): ARIB – Association of Radio Industries and Businesses (Japan), CCSA – China Communications Standards Association (China), TIA – Telecommunications Industry Association (North America), TTA – Telecommunications Technology Association (Korea) and TTC – Telecommunications Technology Committee (Japan).	http://www.3gpp2.org
3PCC	Third Party Call Control		
4G	Fourth Generation (mobile system)	Term often used to denote future broadband mobile communications systems or standards with high mobility and bit rates up to 100 Mb/s to follow 3rd generation. Previously often referred to as 'systems beyond 3G' (B3G). The most advanced coming standards are 3GPP's E-UTRA(N)/EPS, often denoted LTE/SAE and the IEEE 802.16m.	
AAA	Authentication, Authorization and Accounting	Key functions to intelligently control access, enforce policies, audit usage, and provide the information necessary to do billing for services.	http://www.ietf.org , http://tools.ietf.org/html/rfc4303
ABE	Aggregate Business Entity		
Access control		The prevention of unauthorised use of a resource, including the prevention of use of a resource in an unauthorised manner. (ITU-T Rec. X.800)	http://www.itu.int
Accounting		The process of collecting and analyzing NGN service and NGN resource usage metrics for the purposes of capacity and trend analysis, cost allocation, auditing, and billing, etc. Accounting management requires that resource consumption is measured, rated, assigned, and communicated between appropriate business entities. (ITU-T Y.2233) The tracking of which services are used, by whom, when and for how long. Accounting is carried out by the logging of session statistics and usage information and is used for authorisation control billing, trend analysis, resource utilization, and capacity planning activities.	http://www.itu.int
ADSL	Asymmetric Digital Subscriber Line	A data communications technology that enables faster data transmission over copper telephone lines than a conventional modem can provide. The access utilises the 1.1 MHz band and has the possibility to offer, dependent on subscriber line length, downstream rates of up to 8 Mb/s. Upstream rates start at 64 kb/s and typically reach 256 kb/s but can go as high as 768 kb/s. Specified by ANSI T1.413 and by ITU-T recommendation G.992.1. A version called ADSL Lite providing up to 1.5 Mb/s downstream rates is specified as G.992.2.	http://www.itu.int

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AG	Access Gateway		
Agent		Element that performs some task on behalf of some party (ie. user, machine, application, or another agent), rather than have the party itself perform the task. The term 'party' refers to either a client (user) or server application involved in communicating with others. (ITU-T Rec. Y.130)	http://www.itu.int
AIN	Advanced Intelligent Network		
ALG	Application Layer Gateway		
AMPS	Advanced Mobile Phone System		
AMR	Automatic Meter Reading		
AN	Access network	Network that connects access technologies (such as a Radio Access Network) to the core network. Also the part of a communications network which connects subscribers to their immediate service provider. (ITU-T Q.1742.1)	http://www.itu.int
ANI	Application Network Interface		
AOC	Advice Of Charge		
AP	Access Point	A point where users access the system/network, eg. a base station in a wireless network.	
API	Application Programming Interface	The specific method prescribed by a computer operating system or by an application program by which a programmer writing an application program can make requests of the operating system or another application. A set of routines, protocols, and tools for building software applications. Most operating environments, such as MS-Windows, provide an API so that programmers can write applications consistent with the operating environment.	
A-RACF	Access Resource and Admission Control Function		
ARPA	Advanced Research Project Agency	ARPA was established in 1958 in response to the Soviet launching of Sputnik, with the mission of keeping the US' military technology ahead of its enemies. It was renamed DARPA (for Defense) in 1972, then back to ARPA in 1993, and then back to DARPA again on March 11, 1996. DARPA is independent of other more conventional military R&D and reports directly to senior Department of Defense management. DARPA has around 240 personnel (about 140 technical) directly managing a \$2 billion budget. DARPA focuses on short-term (two to four-year) projects run by small, purpose-built teams. ARPA was responsible for funding development of ARPANET (which grew into the Internet), as well as the Berkeley version of Unix (BSD) and TCP/IP.	http://www.darpa.mil
ARPANET	Advanced Research Projects Agency Network		
ARPU	Average Revenue Per User	It is a measure of the revenue generated by one customer phone, pager, etc., per month. The term is used by companies that offer subscription services to clients, for example telephone carriers, Internet Service Providers, and Hosters etc. In mobile telephony, ARPU includes not only the revenues billed to the customer each month for usage, but also the revenue generated from incoming calls, payable within the regulatory interconnection regime.	
AS	Application Server		
AS	Autonomous System		
ASN.1	Abstract Syntax Notation One	A language used by the OSI protocols for describing abstract syntax.	
ATCA	Advanced Telecommunications Computing Architecture		

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ATM	Asynchronous Transfer Mode	A high bandwidth, low-delay, connection-oriented, packet-like switching and multiplexing technique. ATM allocates bandwidth on demand, making it suitable for high-speed connections of voice, data and video services. Access speeds are up to 622 Mb/s and backbone networks currently operate at speeds as high as 2.5 Gb/s. Standardised by ITU-T.	http://www.itu.int
AuC	Authentication Centre	The AuC is the authentication centre in 2G and 3G cellular networks. The AuC is co-located with a HLR. It is the network element that provides the authentication triplets for authenticating the subscriber.	
Authenti-cation		Process which allows for checking with certainty the identity of a party involved in a communication. Authentication generally follows identification, establishing the validity of the claimed identity, providing means against fraudulent actions. (ITU-T Rec. Y.140.1) The process of determining who the user is. It can take the form of ensuring that data has come from its claimed source, or of corroborating the claimed identity of a communication party.	http://www.itu.int
Availability		Property of being accessible and usable upon demand by an authorised entity. (ITU-T Ref. Y.140.1) Dependability with respect to readiness for usage; measure of correct service delivery with respect to the alternation between correct and incorrect service.	
B2B	Business to Business		
B2C	Business to Consumer		
BAS	Broadband Access Server		
BB	Backbone		
BG	Border Gateway		
BGCF	Border Gateway Controller Function		
BGP	Border Gateway Protocol	The core routing protocol of the Internet. It works by maintaining a table of IP networks or 'prefixes' which designate network reachability between autonomous systems (AS). It is described as a path vector protocol. BGP does not use technical metrics, but makes routing decisions based on network policies or rules. The current version of BGP, BGP version 4, is specified in IETF RFC 1771.	http://www.ietf.org/rfc/rfc1771.txt
Billing		The process after rating in which the NGN transactions of NGN event usage are compiled and bills are produced. (ITU-T. Y.2233)	http://www.itu.int
B-ISDN	Broadband Integrated Services Digital Network		
BPPEL	Business Process Execution Language		
BPI	Baseware Programming Interface		
BPM	Business Process Modelling		
BRAS	Broadband Remote Access Server		
BSC	Base Station Controller	Network node in the GSM network which controls a number of Base Transceiver Stations (BTS).	http://www.etsi.org
BSS	Business Support System		
BTS	Base Transceiver Station	The radio base station of a GSM network. It consists of one or more transmitter-receiver units, each serving one carrier frequency.	http://www.etsi.org
CAMEL	Customised Applications for Mobile network Enhanced Logic	A set of GSM standards designed to work on a GSM core network. They allow an operator to define services over and above standard GSM services. The CAMEL architecture is based on the Intelligent Network (IN) standards, and uses the CAP protocol.	

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CAPEX	Capital expenditure	Expenditures used by a company to acquire or upgrade physical assets such as equipment, property, industrial buildings. In accounting, a capital expenditure is added to an asset account (ie. capitalised), thus increasing the asset's basis.	
Cardinality		Numeric relationship between occurrences of the entities at either end of the relationship line. (ITU-T Rec. Y.2012)	http://www.itu.int
CC	Country Code		
CCITT	Comité Consultatif International Téléphonique et Télégraphique	The International Telegraph and Telephone Consultative Committee of the ITU, now called ITU-T from 1992.	http://www.itu.int/
CDMA	Code Division Multiple Access	A digital, spread spectrum, packet based access technique generally used in radio systems. Allowing for multiple transmissions to be carried simultaneously on a single wireless channel (same time slot and carrier frequency). This is done by spreading the signal across the frequency band using one of a set of spreading codes such that one user's signal appears as noise/interference for other (non-intentional) receivers. CDMA is used in certain cellular systems like eg. cdmaOne/IS-95, and is also in 3G systems like UMTS and CDMA2000.	
CDR	Call Detail Record		
CDR	Charging Data Record	The computer record produced by a telephone exchange containing details of a call that passed through it. It is the automated equivalent of the paper toll tickets that were written and timed by operators for long distance calls in a manual telephone exchange. Also referred to as Call Data Record or Call Detail Record.	
CELTIC	Cooperation for a European sustained Leadership In Telecommunications	CELTIC is a five years EUREKA cluster project, which started work in November 2003. The initiative is supported by most of the major European players in communication technologies. The main goal of CELTIC is to maintain European competitiveness in telecommunications through collaborative R&D. CELTIC projects are characterised by a holistic approach to telecoms networks, applications, and services. Like all EUREKA cluster projects, CELTIC is open to any kind of project participants from all EUREKA countries.	http://www.celtic-initiative.org/
CFB	Call Forwarding Busy		
CFU	Call Forwarding Unconditional		
CG	Core Gateway		
Charging		Function within the NGN network and the associated OCS/BD components whereby information related to a chargeable event is collected, formatted, transferred and evaluated in order to make it possible to determine usage for which the charged party may be billed (off-line charging) or the subscriber's account balance may be debited (on-line charging). (ITU-T Rec. Y.2233)	
CLI	Command Line Interface		
CLIP	Calling Line Identification Presentation	A service that transmits the caller's telephone number to the called party's telephone equipment during the ringing signal or when the call is being set up but before the call is answered.	
CLIR	Calling Line Identification Restriction	Opposite to CLIP, blocking the transmission and display of the caller's number at the called party's telephone equipment.	
CN	Core Network	Term used for core network nodes in cellular systems. In a typical mobile network CN nodes include HLR/AuC, VLR/MSC, VLR/SGSN, SMSC, EIR and GGSN.	
CO	Connected Object		
Computation		Computation of a function describes the way in which the function reacts to information which is passed to it. The computation will record the internal state of that function so the when a piece of information is received, a predictable response can be specified. (ITU-T Rec. Y.110)	http://www.itu.int

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Confidentiality (Data confidentiality)		Absence of unauthorised disclosure of information. The property that information is not made available or disclosed to unauthorised individuals, entities or processes. This property is very closely related to provision of Data Privacy. (3GPP TS 33.102, ITU-T Rec. Y.140.1)	http://www.itu.int
CONTEST	Common Technology and Strategy	A technology and strategy program in the Telenor Group.	
Control plane		Set of functions that control the operation of entities in the stratum or layer under consideration, plus the functions required to support this control. (ITU-T Rec. Y.2011)	
Convergence		Coordinated evolution of formerly discrete networks towards uniformity in support of services and applications. (ITU-T Rec. Q.1761)	http://www.itu.int
COPS	Common Open Policy Service	Part of the internet protocol (IP) suite as defined by the IETF RFC 2748. It specifies a simple client/server model for supporting policy control over Quality of Service (QoS) signalling protocols (eg. RSVP). Policies are stored on servers, also known as Policy Decision Points (PDP), and are enforced on clients, also known as Policy Enforcement Points (PEP).	http://www.ietf.org
CORBA	Common Object Request Broker Architecture	A standard defined by the Common Object Group. It is a framework that provides interoperability between objects built in different programming languages, running on different physical machines perhaps on different networks. CORBA specifies an Interface Definition Language, and API (Application Programming Interface) that allows client/server interaction with the ORB (Object Request Broker).	
CoS	Class of Service		
CP-C	Control Plane – Client		
CP-S	Control Plane – Server		
CPU	Central Processing Unit	The part of a computer that interprets and carries out the instructions contained in the software. The term processor usually refers to a CPU as well.	
CS	Circuit Switched	A network that establishes a circuit (or channel) between nodes before they may communicate. This circuit is dedicated and cannot be used for other means until the circuit is cancelled/closed and a new one created. If no actual communication is taking place in this circuit then the channel remains idle.	
CS	Content Server		
CS-1	Capability Set 1		
CSCF	Call Session Control Function (I - Interrogating, P - Proxy, S - Serving)	Several roles of SIP servers or proxies used to process SIP signalling packets in the IP Multimedia Subsystem (IMS).	
CSE	CAMEL Service Environment		
CSF	Critical Success Factor		
CSS	Cascading Style Sheet	A style sheet language used to describe the presentation of a document written in a markup language. Its most common application is to style web pages written in HTML and XHTML, but the language can be applied to any kind of XML document.	http://www.w3.org/Style/CSS
CUG	Closed User Group		
DARPA	Defence Advanced Research Projects Agency	See ARPA.	
Data plane		Set of functions used to transfer data in the stratum or layer under consideration. (ITU-T Rec. Y.2011)	http://www.itu.int
DDI	Direct-Dialling-In	A feature offered by telephone companies for use with their customers' PBX system, whereby the telephone company allocates a range of numbers all connected to their customer's PBX.	

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DECT	Digital Enhanced Cordless Telecommunication	Formerly called Digital European Cordless Telephone. An ETSI standard for digital portable phones, commonly used for domestic or corporate purposes. DECT is a cellular system with cell radii of 25 to 100 meters. DECT uses a net bit rate of 32 kbit/s. It operates in the frequency band from 1880 to 1900 MHz. The band is divided into 10 carriers, each with 2 x 12 timeslots. It can serve a traffic density of approx. 10000 Erlang/km ² . The DECT physical layer is a combined frequency division multiple access (FDMA)/time division multiple access (TDMA) system using time division duplex (TDD) to separate traffic in the two directions.	http://www.etsi.org
Delegate		A designated resource that performs specified tasks or functions on behalf of (one or more) other resources. To delegate is to designate a resource to perform specified tasks or functions on behalf of (one or more) other resources.	
DHT	Distributed Hash Table		
DIOA	Distributed Interface-Oriented Architecture		
Discrete terminal mobility		Ability to have discrete mobility (see nomadism) using the same terminal. (ITU-T NGN GSI)	http://www.itu.int
DMB	Digital Multi-media Broadcast	Wireless Broadband technology based on the DAB (Digital Audio Broadcast) system.	
DNS	Domain Name System	A system that stores information associated with domain names in a Distributed Database on networks, such as the Internet. The domain name system (Domain Name Server) associates many types of information with domain names, but most importantly, it provides the IP address associated with the domain name. It also lists mail exchange servers accepting e-mail for each domain. In providing a worldwide keyword-based redirection service, DNS is an essential component of contemporary Internet use. Paul Mockapetris invented the DNS in 1983; the original specifications appear in IETF RFC 882 and 883. In 1987, the publication of RFC 1034 and RFC 1035 updated the DNS specification	http://www.ietf.org
Domain		Collection of segments which are owned and operated by a player and can include segments from more than one role. The extent of a domain is defined by a useful context and one player can have more than one domain; however, a domain should not include more than one service provisioning platform. (ITU-T Rec. Y.110)	
DoS	Denial-of-Service	A denial-of-service attack (DoS attack) is an attack targeted against the availability of some resource. The attacks usually try to exhaust the capacity of the target in one way or another. Examples include attacks against internet infrastructure like DNS servers, but the most common example would be attacks against high-profile (corporate) homepages.	http://www.ietf.org , http://tools.ietf.org/html/rfc4732
DP-C	Data Plane – Client		
DPE	Distributed Processing Environment		
DP-S	Data Plane – Server		
DSLAM	Digital Subscriber Line Access Multiplexer	A DSLAM is a network device, usually at a telephone company central office, that receives signals from multiple customer Digital Subscriber Line (DSL) connections and puts the signals on a high-speed backbone line using multiplexing techniques. Depending on the product, DSLAM multiplexers connect DSL lines with some combination of asynchronous transfer mode (ATM), frame relay, or Internet Protocol networks.	
DTD	Document Type Definition		
DVB	Digital Video Broadcasting	An international digital broadcast standard for TV, audio and data. DVB can be broadcast via satellite, cable or terrestrial systems. It has been initially used in Europe and the Far East.	http://www.dvb.org/
DVB-H	Digital Video Broadcast – Handheld	An adaption of DVB-T for use in mobile environments with small, low-power terminals.	

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DVB-T	Digital Video Broadcasting – Terrestrial	The terrestrial version of DVB.	
DVD	Digital Versatile Disc	Formerly Digital Video Disc, data storage format released in 1995. The discs have the same physical size as the CD, but the capacity is more than 7 times as high, approx. 4.7 GB on one side. The discs can have dual layers per side, thus a double-sided, dual-layer disc can store approx. 17 GB of data. Used for storing video, sound, computer software and data, games, etc. A single-sided, single-layer disc can store a typical feature film of 130 minutes with 8 different surround quality sound tracks. Available as read-only (DVD-Video, DVD-ROM), Once writable (DVD-R, DVD+R) and re-writable (DVD-RW, DVD+RW, DVD-RAM).	http://www.dvdforum.org
ECN	Enterprise Communication Network		
ECT	Explicit Call Transfer		
ECU	Electronic Control Unit		
EDGE	Enhanced Data rates for GSM Evolution	A modulation method for GSM and IS-136 TDMA networks, standardised by ETSI, that allows for wireless data transfer up to 384 kb/s.	http://www.etsi.org , http://www.3gpp.org
EDR	Event Detail Record		
EE	Execution Environment		
EGP	Exterior Gateway Protocol		
Emergency call		A call requesting emergency services. A caller is given a fast and easy means of giving information about an emergency situation to the appropriate emergency organisation (eg. fire department, police, and ambulance). Emergency calls will be routed to the emergency services in accordance with national regulations. (ITU-T NGN GSI)	http://www.itu.int
Engine		Realisation and mechanisation, in software or hardware, of one or more functions dedicated to performing a specific task. Well-known examples of engines include search engine, encryption engine, etc. (ITU-T Rec. Y.130)	http://www.itu.int
Enterprise model		Abstract representation, description and definition of the structure, processes, information and resources of an identifiable business, government body, or other large organisation.	
EPC	Electronic Product Code	EPC is a standard for how to tag products electronically.	http://www.epcglobalinc.org/home
ERP	Enterprise Resource Planning		
ESB	Enterprise Service Bus		
eTOM	Enhanced Telecommunication Operation Map	A guidebook published by the TeleManagement (TM) Forum. It is the most widely used and accepted standard for business processes in the telecommunications industry. The eTOM model describes the full scope of business processes required by a service provider and defines key elements and how they interact. eTOM has been adopted by ITU-T as a Recommendation and published in the M.3050.x series.	http://www.tmfforum.org/ , http://www.itu.int
ETSI	European Telecommunication Standards Institute	A non-profit membership organisation founded in 1988. The aim is to produce telecommunications standards to be used throughout Europe. The efforts are coordinated with the ITU. Membership is open to any European organisation proving an interest in promoting European standards. It was eg. responsible for the making of the GSM standard. The headquarters are situated in Sophia Antipolis, France.	http://www.etsi.org
FCAPS	Fault, Configuration, Accounting, Performance and Security		
FE	Functional Entity		

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FFD	Full-Function Device		
FMC	Fixed Mobile Convergence	Convergence between the mobile and fixed line networks giving telecommunications operators the possibility to provide services to users irrespective of their location, access technology, and terminal.	
FMCG	Fast Moving Consumer Goods		
Fraud		Act of acquiring pecuniary advantage by misrepresentation or unauthorised action. Equipment fraud is the fraudulent use of the telecommunication network involving the abuse of terminal equipment, such as a payphone. Network fraud is the fraudulent use of the telecommunication network infrastructure involving the abuse of network technical facilities, sometimes using a terminal equipment. Service fraud is the fraudulent use of telecommunication services, sometimes involving the expected or unexpected interaction of two or more services. Subscription fraud is the fraudulent use of the telecommunication network by a party who has no intention of paying their due bill. Telecommunication fraud is the fraud which is committed directly against the telecommunication network or its subscribers. (ITU-T Rec. Y.140.1)	http://www.itu.int
Fraudster		Party who commits fraud. (ITU-T Rec. Y.140.1)	http://www.itu.int
FTP	File Transfer Protocol	A communication protocol mainly used on Internet to transfer files and make repositories dedicated to file exchange (instead of displaying it directly to the screen). Specified by IETF in RFC 959.	http://www.ietf.org
Function		Logical entity which carries out a defined task in response to specified inputs and will generate specified outputs. The definition of a function does not imply any particular implementation but does imply any grouping of functions in an implementation even if, in practice, there may be few alternatives in its implementation. (ITU-T Rec. Y.110)	http://www.itu.int
Functional architecture		Set of functional entities and the reference points between them used to describe the structure of an NGN. The functional entities are separated by reference points, and thus, they define the distribution of functions. Note: The functional entities can be used to describe a set of reference configurations. These reference configurations identify which reference points are visible at the boundaries of equipment implementations and between administrative domains. (ITU-T Rec. Y.2012)	http://www.itu.int
Functional entity		Entity that comprises an indivisible set of specific functions. Functional entities are logical concepts, while groupings of functional entities are used to describe practical, physical implementations. (ITU-T Rec. Y.2012)	http://www.itu.int
Functional model		Structured representation of the functions, activities or processes within the modelled system or subject area.	
Generalized mobility		The ability for the user or other mobile entities to communicate and access service irrespective of changes of the location or technical environment. The degree of service availability may depend on several factors including the access network capabilities, service level agreements between the user's home network and the visited network (if applicable), etc. Mobility includes the ability of telecommunication with or without service continuity. (ITU-T Rec. Y.2012)	http://www.itu.int
GGSN	Gateway GPRS Support Node	Interface between the GPRS wireless data network and other networks such as the Internet or private networks. It supports the edge routing function of the GPRS network. To external packet data networks the GGSN performs the task of an IP router. Firewall and filtering functionality, to protect the integrity of the GPRS core network, are also associated with the GGSN along with a billing function.	http://www.etsi.org , http://www.3gpp.org
GII	Global Information Infrastructure	An ITU-T project aiming to standardise the future broadband networks and infrastructure based on Internet technology in order to enable global compatibility.	http://www.itu.int
GPRS	General Packet Radio Service	An enhancement to the GSM mobile communication system that supports data packets. GPRS enables continuous flows of IP data packets over the system for such applications as web browsing and file transfer. Supports up to 160 kb/s gross transfer rate. Practical rates are from 12 – 48 kb/s.	http://www.etsi.org , http://www.3gpp.org
GPS	Global Positioning System	GPS is a worldwide radio-navigation system formed from a constellation of 24 satellites and their ground stations. GPS uses these 'man-made stars' as reference points to calculate positions accurate to a matter of meters.	http://www.gps.gov/ , http://www.navcen.uscg.gov/gps/default.htm

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GSM	Global System for Mobile communications	A digital cellular phone technology system that is the predominant system in Europe, but is also used around the world. Development started in 1982 by CEPT and was transferred to the new organisation ETSI in 1988. Originally, the acronym was the group in charge, Group Special Mobile, but later the group changed name to SMG. GSM was first deployed in seven countries in Europe in 1992. It operates in the 900 MHz and 1.8 GHz bands in Europe and 1.9 GHz band in North America. GSM defines the entire cellular system, from the air interface to the network nodes and protocols. The ubiquity of the GSM standard makes international roaming very common between mobile phone operators which enables phone users to access their services in many other parts of the world as well as their own country. GSM differs significantly from its predecessors in that both signalling and speech channels are digital, which means that it is seen as a second generation (2G) mobile phone system. This fact has also meant that data communication was built into the system from very early on. GSM is an open standard which is currently developed by the 3GPP.	http://www.gsmworld.com/ , http://www.etsi.org , http://www.3gpp.org
GSMA	GSM Association	World's leading wireless industry representative body, consisting of more than 660 second and third-generation wireless network operators and key manufacturers and suppliers to the wireless industry.	http://www.gsmworld.com/
GTP	GPRS Tunnelling Protocol	An IP based protocol used within GSM and UMTS networks. The GTP protocol is layered on top of UDP. There are in fact three separate protocols, GTP-C, GTP-U and GTP'. GTP-C is used within the GPRS core network for signalling between GPRS Support Nodes (GGSNs and SGSNs). This allows the SGSN to activate a session on the user's behalf (PDP context activation), to deactivate the same session, to adjust quality of service parameters or to update a session for a subscriber who has just arrived from another SGSN. GTP-U is used for carrying user data within the GPRS core network and between the Radio Access Network and the core network. The user data transported can be packets in any of IPv4, IPv6 or PPP formats. GTP' (GTP prime) uses the same message structure as GTP-C and GTP-U, but it is an almost completely separate protocol. It can be used for carrying charging data from the Charging Data Function of the GSM or UMTS network to the Charging Gateway Function.	
GUI	Graphical User Interface	A graphical user interface is a particular case of user interface for interacting with a computer which employs graphical images and widgets in addition to text to represent the information and actions available to the user. Usually the actions are performed through direct manipulation of the graphical elements.	
GW	Gateway	A network element equipped for interfacing with another network that uses different protocols (eg. between an IP network and PSTN). Also called Inter-working unit/function – IWU/IWF.	
Handover		The ability to provide services with some impact on their service level agreements to a moving object during and after movement. (ITU-T Rec. Q.1706) The ability of a mobile user/terminal/network to change location while media streams are active. (ITU-T NGN GSI)	http://www.itu.int
HDC	Handover Decision and Control		
HIP	Host Identity Protocol		
HIT	Host Identity Tag		
HLMSC	High Level Message Sequence Chart		
HLR	Home Location Register	HLR is a central database that contains details of each mobile phone subscriber that is authorised to use the GSM core network. More precisely, the HLR stores details of every SIM card issued by the mobile phone operator. Each SIM has a unique identifier called an IMSI which is one of the primary keys to each HLR record. The next important items of data associated with the SIM are the telephone numbers used to make and receive calls to the mobile phone, known as MSISDNs. The main MSISDN is the number used for making and receiving voice calls and SMS, but it is possible for a SIM to have other secondary MSISDNs associated with it for fax and data calls. Each MSISDN is also a primary key to the HLR record.	http://www.etsi.org

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HMI	Human Machine Interface		
Home network		The network to which a mobile user is normally connected, or the service provider with which the mobile user is associated, and where the user's subscription information is managed. The network in which the user's device is subscribed. (ITU-T NGN GSI)	
HSDPA	High-Speed Downlink Packet Access	Enhancement of the 3G standard UMTS in order to provide higher bit rates on the downlink. The theoretical data rate can reach 14.4 Mb/s. Together with Enhanced Uplink (EUL/HSUPA) the term HSPA is often used.	http://www.3gpp.org
HSS	Home Subscriber Server	HSS contains all operative subscriber data, including information on subscribed services, location/roaming information and security credentials. Includes HLR/AuC and AAA services.	http://www.3gpp.org
HTML	Hyper Text Markup Language	A language to describe the structure of text-based information in documents and to supplement that text with interactive entities. Used to describe webpages and webpage components.	http://www.w3c.org
HTTP	Hyper Text Transport Protocol	An application-level protocol for distributed, collaborative, hypermedia information systems. Used to request and transmit files, especially webpages and webpage components over the Internet or other computer network.	http://www.w3c.org
HUR	High Usage Report		
I/O	Input/Output		
ICC	ITU Carrier Code		
ICT	Information and Communication Technology	The technology required for information processing. In particular the use of electronic computers and computer software to convert, store, protect, process, transmit, and retrieve information from anywhere, anytime.	
ID	Identifier	A series of digits, characters and symbols or any other form of data used to identify subscriber(s), user(s), network element(s), function(s), network entity(ies) providing services/applications, or other entities (e.g. physical or logical objects). Identifiers can be used for registration or authorisation. Note: Identifier can be either public to all networks, shared between a limited number of networks or private to a specific network (private identifiers are normally not disclosed to third parties). (ITU-T Rec. Y.2091)	
IEEE	The Institute of Electrical and Electronics Engineers	USA based organisation open to engineers and researchers in the fields of electricity, electronics, computer science and telecommunications. Established in 1884. The aim is to promote research through journals and conferences and to produce standards in telecommunications and computer science. IEEE has produced more than 900 active standards and has more than 700 standards under development. Divided into different branches, or 'Societies'. Has daughter organisations, or 'chapters' in more than 175 countries worldwide. Headquarters in Piscataway, New Jersey, USA.	http://www.ieee.org
IEPS	International Emergency Preference Scheme	International Emergency Preference Scheme is needed when there is a crisis situation which causes abnormal telecommunication requirements for governmental, military, civil authorities and other specially authorised users for public telecommunications networks. Allows an authorised user to have access to the International Telephone Service while the service is restricted due to damage, congestion and/or other faults. (ITU-T NGN GSI)	
IETF	Internet Engineering Task Force	A large open international community of network designers, operators, vendors, and researchers concerned with the evolution of the Internet architecture and the smooth operation of the Internet. It is open to any interested individual. The technical work of the IETF is done in its working groups, which are organised by topic into several areas (eg. routing, transport, security, etc.). Much of the work is handled via mailing lists. The IETF holds meetings three times per year. The IETF working groups are grouped into areas and managed by Area Directors (AD). The ADs are members of the Internet Engineering Steering Group (IESG). Providing architectural oversight is the Internet Architecture Board (IAB). The IAB also adjudicates appeals when someone complains that the IESG has failed. The IAB and IESG are chartered by the Internet Society (ISOC) for these purposes. The General Area Director also serves as the chair of the IESG and of the IETF, and is an ex-officio member of the IAB. The Internet Assigned Numbers Authority (IANA) is the central coordinator for the assignment of unique parameter values for Internet protocols. The IANA is chartered by the Internet Society (ISOC) to act as the clearing-house to assign and coordinate the use of numerous Internet protocol parameters. IETF's mission statement is given in IETF RFC 3935.	http://www.ietf.org , http://tools.ietf.org/html/rfc3935

Acronym /Term	Definition	Explanation	Web resources
IF	Interface		
IGP	Interior Gateway Protocol		
IMB	Integrated Mobile Broadcast	Multicast/Broadcast standard as part of 3GPP WCDMA Release 8.	http://www.3gpp.org
Implementation model		Representation of the physical composition of an implementation, including subsystems and relevant elements (directories, files, source code, data, executable files, etc.).	
IMS	IP Multimedia Subsystem	A standardised Next Generation Networking (NGN) architecture for telecom operators that want to provide mobile and fixed multimedia services. IMS was originally defined by an industry forum called 3G.IP (www.3gip.org) formed in 1999. 3G.IP developed the initial IMS architecture, which was brought to 3GPP for industry standardisation as part of their standardisation work for 3G mobile phone systems in UMTS networks. It first appeared in release 5 (evolution from 2G to 3G networks), when SIP-based multimedia was added. Support for the older GSM and GPRS networks was also provided. 'Early IMS' was defined to allow for IMS implementations that do not yet support all 'Full IMS' requirements. 3GPP2 (a different organisation) based their CDMA2000 Multimedia Domain (MMD) on 3GPP IMS, adding support for CDMA2000.	http://www.3gpp.org , http://www.ietf.org , http://www.imsforum.org/
IM-SSF	IP Multimedia Service Switching Function		
IN	Intelligent Network	The enhanced public switched telephone network architecture for the 1990s developed by ITU. It was created to provide a variety of advanced telephony services such as 800 number translation, local number portability (LNP), call forwarding, call screening and wireless integration. The IN uses the SS7 signalling protocol in which voice calls (or modem data) travel through circuit-switched voice switches, while control signals travel over an SS7 packet-switched network.	http://www.itu.int
Information format		Describes the way in which messages and other data are encoded in a protocol. This can include information interface definition languages such as CORBA IDL, Internet protocol formats such as HyperText Markup language (HTML), signalling message formats, voice and video coding schemes, and multiplexing schemes such as ATM and SDH. (ITU-T Rec. Y.110)	http://www.itu.int
Infrastructure role		Not in the primary value chain of the industry which is under consideration, but supplies goods/services for one or more roles to the primary value chain of that industry. The business activity of an infrastructural role will normally be directed towards many other roles, even roles belonging to more than one primary value chain. The output goods/services of an infrastructural role are likely to be based on reusable components in order to meet the requirements of its many customer roles. However, an infrastructural role may itself belong to a primary value chain within its own industry and therefore be a structural role from the perspective of its own industry. From the perspective of the roles which it is supplying, it is an infrastructural role. (ITU-T Rec. Y.110)	http://www.itu.int
Integrity		The property that data has not been altered or destroyed in an unauthorised manner. The ability of a function to withstand being usurped for unauthorised use, or modified to yield unauthorised results. (ITU-T Rec. Y.140.1)	http://www.itu.int
Interface		Common boundary between two associated systems. (GSM 01.04, ITU-T Rec. I.112)	http://www.itu.int , http://www.etsi.org
Interworking		Interactions between networks, between end-systems or between parts thereof, with the aim of providing a functional entity capable of supporting an end-to-end communication. The interactions required to provide a functional entity rely on functions and on the means to select these functions. (ITU-T Rec. Y.2262)	http://www.itu.int
IoT	Internet of Things	A network of objects, such as household appliances. It is often a self-configuring wireless network. The concept of the internet of things is attributed to the original Auto-ID Center, founded in 1999 and based at the time in MIT.	http://web.mit.edu/
IP	Internet Protocol	A protocol for communication between computers, used as a standard for transmitting data over networks and as the basis for standard Internet protocols. Originally defined in IETF RFC 791.	http://www.ietf.org , http://tools.ietf.org/html/rfc791
IP	Intelligent Peripheral		

Acronym /Term	Definition	Explanation	Web resources
IPTV	Internet Protocol Television	A system where a digital television service is delivered using the Internet Protocol over a network infrastructure, which may include delivery by a broadband connection.	
ISC	IP Multimedia Subsystem Service Control		
ISDN	Integrated Services Digital Network	A digital telecommunications network that provides end-to-end digital connectivity to support a wide range of services, including voice and non-voice services, to which users have access by a limited set of standard multi-purpose user-network interfaces. The user is offered one or more 64 kb/s B-channels.	http://www.itu.int
ISIM	IP Multimedia Services Identity Module	An application running on a UICC smart card in a 3G mobile telephone in the IP Multimedia Subsystem (IMS). It contains parameters for identifying and authenticating the user to the IMS. The ISIM application can co-exist with SIM and USIM on the same UICC making it possible to use the same smart-card in both GSM networks and earlier releases of UMTS.	http://www.3gpp.org/ftp/Specs/html-info/31103.htm
IS-IS	Intermediate System to Intermediate System	Protocol for routing in an Internet domain, based on Dijkstra's algorithm, standardised as ISO10589. Specified in IETF RFC 1195.	http://www.ietf.org/rfc/rfc1195.txt
ISO	International Organization for Standardization	ISO is a worldwide federation of national standards bodies from more than 140 countries, one from each country. ISO is a non-governmental organisation established in 1947. The mission of ISO is to promote the development of standardisation and related activities in the world with a view to facilitating the international exchange of goods and services, and to developing cooperation in the spheres of intellectual, scientific, technological and economic activity.	http://www.iso.org
ISP	Internet Service Provider	A vendor who provides access for customers to the Internet and the World Wide Web. The ISP also typically provides a core group of internet utilities and services like e-mail and news group readers.	
IT	Information Technology	See ICT.	
ITSM	Information Technology Service Management		
ITU-T	International Telecommunication Union – Telecommunication Standardization Sector	A sector of the ITU whose mission is to ensure an efficient and on-time production of standards (Recommendations) covering all fields of telecommunications. It was created on March 1, 1993, replacing the former International Telegraph and Telephone Consultative Committee (CCITT).	http://www.itu.int/ITU-T/
IaaS	Infrastructure as a Service		
JTAPI	Java Telephony Application Programming Interface		
KPI	Key Performance Indicator		
KTN	Kernal Transport Network (TINA)		
L2HEF	Layer 2 Handover Execution Function		
L3HEF	Layer 3 Handover Execution Function		
LAN	Local Area Network	A network shared by communicating devices, usually in a small geographical area. A system that links together electronic office equipment, such as computers and word processors, and forms a network within an office or building.	
Lawful interception		Action (based on the law) performed by a network operator / access provider / service provider, of making available certain information and providing that information to a law enforcement monitoring facility. (ITU-T Rec. Y.140.1)	http://www.itu.int
LDAP	Lightweight Directory Access Protocol	A networking protocol for querying and modifying directory services running over TCP/IP. Its current version is LDAPv3, as defined in RFC 3377.	http://www.ietf.org

Acronym /Term	Definition	Explanation	Web resources
LF	Location Function		
LLU, LLUB	Local Loop Unbundling	Option to rent only a local loop (eg. copper access line to customer premises) by a non-incumbent operator.	
Location Management		A process that enables the network to determine a mobile's current location, ie. the mobile's current network attachment point where the mobile can receive traffic from the network. (ITU-T NGN GSI)	http://www.itu.int
Logical interface		Full specification of the interactions between two functions including the format of information passed between the two functions and the computational aspects of each function which determine the response of a function when information is passed to it from the other function. A protocol and a functional reference point are both logical interfaces; the term protocol has grown up in the transactional messaging environment while the term functional reference point has grown up in the telecommunications environment. These terms are used in these contexts by are still logical interfaces. (ITU-T Rec. Y.110)	http://www.itu.int
LSI	Local Scope Identifier		
LSP	Label-Switched Path		
M2M	Machine To Machine	Data communications between machines. M2M can also mean the family of sensors, middleware, software and applications that help improve efficiency and quality by tying together a myriad of sensors with mission critical applications.	
MAC	Medium Access Control	The lower of the two sub-layers of the Data Link Layer. In general terms, MAC handles access to a shared medium and can be found within many different technologies. For example, MAC methodologies are employed within Ethernet, GPRS, and UMTS.	
Management plane		Set of functions used to manage entities in the stratum or layer under consideration, plus the functions required to support this management. (ITU-T Rec. Y.2011)	
MARCH	Multilink architecture for multiplay service	CELTIC project.	
MC	Multicast		
Media stream		A media stream can consist of audio, video, or data, or a combination of them. Media stream data conveys user or application data (ie. a payload) but not control data. (ITU-T Rec. Y.2012)	http://www.itu.int
Mediated services		Services that are based on intermediate service stratum facilities provided by one or more service providers. (ITU-T Rec. Y.2012)	http://www.itu.int
MEGACO	Media Gateway Control	An IETF WG that jointly with ITU-T SG 16 has developed a Gateway Control Protocol. The IETF version is RFC 3525, while the ITU-T version is specified in ITU-T Recommendation H. 248.1. ITU-T has continued the work on the protocol; there are a number of packages that define additional functionality.	http://www.ietf.org
MeXE	Mobile Station Application Execution Environment		
MGC	Media Gateway Controller	Controls the Media Gateways.	http://webapp.etsi.org/Teddi/
MGCF	Media Gateway Control Function	The functions of a Media Gateway Controller.	
MGCP	Media Gateway Control Protocol		
MGW	Media Gateway	Converts media provided in one type of network to the format required in another type of network.	http://webapp.etsi.org/Teddi/
MIB	Management Information Base		
MIHF	Media-Independent Handover Function		
MIIS	Media-Independent Information Server		

Acronym /Term	Definition	Explanation	Web resources
MIS	Management In-formation System		
MLG	Multilink Gateway		
MLG-C	Client Multilink Gateway		
MLG-S	Serving Multilink Gateway		
MLM	Mobility Location Management		
MM	Mobility Management		
Mobility		Ability to provide services irrespective of changes that may occur by user/terminal's activities. The user is able to change his network access point, as he moves, without interrupting his current service session, ie. handovers are possible. In some situations, the handover may lead to a briefly suspended service session or it may require a change in the level of service provided as a consequence of the capabilities of the new access point to which the user has become connected through the handover process. (ITU-T NGN GSI) Supplement – The ability for a user to access subscribed services while in motion, and the capability of the network to identify and locate the user's terminal. The ability of the user or other mobile entities to communicate and access services irrespective of changes of the location or technical environment. (ITU-T Rec. Q.1706/Y.2801)	
Mobility management		The set of functions used to provide mobility. These functions include authentication, authorisation, location updating, paging, download of user information and more. (ITU-T Rec. Q.1706/Y.2801)	http://www.itu.int
MOS	Mean Opinion Score	A numerical indication of the perceived quality of received human speech over the connection. The MOS is expressed as a single number in the range 1 to 5, where 1 is the lowest perceived quality and 5 is the highest perceived quality. MOS tests are specified by ITU-T recommendation P.800. The MOS is generated by averaging the results of a set of standard, subjective tests where a number of listeners rate the heard audio quality of test sentences read aloud by both male and female speakers over the communications medium being tested.	http://www.itu.int
MP-C	Management Plane – Client		
MPI	Middleware Programming Interfaces		
MPLS	Multi Protocol Label Switching	An IETF standard intended for Internet application. The system works by adding a much smaller 'label' to a stream of IP datagrams. It is specified in IETF RFC 2702.	www.ietf.org
MP-S	Management Plane – Server		
MRFC	Multimedia Resources Function Controller		
MRFP	Multimedia Resources Function Processor		
MSC	Message Sequence Charts	MSCs are often used in combination with SDL to show interactions between a number of participants by specifying message exchanges between them. MSCs are an ITU-T standard (Recommendation Z.120).	
Multicast		Data delivery scheme where the same data unit is transmitted from a single source to multiple destinations in a single invocation of service. (ITU-T Rec. X.603)	
Multicast group		A set of service users that abide by appropriate group-membership criteria, or a set of rules for belonging to a group that enables multicast based services and applications utilization. (ITU-T Rec. X.601)	

Acronym /Term	Definition	Explanation	Web resources
NAP	Network Access Point		
NASS	Network Attachment Subsystem		http://www.etsi.org , http://portal.etsi.org/tispan
NAT	Network Address Translation	In computer networking, the process of network address translation (NAT, also known as network masquerading or IP-masquerading) involves re-writing the source and/or destination addresses of IP packets as they pass through a router or firewall. Most systems using NAT do so in order to enable multiple hosts on a private network to access the Internet using a single public IP address. According to specifications, routers should not act in this way, but many network administrators find NAT a convenient technique and use it widely. Nonetheless, NAT can introduce complications in communication between hosts. NAT first became popular as a way to deal with the IPv4 address shortage and to avoid the difficulty of reserving IP addresses. Use of NAT has proven particularly popular in countries other than the United States, which (for historical reasons) have fewer address-blocks allocated per capita. It has become a standard feature in routers for home and small-office Internet connections, where the price of extra IP addresses would often outweigh the benefits. In a typical configuration, a local network uses one of the designated 'private' IP address subnets (such as 192.168.x.x or 10.x.x.x), and a router on that network has a private address (such as 192.168.0.1) in that address space. The router is also connected to the Internet with a single 'public' address (known as 'overloaded' NAT) or multiple 'public' addresses assigned by an ISP. As traffic passes from the local network to the Internet, the source address on the packets are translated on the fly from the private addresses to the public address(es). The router tracks basic data about each active connection (particularly the destination address and port). When a reply returns to the router, it uses the connection tracking data it stored during the outbound phase to determine where on the internal network to forward the reply; the TCP or UDP client port numbers are used to demultiplex the packets in the case of overloaded NAT, or IP address and port number when multiple public addresses are available, on packet return. To a system on the Internet, the router itself appears to be the source/destination for this traffic. The use of NAT creates problems for applications where the source and destination addresses and port numbers are used in the protocols, such as voice over IP.	
NBMA	Non Broadcast Multiple Access		
NCCE	Native Computing and Communications Environment (TINA)		
NEM	Network Element Management		
Network mobility		The ability of a network, where a set of fixed or mobile nodes are networked to each other, to change, as a unit, its point of attachment to the corresponding network upon the network's movement itself. (ITU-T NGN GSI)	http://www.itu.int
NGN	Next Generation Network	A network concept that aims at providing a framework to encompass the large variety of existing and emerging protocols and services, facilitate a further evolution of these, decouple the evolution from the underlying network infrastructure and facilitate the interfacing of a plethora of available media. The rationale behind NGN lies founded in paradigm shifts that have been taking place within the technological solutions and the business models in the telecom industry as a whole. The concept is based on IP-technology and is being specified by ITU-T.	http://www.itu.int
NGN service stratum		That part of the NGN which provides the user functions that transfer service-related data and the functions that control and manage service resources and network services to enable user services and applications. (ITU-T Rec. Y.2011)	http://www.itu.int
NGN transport stratum		That part of the NGN which provides the user functions that transfer data and the functions that control and manage transport resources to carry such data between terminating entities. (ITU-T Rec. Y.2011)	http://www.itu.int
NGN-GSI	Next Generation Network – Global Standards Initiative		

Acronym /Term	Definition	Explanation	Web resources
NGOSS	Next Generation Operations Systems and Software		
NMT	Nordic Mobile Telephone	Automatic mobile telephone system based on analogue transmission technology. NMT was developed by the Nordic public telephone administrations in the period 1969 to 1980. The first version NMT 450 operated in the 450 MHz band (NMT-450) and was launched in 1981/82. Later the system was enhanced to operate in the 900 MHz band – NMT 900 in 1986. The system offered voice telephony with international roaming. The technology used was narrowband frequency modulation (FM) with 25 kHz user channels. In Norway, the NMT-900 service was discontinued in 2001 when the GSM coverage had reached a sufficiently high level, and to release the frequency resources. The NMT-450 system was discontinued at the end of 2004. (Cf. <i>Teletronikk</i> , 91 (4), 1995)	
NNI	Network to Network Interface		
Nomadism		Ability of the user to change his network access point after moving; when changing the network access point, the user's services session is completely stopped and then started again, ie. no handover is possible. It is assumed that the normal usage pattern is that users shut down their service session before moving to another access point or changing terminal. This is the mobility alluded to in the case of fixed mobile convergence. (ITU-T Rec. Q.1761)	http://www.itu.int
NPV	Net Present Value	Term used when evaluating a business case about the present net value of future investments.	
OAM	Operations, Administration and Maintenance	Also OA&M.	
Object		A function; however, the terms object and function have grown up in different environments. Functions then to be used in the telecommunications environment where they are often implemented directly in hardware, while objects have grown up in the software environment. While strictly they can be regarded as synonymous, the two terms will often be used to reflect this practical distinction. (ITU-T Rec. Y.110)	http://www.itu.int
Object interface		Similar to a protocol and functional reference point; however, it is specified from the viewpoint of only one object (or function). In this manner, the way in which any other object (or function) interacts with the object (or function) can be specified once only. Once an object (or function) interface has been specified, it can be publicly declared so that many other objects (or functions) can be designed to be able to interact with it. (ITU-T Rec. Y.110)	http://www.itu.int
ODP	Open Distributed Processing		
ODP-RM	Open Distributed Processing – Reference Model		
OEO/O-E-O	Optical-Electrical-Optical	A wavelength switch that terminates the optical signal at input and output and performs electrical switching.	
OID	Object ID		
OMA	Open Mobile Alliance	A standards body which develops open standards for the mobile industry. The OMA was created in June 2002 as an answer to the proliferation of industry forums each dealing with a few application protocols: the WAP Forum (focused on browsing and device provisioning protocols), the Wireless Village (focused on instant messaging and presence), the SyncML Consortium (focused on data synchronization), the Location Interoperability Forum, the Mobile Games Interoperability Forum and the Mobile Wireless Internet Forum. Each of these forums had its bylaws, its decision-making procedures, its release schedules, and in some instances there was some overlap in the specifications, causing duplication of work. The OMA was created to gather these initiatives under a single umbrella. Members include traditional wireless industry players such as equipment and mobile systems manufacturers and mobile operators, but also software vendors.	http://www.openmobilealliance.org/
ONS	Object Naming Server		
OpCo	Operation Company		

Acronym /Term	Definition	Explanation	Web resources
Open interface		An interface that uses open standards. (ITU-T Rec. Q1706)	http://www.itu.int
Open standard		Open standards are standards made available to the general public and are developed (or approved) and maintained via a collaborative and consensus-driven process. (ITU-T Rec. Q1706)	http://www.itu.int
OPEX	Operations Expenditure	A company's operational cost in contrast to CAPEX – Capital Expenditure, which is the company's investment cost.	
OSA	Open Service Architecture		
OSA	Open Service Access	OSA describes how services are designed in a UMTS network. The standards for OSA are developed by 3GPP. APIs for OSA are developed jointly by 3GPP, ETSI and the Parlay Group. The OSA specifications define a set of APIs that enable operators and 3rd party applications to make use of network functionality through a set of open standardised interfaces.	http://portal.etsi.org/docbox/TISPAN/Open/OSA/Default.htm , http://www.parlay.org
OSI	Open Systems Interconnection	Refers to the 7 layer reference model developed by the ISO. The reference model breaks communication functions down into one of seven layers, each layer providing clearly defined services to adjacent layers. They are often referred to as Layer 1 through to 7: 1) Physical layer, 2) Data Link Layer, 3) Network layer, 4) Transport layer, 5) Session layer, 6) Presentation layer, 7) Application layer	http://www.iso.org
OSP	Open Services Platform		
OSPF	Open Shortest Path First		
OSS	Operational Support System		
P2P	Peer To Peer	A computer network that does not rely on dedicated servers for communication but instead mostly uses direct connections between clients (peers). A pure peer-to-peer network does not have the notion of clients or servers, but only equal peer nodes that simultaneously function as both 'clients' and 'servers' to the other nodes on the network.	
PC	Personal Computer	Usually a microcomputer whose price, size, and capabilities make it suitable for personal usage. Personal computers are normally operated by one user at a time to perform such general purpose tasks as word processing, internet browsing, e-mail and other digital messaging, multimedia playback, video game play, computer programming, etc. Unlike many special purpose and high performance computers, it is assumed that a typical personal computer will run software not written by its primary users.	
PCI	Peripheral Component Interconnect		
PDF	Policy Decision Function		
PDG	Packet Data Gateway		
PDN	Packet Data Network		
PDP	Policy Decision Point		
PDU	Protocol Data Unit		
PEEM	Policy Evaluation, Enforcement and Management		
PEP	Policy Enforcement Point		
Personal mobility		Ability of a user to access telecommunication services at any terminal on the basis of a personal identifier, and the capability of the network to provide those services according to the user's service profile. Note: 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. (ITU-T Rec. Q.1706/Y.2201)	http://www.itu.int

Acronym /Term	Definition	Explanation	Web resources
Platform		Flexible system allowing for customisation adapted to particular applications by programming one or more of the systems. Composed of the definition of instruction sets/primitives and interfaces. Exposing of a set of capabilities that can be utilized by applications and used to swiftly develop new applications. Library of components that can be assembled to generate a design at a given level of abstraction.	
Player		Organisation or individual that undertakes one or more roles. The player can be a commercial company, a government agency, a non-governmental organisation, a charity or an individual. (ITU-T Rec. Y.110)	http://www.itu.int
PLMN	Public Land Mobile Network	Common notation in the 1980s of a land mobile network of any category that was used to offer public services.	
PN	Physical Node		
PoA	Point of Attachment		
Policy		An ordered combination of policy rules that defines how to administer, manage, and control access to resources (derived from [RFC3060], [RFC3198] and [RFC3460]).	http://www.ietf.org
Policy action		Action (eg. invocation of a function, script, code, workflow, etc.) that is associated to a policy condition in a policy rule that is executed when its associated policy condition results in 'true' from the policy evaluation step.	
Policy condition		A condition is any expression that yields a Boolean value.	
Policy enforcement		The process of execution actions which may be performed as a consequence of the output of the policy evaluation process or during the policy evaluation process.	
Policy engine		A logical entity that evaluates a policy or policies.	
Policy evaluation		The process of evaluating the policy conditions and executing the associated policy actions up to the point that the end of the policy is reached.	
Policy execution		Execution of the action associated to the policy conditions selected by policy evaluation.	
Policy expression		The process of representing a policy.	
Policy expression language		The language to express policies.	
Policy management		The act of describing, creating, updating, deleting, provisioning and viewing policies.	
Policy rule		A combination of a condition and an action to be performed if the condition is true.	
Portability		The ability of an entity or element to be used in different systems or environments. Three examples are: 1) Ability of software or data to be used in different systems, 2) Ability of a system to be connected to several different systems and operate in different environments, 3) Ability of a user's telephone number or address to be allocated to different systems when the user moves from one location to another. (ITU-T Rec. Y.101)	http://www.itu.int
POTS	Plain Old Telephone Service	A very general term used to describe an ordinary voice telephone service. See also PSTN.	
PRA	Primary Rate Access (ISDN 30B + D)		
Privacy		A mode of communication in which only the explicitly enabled parties can interpret the communication. This may be achieved, eg. by encryption and shared key(s) for the cipher. 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. (ITU-T Rec. Y.140.1)	http://www.itu.int
PRM	Protocol Reference Model		

Acronym /Term	Definition	Explanation	Web resources
PS	Packet Switched	Communication switching method in which packets (units of information carriage) are individually routed between nodes over data links which might be shared by many other nodes. Packet switching is used to optimise the use of the bandwidth available in a network, to minimise the transmission latency (ie. the time it takes for data to pass across the network), and to increase robustness of communication. The concept of packet switching was developed by Paul Baran in the early 1960s, and independently a few years later by Donald Davies. Leonard Kleinrock conducted early research and published a book in the related field of digital message switching (without the packets) in 1961, and also later played a leading role in building and management of the world's first packet switched network, the ARPANET.	
PSTN	Public Service Telephone Network	Common notation for the conventional analog telephone network.	
Public policy		In the context of telecommunications; policy that is made by regulators in their determination of public good and which they may implement by regulations that are imposed on telecommunication entities. (ITU-T Rec. Y.140.1)	http://www.itu.int
PaaS	Platform as a Service		
QoE	Quality of Experience	User's perceived experience of what is being presented by a communication service or application user interface	http://webapp.etsi.org/Teddi/
QoS	Quality of Service	The "degree of conformance of the service delivered to a user by a provider, with an agreement between them". The agreement is related to the provision/delivery of this service. Defined by EURESCOM project P806 in 1999 and adopted by ITU-T in recommendation E.860. [E.860]	http://www.itu.int , http://www.eurescom.de
RACF	Resource and Admission Control Function		
RAN	Radio Access Network	A part of a mobile telecommunication system. It implements a radio access technology. Conceptually, it sits between the mobile phone, and the core network (CN). Examples are GRAN (GSM RAN), GERAN (GSM/EDGE RAN) and UTRAN (UMTS RAN).	
RCS	Rich Communication Suite	An industry effort focused on the use of IMS (IP Multimedia Subsystem) for providing mobile phone communication services. It refers to the use of more than just voice for communication. It is to be noted that much of the capability of RCS is already available from Internet service providers.	
Reference architecture		Description of how system areas are broken down into smaller areas/sub-systems and how they are related. It also defines the main terms/names of the areas.	
Reference point		A conceptual point at the conjunction of two non-overlapping functional entities that can be used to identify the type of information passing between these functional entities. Note: A reference point may correspond to one or more physical interfaces between pieces of equipment. (ITU-T Rec. Y.2012)	http://www.itu.int
Request		An articulation of the need to access a resource (eg. asynchronous events).	
Requestor		Any entity that issues a request to a resource.	
Resource		Any component, enabler, function or application that can receive and process requests.	
Respond		An articulation of the results of the processing of a request.	
Responder		Resource that is the target of a request.	
REST	Representational State Transfer		
RFD	Reduced-Function Device		
RfI	Request for Information		
RfQ	Request for Quotation		
RH	Resolution Handler		

Acronym /Term	Definition	Explanation	Web resources
RIP	Routing Information Protocol		
RNC	Radio Network Controller		
Roaming		The ability for a user to function in a serving network different from the home network. (ITU-T NGN GSI) Note: This is the ability of the users to access services according to their user profile while moving outside of their subscribed home network, ie. by using an access point of a visited network. This requires the ability of the user to get access to the visited network, the existence of an interface between home network and visited network, as well as a roaming agreement between the respective network operators. Roaming does not refer to technical handover between APs or different networks such as GPRS and WLAN.	
Role		Business activity that fits in a value chain. The role is constrained by the smallest scale of business activity which could exist independently in the industry and so a market place will exist for every relationship between roles. (ITU-T Rec. Y.110)	http://www.itu.int
Role relationships		Roles passing intermediate goods/services have a relationship. This implies that a market place exists which can match players who undertake the roles on one side of the relationship with players who undertake the role on the other side of the relationship. Some players may choose to be integrated and undertake both roles, in which case the relationship is within the players' domain. Horizontal relationship exists between two adjacent roles which are in the same primary value chain (roles in the same industry). Vertical relationship exists between roles not belonging to the same primary value chain. One role will be supplying goods/services in order to provide some of the infrastructure required by the structural role. (ITU-T Rec. Y.110)	http://www.itu.int
RRM	Radio Resource Management		
RVS	Rendezvous Server		
SA	Security Associations		
SAP	Service Access Point	An identifying label for network endpoints used in OSI networking. The SAP is a conceptual location at which one OSI layer can request the services of another OSI layer. Service access points are for example used in IEEE 802.2 Logical Link Control in Ethernet and similar data link layer protocols.	
SAT	SIM Application Toolkit	The SIM Application Toolkit is a set of commands which defines how the card should interact with the outside world and extends the communication protocol between the card and the handset. With SIM Application Toolkit, the card has a proactive role in the handset (this means that the SIM initiates commands independently of the handset and the network).	
SCC	Standard Coordination Committee		
SCIM	Service Capability Interaction Manager		
SCP	Service Control Point		
SCS	OSA Service Capability Server		
SDK	Software Development Kit		
SDL	Specification and Description Language	SDL, recommended by ITU-T and defined by Recommendation Z.100 describes the behaviour of reactive, distributed systems based on finite state machines.	
SDO	Standards Developing Organization		
Seamless handover		The process by which latency and data loss incurred during handover is within the range to be acceptable to the users (eg. below a certain limit) for real-time services. (ITU-T NGN GSI)	http://www.itu.int

Acronym /Term	Definition	Explanation	Web resources
Seamless service		Seamless service will prevent users from experiencing any service disruptions while maintaining mobility. (ITU-T NGN GSI) A service that is implemented such that it will ensure that users will not experience any service disruptions while changing the point of attachment. (ITU-T Rec. Q.1706)	http://www.itu.int
Security		Protection of information availability, integrity and confidentiality. (ITU-T Rec. Y.140.1)	http://www.itu.int
Segment		Well-defined set of functions, part of one role, owned and operated by one player, part of one (and only one) service provisioning platform, and part of one domain. (ITU-T Rec. Y.101) Part of one role, owned and operated by one player, part of one (and only one) service provision platform, and part of one domain, and is composed of a well-defined set of functions. Entity that is common to the enterprise modelling, the structural modelling and the functional modelling. (ITU-T Rec. Y.110)	http://www.itu.int
Service continuity		The ability for a moving object to maintain on-going service over including current states, such as user's network environment and session for a service. (ITU-T Rec. Y.2201)	http://www.itu.int
Service enabler		A technology intended for use in the development, deployment or operation of service. Defined in a specification or set of specifications. Published as a package. Based on OMA-Service Environment.	
Service interface		Means by which a service is used by a player. The service interface will have several aspects including the inter-role relationship, information and computational aspects, implementation aspects, and – when the interface is also between players – contract aspects. If the service involves the delivery of any physical goods, this must also be included in the service interface. (ITU-T Rec. Y.110)	http://www.itu.int
Service Level Agreement		A contract between two parties such as a service provider and a customer. It defines the services available to the customer, and the grade of service of those services as offered to the customer. It also usually describes the service guarantee and potential penalties in case of service degradation or failure. (ITU-T Rec. G.8081/Y.1353)	http://www.itu.int
Service primitive		Smallest defined interaction between the user and provider of a communication service. (ITU-T Rec. Y.101) Abstract, implementation-independent interaction between a service user and the service provider. (ITU-T Rec. Y.130)	http://www.itu.int
Service provider		Organisation that provides services for consumption by some third party (user). (ITU-T Rec. Y.130)	http://www.itu.int
Service provisioning platform		Basis for offering a service. It is formed from a number of segments which are required to offer the service. These segments can be drawn from a number of role instances and therefore can be made up from a number or cooperating domains. (ITU-T Rec. Y.110)	http://www.itu.int
SGSN	Serving GPRS support node	The Serving GPRS Support Node is an exchange which performs packet switching functions for mobile stations located in a geographical area designated as the SGSN area. It is located in the core network of the visited network in 2G/3G systems. It has an interface towards the radio access network. The SGSN is the PS equivalent of the VLR/MSC for CS connections.	http://www.3gpp.org , http://www.etsi.org
SGW	Signalling Gateway	Provides the signalling mediation function between the IP domain and the SCN domain.	http://webapp.etsi.org/Teddi/
SIB	Service-Independent Building block		
SID	Shared Information/Data model		
SIM	Subscriber Identity Module	The SIM is a subscriber identity module for GSM/GPRS subscriptions. In 2G systems the term SIM is used for a dedicated smartcard with subscriber identity information (including security credentials and algorithms). In 3G systems a SIM is an application running on the UICC (smartcard). Although the terms UICC and SIM are often interchanged, UICC refers to the physical card, whereas SIM (in 3G) refers to a single application residing in the UICC that collects GSM/GPRS user subscription information. The corresponding UMTS subscriber application is the USIM (which is always present on a UICC). The SIM provides secure storing of the key identifying a mobile phone service subscriber but also subscription information, preferences and storage of text messages. The equivalence of a SIM in UMTS is a Universal Subscriber Identity Module (USIM). Defined in 3GPP specification series 31.	http://www.3gpp.org/ftp/Specs/html-info/31-series.htm

Acronym /Term	Definition	Explanation	Web resources
SIP	Session Initiation Protocol	An IETF Protocol used to set up sessions over an IP network. Also the name of the IETF WG developing the protocol. SIP is defined in IETF RFC 3261.	http://www.ietf.org , http://tools.ietf.org/html/rfc3261
SLA	Service Level Agreement	A contract between a provider and a customer that guarantees specific levels of performance and reliability at a certain cost. This contract should also precisely define what could be penalties and back-up solutions in case of problems. SLA is especially important to define when an important part of your system or activity relies on third party providers. SLA is also a very good approach for services provided internally to your organisation where you should also have a customer approach concern. A definition is found in IETF RFC 3272.	http://www.ietf.org , http://tools.ietf.org/html/rfc3272
SLF	Service Locator Function		
SMP	Significant Market Power		
SMS	Short Message Service	A means by which short messages can be sent to and from digital cellular phones, pagers and other handheld devices. Alphanumeric messages of up to 160 characters can be supported.	
SMS	Service Management System		
SMTP	Simple Mail Transfer Protocol	SMTP is the <i>de facto</i> standard for e-mail transmission across the Internet. SMTP is a relatively simple, text-based protocol, where one or more recipients of a message are specified (and in most cases verified to exist) and then the message text is transferred. It is quite easy to test an SMTP server using the telnet program. SMTP uses TCP port 25. To determine the SMTP server for a given domain name, the MX (Mail eXchange) DNS record is used.	http://www.ietf.org
SOA	Service Oriented Architecture	Methods for systems development and integration where systems group functionality around business processes and package these as interoperable services. The architecture is centred around loosely coupled, well defined processes (which are often but not always business processes). Such processes or services are typically communicated by passing messages to exposed, generic interfaces. SOA provides methods for systems development and integration where systems package functionality as interoperable services. A SOA infrastructure allows different applications to exchange data with one another. SOA also describes IT infrastructure which allows different applications to exchange data with one another as they participate in business processes. SOA separates functions into distinct units, or services, which developers make accessible over a network in order that users can combine and reuse them in the production of business applications. These services communicate with each other by passing data from one service to another, or by coordinating an activity between two or more services.	
SPDF	Service-based Policy Decision Function		
SS7	Signalling System No 7	A CCS (Common Channel Signalling) system defined by ITU-T. SS7 is used in many modern telecom networks and provides a suite of protocols that enables circuit and non-circuit related information to be routed about and between networks. A set of telephony signalling protocols which are used to set up the vast majority of the world's PSTN telephone calls. The main protocols include MTP (Message Transfer Part), SCCP (Signalling Connection Control Part) and ISUP (ISDN User Part).	http://www.itu.int
SSH	Secure Shell		
SSP	Service Switching Point		
STM	Synchronous Transfer Mode	A transport level technique in which time-division multiplexing and switching is used across the user's network interface.	
STP	Signalling Transfer Point		
Structural role		Role in the primary value chain of an industry. A structural role will therefore involve a business activity which is directed towards that industry and, in general, only towards that industry and the output goods/services of a structural role will be directed, in general, only to the next structural role of the primary value chain. (ITU-T Rec. Y.110)	http://www.itu.int

Acronym /Term	Definition	Explanation	Web resources
SaaS	Software as a Service		
T1/E1		Primary order traffic stream in the Synchronous Digital Hierarchy. T1 = 1548 kbit/s, E1 = 2048 kbit/s.	
TAM	Telecom Application Map		
TAP	Transferred Account Procedure	A standard maintained by the GSM organisation, by which GSM operators exchange roaming billing information. This is how roaming partners are able to bill each other for the use of network and services through a standard process. The TAP files are generated and sent, at the latest, 36 hours from call end time. This means that operators can send one or many TAP files per day. TAP files contain rated call information according to the operator's Inter-operator Tariff (IOT), plus any bilateral agreed arrangements or discounting schemes. The transfer of TAP records between the visited and the home mobile networks may be performed directly, or more commonly via clearing house. Invoicing between the operators then normally happens once per month.	
Target architecture		Definition of how the reference architecture is to be populated.	
TCO	Total Cost of Ownership	A financial estimate designed to help consumers and enterprise managers assess direct and indirect costs. TCO is sometimes referred to as total cost of operation.	
TCP	Transport Control Protocol	Transport layer protocol defined for the Internet by Vint Cerf and Bob Kahn in 1974. A reliable octet streaming protocol used by the majority of applications on the Internet. It provides a connection-oriented, full-duplex, point-to-point service between hosts. Currently described in IETF RFC 793.	http://www.ietf.org , http://tools.ietf.org/html/rfc793
TCP/IP	Transport Control Protocol/ Internet Protocol	See TCP and IP, respectively.	www.ietf.org
TDM	Time Division Multiplex	A type of digital multiplexing in which two or more apparently simultaneous channels are derived from a given frequency spectrum, ie. bit stream, by interleaving pulses representing bits from different channels.	
Terminal mobility		Ability of a terminal to access telecommunication services from different locations and while in motion, and the capability of the network to identify and locate the terminal. Supplement – This is mobility for those scenarios where the same terminal equipment is moving or is used at different locations. The ability of a terminal to access telecommunication services from different locations and while in motion, and the capability of the network to identify and locate that terminal. (ITU-T Rec. Q.1706/Y.2201)	
TINA/ TINA-C	The Telecommunication Information Networking Architecture	A developing standard which is intended to resolve issues of integration between TMN (Telecommunications Management Network) and IN (Intelligent Network) standards and concepts. TINA focuses on the definition and validation of an open architecture for world-wide telecom services through a flexible software architecture for both end users and network management services.	http://www.tinac.com
TIOA	Timed Input Output Automata		
TISPAN	Telecommunication and Internet converged Services and Protocols for Advanced Networking	The ETSI core competence centre for fixed networks and for migration from switched circuit networks to packet-based networks with an architecture that can serve in both. TISPAN is responsible for all aspects of standardisation for present and future converged networks including the NGN (Next Generation Network) and including service aspects, architectural aspects, protocol aspects, QoS studies, security related studies, mobility aspects within fixed networks, using existing and emerging technologies. To a large extent this work is centered around adapting the 3GPP IMS architecture to the TISPAN/NGN environment. TISPAN is structured as a single technical committee, with core competencies, under which there are Working Groups and Project Teams.	http://www.etsi.org , http://portal.etsi.org/tispan
TMN	Telecommunication Management Network	A protocol model defined by ITU-T for managing open systems in a communications network. It is part of the ITU-T Recommendation series M.3000 and is based on the OSI management specifications in ITU-T Recommendation series X.700.	http://www.itu.int
TNA	Technology Neutral Architecture		

Acronym /Term	Definition	Explanation	Web resources
TrGW	Translation Gateway		
TTCN/ TTCN-3	Testing and Test Control Notation Version 3	A strongly typed abstract test scripting notation used to describe tests and test suites in testing of communicating systems.	http://www.ttcn-3.org
TTI	Tag Terminal Interface		
UDDI	Universal Description, Discovery And Integration		
UDP	User Datagram Protocol	UDP is an unreliable protocol used as an alternative to TCP. UDP does not support retransmission of lost packets. It is used for media transport because voice and video transmission is delay sensitive. Currently defined in IETF RFC 768.	http://www.ietf.org/html/rfc768
UE	User Equipment	A UE is a device used directly by the end user to communicate over a network. For example, a mobile phone (terminal unit, radio unit and smartcard (SIM and/or UICC/USIM)) or a personal computer. A device or devices allowing a user access to network services. The terminal (eg. dedicated voice terminal or multi-purpose personal computer) may be connected to an NGN, eg. through a user network. (ITU-T Rec. Y.2262)	
UHF	Ultra-High Frequencies	Notation used to denote the frequency band from 300 to 3000 MHz.	
UI	User Interface		
UICC	UMTS Integrated Circuit Card	A physically secure device, an IC card (or 'smart card') that can be inserted and removed from the terminal equipment. It may contain one or more applications. One of the applications may be a USIM. Defined in 3GPP specification series 31.	http://www.3gpp.org/ftp/Specs/html-info/31-series.htm
UK	United Kingdom		
UML	Unified Modelling Language	A modelling language used to describe software and system models, standardised by OMG. UML includes a set of graphical notation techniques to create abstract models of specific systems. It is an open method used to specify, visualise, construct and document the artifacts of an object-oriented software-intensive system under development. UML offers a standard way to write a system's blueprints, including conceptual components.	http://www.omg.org
UMTS	Universal Mobile Telecommunication System	The European member of the IMT 2000 family of 3G wireless standards. UMTS supports data rates of 144 kb/s for vehicular traffic, 384 kb/s for pedestrian traffic and up to 2 Mb/s in support of in-building services. The standardisation work began in 1991 by ETSI but was transferred in 1998 to 3GPP as a corporation between Japanese, Chinese, Korean and American organisations. It is based on the use of WCDMA technology and is currently deployed in many European countries. The first European service opened in 2003. In Japan NTT DoCoMo opened its 'pre-UMTS' service FOMA (Freedom Of Mobile multimedia Access) in 2000. The system can operate in several frequency bands and is capable of carrying multimedia traffic.	http://www.3gpp.org/ , http://www.umts-forum.org
UNI	User Network Interface	An interface that is used for the interconnection of customer equipment with a network element of the transport network. In ATM and Frame Relay networks, UNI is the interface between the ATM end user and a private ATM switch. It can also represent the interface between a private ATM switch and the public carrier ATM network.	http://www.itu.int/sancho
User (service user)		Consumer of services. In this context 'user' covers both 'end-user' and 'user' as a client in any client-server situation. In addition, content providers and service providers may also be considered to be users. (ITU-T Rec. Y.130)	http://www.itu.int
USIM	Universal Subscriber Identity Module	An application residing on the UICC used for accessing services provided by mobile networks, which the application is able to register on with the appropriate security. Defined in 3GPP specification series 31.	http://www.3gpp.org/ftp/Specs/html-info/31-series.htm
USO	Universal Service Obligation		

Acronym /Term	Definition	Explanation	Web resources
UTRAN	UMTS Radio Access Network	Part of the 3G standard UMTS. UTRAN consists of a set of Radio Network Subsystems (RNS) connected to the Core Network through the Iu-Interface. An RNS consists of a Radio Network Controller (RNC) and a number of base stations called Node Bs. They provide the radio interface Uu towards the User Equipment (UE). Specified by 3GPP. An overall description is found in 3GPP TS 25.401.	http://www.3gpp.org/ftp/Specs/html-info/25401.htm
Value chain		'Tree' of roles are connected together to make an end goods/service. The total set of roles involved in producing an end goods/service and the way they pass intermediate goods/services between the roles are called the complete value chain. The set of roles which form the only principal activity of a generally recognised industry which produces the end goods/service is the primary value chain. All the other roles in the complete value chain will be providing support goods/service for the roles in the primary value chain. (ITU-T Rec. Y.110)	http://www.itu.int
VHF	Very High Frequency	Notation used to denote the frequency band from 30 to 300 MHz.	
Visited network		The network outside a home network that provides service to a mobile user. This term is more business significant than geographically significant. (ITU-T NGN GSI)	http://www.itu.int
VN	Virtual Node		
VNE	Virtual Node Layer Element		
VNL	Virtual Node Layer		
VoIP	Voice over Internet Protocol	VoIP is the routing of voice conversations over the Internet or any other IP-based network. The voice data flows over a general-purpose packet-switched network, instead of traditional dedicated, circuit-switched voice transmission lines. Several standards exist to support VoIP, like H.323 from ITU-T and SIP. (IETF RFC 3261)	http://www.itu.int , http://www.ietf.org
VPN	Virtual Private Network	A VPN is a communication network, built over public and/or private network resources, used to support controlled and secure communications within a group of users as if they were on a private network. (ITU-T Rec. Y.2215) A private communications network usually used within a company, or by several different companies or organisations, to communicate over a public network. VPN message traffic is carried on public networking infrastructure (eg. the Internet) using standard (often insecure) protocols, or over a service provider's network providing VPN service guarded by well defined Service Level Agreement (SLA) between the VPN customer and the VPN service provider.	http://www.itu.int
W3C	World Wide Web Consortium	The main international standards organisation for the World Wide Web (abbreviated WWW or W3). It was founded and headed by Sir Tim Berners-Lee in 1994. The consortium is made up of member organisations which maintain full-time staff for the purpose of working together in the development of standards for the World Wide Web. In 2009, the World Wide Web Consortium (W3C) had 356 members.	http://www.w3.org/
WAG	Wireless Access Gateway		
WAP	Wireless Application Protocol	Wireless Application Protocol (WAP) is an open international standard for applications that use wireless communication, for example Internet access from a mobile phone. WAP was designed to provide services equivalent to a Web browser with some mobile-specific additions, being specifically designed to address the limitations of very small portable devices. It is now the protocol used for the majority of the world's mobile internet sites, otherwise known as wap-sites. The Japanese i-mode system is the other major competing wireless data protocol. The latest version is WAP 2.0. It is specified by the WAP Forum.	http://www.wapforum.org
WGS	World Geodetic System	A standard for use in cartography, geodesy, and navigation. It comprises a standard coordinate frame for the Earth, a standard spheroidal reference surface (the datum or reference ellipsoid) for raw altitude data, and a gravitational equipotential surface (the geoid) that defines the nominal sea level. The latest revision is WGS 84 (dating from 1984 and last revised in 2004), which will be valid up till about 2010. Earlier schemes included WGS 72, WGS 66, and WGS 60. WGS 84 is the reference coordinate system used by the Global Positioning System.	http://earth-info.nga.mil/GandG/publications/tr8350.2/tr8350_2.html

Acronym /Term	Definition	Explanation	Web resources
WiMAX	Worldwide Interoperability for Microwave Access	A specification for broadband wireless metropolitan access networks (WMANs) that use a point-to-multipoint architecture. IEEE is the organisation responsible for the standards WiMAX are based on. Different versions are documented in the IEEE 802.16 series. The IEEE 802.16 standard consists of a vbase standard and a number of amendments. It defines a MAC layer that supports multiple physical layer specifications customised for the frequency band of use and their associated regulations. The base standard is called IEEE 802.16-2004 and the most important amendment being IEEE 802.16e-2005, which includes the functionalities required for mobility. The IEEE 802.16-2004 equipment is called Fixed WiMAX, while the equipment also following the IEEE 802.16e-2005 amendment is called Mobile WiMAX. It is however important to differentiate between the functionalities allowed by the standards versions and the actual deployment and use of the technology.	http://www.ieee802.org/16/ , http://www.wimaxforum.org/
WLAN	Wireless Local Area Network	This is a generic term covering a multitude of technologies providing local area networking via a radio link. Examples of WLAN technologies include Wi-Fi (Wireless Fidelity), 802.11b and 802.11a, HiperLAN, Bluetooth and IrDA (Infrared Data Association). A WLAN access point (AP) usually has a range of 20 – 300 m. A WLAN may consist of several APs and may or may not be connected to Internet.	
WSDL	Web Services Description Language	The Web Services Description Language (WSDL) is an XML format published for describing Web services. It is commonly abbreviated WSDL in technical literature and often pronounced 'Whiz-Dull'. WSDL describes the public interface to the web service. This is an XML-based service description on how to communicate using the web service; namely the protocol bindings and message formats required to interact with the web services listed in its directory. The supported operations and messages are described abstractly, and then bound to a concrete network protocol and message format. WSDL is often used in combination with SOAP and XML Schema to provide web services over the Internet. A client (program) connecting to a web service can read the WSDL to determine what functions are available on the server. Any special datatypes used are embedded in the WSDL file in the form of XML Schema. The client can then use SOAP to actually call one of the functions listed in the WSDL.	
WSN	Wireless Sensor Networks	A WSN is a wireless network consisting of spatially distributed autonomous devices using sensors to cooperatively monitor physical or environmental conditions, such as temperature, sound, vibration, pressure, motion or pollutants.	
xDSL	(Any) Digital Subscriber Line	Various configurations of digital subscriber line: ADSL – asymmetric, VDSL – very high speed, SHDSL – single pair high speed, SDSL – symmetric, HDSL – high speed.	
XML	eXtensible Markup Language	The Extensible Markup Language (XML) is a W3C-recommended general-purpose markup language for creating special-purpose markup languages, capable of describing many different kinds of data. It is a simplified subset of SGML. Its primary purpose is to facilitate the sharing of data across different systems, particularly systems connected via the Internet. Languages based on XML (for example, RDF/XML, RSS, MathML, XHTML, SVG, and cXML) are defined in a formal way, allowing programs to modify and validate documents in these languages without prior knowledge of their form.	http://www.w3c.org/XML/
XSL	eXtensible Style sheet Language		
XSLM	XML Transformations		