

Term Definition

- 16QAM** 16QAM 16 point quadrature amplitude modulation
- 1x** Short for CDMA2000 1xRTT, the IMT-2000 proposed family of new CDMA technologies based on the same chip speed as original CDMA (hence the "1 times" prefix). Members of the family include 1xRTT (circuit-switched voice), 1xEV-DO (evolved, data-optimized) and 1xEV-DV (evolved, optimized for both data and voice, never widely adopted).
- 1xCS** 1x Circuit Switched
- 1xCFSB** 1x Circuit Switched Fallback. The capability of a high-speed data service such as LTE to be able to fall back to an earlier circuit-switched voice technology to provide voice calls as a stopgap measure in advance of the implementation of voice over LTE.)
- 1xEV** 1x Evolution to data. An enhanced CDMA 1x technology intended to provide very high data transmission rates. One proprietary proposal is HDR, "High Data Rates" by Qualcomm. In HDR, a single 1.2288 MCPS CDMA carrier frequency is set aside to be used for data only at high rates up to 2.4 Mb/s. Each BTS always operates at full power and dynamically manages the forward channels carrying data to each user to achieve the maximum feasible data rates and the maximum possible aggregate throughput. Soft handoff is not supported but mobiles dynamically choose the best sector available on a continuous basis. Another 1xEV proprietary solution is 1Xtreme by Motorola and Nokia, which promises data rates to 4.9152 Mb/s.
- 1xEV DO** 1xEV technology as a stand-alone, data-only service with no separate CDMA carriers available to carry voice traffic. A data-only network. 1x Evolution, Data-Optimized.
- 1xEV DV** 1xEV evolution technology operating in parallel with other CDMA carriers used for voice and possibly 1xRTT or even 3xRTT technology. 1x Evolution, Data and Voice.
- 1xEV-DO release 0** 1xEvolved, Data Only (or Data Optimized). A high data rate technology using TDMA-like time slots inside a CDMA code signal. Downlink speeds are dynamic between 38 kb/s and 2.4 Mb/s. Uplink rates do not exceed 153 kb/s
- 1xEV-DO revision A** A further improvement to 1xEV-DO rel. 0, raising downlink rates to 3.1 Mb/s max and uplink to 1.8 Mb/s max. Multi-user packets are introduced, reducing latency for VOIP users.
- 1xEV-DO revision B** A further refinement of 1xEV-DO rev. A providing higher data rates and the ability to combine multiple carriers for higher aggregate rates.
- 1xEV-DO revision C** A major rework of 1xEV-DO rev. B, implementing additional modes using OFDM and MIMO providing flexible bandwidth and high speeds.
- 1xEV-DV** 1xEV-DV 1x Evolution Data Voice. A technology proposed by Motorola, 1x Evolved, Data and Voice. 1xEV-DV provided fast data service much like EV-DO, but as an additional function on a carrier of ordinary 1xRTT CDMA. This held great promise for minimizing the cost of delivering data to far-flung rural areas since no additional carrier was required. Unfortunately, it never reached commercial deployment and all carriers migrated to 1xEV-DO instead.
- 1xRNC** 1X technology Radio Network Controller
- 1xRTT** The CDMA2000 Phase One operating mode. Radio Transmission Technology at one time the current North American CDMA chip rate (1,228,800 chips/second). Sometimes called "2.5G".
- 1xSRVCC** 1x Single Radio Voice Call Continuity
- 2.5G** "2.5" Generation of Mobile telecommunication
- 2G** Second Generation wireless systems such as IS-136 TDMA, GSM, and IS-95 CDMA, organized around circuit-switched concepts mainly for voice/telephony applications.
- 2G** 2nd Generation of Mobile Telecommunications (GSM, TDMA, Is95A)
- 2G-CS/3G-CS** 2G Circuit Switched/ 3G Circuit Switched
- 3-DES** triple data encryption standard
- 3G** Third Generation wireless systems such as CDMA-2000/IS-2000, 1xRTT, 3xRTT, 1xEV, GPRS, UMTS/UTRA, W-CDMA, Edge. Generally organized around packet-switched concepts for both traditional voice/telephony applications and new IP-based packet applications. Higher bandwidth and flexibility than second generation systems.
- 3G+** 3G plus, used to reference technologies considered beyond 3G such as HSPA, HSPA+ or LTE, not an officially recognized term by 3GPP
- 3G-1X** CDMA 2000-1x
- 3GPP System** Third Generation Partnership Project System
- 3GPP** Third Generation Partnership Project - The collaborative partnership responsible for developing further GSM and UMTS standards. See their website www.3gpp.org, from which current and proposed standards may be downloaded without charge..
- 3GPP2** Third Generation Partnership Project Two - The collaborative partnership responsible for developing and distributing further North American CDMA standards. See their website www.3gpp2.org, from which current and proposed standards may be downloaded without charge..
- 3xRTT** The CDMA2000 Phase Two operating mode. Radio Transmission Technology at three times the current North American CDMA chip rate on the reverse link (3,686,400 chips/second).

Term Definition

- 4C-HSDPA** Four Carrier HSDPA
- 4G** 4th Generation (LTE, WiMAX)
- 64QAM** 64QAM 64 point quadrature amplitude modulation
- 700 MHZ** The term for the FCC's allocation of additional spectrum for mobile communications in this frequency range; a new band for wireless.
- 802.11a** An IEEE-sponsored unlicensed wireless LAN protocol operating in the 2.4 GHz band and providing up to 11 mb/s connectivity
- 802.11b** An IEEE-sponsored unlicensed wireless LAN protocol operating in the 2.4 GHz band and providing up to 24 mb/s connectivity
- AA** Anonymous Access, adaptive antenna, adaptive array, or Alcoholics Anonymous.
- AAA** (authentication, authorization, and accounting)—A network server used for access control. Authentication identifies the user. Authorization implements policies that determine which resources and services a valid user may access. Accounting keeps track of time and data resources used for billing and analysis.
- AAA** Authentication, Authorization, Accounting
- AAL5** ATM Adaptation Layer Type 5
- AAS** adaptive antenna system
- AAT** Average Aggregate Throughput
- AB** Access Burst
- ABS** Almost Blank Subframes
- AC** Access Class
- AC** (Authentication Center)—A system that authenticates a mobile station that attempts to gain access to the cellular network
- AC Barring** Access Class Barring
- Access Channel** In CDMA and 1xEV-DO, a reverse-link (uplink) channel upon which any mobile may transmit to register or request to make or receive a call. Transmission involves risk of collision with other mobiles, and not transmitting with enough power. A special protocol of trials and acknowledgments is used to overcome the risks.
- Access Control** The process that checks whether a UE is allowed to access and be granted services in a closed cell.
- Access Failure** An event where a mobile transmits on the access channel but the desired result is not obtained. The system keeps track of these events, although when it does not hear a mobile's attempt it does not know an event occurred.
- Access Manager** Access Manager. The BSC component in a Lucent CDMA network. The part of a Lucent CDMA system containing the vocoders. Located at the switch and integrated within the cabinets of the switch, the AM converts each conversation from telephone-style DS-0 format into the vocoded-packet format necessary to send on to the base stations. It also performs the reverse conversion for the other side of the conversation coming from the mobile.
- ACI** Adjacent Channel Interference
- ACIR** Adjacent Channel Interference Ratio
- ACK** Acknowledgement (in ARQ protocols)
- ACK/NAK** Acknowledgement/Negative Acknowledgement
- ACK-CH** Acknowledgement Channel (for WiMAX)
- ACLR** Adjacent Channel Leakage Ratio
- ACM** account management
- ACP** Application and Content Provider
- ACPR** Adjacent channel power ratio
- Acquisition Table** A list of groups of frequencies used by mobile systems.
- ACS** Adjacent Channel Selectivity
- Active Pilot** The pilot of a sector actually being listened to by a mobile. Sometimes used in the general sense to mean the sector.
- Active Search Window** In CDMA, the width of the "tolerance" window the mobile searches when looking for an active pilot.
- Active State** The condition of a mobile currently exchanging information with the system. If no data is transmitted or received for a certain period, the connection will be terminated and the mobile will be in dormant state.
- ACTS** Advanced Communications Technology and Services
- ADC** Analogue to Digital Converter
- AdjCh** adjacent channel
- ADPCM** Adaptive Differential Pulse Code Modulation

Term Definition**ADS** Advanced Design System**ADSL** Asymmetric Digital Subscriber Line**Adtran** An unlicensed LAN/WAN technology used in the 2.4 and 5.8 GHz. ISM microwave bands to provide dual T-1/E-1 transport capability.**Advanced Wireless Services** The name for a frequency band allocated by the US FCC for advanced wireless services. The mobiles transmit in the 1700 MHz. range and the base stations transmit in the 2100 MHz. range.**AES** advanced encryption standard**AF** Application Function**AGC** AGC Automatic gain control**AGCH** Access Grant Channel**AGI** Antenna Gain Imbalance**AGPS** AGPS Assisted Global Positioning System**AGW** Access Gateway**AH** AH Authentication Header**aIMS** Advances to IP Multimedia Services**AIPN** All Internet Protocol Network**AIS** Alarm Indication Signal**AK** authorization key**AKA** Authentication and Key Agreement**A-Key** (authentication key)—A digital key used during an electronic transaction to ensure that the contents of the transaction remain unchanged when traveling from sender to receiver.**AKID** authorization key identifier**ALC** Auto limit control**ALG** Application-Level Gateway**ALI** Alarm Interface board.**ALR** Automatic Level Control**ALU** Alcatel-Lucent**AM** Amplitude Modulation**AM** See Access Manager.**AM** Acknowledged Mode (RLC configuration)**AM** Amplitude Modulation**AM** Application Manager**AMA** AAA-Mobile-Node-Answer**AMBR** Aggregate Maximum Bit Rate**AMBR** Aggregate Maximum Bit Rate**AMC** Adaptive modulation and coding**A-MPR** Additional maximum power reduction**AMPS** Advanced Mobile Phone Service. The Bell System acronym for the original version of Cellular telephony, using analog FM radio signals to carry the voice conversations between phones and the base stations. Introduced commercially in 1983 and still widely used in 2001. Not very private and not very spectrum efficient.**AMR** Adaptive MultiRate vocoder. An advanced family of variable rate, variable technology vocoder designs available for ETSI systems such as GSM and UMTS.**AMR-WB** Adaptive MultiRate-WideBand**AN** Access Network**ANDSF** Access Network Discovery and Selection Function**ANR** Automatic Neighbor Relationship**ANRF** automatic neighbor relation function**ANSI** American National Standards Institute**ANSI-41**

American National Standard Institute standard no. 41 for mobility and call delivery in cellular networks.

 AoA Angle-of-Arrival. A method of signal direction detection useful in estimating mobile location. **AoD** Angle-of-Departure. A method of signal direction detection useful in estimating mobile location.**AP** AP Access point. A radio base station using a data technology.**AP** Application Processor**AP** Application Protocol

Term Definition

- AP ID** Application Protocol Identity
- APB** Active PhoneBook
- API** Application Programming Interface
- APM** Audio Processing Module
- APN** Access Point Name
- APP** A-Posteriori Probability
- Application Layer** A layer in the protocol stack of a telecommunications system. It delivers the user functions and is responsible for the "look" and "feel" of the users' communications over the system.
- AR** Access Router
- AR** Aggregation Router
- ARB** Active Resource Blocks
- Architecture** (refers to flatter-IP core network architecture of SAE/LTE)
- ARFCN** Absolute Radio Frequency Channel Number
- ARIB** The Association of Radio Industries and Businesses (Japan)
- ARP** Allocation and Retention Priority
- ARP** Acknowledgment Request Protocol
- ARPU** Average Revenue Per User, usually per month.
- ARQ** Automatic Repeat Request Protocol, an advanced technique for controlling packet data flow to secure rapid error correction.
- AS** Access Stratum, Angular Spread, Application Server
- ASA** authentication and service authorization
- ASC** Access Service Class
- A-SEM** Additional SEM
- ASIC** Application Specific Integrated Circuit
- ASME** Access Security Management Entity
- ASN** In WiMAX, the Access Service Network
- ASN.1** Abstract Syntax Notation 1
- ASR** anchor switch reporting
- ASREPORT** A report sent by the MSC to the VLR indicating the status of a unique challenge.
- AT** Access Terminal
- ATCA** Advanced Telecommunication Computing Architecture, Application and Connection Control
- ATCF** Access Transfer Control Function
- ATDD** adaptive time division duplexing
- ATDMA** Advanced TDMA
- ATI** Any Time Interrogation
- ATIS** Alliance for Telecommunications Industry Solutions
- ATIS/TIA** Alliance for Telecommunications Industry Solutions/Telecommunications Industry Association
- ATM** Asynchronous Transfer Mode. A data transmission protocol widely used in telecommunications.
- ATP** Air Termination Processor
- ATPC** automatic transmit power control
- ATR** Acceptance Test Results
- attenuation** A reduction in signal power; the process which happens to signals traveling through the air or within equipment. For deliberate signal reductions, actual physical attenuators are available. Between a base station and a mobile, the through-the-air attenuation depends on distance and any objects the signal faces along the path. Attenuation is usually expressed in decibels.
- ATV** Analog television. The US NTSC television signal standard in use since the 1950s, and scheduled to be discontinued in 2009.
- AUC** Authentication Center in a GSM-MAP based system.
- AUTH** PPP Authentication protocol
- AUTHDIR** (Authentication Directive)—A unique challenge and update operation between an Authentication Center and a Mobile Switching Center in a cellular network.
- Authentication** The process of confirming the identity of a phone or data terminal attempting to use the system, to prevent fraudulent use.
- AUTHU** (Authentication response for a unique challenge)—A response to a unique challenge by the cellular network to prove the authenticity of a mobile station.
- AVP** Attribute Value Parameter
- AWGN** Additive White Gaussian Noise

Term Definition

- AWS** The name for a frequency band allocated by the US FCC for advanced wireless services. The mobiles transmit in the 1700 MHz. range and the base stations transmit in the 2100 MHz. range.
- AWS** Advanced Wireless Services
- AZ** azimuth
- b/s/Hz** Bits per Second per Hertz, a measure of the spectral efficiency of a radio transmission technology
- B2C** Business-to-Consumer
- BA** BCCH Allocation
- BA** Booster Amplifier
- BA** Binding Acknowledgement (PMIP)
- BAN** BSC-ATM Switch Network
- BAND** A range of frequencies allocated by government or industry for certain types of communication.
- Bars** The incremental indicators of signal strength on a mobile or other subscriber device.
- BBF** Broadband Forum
- BBU** Base Band Unit
- BCC** block convolutional code
- BCC** Base station Color Code
- BCCH** Broadcast Control Channel (GSM broadcast channel time slot).
- BCH** Broadcast Channel
- BCJR** Algorithm named after its inventors, Bahl, Cocke, Jelinek and Raviv
- BCMCS** Broadcast Multicast Services
- BCS** Block Check Sequence
- BDM** BILLDATS Data Manager. A Lucent proprietary data usage billing software application.
- BE** best effort delivery, i.e., acknowledgment and retransmission not provided
- Beamforming** The process of generating directional signal patterns, usually as an automatic response to dynamically changing conditions, to improve transmission or reception on a radio link.
- BER** Bit Error Rate
- Beyond 3G** Beyond third Generation
- BF** Beamforming
- BGCF** Breakout Gateway Control Function
- BH** Busy Hour (in circuit-switched voice traffic)
- BH** Block Header (in packet data)
- BHCA** Busy Hour Call Attempts
- BHL** Backhaul
- BIP** Bearer Independent Protocol
- bit rate** Data speed in bits per second.
- Bits** The smallest units of digital information. The term bit is a contraction of the words "binary digit". A bit is an individual one or zero of data.
- Blacklist** Black List
- BLER** Block Error Rate
- Blind HO** Blind Handover
- BLOCK** A part of a frequency band. For example, the US PCS band is divided into six blocks which are independently licensed to competing companies. In data the word block is also sometimes used to describe a packet, a group of packets, or a fragmented part of a packet from a transmission point of view.
- BM** Bearer Manager
- BMC** Broadcast/Multicast Control
- BMP** BSC Main Processor.
- BM-SC** Broadcast Multicast Service Center
- BMU** Base station Master Unit.
- BO** occupied bandwidth
- B-ONT** business optical network terminal
- BP** Belief Propagation
- B-PCF** 1X RNC Blade PCF
- BPRE** Bits Per Resource Element
- bps** bits per second, referring to the speed of a data stream

Term Definition

- Bps/Hz** Bits per second per Hertz. A common expression of the spectral efficiency of a particular type of radio signal.
- BPSK** Binary phase shift keying
- BR** BR bandwidth request
- BREW** (Binary Runtime Environment for Wireless)—A runtime environment that allows applications to run on a mobile station.
- Broadband Access** Some carrier's marketing name of 1xEV-DO rev. A.
- BS** Bearer Services
- BS** base station
- BSA** Band Selective Amplifier board.
- BSB** BTS Control Block
- BSC**
Base Station Controller. The main network connection point within a group of CDMA base stations. The BSC takes voice calls from the switch and vocodes them into packet streams suitable for transmission through the base stations. It also takes streams of IP or other data and packages them into the "frames" sent through the base stations. CDMA handoff logic is implemented in BSC circuits.
- BSC Area** Base Station Controller Area
- Bsel** Band Selective.
- BSIC** Base Station Identification Code
- BSK** Binary Shift Keying
- BSN** Block Sequence Number
- BSR** Buffer Status Reports
- BSR** Base Station Router
- BSS** Base Station Subsystem
- BSSAP** Base Station Subsystem Application Part
- BSSAP+** subset of BSSAP procedures
- BSSGP** BSS GPRS Protocol; it conveys LLC PDUs between the BSS and the SGSN through a connectionless link via Frame Relay protocol
- BSSMAP** Base Station Subsystem Management Application Part
- BTA** Basic Trading Area. A licensing territory in US PCS. The US was divided into 493 BTAs and licenses were issued for the PCS C, D, E, and F blocks.
- BTC** block turbo code
- BTP** backhaul transport provider
- BTS** Base Transceiver Station. The radio peripheral in a wireless network -- the CDMA "cell site" equipment which converts digital data into radio signals and vice versa. A radio base station delivering service to end-users.
- BU** Binding Update (PMIP)
- BVC**
BSSGP Virtual Connection. This represents a point of interconnection between peer BSSGP entities.
- BVCI** BSSGP Virtual Connection Identifier; the unique identification of a specific BVC
- BVNO** Broadband Virtual Network Operator
- BW** Bandwidth of a radio or baseband signal. The amount of radio spectrum occupied by a specific radio signal. The speed of information transfer is proportional to the bandwidth, and also influenced by the type of modulation and the signal-to-noise ratio at the receiver.
- BWAA** BWAA bandwidth allocation/access
- byte** Eight bits.
- C-** Control-
- C/(N+1)** carrier-to-(noise and interference) ratio
- C/I** Carrier-to-Interference Power Ratio (CIR)
- C/N** C/N carrier-to-noise power ratio
- CA** CA certification authority
- CA** Carrier Aggregation
- CAGR** Compound Annual Growth Rate
- CAI** Common Air Interface
- CAMEL** Customized Applications for Mobile Enhanced Logic is an application to easily extend the services offered within a GSM network. CAMEL provides the mechanisms to support operator specific services, which are not covered by standardized GSM services. The services can even be supported when customers are roaming outside their home network (HPLMN).

Term Definition**CAN** Connectivity Access Network**Candidate Pilot**

The pilot of a sector noticed by the mobile and requested to the system, but which has not yet been set up for the mobile to use. It's a bit like a fiance, agreed to be married but not yet married.

CAP CAMEL Application Part**CAPEX** CAPEX Capital expenditures**Carrier** In a marketing sense, a wireless company such as Verizon, Reliance, Hutchison. In an RF sense, a radio signal on a certain frequency (including both forward and reverse links).**Carrier** Sometimes used to mean an operating company; e.g., Sprint PCS or Verizon are "carriers". Sometimes used to mean one CDMA signal which occupies one frequency, e.g. "our traffic has just grown tremendously and we've had to add a third carrier in the city core."**CAT_TP** Card Application Toolkit Transport Protocol**CAVE** (Cellular Authentication and Voice Encryption) algorithm—A cryptographic hash function used in CDMA mobile systems for authentication, data protection, anonymity, and key derivation.**CAZAC** Constant Amplitude Zero Auto-Correlation. A characteristic of the Zadoff-Chu sequences used in LTE for eNB identification.**CB** Circular Buffer**CBC** Cell Broadcast Center**CBC** cipher block chaining**CBC-MAC** cipher block chaining message authentication code**CBE** Cell Broadcast Entity**CBF** Coordinated Beamforming**CBR** CDMA Baseband Radio**CBS** Coordinated Beam Switching**CBSC** Centralized Base Station Controller. Motorola's proprietary term for the BSC component of their CDMA network product.**CC** Call Control**CC** Convolutional Coding**CC** confirmation code**CCA** Credit Control Answer**CCCH** Common Control Channel**CCD** Communication Control Device**CCDF** Complementary cumulative distribution function**CCE** Control Channel Element**CCF** Charging Collection Function**CCH** Control Channel**CCH** control subchannel**CCI** Configuration Change Indicator. In IS-2000 rev. 1, a bit transmitted at intervals (usually 40 ms) on the QPCH to alert mobiles making idle handoff that there is a change of configuration and that they must receive updated parameters.**CCI** co-channel interference**CCM-CTR** mode with CBC-MAC**CCO** Cell Change Order**CCP** Compression Control Protocol**CCPCH** Common control physical channel**CCPCH** Common Control Physical Channel**CCR** Credit Control Request**CCS** common channel signaling**CCSA** China Communications Standards Association**CCTrCH** Coded Composite Transport Channel**CCU** Channel Codec Unit; the GPRS function which performs channel coding in both the mobile and the base station**CCU** CDMA Control Unit**CCV** clock comparison value**CDD** Cyclic delay diversity**CDD** Cyclic Delay Diversity**CDF** cumulative distribution function

Term Definition

- CDF** Charging Data Function
- CDG** CDMA Development Group. A CDMA industry association promoting the technology and providing marketing details and technical tutorials on its website, www.cdg.org.
- CDL** Clustered Delay Line
- CDM** CDMA Digital Module
- CDM** Code Division Multiplex(ed/ing)
- CDMA** Code Division Multiple Access
- CDMA2000** Code Division Multiple Access 2000. The 1x family of CDMA technologies.
- CDMA-HDR** CDMA High Data Rates (HDR), Qualcomm's introductory term for what eventually became 1xEV-DO.
- CDMA-MC** CDMA Multi Carrier
- cdmaOne** Brand for IS95A (2G)
 - CDN** Content Delivery Network
 - CDO** Care Delivery Organization
- CDPD** Cellular Digital Packet Data. A wireless data protocol which can operate in coexistence with analog and TDMA networks, delivering up to 19.2 kbps throughput. The protocol watches for idle periods on individual traffic channels and uses them to send packet data bursts.
- CDR** Call Detail Record
- CDSU** Short for CSU/DSU
 - CE** Congestion Experienced, or Channel Element
 - CEB** Channel Element Block
- CELL_DCH** UTRAN RRC state where UE has dedicated resources
- CELL_FACH** UTRAN RRC transition state between Cell_PCH and Cell_DCH
- CELL_PCH** UTRAN RRC state where UE has no dedicated resources are allocated
- Cellular**

A wireless network architecture concept in which a large territory is divided into "cells" which are covered by individual radio transmitter/receiver stations; the basic network structure of all 1900 MHz. and 800 MHz. wireless systems. Sometimes used as an adjective to describe 800 MHz. systems or the phones which use them. 1900 MHz. systems are usually called "PCS" rather than "cellular".

 - CEPT** Conference of European Postal and Telecommunications Administrations
 - CES** Circuit Emulated Services
 - CF** Contention-Free
 - CFI** Control format indicator
 - CFO** Carrier Frequency Offset
 - CGF** Charging Gateway Function
 - CGI** Cell Global Identity in GPRS/GSM. It includes the LAI and CI.
 - CHA** Channel Amplifier board.
- Channel** A passageway for information. Sometimes used to mean the frequency of a radio signal. In CDMA, sometimes used to mean one RF signal, a "carrier". In CDMA, other times used to refer to one of the unique code-patterns which carries one user's stream of information, e.g., "paging channel", "traffic channel", etc.
- CHAP** (Challenge-Handshake Authentication Protocol)—The protocol used to authenticate remote users to an Internet access provider.
- cHDL** Cisco High Level Data Link Control
 - ChID** channel identifier
- Chips** The fundamental building blocks of a CDMA direct-sequence spread spectrum signal. A chip is a momentary "jump" in phase of the signal used to carry information. There are 1,228,800 chips per second in the signals of original CDMA, 1xRTT, and HDR/1xEV signals. There are 3,686,400 chips per second in a 3xRTT reverse link signal. There are 3,840,000 chips per second in a UMTS UTRA WCDMA signal.
- CHN** Channeler
 - CI** Cell Identity. Identifies one cell within a network.
 - CI** Competitive Intelligence
- CICC** Common Interface Control Card
 - CID** connection identifier
 - CID** Cell Identification
 - CIF** Carrier Indication Field
- CINR** carrier-to-interference-and-noise ratio

Term Definition

- CIR** Channel impulse response
- CITEL:** Inter-American Telecommunication Commission
- CK** Ciphering Key
- CK/IK** Ciphering Key/Integrity Key
- CKSN** Ciphering Key Sequence Number
- CL** Circular Letter
- CL-MIMO** Closed-Loop Multiple-Input Multiple-Output
- CLNP** ConnectionLess Network Protocol
- CLP** cell loss priority
- CM** Connection Management
- CMAC** cipher-based message authentication code
- CMAS** Commercial Mobile Alert Service
- CMB** Combiner unit.
- CMC** Connection Mobility Control
- CMC** CMC Connection Mobility Control
- CMHH** Constant Modulus HouseHolder
- CMIP** Communication Management Information Protocol
- CMIP** Client Mobile IP
- CMIS** Communications Management Information Service
- CMS** Communication and Media Solutions
- CMSAAC** FCC Commercial Mobile Service Alert Advisory Committee
- CMSP** Commercial Mobile Service Provider
- CMU** Communication Management Unit
- CMU** CDMA Modem Unit
- CN** Core Network
- CN** Corresponding Node (MIP)
- CoA** Care of Address
- Co-Channel** "On the same channel", signals which are on the same frequency.
- Code Channel** A passageway for information, but carried by a CDMA code within a signal, and not meant in the sense of a frequency.
- Codec** Coder/Decoder
- CODIT** UMTS Code Division Testbed
- COFDM** Coded OFDM
- Co-MIMO** Cooperative MIMO
- Commercial LCS** Commercial Location Services
- CoMP** Coordinated Multipoint Transmission
- Configuration Messages** Messages containing configuration information to be received and employed by mobiles. Examples include the neighbor list message, system parameters message, access parameters message, global service redirection message, and channel (frequency) list message.
- Connection** A condition of having currently-operating traffic channels in both directions between a mobile and the system. This uses system resources and is only justified if data is being actively exchanged.
- Convolutional Encoder** A device which mathematically protects information before it is actually transmitted over a wireless system. The individual bits of information are blended into a stream of a larger number of 1s and 0s called symbols. Each bit influences the generation of many symbols, much as a faculty member in a school touches the lives of many students. After radio transmission, the symbols are gathered and reverse convolutional decoding is performed to yield the correct bits. The process is very powerful and immune to even substantial numbers of corrupted symbols. Convolutional encoder/decoders are popular and effective for coding of voice information. For fast data in some cases another method, Turbo coding, is more effective.
- COOP** (Challenge-Handshake Authentication Protocol)—The protocol used to authenticate remote users to an Internet access provider.
- Co-Pol** co-polar
- CP** Cyclic Prefix. An element of the OFDM signal.
- CPC** Continuous Packet Connectivity
- CPCH** Common Packet channel
- CPE** Customer premise Equipment
- CPG** Carrier Product Group

Term Definition

- CPICH** Common pilot channel
- C-Plane** Control Plane. The communications layer within a system which handles control messages and commands, as distinguished from the layer which carries actual user content and data (the user plane or U-Plane).
- CPR** Common Phase Rotation
- CPRI** Common public radio interface
- CPS** CPS common part sublayer
- cPSB** Compact Packet-Switching Backplane
- CPT** Control PDU Type
- CQI** CQI Channel Quality Indicator
- CQICH** CQICH channel quality information channel
- CR** Change Request
- C-RAN** Centralized, Cooperative, Cloud
- CRB** Control Radio Bearers
- CRC** Cyclic Redundancy Check. One method of data protection is to add CRC bits to a group of information bits. The CRC bits are computed from the contents of the information bits. If an error occurs in the information bits, the CRC bits can be used to correct and recover the corrupted information. The level of protection provided is determined by the ratio of the numbers of CRC bits to information bits. Above a certain error level, the process disintegrates. CRC protection is used in virtually all wireless voice and data applications.
- CRC** CDMA Radio Controller
- CRC** Cyclic Redundancy Check
- CRH** Cell Reselection Hysteresis
- CRM** Customer Relationship Management (Siebel)
- C-RNTI** Cell Radio Network Temporary Identifier
- CRRM** Common Radio Resource Management
- CRS** Common Reference Signals
- CS** Circuit-switched. The type of circuit management used for traditional voice calls, where the transmission path is maintained during the entire conversation, regardless of whether speech is actually occurring. This is a wasteful strategy for transmission of intermittent packet data.
- CS** channel separation
- CS** convergence sublayer
- CS** Coding Scheme
- CS-1** GPRS Coding Scheme 1, 9.05 kb/s raw rate with high protection
- CS-2** GPRS Coding Scheme 2, 13.4 kb/s raw rate, with good protection
- CS-3** GPRS Coding Scheme 3, 15.6 kb/s raw rate with modest protection
- CS-4** GPRS Coding Scheme 4, 21.4 kb/s raw rate with no protection
- CSA** Common Subframe Allocation
- CSA** CDMA/WCDMA Segment Amplifier board.
- CSCF** Call Session Control Function
- CSCF** CSCF centralized scheduling configuration
- CSCH** CSCH centralized scheduling
- Csel** Channel Selective.
- CSFB** Circuit Switched Fallback
- CSG** Closed Subscriber Group
- CSG** Closed Subscriber Group
- CSG ID Validation** The process that checks whether the CSG ID received via handover messages is the same as the one broadcast by the target E-UTRAN.
- CSI** Combination of Circuit Switched and Packet Switched services
- CSI** Channel State Information
- CSIT** CSIT channel state information at the transmitter
- CSMA** CSMA Carrier sense multiple access
- CSN** In WiMAX, the Connectivity Services Network
- CSoPS** Circuit-Switched over Packet-Switched
- CSP** Communication Service Provider

Term Definition

- CSU/DSU** Channel Service Unit/Data Service Unit. The small equipment that converts an unchannelized T-1 into a data circuit, or vice-versa. Used at each end of the T-1s which connect CDMA base stations with the switch.
- CT(*n*)** Cordless Telephony (*n*th generation)
- CT/CR** Cooperative Transmission/Reception
- CTC** Convolutional Turbo Code
- CTCH** Common Traffic Channel
- CTF** Channel Transfer Function
- CTIA** Cellular Telecommunication Industry Association, the largest wireless industry association in the United States
- CTIA** Cellular Telecommunication Industry Association
- CTM** Cellular Text Modem
- CTR** CTR counter mode encryption
- CTR** Click-Through Rate
- CTU** Central Timing Unit
- CU** Control Unit board.
- CVA** Circular Viterbi Algorithm
- CVQ** Channel Vector Quantization
- CW** Continuous Waves (un-modulated radio signal)
- d.c.** direct current
- D/U** desired-carrier-to-undesired-carrier ratio
- DAB** Digital Audio Broadcasting
- DAC** Digital to Analogue Converter
- DAD** Duplicate Address Detection
- DAI** DAI Downlink Assignment Index
- DAMA** DAMA demand assigned multiple access
- DAMPS** Digital Advanced Mobile Phon
- D-ARQ** Delayed ARQ
- DARS** DARS digital audio radio satellite
- Data Link Layer** The layer in the protocol stack of a communications system which is concerned with the establishment and administration of the actual channels carrying the information.
- Data Scrambling** In IS-95 CDMA, the process of randomizing and hiding the user's symbols by adding them to a random stream derived from the user long code. This provides both a reduction in average transmitter power and privacy against casual eavesdropping.
- dB** deci-Bel. A logarithmic unit which whose value is a tenth of a power of ten. Ten Decibels is one power of ten.
- dBc** decibels relative to the carrier level
- dBd** dBi decibels of an arbitrary antenna's gain, expressed in comparison to the gain of a standard reference antenna, the free-space isotropic radiator
- dBm** dBm decibels relative to 1 mW
- DC** Dedicated Control (SAP)
- DC** Direct current
- DC** Directional Coupler.
- DC** Dual Carrier
- DCA** Dynamic Channel Allocation
- DCCH** Dedicated Control Channel
- DCD** DCD downlink channel descriptor
- DCE** Data Communications Equipment, data circuit terminating equipment
- DCFB** Direct Channel FeedBack
- DCH** Dedicated Channel
- DC-HSDPA** Dual Carrier- High Speed Downlink Packet Access
- DC-HSPA** Dual Carrier- High Speed Packet Access
- DC-HSUPA** Dual Carrier- High Speed Uplink Packet Access
- DCI** Downlink control indicator
- DCN** Data Core Network
- DCRS** DCRS Downlink Common Reference Signal
- DCS** Digital Cellular System

Term Definition

- DCS** Digital Communication System (same as PCN).
- DCS** Digital Cellular Switch
- DDR** Data Detail Record. A data transmission usage record for a particular customer, much like a CDR (Call Detail Record) logs voice call usage of a particular customer.
- DECT** Digital European Cordless Telecommunications
- Delay Spread** The range of timing over which a signal from one place arrives at another. In empty space with no reflections, delay spread would be almost zero. In real terrain with buildings and hills, typical delay spread runs from 5-25 microseconds.
- Demultiplexer** A device which breaks apart a combined stream of data into its individual constituent streams.
- DEMUX** A device which breaks apart a combined stream of data into its individual constituent streams.
- DES** Data Encryption Standard
- DES** DES data encryption standard
- DFE** Decision-Feedback Equalization
- DFS** DFS dynamic frequency selection
- DFT** Discrete Fourier Transform
- DFTS** DFT Spread OFDM
- DFTS** DFTS DFT Spread OFDM
- DFT-S-OFDM** Discrete Fourier Transformation-Spread-Orthogonal Frequency Division Multiplexing
- DHA** Distributed Home Agent. 3COM's architecture for providing reliable redundancy of the Home Agent function.
- DHCP**
Dynamic Host Configuration Protocol. A protocol which provides dynamically assigned IP addresses.
- DHCP** DHCP Dynamic Host Configuration Protocol
- DIA** Distribution board.
- D-ICIC** Dynamic Inter-Cell Interference Coordination
- diffraction** The process of a radio signal "bending" over a ridge or other obstruction.
- Diff-Serv**
Differentiated Services, or the network services which provide them. Each wireless operator hopes to provide unique services which will set it apart in the marketplace, producing wild economic success.
- DIP** Dominant Interferer Proportion
- DIUC** DIUC downlink interval usage code
- DL** Downlink (transmission from base station to subscriber unit)
- DL** DL Downlink
- DL-TFT** Downlink Traffic Flow Template
- DL-CCH** DL-CCH Downlink Control channel
- DLDC** Downlink Dual Carrier
- DLFP** DLFP downlink frame prefix
- DL-SCH** Downlink-shared channel
- DM** Dispersion Measure
- DM** RS DeModulation RS
- DMB** Digital Multimedia Broadcasting
- DMS** Digital Message Switch. The internal messaging function and hardware within a Nortel switch.
- DMU** (Dynamic Mobile IP Update)—A procedure used to distribute and update mobile IP cryptographic keys in CDMA, 1xRTT, and 1xEV-DO networks.
- DMZ** Demilitarized Zone
- DNBS** Distributed NodeB Solution
- DNS**
Domain Name System. The system of using domain names to correspond to IP addresses. A name resolver process runs on a dedicated server to map domain names to the corresponding IP addresses.
- DO** RNC 1xEV-DO Radio Network Controller
- DOA** Direction Of Arrival
- Dormant State**
The state of a mobile which has not recently exchanged information with the system, and consequently does not need traffic channels at the moment. If the system should later have information to send to the mobile, it will page it and bring it back to active state. Likewise, if the mobile has information to send the system, it will request a traffic channel and be returned to active state.
- downlink** Also called the forward link. The link from base station to mobile.
- DPC** Downlink Power Control

Term Definition

- DPC** Dirty-Paper Coding
- DPCCH** Dedicated Physical Control Channel
- DPCH** Dedicated Physical Channel
- DPD** Dead Peer Detection
- DPD** Digital Pre-Distortion
- DPDCH** Dedicated Physical Data Channel
- DPH** Data Protocol Handler
- D-PHY** 500 Mbps physical layer
- DPI** Deep Packet Inspection
- D-plane** Data Plane
- DPSK** Differential Phase Shift Keying
- DPX** Duplex filter.
- DR** Dynamic Range
- DRA** Dynamic Resource Allocation
- DRB** Data Radio Bearer
- DRB** Data Radio Bearer
- DRC** Data Rate Control
- DRNC** Drift Radio Network Controller
- Dropped Call** A call which is interrupted unintentionally, as for example when passing into a bad location such as a tunnel, or when meeting unexpected interference as on the top of a hill.
- DRS** Demodulation Reference Signal
- DRS** data relay satellite
- DRS** (Data Ready to Send)—A code or bit that signals that a system is ready to send data.
- DRx** Discontinuous Reception. A special scheduled mode of monitoring which a mobile can use to reduce battery drain by only checking for pages at pre-determined intervals.
- DS** Dual Stack
- DS-0**
Digital Signal level 0. The most basic building block for telephone transmission, a DS-0 is a pair of 64000 bit per second streams carrying the digitized waveform of both sides of a speech conversation.
- DS-1** Digital Signal level 1. A popular telecommunications transmission signal. Running at 1.544 megabits per second, it can carry 24 DS-0 conversations plus control bits in what is called channelized mode. Alternatively, it can carry 1.544 megabits per second of any type of information running in unchannelized mode. Channelized DS1s carry telephone traffic between switches, while unchannelized DS1s carry packets between CDMA base stations and BSCs, or between various industrial devices and their telemetry hosts. The bit contents and signal format are termed a DS1 while the actual carrier signal transporting the information is called a T1.
- DS-3**
Digital Signal Level 3. A popular telecommunications transmission signal format operating at 44.736 megabits per second. It is normally used to carry 28 DS-1s which can hold 672 DS-0 conversations.
- DS-3** 44.736 Mbit/s line rate
- DSA** DSA dynamic service addition
- DSAP** Destination Service Access Point
- DSC** DSC dynamic service change
- DSC** Data Source Control
- DS-CDMA** Direct-Sequence Code Division Multiple Access
- DSCH** Downlink Shared Channel
- DSCH** DSCH distributed scheduling
- DSCH** DSCH Downlink Shared Channel
- DSCP** DSCP differentiated services codepoint
- DSD** DSD dynamic service deletion
- DSL** Digital subscriber line, a common method of delivering high speed data over existing land telephone lines to home users
- DSMIP** Dual Stack Mobile IP
- DS-MIPv6** Dual Stack-Mobile Internet Protocol version 6
- DSN** Distributed Service Network
- DSP** Digital Signal Processing
- DSP** Dual Slant Polarization

Term Definition

- DSx** DSx dynamic service addition, change, or deletion
- DT** Development toolset
- DTA** Dynamic Time Alignment
- DTAP** Direct Transfer Application Part
- DTCH** Dedicated Traffic Channel
- DTCH** DTCH Dedicated Traffic Channel
- D-TDOA** D-TDOA Downlink Time Difference Of Arrival
- DTE** Data Terminal Equipment, data terminating equipment
- DTM** Dual Transfer Mode
- DTV** Digital Television. In the US, analog television is scheduled to be turned off in 2009 and only DTV will remain.
- DTX** Discontinuous Transmission
- D-TxAA** Double Transmit Adaptive Array: a common MIMO technique in LTE and other 4G technologies
- ducting** The capture and long-distance propagation of radio waves by unusual shapes of air masses.
- duplex spacing** The frequency separation between the uplink and downlink frequencies in a communication system.
 - DVB** Digital Video Broadcast
 - DVB-H** Digital Video Broadcasting – Handheld
 - DVB-T** Digital Video Broadcasting – Terrestrial
 - DVD** Digital Video Dis
 - DVSA** Digital vector signal analysis
 - DwPTS** Downlink Pilot Timeslot
 - DwPTS** The downlink part of the special subframe (for TDD operation).
 - E** Erlang
 - E2E** End to End
 - E-AGCH** Enhanced- Absolute Grant Channel
 - EAM** Enhanced Accounting Manager. A network IP usage collector sometimes referred to as a "network element mediation system".
 - eAN** evolved AN
 - EAP** Extensible Authentication Protocol
 - EAP-AKA** Extensible Authentication Protocol - Authentication and Key Agreement
 - EARFCN** E-UTRA Absolute Radio Frequency Channel Number
 - eAT** evolved AT
 - EATF** Emergency Access Transfer Function
 - EBH** Ethernet Backhaul
 - EBI** EPC Bearer Identification
 - eBTS** enhanced BTS
 - EC** EC encryption control
 - Ec/Io** Pilot Energy per chip divided by total RF power being received. This is the pilot strength measurement used by CDMA mobiles to select the sectors they want to use both in idle mode and during calls. It is expressed in db. Very close to a base station with no traffic, it will be about -3 db. Very close to a base station with maximum traffic, it will be about -10 db. In the middle of several base stations the value may go below -10 db. -10 db is the approximate boundary between good call conditions and bad call conditions.
 - ECB** ECB electronic code book
 - ECGI** E-UTRAN Cell Global Identifier
 - Echo** In an acoustic sense, the noticeable presence of a copy of a sound after its original occurrence.
 - E-CID** Enhanced Cell-ID (positioning method)
 - ECM** EPS Connection Management
 - ECM-EPS** ECM EPS Connection Management
 - ECN** Explicit Congestion Notification
 - ECN-CE** Explicit Congestion Notification-Congestion Experienced
 - ECP** Executive Cellular Processor
 - ECPC** ECP Complex
 - ECRTP** ECRTP a IP-header-compression CS PDU format (IETF RFC 3545)
 - E-CSCF** Enhanced- Call Session Control Function

Term Definition

- ECT** Explicit Congestion Notification-Capable Transport
- EDA** Electronic design automation
- E-DCH** Enhanced Dedicated Channel (as in HSUPA)
- EDE** EDE encrypt-decrypt-encrypt
- EDGE** Enhanced Data Rates for GSM Evolution
- EDN** Engineering Data Network. The dedicated data network used by system engineers to monitor and manage the performance data from the elements of the main voice and data networks serving customers, and to configure the voice and data network elements.
- E-DPCCH** Enhanced Dedicated Physical Control Channel
- EDPD** Enhanced Digital Pre-Distortion
- E-DPDCH** Enhanced Dedicated Physical Data Channel
- EEC** Ethernet Equipment Clock
- EEDGE** Evolved EDGE
- EEM/USB** Ethernet Emulation Model/Universal Serial Bus
- EEPROM** Electrically Erasable Programmable Read Only Memory
- EESM** Exponential Effective SINR Mapping
- EESS** EESS earth exploratory satellite system
- EF** Elementary File
- EF** Expedited Forwarding
- EGPRS** Enhanced GPRS
- EGSM** Extended Global System for Mobile communication.
- EHDM** Extended Handoff Direction Message.
- E-HICH** E-DCH Hybrid ARQ Indicator Channel
- eHRPD** Evolved High Rate Packet Data (aka EV-DO)
- eHSPA** Enhanced High-Speed Packet Access
- EIA** Electronic Industry Association
- EIK-EAP** EIK EAP Integrity Key
- EIR** Equipment Identity Register in a GSM-MAP based system.
- EIRP** EIRP effective isotropic radiated power
- EKS** EKS encryption key sequence
- EL** elevation
- E-Line** Ethernet line service
- eMBMS** Evolved multimedia broadcast multicast service
- Emergency LCS** Emergency Location Services
- EMFPA** Enhanced Multi-flow Packet Application
- EMM** EPS Mobility Management (part of NAS)
- EMS**
 - Element Management System. A software entity that communicates with network elements and provides fault, accounting, security, and performance management functions for network management.
- eNB** E-UTRAN NodeB: Evolved node-B The LTE node-B, with evolved flat-network IP structure and LTE OFDMA modulation capabilities
- Encapsulation.** The process of taking packets from a network and embedding them into packets sent over an intermediate network to a remote user. The packets are de-encapsulated at the remote location and delivered to the user who receives them in the same manner as if the user were located on the source network.
- Encryption** The process of coding information to make it unintelligible to unintended recipients. Each wireless technology offers some form of encryption for its messaging and its information content.
- eNodeB** Enhanced Node B (enhanced base station)
- ENUM** Telephone Number Mapping from E.164 Number Mapping
- EP** Elementary Procedure in LTE
- EPA** Extended Pedestrian A
- EPC** Evolved packet core, new term for the core network part of EPS; also known as SAE (refers to flatter-IP core network)
- E-PCF** Netra Ethernet PCF
- ePDG** Evolved Packet Data Gateway
- EPDG** Evolved Packet Data Gateway
- ePDSN** Evolved PDSN

Term	Definition
EPRE	Energy per resource element
EPRE	EPRE Energy Per Resource Element
EPROM	Erasable Programmable Read Only Memory
EPS	Evolved Packet System is the combination of the EPC/SAE (refers to flatter-IP core network) and the LTE/E-UTRAN, including UE, RAN and core network
EPS Bearer	Evolved Packet System Bearer
EPS Bearer Identity	Evolved Packet System Bearer Identity
EPS-AKA	Evolved Packet System - Authentication
EQ	Equalization
ER	Edge Router
E-RAB	E-UTRAN Radio Access Bearer. An E-RAB uniquely identifies the concatenation of an S1 bearer and the corresponding Data Radio Bearer. When an E-RAB exists, there is a one-to-one mapping between this E-RAB and an EPS bearer of the Non Access Stratum.
E-RGCH	E-DCH Relative Grant Channel
ERMES	European Radio MESSaging System. A European paging standard.
eRNC	evolved Radio Network Controller
ERP	Enterprise Resource Planning (Portal. Focusing on SAP, Oracle, PeopleSoft)
Error Correction	The process of encoding information to make it less vulnerable to errors in transmission. CDMA systems use convolutional coding for voice information and Turbo coding for data to produce a symbol stream which carries information more reliably than the raw bitstream it replaces.
ErtPS	Extended Real-Time Polling Service
ESC	Ethernet Switch Card
ESD	Electro-Static Discharge
eSFN	Enhanced System Frame Number
eSM	Enhanced Service Manager
ESM	EPS Session Management (part of NAS)
E-SMLC	Enhanced Serving Mobile Location Center
ESN	Electronic Serial Number. The globally unique number which distinguishes one handset from all others.
ESP	Encapsulating Security Protocol
ETACS	Extended Total Access Communication System.
E-TFC	E-DCH Transport Format Combination
E-TFCI	E-DCH Transport Format Combination Index
ETSI	European Telecommunication Standards Institute
ETU	Extended Typical Urban
ETWS	Earthquake and Tsunami Warning System
EUTRA	Evolved Universal Terrestrial Radio Access
E-UTRAN	Enhanced – UMTS Terrestrial Radio Access Network
EVA	Extended Vehicular A
E-VANC	Emergency VANC
EVC	Ethernet virtual circuit
EV-DO	Evolution Data Optimized or Data Only
EV-DO	Rev A 1x EV-DO Revision A
EV-DV	Evolution-Data and Voice (of CDMA2000 1x)
EVM	Error Vector Magnitude
EVM	EV Modem. 1xEV-DO Modem for Modcell 4.0
EVMm	1xEV-DO Modem for Modcell 1.0-3.0
EVRC	Enhanced Variable Rate Codec
EVRC-B	Enhanced Variable Rate Codec B
EX	Extreme Conditions
Expanded Spectrum	Blocks of additional frequencies given to the 800 MHz. cellular operators in 1988.
Extended Handoff Direction Message	A message sent by a CDMA system to a mobile informing it which sectors and which walsh codes are now carrying its call.
F2F	Fiber to Fiber Link.
FA	Foreign Agent
FAc	(Foreign Agent Challenge)—A challenge issued by the foreign agent to verify the authenticity of a device connection to the network.

Term Definition

- FACCH** Fast Associated Control Channel
- FACH** Forward Link Access Channel
- FB** Frequency Burst
- FBC** Flow Based Charging
- FBI** Fixed Broadband access to IMS
- FBP** Flexent Blade Platform
- FBSS** FBSS fast base station switching
- FBWA** fixed broadband wireless access
- FC** FC fragmentation control
- FCAPS** FCAPS Fault Management, Configuration Management, Account Management, Performance
- FCC** Federal Communications Commission, the US civilian communications regulatory agency.
- FCCH** Frequency Control Channel
- FCH** Fundamental (Traffic) Channel.
- FCH** Frame Control Header (for WiMAX)
- FCS** Frame Check Sequence
- FDD** Frequency Division Duplex. A scheme where mobiles and base stations transmit on separated frequencies so communication in both directions is possible simultaneously.
- FDM** Frequency Division Multiplexing
- FDMA** Frequency Division Multiple Access
- F-DPCH** Fractional-DPCH
- FDS** Frequency Diverse Scheduling
- FDSS** Frequency Domain Spectral Shaping
- FEC** FEC forward error correction
- FEMA** Federal Emergency Management Agency
- FER** Frame Erasure Rate
- FFR** Fractional Frequency Reuse
- FFS** For Further Study
- FFSH** FFSH fast-feedback allocation subheader
- FFT** Fast Fourier transform
- FTTX** Fiber To The X
- FH** Frame Header
- FH** Frequency Hopping
- FHDC** FHDC frequency hopping diversity coding
- FI** Framing Info
- FIGS** (Fraud Information Gathering System)—A system that monitors the activities of cellular network subscribers and looks for fraudulent activities.
- FIR** Finite Impulse Response
- FiVe** Field Verification
- FM** Frequency Modulation
- FMC** Fixed Mobile Convergence
- FMM** Flexent Mobility Manager
- FMS** First Missing SDU
- FMS** Flexent Mobility Server
- FOMA** Freedom of Mobile Multimedia Access: brand name for the 3G services offered by Japanese mobile phone operator NTT DoCoMo.
- FON** Fiber Optic Node board.
- FOR** Fiber Optic Repeater.

Foreign Agent

A software entity used in Mobile IP operation. The mobile registers periodically with the foreign agent, which maintains communication with the mobile's own Home Agent back in the mobiles' home system.

Forward Link The radio link from base station to mobile. Sometimes also called the "downlink".

F-OSICH Forward link Other Sector Indication Channel (for IEEE 802.20)

FOT Fiber Optic Transceiver.

FOU Fiber Optic Unit.

FPC Forward Power Control

FPC FPC fast power control

Term Definition

- FPGA** Field Programmable Gate Array
- FPLMTS** Future Public Land Mobile Telecommunications Systems
- FPS** Flexent Packet Switch
- FQDN** Fully Qualified Domain Name
- F-QPCH**
Forward Quick Paging Channel. A paging indicator channel which allows longer mobile battery life.
- FR** Frame Relay
- FRAD** Frame Relay Access Device
- Frame** A basic building block of transmission in wired and wireless telecommunications systems. It is a series of bits which last a specified period of time. In TDMA systems, each frame is divided into multiple timeslots which belong to individual users.
- FRAMES** Future Radio Wideband Multiple Access Systems
- FRAND** Fair Reasonable and Non-Discriminatory
- FRC** Fixed reference channel
- Frequency** A number of electrical cycles per second. In Frequency Division-based systems, different signals use different frequencies.
- Frequency Layer** A set of cells with the same carrier frequency.
- FRPH** Frame Relay Protocol Handler
- FS** Fixed Station
- FS** Frame Selection
- FS1** Frame structure type 1, LTE FDD
- FS2** Frame structure type 2, LTE TDD
- FSH** FSH fragmentation subheader
- FSK** Frequency Shift Keying
- FSN** FSN fragment sequence number
- FSPL** free space path loss
- FSS** FSS fixed satellite service
- FSS** Frequency Selective Scheduling
- FSTD** Frequency Shift Transmit Diversity
- FT** Fourier Transform
- FTAM** File Transfer Access Method
- FTCMAC** Forward Traffic Channel MAC
- FTP** File Transfer Protocol. A protocol used to establish a session with a remote host for the purpose of uploading or downloading files.
- FTP** File Transfer Protocol
- FTT** Fast Fourier Transformation
- FTTH** Fibre-To-The-Home
- FTTx** Denotes the different variants of FTT – Fiber To The
- Fundamental Channel** In 1xRTT and 3xRTT, a basic channel providing voice or data communication and related messaging and control functions. When needed, large data flows can also be carried in bursts on supplemental channels.
- FUSC** FUSC full usage of subchannels
- FW** Fire Wall
- GA** Generally Available
- GAA** GAA Generic Authentication Architecture
- GA-CSR** Generic Access - Circuit Switched Resources
- GAIT** GSM-ANSI Interoperability Team. An organization which promotes the development of multi-mode handsets for GSM/IS-136 TDMA, and optionally GPRS and possibly EDGE. This movement is instigated and supported by the USA TDMA-operators, to ease the subscriber implications of their chosen transition from IS-136 to GSM/GPRS/EDGE.
- GAN** General ATM Switch Network
- GANC** Generic Access Network Controller
- GAP** GAN Main Processor
- GA-RC** Generic Access - Resource Control
- GA-RRC** Generic Access - Radio Resource Control
- GAUP** Generic Attribute Update Protocol
- Gb** GPRS interface between BSS and SGSN

Term Definition

- Gb/s** Gigabits per second.
- GB/s** Gigabytes per second.
- gbit/s** Gigabytes per second
- GBR** Guaranteed Bit Rate
 - Gc** GPRS interface between GGSN and HLR. This is optional and the GGSN can access the HLR through the SGSN if desired.
- GCL** Generalized Chirp-Like
- GCR** Group Call Register
 - Gd** GPRS interface between the SGSN and the SMS-GMSC.
- GEE** Generic EAP Encapsulation
- GERAN** GSM EDGE Radio Access Network
 - Gf** GPRS interface between the SGSN and the EIR.
 - GF** galois field
- GGSN** Gateway GPRS Support Node. The gateway between internal GPRS system backbone networks and outside packet networks. It can be considered as a domain server from the IP perspective.
- GGSN/PDN** Gateway GPRS Support Node/Packet Data Network
 - GHZ** Gigahertz
 - Gi** Reference point defined in GPRS. The interface between the GGSN and the external PDN (at least one required for IP and one required for X.25); not included in the original scope of GPRS recommendations.
 - GICC** Gateway Interface Control Card
 - GKEK** group key encryption key
- GLONASS** Global Navigation Satellite System (Russian)
- GMLC** Gateway Mobile Location Controller
- GMM** Global Multimedia Mobility
- GMSH** GMSH grant management subheader
 - Gn** The GPRS interface between the GGSN and the SGSN.
 - Gn** IP-based interface between SGSN and other SGSNs and (internal) GGSNs. DNS also shares this interface. Uses the GTP Protocol
- GNSS** Global Navigation Satellite Systems
 - GP** Guard Period
 - Gp** GPRS interface from PLMN to PLMN for support of roaming.
 - GP** Guard Period
- GPCS** Generic Packet Convergence Sublayer
- GPON** Gigabit-Capable Passive Optical Network
 - GPP** General Purpose Processors
- GPRS** General Packet Radio Service. An evolutionary data service offering IP access over GSM radio networks.
- GPRS** General Packet Radio Service
- gprsSSF** GPRS Service Switching Function
 - GPS** Global Positioning System. A US government-sponsored network usually including 21 active satellites in mid-earth orbits transmitting precise timing information for navigation and time-frequency distribution purposes. This is the most popular and convenient source for precise timing to synchronize base stations using PN timing offsets.
- GPT-TEID** Global Tunneling Protocol Tunnel Endpoint Identifier (LTE)
 - Gr** The GPRS interface between the SGSN and the HLR.
 - GR** GPRS Register. This is part of the HLR, and includes all valid GPRS mobiles.
 - GR** Generic Requirements
- GRAKE** Generalized RAKE receiver, a.k.a. Advanced Receiver Type 2
- GRAS** Global Roaming Application Server
 - GRE** Generic Routing Encapsulation)—A tunneling protocol that allows network layer packets to contain packets from a different protocol. It is widely used to tunnel protocols inside IP packets for virtual private networks.
 - Gs** The optional GPRS interface between the SGSN and the MSC

Term Definition**GSM**

Groupe Speciale Mobile of the European Telecommunications Standards Institute (ETSI). The committee of operators, manufacturers, and governmental regulatory bodies which collaborated to produce the popular European open wireless technology often called by the same acronym - GSM, "Global System for Mobile communications". GSM the technology has enjoyed widespread international acceptance due to its openness and the thorough way in which it specifies the radio interface, network, and interconnections for wireless systems. Approximately 2/3 of the world's wireless end-customers use GSM phones. GSM is a variant of basic TDMA technology.

GSMA GSM Association

GSM-MAP Mobile Application Part, or Mobile Application Protocol. In GSM/GPRS, a user protocol based on SS7 which manages communication between network subsystem equipment entities of one or more networks. In North American networks, the IS-41 standard is used to provide equivalent functionality for roaming, intersystem call delivery, and intersystem handoff.

gsmSSF GSM Service Switching Function

GSN GPRS Support Node

GSO geostationary orbit

GSO GS guard symbol

GSRM

Global Service Redirection Message. A Paging Channel message in IS-95/1x/3x CDMA systems which redirects mobiles to a different frequency or system. Useful for managing mobiles in border areas.

GT Guard time

GTEK GTEK group traffic encryption key

GTP GPRS Tunneling Protocol GTP

GTP-C GTP Control Plane

GTP-U GPRS Tunneling Protocol-User plane

GTT Global Title Translation.

GUI Graphical User Interface. A series of screens often called "Windows" for accessing and interacting with some computing application program. The best-known GUI is probably Microsoft Windows, but there are many others.

GUMMEI Globally Unique MME Identifier

GUP Generic User Profile

GUP Server General User Profile Server

GUTI Globally Unique Temporary Identity

GW Gateway

Gxa, Gxb, Gxc IMS reference points

H2H Human to Human

HA Home Agent

HAA Home-Agent-MIP-Answer

HANDO Handover

Handover A procedure that changes the serving cell of a UE in RRC_CONNECTED state.

Handset A phone, the terminal by which a user communicates over a wireless system.

HAR Home-Agent-MIP-Request

HARQ Hybrid Automatic Repeat Request

HCI Host Controller Interface

HCS header check sequence

HC-SDMA High Capacity Spatial Division Multiple Access

HD High Definition

HD High Density

HD-FDD Half-Duplex FDD

HDL Hardware description language

HDLC High level Data Link Control. A data communications protocol using a frame format with an information field containing an IP header. Used to manage connections between certain internal elements in CDMA networks.

HDLC High Level Data Link Control

HDR High Data Rates. A Qualcomm proprietary technology. See 1xEV.

HE Home Environment

HEC header error check

HeNB Home Environment Node B

Term Definition

- HeNB-GW** Home eNodeB Gateway
- HF** High Frequency, referring to radio communications in the 2-30 MHz. range.
- H-FDD** H-FDD half-duplex frequency division duplex
- HFN** Hyper Frame Number (LTE)
- HHO** Hard Handover
- HI** HARQ indicator
- HI HARQ** HARQ indicator
- HII** High Interference Indicator
- Hiper-LAN** high performance radio LAN
- HiperLan2** An ETSI-sponsored LAN protocol operating in the unlicensed 5 GHz band using OFDM.
- HLN** High Leverage Network
- HLR** Home Location Register. The master database containing a wireless subscriber's service record, calling features, and other operational information. May be physically contained in the home switch but is more commonly provided on an external server. Large national operators often combined many markets onto a single HLR, accessible to individual switches via SS7.
- HLRe** Home Location Register emulation
- HMAC** hashed message authentication code
- HNB** Home NodeB
- HNB-GW** Home NodeB Gateway
- HO** Handover (or Handoff, in US technologies)
- HoA** Home IP Address
- HOM** Higher Order Modulation
- Home Agent** A new network element required to support Mobile IP. Its main function is to maintain the location of the mobile user and to forward or redirect packets intended for the mobile user to the mobile user's current foreign agent.
- HomeRF** An rf communications protocol intended to wirelessly connect devices such as phones, PDAs, computers, and appliances in a home or small-business environment. A competitor to Bluetooth and other wireless strategies.
- HOSF** Handover Selection Function
- HP** high performance
- HPCRF** Home PCRF
- HPLMN** Home Public Land Mobile Network
- HP-PTT** High performance Push-to-Talk (aka QCHAT)
- HR** Half Rate
- HRPD** High Rate Packet Data (Qualcomm's proprietary term for its original development of what is now known as 1xEV-DO)
- HSCSD**
High Speed Circuit-Switched Data. The technique of aggregating multiple low-speed circuit-switched traffic channels into a single bitstream for carrying faster data. This is the concept of IS-707 data over IS-95 CDMA, and of the data features in the GSM standard as already commercially deployed over the world. There is general agreement that call-length assignment of multiple channels (i.e., circuit-switched mode) is wasteful of BTS capacity. The new 3G technologies, as well as the GPRS service overlaid on GSM, all offer packet-switched data capabilities which are more appropriate for internet access and other types of mobile data applications.
- HSD** High Speed Data
- HSDe** HSD (Enterprise)
- HSDmm** HSD (Mass Market)
- HSDPA** High Speed Downlink Packet Access
- HS-DPCCH** High Speed-Dedicated Physical Control Channel
- HS-DSCH** High Speed Downlink Shared Channel
- HSDsmb** HSD (Small-Medium Business),
- HSGW** HRPD Serving GateWay
- HSI** High Speed Internet
- HSPA** High Speed Packet Access (HSDPA + HSUPA) An extension of WCDMA to provide high bandwidth and enhanced support for interactive, background and streaming services.
- HSPA+** High Speed Packet Access Evolution. Provides higher speeds than ordinary HSPA through advanced modulation and multi-carrier aggregation.
- HSPD** High Speed Packet Data

Term Definition

- HS-PDSCH** High Speed Physical Downlink Shared Channel
- HSRP** Hot Standby Router Protocol. An enhanced-reliability IP protocol.
- HSS** Home subscriber server
- HS-SCCH** High-Speed Shared Control Channel
- HSUPA** High Speed Uplink Packet Access
- HSxPA** – Denotes HSDPA/HSUPA – High Speed Downlink/Uplink Packet Access
- HT** header type
- HTML** Hyper-Text Markup Language
- HTTP** Hypertext Transfer Protocol. The method used to convey information on the World Wide Web. HTTP supports the transfer of files stored on dedicated servers. Files can contain references to the locations of other files such as images. References include the URL of the referenced item.
- HUMAN** HUMAN high-speed unlicensed metropolitan area network
- HW** Hardware.
- Hybrid Cell** A cell broadcasting a CSG identity which is accessible as a CSG cell by Ues which are members of the CSG and as a normal cell by all other Ues.
- I** inphase
- I/N** interference-to-thermal-noise ratio
- I/Q** In-phase Quadrature referring to the components used in quadrature amplitude modulation
- IA** interference area
- IAB** Internet Architecture Board. The technical governing body of the Internet. It has 15 members. Business is conducted mainly by issuing Requests for Comments, which become defacto standardization documents.
- IANA** internet assigned numbers authority
- IASA** Inter-AS Anchor
- ICE** In Case of Emergency
- ICE** Interactive Connectivity Establishment
- ICI** Inter carrier interface
- ICIC** Inter-Cell Interference Coordination
- ICID** IMS Charging Identity
- ICL** interference coupling loss
- ICMP** Internet Control Management Protocol
- ICS** IMS Centralized Services
- ICT** Information and Communications Technology
- ID** Identification
- IDEN** Integrated Digital Enhanced Network. A proprietary technology developed by Motorola to allow enhanced specialized mobile radio operators (ESMRs) to move beyond traditional trunked two-way radio dispatching services and provide wireless calling for their customers. NEXTEL has consolidated many smaller SMR and ESMR operators into an international network using this technology.
- IDFT** Inverse discrete Fourier transform
- Idle Mode Handoff** The process of a CDMA mobile noticing a stronger sector, waiting for a brief "probation" period, and then changing to listen to the new sector. The system is not involved in triggering the handoff and does not even know it has occurred, unless the mobile sees that the new base station is in a new paging zone and registers anew.
- IDS** (intrusion detection system)—A software system that detects attacks on the network.
- IE** Information Element (LTE)
- IEC** International Engineering Consortium
- IEEE** Institute of Electrical and Electronics Engineers. The international organization of electrical engineers, promoting technology and standards development and professional and career issues for its members.
- IETF** Internet Engineering Task Force
- IETF** RFC Internet Engineering Task Force Request for Comments
- IF** Intermediate Frequency
- IFDMA** Interleaved Frequency Division Multiple Access
- IFFT** Inverse fast Fourier transform
- IFOM** Internet Protocol Flow Mobility and seamless WLAN Offload
- IFRPH** ISDN Frame Relay Protocol Handler
- IGMP** Internet Group Management Protocol

Term Definition

- I-HSPA** Internet-HSPA (also Evolved HSPA or HSPA+)
- IK** Integrity Key
- IKE** (Internet Key Exchange)—A protocol whose purpose is to negotiate and provide authenticated keying for protected security associations.
- IM** Implementation Margin
- IM** Instant Messaging
- IMA** Inverse Multiplexing over ATM
- IMAP** (Internet Message Access Protocol)—The protocol that allows remote devices to access email messages from the Internet.
- IMD** InterModulation Distortion
- IMEI** International Mobile Equipment Identity. A unique identifier for a handset, independent of any SIM presently carried by the handset.
- IMEISV** International Mobile station Equipment Identity and Software Version Number
- IMF** International Monetary Fund. Not a wireless acronym. See IWF.
- IMM** idle mode management
- IM-MGW** IMS Media GateWay
- IMPI** IMS Private Identity
- IMS** IMS IP Multimedia Subsystem
- IMS** IP Multimedia Subsystem
- MSI** International Mobile Subscriber Identity. The unique mobile international telephone number assigned to a handset.
- IMT** International Mobile Telecommunications
- IMT-2000** International Mobile Telecommunications 2000
- IN** Intelligent Networking
- IN-IVR** Intelligent Network Interactive Voice Response System
- Internal LCS** Internal Location Services
- Interprenet Tracker**
A Lucent product. Interprenet Tracker is a reliable network device that collects IP usage events and associates services to users in real time. Tracker processes each packet as it arrives from the network, collects the usage information and aggregates this information into a Data Detail Record (DDR).
- Inter-RAT Handover** Inter-Radio Access Technology Handover
- IN-Triggering** Intelligent Network Triggered Charging
- IOC** Input/Output Controller (Nortel); International Olympic Committee.
- ION** Intelligent Optical Network
- IOS** Inter-Operability Specification
- IOS4.0** Inter-operability Specification Version 4.0, also see IS2001
- IOT** Interoperability test
- IP**
Internet Protocol. The glue that makes the internet work. This layer-3 protocol provides end-to-end transport of data units through internets using connectionless services. The main job of IP is to provide routing information for information being transported through internets. Upper layers provide reliability. Current IPv4 uses 4 byte addressing, while IPv6 provides sixteen byte addressing.
- IP Address** Internet Protocol Address
- IPBH** Internet Protocol Back Haul
- IP-CAN** Internet Protocol Connectivity Access Network
- IPCP** (Internet Protocol Control Protocol)—A network control protocol for establishing and configuring an IP over a PPP connection.
- IPoHDL** IP over HDLC
- IPR** Intellectual Property Rights. Disputes over intellectual property rights flared during the IMT-2000 proposal process in 1998 and early 1999. These disputes were largely resolved following the intervention of the Operators Harmonization Group (OHG).
- IPSec** (IP Security)—A suite of protocols used to secure IP communications through authentication and encryption technology.
- IPSec** Internet Protocol Security
- IPTV** Internet Protocol TV
- IPv4** Internet Protocol Version 4. Uses 4-byte IP addresses. In current use, but address congestion is driving migration to IPv6.
- IPv6** Internet Protocol Version 6. Uses 16-byte IP addresses, relieving address congestion developing on IPv4 networks. Also includes many new features such as integral support for Mobile IP.

Term Definition

- IPX** IP Packet Exchange
- IQ** In-phase/Quadrature-phase)
- IR** Incremental Redundancy
- IRAT** Inter-Radio Access Technology (Inter-RAT)
- IRC** Interference Rejection Combining
- IRTF** Internet Research Task Force
- IS** Interim Standard
- IS-136** Interim Standard 136. The technical specification for the North American version of TDMA technology. Up to three conversations can pass through a radio signal 30 KHz. wide. Used by AT&T Wireless, Cingular, and others. Most operators using IS-136 are planning to migrate to GSM, GPRS, and UMTS. See also IS-54
- IS136B-HS** IS136B High Speed (not widely adopted, now defunct).
- IS2001** Interim Standard 2001: Defines Protocols for A1, A7, A9, A11-Interfaces for CDMA
- IS-41**
In North American networks, the standard which provides functionality for intersystem roaming, intersystem call delivery, and intersystem handoff. Versions 0, 1, A, B, C, D, and P are in circulation.
- IS-41e** Interim Standard 41: Defines Protocols for D-Interface for CDMA
- IS-54** Interim Standard 54. The technical specification for the original version of North American TDMA, designed to work as an overlay on existing AMPS systems. It piggybacked TDMA call control commands over the existing AMPS control channels, with some resulting disadvantages in features and capacity. The newer version IS-136 has dedicated TDMA-only control channels which facilitate advanced features.
- IS-634b** Interim Standard 634b : Defines Protocols for A-Interface for CDMAone
- IS-95** Interim Standard 95: Defines Protocols for U-Interface for CDMA
- ISAKMAP** Internet Security Association and Key Management Protocol
- ISD** Inter-site distance
- ISDN**
Integrated Services Digital Network. The first major attempt at digital services by PSTN operators. Although capable of a variety of services and still available from some providers, it has not enjoyed wide usage. DSL, ADSL, and cable modems have captured most consumer broadband access.
- ISG** Intelligent Services Gateway
- ISHO** Inter-system Handover
- ISI** Inter symbol interface
- ISIM** IP Multimedia Services Identity Module
- ISO** International Standards Organisation
- ISOP** interference scenario occurrence probability
- ISP** Internet Service Provider. An operator providing internet connectivity for users via dial-up, WAN or LAN, or wireless systems.
- ISP** Internet Service Provider
- ISR** Idle Mode Signaling Reduction
- IST-WINNER** Information Society Technologies-Wireless world INitiative NEw Radio
- ISUP** ISDN User Part
- IT** Information Technology. Virtually all companies have an IT department to handle their internal data networks and computing environment.
- ITU** International Telecommunications Union
- ITU-R** International Telecommunications Union-Radiocommunications Sector
- ITU-T** International Telecommunications Union-Telecommunication Standardization Sector
- Iu** The interface used for communication between the RNC and the core network.
- Iu_cs** The interface used for communication between the RNC and the GSM/WCDMA circuit switched core network.
- Iu_ps** The interface used for communication between the RNC and the GSM/WCDMA packet switched core network.
- Iub** The interface used for communication between the NodeB and the RNC.
- Iur** The interface used for communication between different RNCs.
- IUT** Inter-UE Transfer
- IV** initialization vector
- IVR** Interactive Voice Response

Term Definition

- IWF** Inter-Working Function. Term for a class of wireless system-to data bridge devices often used in 2G systems. One common function is providing modem emulation to allow CDMA mobiles to perform wireless dialup access to external ISPs. The IWF function is more limited than that provided by a PDSN, and PDSNs will largely replace dedicated IWFs in 3G systems.
- J2ME** Java 2 Platform, Micro Edition which is now called Java Platform for Mobile Devices and Embedded Modules
- JDBC** Java Database Connectivity
- JP/JT** Joint Processing/Joint Transmission
- JP-Co** Coherent Joint Processing
- JP-Nco** Non-Coherent Joint Processing
- J-STD-101** Joint ATIS/TIA CMAS Federal Alert Gateway to CMSP Gateway Interface Specification
- J-TACS** Japanese Total Access Communication System
- K_ASME** ASME Key
- KB/s** Kilobytes per second.
- Kb/s** Kilobits per second.
- kbps** kilobits per second
- Kc** Cipher Key
- KEK** key encryption key
- kHz** Kilohertz
- km/h** Kilometers per hour
- KPI** Key Performance Indicators. These are the most commonly used statistics reflecting the communications performance of a wireless system. Common indicators include dropped calls, dropped call percentage, etc.
- KSI** Key Set Identifier
- ksps** Kilosymbols per second
- L_CH** Logical Channel
- L1** Layer 1 (physical layer)
- L2** Layer 2 (data link layer)
- L2F** Layer 2 Forwarding
- L2TP** (Layer 2 Tunneling Protocol)—A tunneling protocol that is used to support VPNs. L2TPv3 provides additional security features, improved encapsulation, and the ability to carry data links other than PPP over an IP network.
- L3** Layer Three (ISO Protocol Stack)
- LA** Location Area in a GSM-MAP based system. Equivalent to a NID or registration/page delivery zone in IS-41 based systems.
- LAC** Link Access Control. The upper part of the data link layers in wireless technologies. The LAC sublayer manages point-to-point communication channels between peer layer entities and provides framework to support many different end-to-end reliable link layer protocols. Also may be used as an acronym for a L2TP Access Concentrator by certain manufacturers.
- LAC** Location Area Code in a GSM-MAP system
- LAI** Location Area Identity; LAI=MCC+MNC+LAC
- LAN** local area network
- LAP** Link Access Protocol
- LAPD**
Link Access Protocol for the D Channel. (You've been watching too many police shows on TV if you thought Los Angeles Police Department.) The procedures that manage the D-channels in ISDN.
- Latency** The delay encountered while a packet passes through a round trip between a source location and some distant destination.
- LATRED** Latency Reduction
- Lawful Intercept LCS** Lawful Intercept Location Services
- Layer 3 Messages** Signaling messages exchanged between control entities in a telecommunications network. For example, Layer 3 messages are used for resource requests within the network and for call establishment and teardown by mobiles. Analysis of Layer 3 messages is a powerful tool for network troubleshooting and state analysis.
- LB** Load Balancing
- LB** Long Block
- LBI** Linked EPS Bearer Identity
- LBP** Layered Belief Propagation
- LBRM** Limited Buffer Rate Matching

Term Definition

LBS (location-based services)—LBS are used by wireless companies to send advertising and promotional messages to the user, based on his or her location.

LBS Location Based Services

LC_STATE Long Code State. The binary contents of the 42-bit long code state register in a CDMA mobile or base station.

LCD Liquid Crystal Display

LCG Logical channel group

LCID Logical channel identifier

LCP Link Control Protocol)—Used by PPP to establish a link between a user's computer and the Internet service provider.

LCP Lucent Control Platform

LCR Low Chip Rate

LCS Location Service

LCS Client Location Services Client

LCS Server Location Services Server

LDAP (Lightweight Directory Access Protocol)—A network protocol used for querying and modifying directory services on TCP/IP connections.

LDPC low-density parity check

LDPC Low-Density Parity Check Code

LED Light Emitting Diode.

LEO Low Earth Orbit

LF

Low Frequency. Radio frequencies in the range less than 2 MHz., as for example AM broadcasting.

LFSR linear feedback shift register

L-GW Local Gateway

Lh Interface between the GMLC/LRF and the HLR/HSS

LI Lawful Intercept

LIPA Local Internet Protocol Access

LLC Logical Link Control; provides an OSI Layer 2 logical connection between the MS and the SGSN; it is a LAPD-like Layer 2 scheme (provides sequential order of delivery, detection and recovery of errors, and flow control)

LLR Log-Likelihood Ratio

LM Location Management

LMA Local Mobility Anchor

LMCS local multipoint communication system

LMDS local multipoint distribution service

LMMSE Least Minimum Mean Squared Error

LMRS Lucent Media Resource Server

LMS L2TP Network Server

LMSD Legacy Mobile Station Domain

LMSI Local Mobile Station Identity

LMU Location Measurement Units

LNA Low Noise Amplifier, uplink and downlink.

LNG Lucent Network Gateway

LNP Local Number Portability (for North America)

LO Local oscillator

LOS line of sight

Lpp Interface between the GMLC/LRF and the PPR

LPP LTE Positioning Protocol

LPPa LTE Positioning Protocol Annex

LR Location Register

Lr Interface between the GMLC/LRF and LIMS-IWF

LRF Laser Range Finder

LS Least Squares

LSB least significant bit

LSF Last Segment Flag

LSTI: LTE/SAE Trial Initiative (see www.lstforum.org)

Term Definition**LTE**

Long Term Evolution. A technology developed and promoted by the organization 3GPP as an enhancement and migration path for UMTS WCDMA. It uses OFDM and MIMO to achieve high bit rates in signals of flexible bandwidth. It offers handoffs to and from most other wireless technologies.

LTE-A Long Term Evolution - Advanced

LTI Linear Time Invariant

LTM Local Time. CDMA mobiles are told a Local Time Offset which they add to CDMA-default UTC to obtain and show local time on their displays.

m Meters

M2M M2M Machine to Machine

M3UA MTP 3 User Adaptation

MA Metropolitan Area

MAC Medium Access Control. The lower part of the data link layer in wireless technologies. It supports multiple instances of a state machine, one for each active packet or circuit data instance. Together with QoS control, the MAC layer provides multimedia and multiservice 3G capabilities. Its three layers are PLICFs, PLDCFs, and the MUX/QoS layer. It provides multiplexing of multiple mobile station's data sharing the same physical resource; is controlled by the network which manages also priority handling on a packet-based transmission channel; based on the general scheme of slotted ALOHA with reservations

MAC-I Message Authentication Code for Integrity

MAG Mobile Access Gateway

MAHO Mobile Assisted Handoff

MAK MBS authorization key

MAN metropolitan area network

Management Management, Security Management

MAP Mobile Application Part, or Mobile Application Protocol. In GSM/GPRS, a user protocol based on SS7 which manages communication between network subsystem equipment entities of one or more networks. In North American networks, the IS-41 standard is used to provide equivalent functionality for roaming, intersystem call delivery, and intersystem handoff.

MAP Map message (for WiMAX)

MAP Market Advantage Program

MAP Mobility Anchor Point (MIP)

MAPCON Multi-Access PDN Connectivity

mask register In the generation of the Long PN Code and Short PN Code, an additional timing shift is desired. This shift is achieved by adding a fixed "mask register" to the state register, producing a shifted version of the state register.

mb Megabit or Mb

Mb/s Megabits per second.

MB/s MegaBytes per second.

MBFDD Mobile Broadband FDD (for IEEE 802.20)

MBMR Multiband Multimode Radio

MBMS Multimedia Broadcast/Multicast Service

MBMS Session Multimedia Broadcast Multicast Services Session

MBMS/Unicast-mixed A cell supporting both unicast and MBMS transmissions.

MBMS-dedicated Cell A cell dedicated to MBMS transmission. MBMS-dedicated cell is not supported in R9 for LTE.

Mbps Megabits per Second

MBR Maximum Bit Rate

MBR Mobile Broadband Router

MBS MBS multicast and broadcast service

MBSFN Multicast/broadcast over single-frequency network

MB-SFN Multicast/broadcast – single frequency network

MBSFN Multimedia Broadcast multicast service Single Frequency Network

MBTDD Mobile Broadband TDD (for IEEE 802.20)

MBWA Mobile Broadband Wireless Access

MC Mobile Client

MC Multi-Carrier

MCC Mobile Country Code

MCCH MBMS point-to-multipoint Control Channel

Term Definition

MCE	Multi-Cell/Multicast Coordination Entity
MC-EVM	Multi Carrier – EV-DO Modem
MCH	Multicast channel
MCID	multicast CID (see Table 557)
MCL	minimum coupling loss
MCM	Multimedia Carrier Modulation
Mcps	Megachips per second
MCR	Multi Carrier Radio
MCS	Modulation and Coding Scheme
MCSB	Message Control and Status Block
MCW	Multiple Codewords
MDHO	macro diversity handover
MDS	MDS multipoint distribution service
MDs	a widely used cryptographic hash function with a 128-bit hash value. MD5 is an Internet standard (RFC 1321) that is deployed in a wide variety of security applications.
MDS	Minimum Discernible Signal
ME	Mobile Equipment
MediaFLO	Media Forward Link Only. A Qualcomm multicast service for entertainment distribution, now discontinued.
MEF	Metro Ethernet Forum

Membership Verification

The process that checks whether a UE is a member or non-member of a hybrid cell.

META	Mobile Evolution Transport Architecture
MF	Multi-Frequency
MFF	M2M Form Factor
MFFU	Modular Fuse & Filter Unit, a hardware unit in some manufacturers systems.
MFFA	Multi-flow Packet Application
MFS	Mobile Financial Services
MGCF	Media Gateway Control Function
MGTEK	MBS group traffic encryption key
MGW	Media Gateway
MHz	Megahertz
MI	Interface between the GMLC/LRF and the E-CSCF
MIB	Management Information Base. A database of configuration and performance data for a device such as a router, gateway, modem, or network server. The network administrator views and configures the MIB or MIBs for all devices in the network.
MIB	Master Information Block
MIB	Management Information Base
MIC	message integrity check
MICH	Multicast channel
MICH	MBMS Indicator Channel
microwave	The range of radio frequencies from about 1 GHz. to more than 60 GHz.
MID	Mobile Internet Device
MIH	MIH media independent handover
MIH	Media Independent Handover
MIHF	MIH Function
MIM	M2M Identity Module
MIM	Mobile Instant Messaging
MIME	Multipurpose Internet Mail Extension. A format for including non-text data within mail. Examples would be images, video, audio, various files such as presentations, spreadsheets, and formatted word processing documents. Most email applications support MIME or other similar features.
MIMO	Multiple Input Multiple Output. In 4G systems, a method of exploiting multipath fading by using multiple antennas to transmit separate information and using the fading to allow the signals to coexist on the same frequency.
MIMO	Multiple-Input, Multiple-Output antenna techniques for capacity and quality improvement through spatial multiplexing.

Term	Definition
MIMO-MU	MIMO-Multi User. Use of MIMO techniques to allow multiple users to operate on same channel simultaneously without interference.
MIMO-SM	MIMO-Spatial Multiplexing
MIMO-STBC	MIMO-Spatial Time Block Coding
MIMO-SU	MIMO-Single User. Multiple antenna spatial multiplexing to allow one user to carry multiple streams of data on the same channel for capacity improvement without the streams interfering with each other.
MIN	(mobile identifier number)—The unique 10-digit number used to identify a mobile phone.
MIP	See Mobile IP.
MIP	Mobile Internet Protocol
MISO	Multiple input single output
MITE	IMS Multimedia Telephony Communication Enabler
ML	Maximum Likelihood
MLC	Mobile Location Center
MLD	Maximum Likelihood Detector
MLG	Multi Layer Group
MLP	An HDLC-like framing protocol which can run on top of Radio Link Protocol between the mobile and the base station. Optional features include Link Layer fragmentation and Link Layer compression.
MLPP	Multi-Level Pre-emptive Priority
MLPPP	(Multi-Link Point-to-Point Protocol)—An extension to PPP that enables two channels to be linked together to double the throughput. It is used for ISDN transmission and channel bonding.
MLS	multilayer switch
MLSE	Maximum-Likelihood Sequence Estimation
MM	Mobility Management, layer-3 function in GSM/GPRS systems
MMD	Multimedia Domain
MMDS	multichannel multipoint distribution system
MME	Mobility Management Entity
MMI	Man Machine Interface
MMOG	Multimedia Online Gaming
MMS	(Multimedia Messaging Service)—A messaging system that allows video, pictures, audio clips, and other multimedia to be distributed wirelessly.
MMSC	Multimedia Messaging Service Centre
MMSE	Minimum Mean Square Error
MMSE	Multimedia Messaging Service Environment
MMTel	Multimedia Telephony
MN	Mobile Node, typically consists of Terminal Equipment and a Mobile Terminal.
MN	Model Number
MNC	Mobile Network Code
MNC	Mobile Network Controller
MNO	Mobile Network Operator
MO	Mobile Originated
MOB	Maximum Output Power
MOBIKE	Mobility and Multi-homing Protocol for Internet Key Exchange
Mobile IP	A protocol used to establish a connection between the mobile station and the packet network. Using mobile IP the user is able to move from cell to cell, even into cells supported by different PDSNs. The mobile IP protocol will maintain the IP session even when the user leaves the regions supported by the first PDSN and enters the region served by a different PDSN. Mobile IP uses a Home Agent in the mobile's home network to maintain the IP connection and to forward packets to wherever the mobile may be located. The mobile maintains registration with a Foreign Agent in the network where it is currently located and the two agents forward the mobile's packets. When the mobile enters a new network, it registers with the new foreign agent and the IP connection is maintained.
MO-LR	Mobile Originating-Location Request
MOP	Maximum output power
MP	multipoint
MP3	MPEG-1 (Motion Picture Experts Group) Audio Layer-3 for compressing sound into very small audio files

Term Definition

- MPEG** moving pictures experts group
- MPLS** Multiprotocol label switching is a data-carrying mechanism for packet-switched networks. It was developed to improve on limitations of ATM and Frame Relay, with the goal of replacing them in much of telecommunications.
- MPLS-TP** Multiprotocol Label Switching-Transport Profile
- MP-MP** multipoint-to-multipoint
- MPN**
(Mobile Private Network) MPNs allow mobile users to communicate securely across public networks.
- MPR** Maximum Power Reduction
- MPR** Microwave Packet Radio
- M-PSK** M-ary Phase-Shift Keying
- MQE** Minimum Quantization Error
- MRC** Maximal ratio combining
- MRFC** Multimedia Resource Function Controller
- MRFP** MRFP Multimedia Resource Function Processor
- MRI** Mobile Reported Interference
- MRU** Most Recently Used. The "history" list of RF channel frequencies recently used by a phone. When the phone is powered up, it returns to the most recently used frequency and tries to find a CDMA signal. If unsuccessful, it tries the second-most-recently-used, repeating this process until it either finds a signal or exhausts the list. The overall process of system acquisition follows the System Determination Algorithm (SDA) and uses the Preferred Roaming List database (PRL) which is pre-stored in the phone's memory.
- MRX** Measurement Receiver board.
- MS** (Mobile Station) An end terminal such as a mobile phone, a notebook with an embedded modem, a broadband wireless router, or a PCMCIA modem that can access the CDMA network.
- MSA** MCH Subframe Allocation
- MSA** Metropolitan Statistical Area
- MSAP** MCH Subframe Allocation Pattern
- MSB** most significant bit
- MSC** Mobile switching center. The building housing a network's switch, or the switch itself.
- MSC Area** Mobile Switching Center Area
- MSCE** Mobile Switching Center enhanced
- MSCH** MBMS Scheduling Channel
- MSC-S** Mobile Switching Center Server
- MSE** Minimum Squared Error
- MSI** MCH Scheduling Information
- MSISDN** Mobile Subscriber Integrated Services Digital Network Number
- MSK** master session key
- MSP** MCH Scheduling Period
- MSP** mobile service provider
- MSR** Maximum Sensitivity Reduction
- MSRD** MS Receive Diversity
- MSRN** Mobile Station Roaming Number
- MSRP** Manufacturer's Suggested Retail Price. A non-discounted price for a product.
- MT** Mobile Terminal or Mobile Termination
- MTA** Metropolitan Trading Area. In PCS, one of 51 such areas in the country, a licensing territory for PCS operators in the A and B blocks.
- MTC** Machine-Type Communication
- MTCH** Multicast Traffic Channel
- MTCH** MBMS point-to-multipoint Traffic Channel
- MTCH** Multicast Traffic Channel
- MT-LR** Mobile Terminated Location Request
- MTP** Message Transfer Protocol
- MTP-Adapt** Message Transfer Part Adapter
- MTSI** Multimedia Telephony Service for IMS
- MTSMS** Mobile terminated Short Message Service
- MTSO** mobile telephone switching office

Term Definition

MTX Mobile Telephone Exchange. Nortel's term for its conventional switch used to support circuit-switched wireless systems.

Multifunction SIM Multi-function Subscriber Identity Module

Multiplexing

The process of combining multiple bit streams onto a single transmission medium. After transmission and reception, the multiplexed stream is "de-multiplexed" into its original constituent bit streams.

MU-MIMO Multiple User MIMO

MUX A device which performs multiplexing.

MVNO Mobile Virtual Network Operator

MVPN Mobile Virtual Private Network

MWS multimedia wireless systems

NA North America

NACC Network Assisted Cell Change

NACK Negative Acknowledgment

NACS NonAdjacent Channel Selectivity

NAI

(Network Access Identifier) The user identification submitted by the mobile station during network access authentication.

NAK Negative Acknowledgement (in ARQ protocols)

NAQ Negative ACK

NAR North American Region

NAS Non-Access Stratum (a functional layer between the core network and the terminal that supports signaling and user data transfer)

NAT Network Address Translation

NationalAccess At Verizon, territory where 1xRTT service and not 1xEV-DO (Broadband Access) is provided.

NAT-PT Network Address Translation – Protocol Translation

NB Normal Burst in GSM or GPRS

NB Narrow Band

NCC Next Hop Chaining Counter

NCC Network Colour Code

NCH Notification Channel in GSM or GPRS

NCL Neighbor Cell List

NCMS network control and management system at the BS side (network side)

NCMS network control and management system at the SS/MS side

NDC National Destination Code

NDI New Data Indicator

NDS Network Domain Security

NE Network Element

Neighbor Pilot The pilot of a base station sector not being used by a mobile but listed on the neighbor list provided by the system. The mobile maintains especially frequent monitoring the of the neighbors since they are the most likely group of signals to suddenly appear.

Neighbor Search Window

In CDMA, the width of the "tolerance" window the mobile searches when looking for a neighbor pilot.

NEM network entry management

NENT network entry

NETLMM NGW Network GateWay

NBLMM Network Based Localized Mobility Management

NF Noise Figure

NFC Near Field Communications

NFD net filter discrimination

NFFT Number of Samples of FFT

NGMN Next Generation Mobile Networks

NGN Next Generation Network

NGN GETS NGN Government Emergency Telecommunications Service

NGOSS Next Generation Operations Support Systems (HP)

NH Next Hop Key

NI Network Interface

Term Definition

- NID** Network Identification. A 16 bit number (65534 max) denoting a part of a wireless system. (A SID is like a country, and a NID is like a province within it.)
- NI-LR** Network Induced Location Request
- NIMTC** Network Improvements for Machine-Type Communication
- NLMS** Normalized Least-Mean-Square
- NLOS** Non-Line-Of-Sight
- NLUM** Neighbor List Update Message, send to a mobile by the system after the mobile implements a handoff. The system combines the neighbors of all active sectors being used by the mobile and sends them to the mobile in the NLUM.
- NMC** Network Management Centre
- NMR** Network Measure Report
- NMS** Network Management System
- NMT** Nordic Mobile Telephone system
- NMT** Network Management Tool
- NNI** NNI Network-to-Network Interface 35
- NNSF** NAS Node Selection Function
- NNTTP** Network News Transport Protocol. A protocol supporting special interest news groups without requiring dial-up access to a central server. Provides functions much like the early dial-up bulletin boards but via an internet environment. The protocol used to post and receive information from Usenet and news servers.
- NOC** Network Operation Center
- Node** A connection point within a network.
- NodeB** a logical node handling transmission/reception in multiple cells. Commonly, but not necessarily, corresponding to a base station.
- Noise**
In acoustics, a crackling, hissing sound which may distract or interfere with hearing the intended sound.
- NOVES** Non-Voice Emergency Serves
- NPDU** Network Protocol Data Unit
- NR** Neighbor Cell Relation
- NRM** network reference model
- NRT** Neighbor Relation Table
- NRT** Non Real Time
- nrtPS** non-real-time polling service
- nrtPS** Non-Real-Time Polling Service
- NSAPI** In GPRS/GSM, Network layer Service Access Point Identifier. In the MS, it identifies the PDP-SAP; in the SGSN and GGSN it identifies the PDP context associated with a PDP address
- NSP** network service provider
- NSS** Network Subsystem
- NSVCI** Network Service Virtual Connection Identifier
- Nt** Notification (SAP)
- NTU** Network Termination Unit
- Null** In antennas, a direction in which no radiation is transmitted.
- NWS** National Weather Service
- NxDFT-S-OFDM** N times Discrete Fourier Transforms Spread Orthogonal Frequency Division Multiplexing
- O&M** Operation and Maintenance
- OAM** operations, administration and maintenance
- OBF** Overbooking Factor
- OBPD** Occupied Bandwidth Power De-rating
- OBRI** Open BBU RRH Interface
- OBSAI** Open base station architecture interface
- OBW** Occupied BandWidth
- OC-3** 155.52 Mbit/s line rate
- OCC** Orthogonal Cover Code
- OCn** Optical Carrier n = 1, 3, 12 etc.
- OCS** Online Charging System
- OECD** Organization for Economic Cooperation and Development

Term Definition

- OFDM** Orthogonal Frequency Division Multiplexing. An advanced modulation scheme providing high spectral efficiency and good link budget; used in advanced LAN and WAN RF communication schemes and likely to be used in future public land mobile communication schemes.
- OFDMA** Orthogonal Frequency Division Multiple Access. In 4G networks, the downlink technique which allows dynamically assigning portions of the transmitted signal to different users based on their needs and QoS rules. This provides access for many mobiles simultaneously to hear their data on the downlink.
- OI** Overload Indicator
- OID** object identifier
- OL-MIMO** Open Loop Multiple-Input Multiple-Output
- OMA** Open Mobile Architecture
- OMA-DS** OMA Data Synchronization
- OMC** Operations and Maintenance Centre
- OMC-CN** Operations & Maintenance Center - Core Network
- OMC-H** Operations & Maintenance Center - Home Location Register
- OMC-P** Operation & Maintenance Centre –for Packet Core Network
- OMC-R** Operation & Maintenance Centre –for Radio Access Network
- OMC-S** Operation & Maintenance Centre –for MSC based of Core Network
- OMP** Operation and Maintenance Platform
- OMP-FX** OMP for Flexent
- OMS** Operation and Maintenance System.
- OMS** Operation Management System
- OMT32** Operation and Maintenance Terminal.
- OOB** out-of-block
- OOB** Out-Of-Band
- OP** Organizational Partner
- Operator**
A wireless service provider company such as Sprint PCS, Verizon, or Bell Mobility. See also Carrier.
- OPEX** Operational Expenditures
- OR** Optimal Routing
- Orthogonal** Independent. Two bitstreams which have a purely random relationship are said to be orthogonal. Codes used in CDMA should possess this property so as to be able to keep the signals they carry independent of each other.
- OS** Operating System
- OSA** Open Services Architecture
- OSA-GW** Open Service Access - Gateway
- OSI** Open Systems Interconnect. The OSI 7-layer model (a protocol stack) is a popular and useful logical structure for computing and telecommunications systems. Progressing from the lowest level (physical layer) to the highest level (presentation layer), it provides a conceptual structural heirarchy within which it is possible to succinctly and completely specify and define the implementation of a network and the applications which it supports.
- OSP** Optical Splitter.
- OSPF** Open Shortest Path First. A routing protocol which takes into account the link capacity, delay, and throughput requirements while routing packets.
- OSSN** Operations Support Subsystem Network. The packet network that interfaces between users and the external network. The OSSN is mainly a TCP/IP network operating using OSPF protocol.
- OTA** OTA Over The Air
- OTAF** Over-The-Air Functions. Activation, roaming list update, software update.
- OTAPA** Over-The-Air Provisioning and Activation. The process of provisioning and activating a mobile by downloading the files and information needed for operation via the air interface.
- OTDOA** Observed Time Difference of Arrival
- OTN** Official Telecom Network. That part of a wireless operator's many network layers which carries the large volume of customer traffic and delivers it to the appropriate PSTN or IP outside networks. The OTN usually also carries substantial flows of internal traffic for the operator.
- OTN** Optical Transmission Net
- OTS** One Tunnel solution
- OTT** Over-the-top
- OVSF** Orthogonal Variable Spreading Factor. Channelization codes used in UMTS WCDMA systems. Similar to the Walsh codes used in IS-95, 1xRTT, and 3xRTT systems.

Term Definition

- P.S0001** Specification for Wireless IP based protocols
- P/S** Parallel-to-Serial
- P_REV** Protocol revision level. The "version" of wireless technology in use at a particular system. P_REV 6 is 1xRTT rev. 0.
- P2P** Peer to Peer
- P2P** point-to-point
- PA** HSxPA – Denotes HSDPA/HSUPA – High Speed Downlink/Uplink Packet Access
- PA** Power Amplifier
- Packet** A group of information-carrying bits being transmitted from one location or device to another, normally with a header which contains addressing/routing information. Most digital communication systems operate using packet techniques.
- PAGCH** Packet Access Grant Channel; in GPRS, downlink only, used to allocate one or several PDTCH; it is part of the PCCCH.
- PAK** primary authorization key
- PAM** Power Amplifier Module
- PAM** Priority Alarm Message
- PAMP** Power Amplifier
- PAN** Personal Area Network
- PAP** Password Authentication Protocol
- PAPR** Peak-to-Average Power Ratio
- PAR** Peak to Average Ratio
- PARC** Per-Antenna Rate Control
- PBB** Provider Backbone Bridge
- PBCCH** Packet Broadcast Control Channel
- PBCH** Physical Broadcast Channel
- P-BCH** Primary Broadcast Channel
- PBCH** Primary BCH
- PBR** Prioritized Bit Rate
- PBR** PBR piggyback request
- PBR** PBR Prioritised Bit Rate
- PC** Personal Computer
- PC** Physical Channel
- PC** Power Control
- PCC** PCC Policy and Charging Convergence
- PCCCH** Packet Common Control Channel; includes PPCH, PRACH, PAGCH, PNCH
- PCCH** Paging Control Channel
- P-CCPCH** Primary common control physical channel
- PCD** Personal Content Delivery
- PCEF** Policy and Charging Enforcement Function
- PCF** Packet Control Function
- PCFICH** Physical Control Format Indicator Channel
- PCG** Project Coordination Group (in 3GPP)
- PCH** Paging Channel
- PCI** Physical Cell Identifier
- PCI** Physical layer Cell Identity
- PCI** Pre-coding Control Indication
- PCIG** Physical layer Cell Identity Group
- PCM** Pulse Code Modulation. Term used to describe the stream of waveform sample data contained in a DS-0.
- PCMCIA** Personal Computer Manufacturers' Card Interface Adapter (Or, People Can't Memorize Computer Industry Acronyms)
- PCMM** Packaged Core Memory Module
- PCN** Personal Communication Network
- PCO** Power Control Optimization OR Point of Control and Observation (ITU-T)
- PCO** Protocol Configuration Option (for PMIP BA)
- P-CPICH** Primary Common Pilot Channel

Term Definition

- PCRF** Policy and Charging Rules Function
- PCS** Personal Communication Services. Mobile communication systems offering advanced voice services and calling features. Originally applied to new 1900 MHz. systems, but also adopted by existing 800 MHz. wireless systems as a marketing term.
- PCSB** PDU Control and Status Block
- PCSCF** Proxy Call Session Control Function
- PCU** Packet Control Unit. In a GPRS network, it is located in the BSS (BTS or TCU) or at the SGSN; it acts as a link-layer control relay between MS and SGSN and its main function is to manage channel and radio link control.
- PCUSN** Packet Control Unit Serving Node. The physical device implementing the PCU function.
- PD** Packet Data
- PDA** Personal Digital Assistant
- PDC** Personal Digital Cellular (Japan)
- PDCCH** Physical Downlink Control Channel
- PDCH**
Packet Data Channel. In GPRS, the physical channel dedicated to packet logical channels only.
- PDCP** Packet Data Convergence Protocol
- PDCP SN** Packet Data Convergence Protocol Sequence Number
- PDF** Policy Decision Function
- PDF** Probability Distribution Function
- PDG** Packet Data Gateway
- PDGN** Packet Data Gateway Node
- PDH** Plesiochronous Digital Hierarchy. The transmission hierarchy of telecommunications. It includes the DS-0, DS-1, DS-3, E-1, OC-1, OC-3, OC-192, etc.
- PDIF** Product Definition Interchange Format
- PDN** Packet Data Network. The internet and corporate private networks are examples.
- PDN-GW** Packet Data Network - Gateway
- PDP** Packet Data Protocol
- PDP** Power Delay Profile
- PDP address** The address of a network node in the format of IPv4, IPv6, X.121, etc.
- PDP Context** Packet Data Protocol Context
- PDS** Packet Data Session
- PDSCCH** Physical Downlink Shared Control Channel
- PDSCH** Physical Downlink Shared Channel
- PDSN** Packet Data Serving Node
- PDSN FA** Packet Data Serving Node Foreign Agent. The packet server/router in a specific wireless system handling the point-to-point data connection from itself through the RNC and BTS. A special tunnel is established from PDSN FA to PDSN HA for each active mobile user.
- PDSN HA** Packet Data Serving Node Home Agent. The packet server/router serving as the gateway from a mobile network to the outside IP/internet world. It owns a block of IP addresses and assigns them to mobile users when sessions are established.
- PDTCH** Packet Data Traffic Channel. In GPRS, all packet data traffic channels are uni-directional one-way, either PDTCH/U or PDTCH/D (corresponding to uplink and downlink).
- PDU** Protocol Data Unit
- PER** packet error ratio
- PF** Paging Frame
- PF** Proportional Fair (a type of scheduler)
- PDF** power flux density
- PFS** Proportional Fair Scheduling
- P-GW** Packet Data Network Gateway
- P-H** PDSN to Home Agent Interface
- PHA** Protocol Handler for ATM
- PHB** Per Hop Behavior
- PhCH** Physical Channel
- PHICH** Physical Hybrid ARQ Indicator Channel
- PHS** payload header suppression
- PHS** Personal Handy-phone System

Term	Definition
PHSF	Payload Header Suppression field
PHSI	payload header suppression index
PHSM	payload header suppression mask
PHSS	payload header suppression size
PHSV	payload header suppression valid
PHV	Protocol Handler Voice
PHY	Physical layer
PHY/MAC	Physical layer/Medium Access Control
PhyCH	Physical Channels
Physical Layer	The lowest layer of the OSI protocol stack. The actual hardware of a network and the primitive signal generation and power functions it performs are considered to be part of the physical layer.
Pilot	A steady reference signal transmitted by a CDMA sector and used by mobiles as a guide to timing and signal strength. It is carried by Walsh Code 0.
Pilot Sets	Groups of PN offsets organized by the importance of the pilots to the mobile. The most important pilots are the Active set, currently being listened to by the mobile. The Neighbor set includes the pilots designed by RF engineers as likely to be encountered by mobiles on each sector. The Candidate set is a temporary "holding place" for pilots after the mobile discovers and requests them, but the system has not yet assigned them for the mobile to use. Finally, the Remaining set is all the pilots which do not fall into any of the above categories.
PIM	Passive Inter-Modulation
PIN	Personal Identifier Number
PIP	point to point
PKM	privacy key management
PL	Physical Layer
PLDCF	Instance-Specific Physical Layer Dependent Convergence Function (PLDCF). One of the three sub-layers of the MAC layer.
PLICF	Physical Layer Independent Convergence Function, one of the three sub-layers of the MAC layer.
PLL	Phase-Locked Loop
PLMN	Public Land Mobile Network. The network of another wireless company or the combined networks of other wireless companies in general. The term is most commonly used to describe GSM, GPRS, or UMTS networks.
PLMN Code	Public Land Mobile Network Code
PM	Policy Manager
P-MCCH	Primary MCCH
PMCH	Physical Multicast Channel
PMD	physical medium dependent
PMI	Precoding Matrix Indicator
PMIP	Proxy MIP
PMIP	Proxy Mobile Internet Protocol
PMK	PMK pairwise master key
PMP	poll-me bit
PMP	point-to-multipoint
PMR	Private Mobile Radio
PN	Pseudo-Random Noise. A characteristic of the long and short codes used in IS-95/J-Std-008 CDMA. Although seemingly random, these codes are generated from a repeatable formula which allows them to be generated remotely and used in signal decoding.
PN	Personal Network
PN	packet number
PN	Pseudo-Noise
PN Long Code	The pseudo-random code used to distinguish the signals of different mobiles from one another. Each mobile uses the PN Long Code, but with a different timing delay determined by its own ESN.
PN Short Code	The pseudo-random code used to distinguish the signals of different base station sectors from one another. Each sector operates using a different assigned time delay of the short code. These delays are called PN offsets.
PNCH	Packet Notification Channel. In the GPRS downlink only, this is used to notify a MS of an incoming PTM-M call; it is part of the PCCCH.
PND	Personal Navigation Device

Term Definition**PO** Paging Occasion**PoA** Point of Attachment**PoC** Push-to-talk over Cellular**PoC** Push to Talk over Cellular**Pon** Passive Optical Network**POP3** Point-of-presence protocol. Once an email message has arrived at a destination server, POP3 protocol is used to transfer it to the desktop of the user. POP is not as complex as SMTP.**POTS** Plain Old Telephone Service. Single-line public telephone service of the type which existed in the USA during the 1960s.**Power Control** The process of regulating the transmitted power on a link based on feedback from the receiving end. This is done for the forward and reverse links in CDMA, and for the reverse link only in 1xEV-DO (the EV-DO forward link runs at full power always).**Power Down Registration** Registration by a mobile when it has been turned off by its user. Before actually turning off, the mobile transmits a registration indicating it is no longer listening to the system. The system then no longer will page the mobile for incoming calls, routing them to voicemail immediately.**Power Up Registration** Registration by a mobile when it has been turned on.**PP** Packet Pipe**PPCH** Packet Paging Channel. In GPRS, a downlink-only channel used to page the mobile station; part of the PCCCH.**PPDN** Public Packet Data Network**PPF** In GPRS, the Paging Proceed Flag. In the SGSN. It is cleared when the mobile-reachable timer expires. In that case, MM and PDP contexts are maintained, but no more paging will occur.**PPP** Point to Point Protocol**PPR** Push-Profile-Request**PPTP** Point-to-Point Tunneling Protocol**PRACH**

Physical Random Access Channel in GPRS, EDGE, LTE. It is an uplink-only channel used to request allocation of one or more PDTCHs in either uplink or downlink direction; it's a part of the PCCCH.

PRAT Paging Channel Data Rate. 9600 bps or 4800 bps.**PRB** Physical resource block (in LTE, 12 subcarriers x 14 symbols, 1.0 uSec).**PRBS** pseudo-random binary sequence**PRC** Primary Reference Clock**PRE** Pre Power Amplifier**Preferred Roaming List** The PRL, a database of available systems used by a mobile to be sure it is using the best available system in its current territory.**PRF** Packet Routing Function**Primary PN** From a CDMA system's perspective, this is the most senior sector in the mobile's current active set. The primary remains the primary until the mobile requests to drop it. At that time, the strongest signal listed in the mobile's PSMM becomes the new Primary PN.**Primary Traffic** The traffic which is the main purpose of a call or data session.**PRL** Preferred Roaming List.**PRN** Pseudo random numerical sequence**P-RNTI** Paging Radio Network Temporary Identifier**PROM** Programmable Read Only Memory**Protocol Stack**

A functional and conceptual structure of processes and services used to define the operation of a network. For example, the OSI 7-layer protocol stack is the model for many computing and telecommunications systems. Different activities are conducted at different levels in the stack. See OSI.

PS Packet Switched**PS** PS physical slot**PS** Protocol Server**PSAP** Public Safety Answering Point**PSC** Packet Scheduling**P-SCH** Primary synchronization signal**PSD** Power Spectral Density**PSDSCH** Physical Downlink Shared Channel**PSFD** power spectral flux density**PSG** Packet Switch Gateway

Term Definition

- PSH** packing subheader
- PSI** Public Service Identities
- PSK** Phase shift keying
- PSMM** Pilot Strength Measurement Message. The message sent by a CDMA mobile to request addition or deletion of active pilots.
- PSRC** Per Stream Rate Control
- PSS** Primary Synchronization Signal
- PSTN** Public Switched Telephone Network. The landline telephone world at large, including all the networks of both local phone companies (local exchange carriers) and long distance companies (interexchange carriers).
- PSU** Power Supply Unit.
- PTCCH/D**
Packet Timing Advance Control Channel on the downlink in GSM/GPRS. It is used to transmit timing advance updates for up to 16 mobile stations. One PTCCH/D is paired with several PTCCH/Us.
- PTCCH/U** Packet Timing Advance Control Channel on the uplink in GSM/GPRS. It is used to transmit random access bursts to allow estimation of the appropriate timing advance for one mobile station in packet transfer mode.
- PTFE** Polytetrafluoro Ethylene (Teflon).
- PTI** LTE Procedure Transaction Id (used only when the procedure was initiated by a UE Requested Bearer Resource Modification Procedure)
- PTI** payload type indicator
- PTI** Protocol/Procedure Transaction Id
- PTM-G** In GPRS, Point-To-Multipoint-Group Call.
- PTM-M** In GPRS, Point-To-Multipoint-Multicast. Applies in a dedicated area. This function was not specified in the GPRS phase 1.
- P-TMSI** Packet TMSI, Temporary Mobile Subscriber Identity.
- PTP** Point-to-Point
- PTP-CLNS** Point-to-Point Connectionless Network Service
- PTP-COLNS** Point-to-Point Connection-oriented Network Service
- PTS** Push to Speak
- PTT** Push to Talk
- PTX** Peer Telephony eXchange (PTX) also known as Peer-to-Peer (P2P) call
- PUCCH** Physical Uplink Control Channel
- PUSC** partial usage of subchannels
- PUSC** Partially Used Subcarriers (for WiMAX)
- PUSC-ASA** partial usage of subchannels – adjacent subcarrier allocation
- PUSCH** Physical Uplink Shared Channel
- PVC** PVC permanent virtual circuit
- PVI** Precoding Vector Indicator
- PWS** Public Warning System
- Q** Q quadrature
- QAM** Quadrature Amplitude Modulation
- QCAT** QUALCOMM CDMA Analysis Toolkit
- QCELP** Qualcomm Code-Excited Linear Predictive vocoder. The basic vocoder algorithm in many vocoders used in CDMA.
- QCI** Quality Class Identifier
- QCI** QoS class identifier
- QLIC** Qualcomm Interference Cancellation
- QNC** Quick Net Connect, or Quick-To-Net (Quick-2-Net). A commercial name for the IS-95 data offering provided by some operators: 14,400 bits per second over IS-95 CDMA.
- QoE** Quality of Experience
- QOF**
Quasi-Orthogonal Function. A type of code which can be used to expand the supply of codes above the original set of walsh codes alone. In CDMA2000, the supply of walsh codes may be exhausted under some conditions. Quasi Orthogonal functions are derived from the original walsh codes, by multiplication using an arbitrary constant and rotation in a special multiplier defined in the CDMA2000 standards. There are four sets of QOFs, counting the original Walsh codes as set number 0. All codes in each set are perfectly orthogonal with each other, but the codes of each set are only approximately orthogonal compared with codes of different sets -- hence the name, quasi-orthogonal functions.

Term	Definition
QoS	Quality of Service. A quality ranking based on the reliability and transit delay of packets in a network. The 1xRTT, 3xRTT, GPRS, and UMTS technologies support different levels of service quality for different classes of users. Many different classes of traffic may compete for transmission resources. QoS considerations ensure that each class of traffic is carried appropriately.
QoS Profile	Quality of Service Profile
QPCH	The Quick Paging Channel.
QPP	Quadratic Permutation Polynomial
QPSK	Quadrature Phase Shift Keying
Qt	"Cutie" A cross-application development framework
QTP	Qualcomm Test Phone
Quick Paging Channel	A paging "indicator" channel mobiles can monitor without expending much battery power. It gives longer battery life if the mobile wakes up at intervals to check the QPCH, and only if its QPCH bit is "on", then wakes up fully to listen for an actual page on the Paging Channel.
QWERTY	Of, relating to, or designating the traditional configuration of typewriter or computer keyboard keys. Q, W, E, R, T and Y are the letters on the top left, alphabetic row.
QXDM	QUALCOMM Extensible Diagnostic Monitor
QZSS	Quasi Zenith Satellite System
R	Reference point. This is the access point where non-ISDN-compatible bearer services may be accessed as provided in ITU-T X- and V-series recommendations. Release 6 8 3GPP TS 25.301 V6.0.0 (2003-12)
R&D	Research and Development
R1SR	R1 Satellite Ready Frame
R2R	Repeater to Repeater Link.
RA	Routing Area; in GPRS, a subset of one and only one LA served by only one SGSN.
RA	Random Access
RAB	Radio Access Bearer
RAC	Routing Area Code in GSM/GPRS
RAC	Radio Admission Control
RACE	Research and development in Advanced Communications in Europe
RACH	Random Access Channel
RADIUS	AAA Remote Authentication Dial In User Service for Authentication, Authorization, and Accounting management for computers to connect and use a network service
RAF	Repository Access Function
RAI	Routing Area Identity. $RAI = MCC + MNC + LAC + RAC$
rain fade	On a microwave link, a period of outage or reduced signal caused by a rainstorm blocking the path.
RAM	Random Access Memory
RAM	Remote Application Management
RAN	Radio Access Network
RAN1	Working group within 3GPP focused on physical layer specifications
RAND	Reasonable and Non-discriminatory
RANDSSD	(Random Variable Shared Secret Data)—A 56-bit random number generated by the mobile station's home station.
RANDU	(Unique Random Number)—A 24-bit random number generated by a base station in support of the AUTHU challenge.
RAR	Random Access Response
RA-RNTI	RA-RNTI Random Access Radio Network Temporary Identifier
RAT	Radio Access Technology
RAT Handover	Radio Access Technology Handover
RAU	Routing Area Update
RB	Radio Bearer
RB	Resource block (In LTE, 12 subcarriers x 0.5 millisecond)
RBC	Radio Bearer Control
RBG	Radio Bearer Group
RBG	Resource Block Group
RBS	Radio Base Station
RCC	Remote Communication Control unit.

Term Definition**RCC** Reliable Clustered Computing**RCS** Radio Cluster Servers**RCS** Radio Control System**RCS** Rich Communication Suite**RCU** Remote Control Unit.**RE** Resource Element**Reference PN** A sector chosen by the mobile as the timing "specimen" for the mobile's internal clock. Only an active PN can be chosen by the mobile as its reference PN. The mobile can change its reference PN whenever a better signal is available in the active set.**REG** Resource Element Group**Registration** The process of a mobile "checking in" so the system can make arrangements to deliver calls to the mobile.**Registration Timer**

At the expiration of this timer, a mobile's registration with the system expires. The period is announced by the system and all mobiles automatically reregister at this interval to avoid expiration.

REL-X Release '99, Release 4, Release 5, etc. from 3GPP standardization**Remaining Pilot** In CDMA, a PN offset the mobile searches for at intervals, but which is not a neighbor, candidate, or active pilot.**Remaining Search****Window** In CDMA, the width of the "tolerance" window the mobile searches when looking for a remaining pilot.**REQ** request**RET** Remote Electrical tilting**Rev 0** 1xEV-DO Release 0**Rev A** 1xEV-DO Revision A**reverse link** The Uplink direction in a radio system, from mobile to base station.**Reverse Link**

The radio link from mobile to base station. In some wireless systems this may be called the uplink.

RF Radio Frequency**RF Power Classes** RF Power Classification**RFB** RF Block**RFC** Request For Comment**RFDE** RF design environment**RFE** Radio front end**RFP** Request for Procurement**RFPA** Radio frequency power amplifier**RG** Residential Gateway**RI** Rank Indicator**RIA** Repeater to Repeater Interface Adapter board.**RIM** RAN Information Management**RIM** Research In Motion, the company which created the Blackberry**RIR** Regional Internet Registry**RIT** Radio Interface Technology**RIV** Resource Indication Value**RLAN** radio local access network**RLB** Radio Link Budget**RLC** Radio Link Control**RLC-AM** Radio Link Control - Acknowledgment Mode**RLC-UM** Radio Link Control - Unacknowledged Mode**RLP** Radio Link Protocol**RLS** Recursive Least Squares**RLT** Release Link Trunk**RM** Rate Matching**RMC** Reference measurement channel**RMS** Repeater Management System**RMU** Repeater Master Unit.**RN** Radio Network

Term	Definition
RN	Relay Node
RNC	Radio Network Controller. In the 1xEV-DO and UMTS/HSPA technologies, the equivalent of a base station controller in original CDMA.
RNC	RNC Radio Network Controller
RNC Area	Radio Network Controller Area
RNC-M	CDMA2000 1X RNC Management
RNG	ranging
RNL	Radio Network Layer
RNS	Radio Network Subsystem
RNTI	Radio Network Temporary Identity
RNTP	Relative Narrowband Transmit Power
R-OCM	Reverse Optical Channel Module
ROHC	Robust Header Compression
ROI	Return on Investment
ROM	Read Only Memory
RoT	Rise over Thermal
R-P	RAN to PDSN Interface
R-P interface	Radio-Packet Interface, or Radio-PSDN interface. The connection between the CDMA BSC and the packet network with which the customer is communicating. The R-P interface connects to the selector in the CDMA side and the PDSN on the data side. IS-835 defines the interface and its characteristics.
RPE	radiation pattern envelope
RPE-LTP	Regular Pulse Excited-Long Term Predictive. A vocoder algorithm
RPF	Repetition Factor
RPLMN	Roaming Public Land Mobile Network
R-PLMN	Registered PLMN
RPOA	Recognized Private Operating Agency
RPP	Radio Packet Interface Processor
RR	Radio Resource
RR	Round-Robin (a type of scheduler)
RRA	radio resource agent
RRC	Radio Resource Control
RRC	Root-Raised-Cosine
RRH	Remote Radio Head
RRM	Radio Resource Management
RRP	(Registration Reply)—A message reply from a home agent regarding the state of a subscriber.
RRQ	(Registration Request)—A message request sent to a home agent regarding the state of a subscriber.
RRU	Remote Radio Unit
RS	Reference signal
RS	repeater station
RS	Reed–Solomon
RSA	Rural Service Area. In original US analog cellular, a licensing territory consisting of from one to more than a dozen rural counties.
RSA	(Rivest, Shamir, Adelman)—An encryption and authentication system that uses an algorithm developed by Ron Rivest, Adi Shamir, and Leonard Adleman.
RSCP	Received signal code power
RSN	Retransmission Sequence Number
RSP	response
RSP	Route Selection Protocol
RSPC	IMT-2000 radio interface specifications
RSRP	Reference Signal Received Power
RSRQ	Reference Signal Received Quality
RSS	Radio Standards Specifications
RSS	RSS receive signal strength
RSSI	Received Signal Strength Indicator

Term Definition

- RT** Real Time
- RTC** Real Time Clock.
- RTCMAC** Reverse Traffic Channel MAC
- RTCP** Real Time Control Protocol
- RTCP** Real-time Transport Control Protocol
- RTD** Round-Trip Delay. The total propagation delay encountered from one end of the radio link to the other and back again. Round Trip Delay is used as a CDMA hard-handoff trigger mechanism by some manufacturers.
- RTG** receive/transmit transition gap
- RTP** Real-Time Transport Protocol
- RTP** Real Time Protocol
- RTP/UDP** Real-Time Transport Protocol/User Datagram Protocol
- rtPS** rtPS real-time polling service
- RTT**
Radio Transmission Technology. The specification for a particular type of wireless communication radio air-interface. For example, 1xRTT is a third-generation Radio Transmission Technology which operates at one time (1x) the chip rate of second-generation IS-95 CDMA signals. 3xRTT is a third generation Radio Transmission Technology which operates at three times (3x) the old IS-95 rate.
- RTT** Round-trip time
- RTWP** Received Total Wideband Power
- RU** Resource Unit
- RV** Redundancy Version
- Rx** receive
- Rx+ reference point** (LTE SAE) The Rx reference point resides between the Application Function and the PCRF in the 3GPP TS 23.203
- RxDS** RxDS receiver delay spread clearing interval
- Rxx** Release xx = 28, 29, 30 etc.
- S/P** S/P Serial-to-parallel
- S/P** Serial-to-Parallel
- S?CSCF** Serving Call Session Control Function
- S1** S1 Interface between eNB and EPC
- S1 interface** (LTE SAE) Provides access to Evolved RAN radio resources for the transport of user plane and control plane traffic. The S1 reference point shall enable MME and UPE separation and also deployments of a combined MME and UPE solution.
- S10 reference point**
(LTE SAE) Reference point between MMEs for MME relocation and MME to MME information transfer.
- S11 reference point** (LTE SAE) Reference point between MME and SGW
- S12 Interface** Connection from UTRAN to Serving GW during user plane Direct Tunnel. Based on Iu-u/Gn-u ref. point and GTP-U protocol SGSN-to-UTRAN or SGSN-to-GGSN. Optional by Operator
- S13 Interface** Enables UE identity check between MME and EIR
- S1-AP** S1 Application Protocol
- S1-C** S1-C S1-Control plane
- S1-MME** S1 Interface Management Entity
- S1-MME reference point**
(LTE SAE) Reference point for the control plane protocol between EUTRAN and MME. The protocol over this reference point is eRANAP and it uses Stream Control MME. The protocol over this reference point is eRANAP and it uses Stream Control Transmission Protocol (SCTP) as the transport protocol
- S1-RNTI** System Information Change - Radio Network Temporary Identifier
- S1-U** S1 Interface User Plane
- S1-U reference point** (LTE SAE) Reference point between EUTRAN and SGW for the per-bearer user plane tunneling and inter-eNB path switching during handover. The transport protocol over this interface is GPRS Tunneling Protocol-User plane (GTP-U)
- S2a interface**
(LTE SAE) It provides the user plane with related control and mobility support between trusted non-3GPP IP access and the Gateway. S2a is based on Proxy Mobile IP. To enable access via trusted non-3GPP IP accesses that do not support PMIP, S2a also supports Client Mobile IPv4 FA mode
- S2b interface** (LTE SAE) Provides the user plane with related control and mobility support between evolved Packet Data Gateway (ePDG) and the PDN GW. It is based on Proxy Mobile IP.

Term Definition

- S2c interface** (LTE SAE) Provides the user plane with related control and mobility support between UE and the PDN GW. This reference point is implemented over trusted and/or untrusted non-3GPP Access and/or 3GPP access. This protocol is based on Client Mobile IP co-located mode
- S3 interface** (LTE SAE) The interface between SGSN and MME and it enables user and bearer information exchange for inter 3GPP access network mobility in idle and/or active state. It is based on Gn reference point as defined between SGSNs
- S4 interface** (LTE SAE) Provides the user plane with related control and mobility support between SGSN and the SGW and is based on Gn reference point as defined between SGSN and GGSN.
- S5 interface** (LTE SAE) Provides user plane tunneling and tunnel management between SGW and PDN GW. It is used for SGW relocation due to UE mobility and if the SGW needs to connect to a non-collocated PDN GW for the required PDN connectivity. Two variants of this interface are being standardized depending on the protocol used, namely, GTP and the IETF based Proxy Mobile IP solution
- S5a interface** (LTE SAE) Provides the user plane with related control and mobility support between MME/UPE and 3GPP anchor. It is FFS whether a standardized S5a exists or whether MME/UPE and 3GPP anchor are combined into one entity.
- S5b interface** (LTE SAE) Provides the user plane with related control and mobility support between 3GPP anchor and SAE anchor. It is FFS whether a standardized S5b exists or whether 3GPP anchor and SAE anchor are combined into one entity.
- S6 interface** (LTE SAE) Enables transfer of subscription and authentication data for authenticating/authorizing user access to the evolved system (AAA interface).
- S6a interface** (LTE SAE) Enables transfer of subscription and authentication data for authenticating/authorizing user access to the evolved system (AAA interface) between MME and HSS
- S7 interface** (LTE SAE) Provides transfer of (QoS) policy and charging rules from Policy and Charging Rules Function (PCRF) to Policy and Charging Enforcement Function (PCEF) Rules Function (PCRF) to Policy and Charging Enforcement Function (PCEF) in the PDN GW. This interface is based on the Gx interface
- S8 Interface** Inter-PLMN reference point providing user and control plane between the Serving GW in the VPLMN and the PDN GW in the HPLMN. S8 is the inter PLMN variant of S5
- S9 Interface** Transfers (QoS) policy and charging control information between Home/Visited PCRF to support local breakout function
- SA** security association
- SA** Service Architecture
- SA** System Aspects
- SACCH** Slow Associated Control Channel
- SAE** System architecture evolution, the overall 3GPP Release 8 of the packet system connected to LTE radio
- SAES** System Architecture Evolution Specification
- SAI** Service Area Identifier
- SAID** security association identifier
- SALC** Smart-ALC (Automatic Level Control)
- SAM** Service Aware Manager
- SAP** Service Access Point.
- SAPI** Service Access Point Identifier
- SAR** synthetic aperture radar
- SAR** Service Aggregation Router
- SAW** Stop-And-Wait
- SB** Short Block
- SB** Synchronization Burst
- SBAS** Space Based Augmentation System
- SB-CBR** Single Board Radio for Modcell 4.0
- S-BCH** Secondary Broadcast Channel
- SB-EVM** Single Board EVM for Modcell 4.0
- SB-EVMm** Single Board EVM for Modcell 1.0-3.0
- SBGR** Samsung BSC Group Rack.
- SBLB** Service Based Local Policy
- SBP** Systematic Bit Puncturing
- SC** SC single carrier
- SC** Service Continuity
- SCC** AS Service Centralization Continuity Application Server

Term Definition

- SCC** Service Centralization and Continuity
- SCCP** Signaling Connection Control Part
- S-CCPCH** Secondary Common Control Physical Channel
- SC-FDMA** Single Carrier – Frequency Division Multiple Access
- SCH** Synchronization Channel
- SCM** Spatial Channel Model
- SCM** Supply chain management
- SCME** Spatial Channel Model Extension
- SCMG** SCCP Management
- SCP** Service Control Point
- SCPe** Service Control Point emulation
- SC-RNTI** System Change Radio Network Temporary Identifier
- S-CSCF** Serving- Call Session Control Function
- SCT** System Component Testing
- SCTP** Stream Control Transport Protocol
- SCW** Single Codeword
- SDB** Short Data Burst
- SDB_SUPPORTED** A bit in IS-2000 overhead messaging indicating the BTS will or will not accept Short Data Bursts from mobile stations.
- SDCCH** Standalone Dedicated Control Channel
- SDF** Service Data Flow
- SDH** Synchronous Digital Hierarchy. In Europe, corresponding to SONET in North America. The standard frame is called STM-1 (Synchronous Transfer Module, level 1).
- SDH** Synchronous Digital Hierarchy
- SDK** Software Development Kit
- SDM** Services Data Manager
- SDMA** Spatial Division Multiple Access
- SDO** Standards Development Organization
- SDP** Session Description Protocol
- SDP** Service Delivery Platform
- SDR** Software Defined Radio
- SDU** Selection Distribution Unit or Service Data Unit.
- SDU** Service Data Unit
- Secondary Traffic** In CDMA, background traffic which is not the primary purpose of a call. For example, downloading a new PRL to the phone would be secondary traffic, while an audio announcement running at the same time would be the primary traffic.
- SeGW** Security Gateway
- Selector** The processing entity which manages the progress of a CDMA call. Located in the BSC, the Selector parses every incoming frame received from the mobile, sending voice bits to the the vocoder, data bits into the IWF or the PDSN, and interpreting any incoming layer-3 messages received from the mobile and starting appropriate actions in response. The selector performs the opposite functions on the forward link, assembling voice bits, secondary data bits, and possibly layer 3 messages into the frames as required. The selector provides the interface for data bits coming from or going to the mobile during a data call or session.
- SEM** Spectrum Emission Mask
- Session** In a data sense, the relationship arranged by a user and the system wherein the user gets an outside IP address assigned to send and receive information. A period of packet access by a specific user on the system. Mobiles may be registered/attached to the network for long periods even though they are not steadily transmitting data.
- SF** service flow
- SF** Spreading Factor
- SFA** Sales Force Automation (Siebel)
- SFBA** Switch Fixed Beam Array
- SFBC** Space Frequency Block Coding
- SFDR** Spurious-Free Dynamic Range
- SFID** service flow identifier
- SFM** service flow management

Term Definition**SFN** System Frame Number**SFN** Single Frequency Network**SFP** Small Form-factor Pluggable**SFTD** Space-Frequency Time Diversity**SG** Signaling Gateway**SG** Serving Gateway**SGi interface**

(LTE SAE) The reference point between the Inter AS Anchor and the packet data network. Packet data network may be an operator external public or private packet data network or an intra operator packet data network, e.g. for provision of IMS services. This reference point corresponds to Gi and Wi functionalities and supports any 3GPP and non-3GPP access systems.

SGi reference point (LTE SAE) The reference point between the PDN GW and the packet data network. Packet data network may be an operator-external public or private packet data network or an intra-operator packet data network, e.g. for provision of IMS services. This reference point corresponds to Gi for 2G/3G accesses

SGs Reference point between the MME and the MSC for CS Fall Back**SGSN** Serving General Packet Radio Service Support Node**SGSN Area** Serving General Packet Radio Service Support Node Area**S-GW** Serving Gateway**SHA** secure hash algorithm**Shared PLMN** Shared Public Land Mobile Network**SHCCH** Shared Channel Control Channel**shift register**

A group of digital flip-flops or other storage devices arranged so that their contents are progressively passed from member-to-member as a clock buss is pulsed. Shift registers with special self-changing taps are used to generate the CDMA pseudorandom codes "Short PN Code" and "Long PN Code".

SHO Soft Hand Off**short wave** Slang term for high-frequency (HF) radio systems operating in roughly the 2-30 MHz. range.**SI** System Information**SI** SI slip indicator**SI** System Information**SI- RNTI** SI-RNTI System Information RNTI**SI-1** System Information block Type 1**SIB** System Information Block**SIB** System Information Block**SIC** Successive Interference Cancellation**S-ICIC** Static Interference Coordination**SID** System Identification number. A 15-bit (32767 max) number uniquely assigned to a wireless system and to no other system in the world. Used by mobiles to know whether they are home or roaming, and to allow intelligent system choices by mobiles using their internally stored PRLs.**SID** Silence Insertion Description**Signaling** Messaging or control bit communication between a mobile and the system for purposes such as call control.**SIM** Subscriber Identity Module. A smart-card which the customer can insert in a phone. It contains the subscriber's secure identity, phone number, and various convenience and calling features information. By having a SIM card, a user can use a variety of phones in different situations. If business agreements exist between the home network and other networks, the user can even rent phones during travel and use their SIM card to have home-like services.**SIM** Subscriber Identity Module**SIMEG** Subscriber Identity Module Expert Group**SIMO** Single input multiple output**Simple IP** Simple IP is a protocol for establishing a connection between a mobile and the network to carry the user's packet data. While mobile IP provides transparent address mobility, Simple IP does not. Using simple IP a user is able to move from cell to cell supported by the same PDSN, but the session will be terminated if the mobile leaves the region supported by the PDSN.**SINR** Signal to Interference plus Noise Ratio**SIP** Session Initiated Protocol**SIPTO** Selected Internet Protocol Traffic Offload**SIP-URI** Session Initiated Protocol -Uniform Resource Identifier

Term	Definition
SIQ	service information query
SIR	Signal-to-Interference Ratio
SI-RNTI	System Information Radio Network Temporary Identifier
SISO	Single Input Single Output
skip	Slang term for radio propagation which reflects off the ionosphere, extending coverage for great distances.
SLA	Service Level Agreement
SLAAC	StateLess Address AutoConfiguration
SLg	Interface between the MME and the GMLC
Slotted Mode Paging	A method of "scheduled" paging in which the mobile only wakens to listen for pages at intervals, and the system "holds" any incoming pages for the mobile, delivering them only when the mobile is scheduled to be awake. The purpose is to reduce the average power demand of the mobile so that batteries can provide longer service.
SLR	Subscriber Location Register
SLs	Interface between the MME and the E-SMLC
SM	Session Management
SM	spatial multiplexing
SM	Security Manager
S-MCCH	Secondary MCCH
SMMP	Simple Network Management Protocol
SMS	Short Message Service
SMSC	Short Message Service Centre
SMS-GMSC	SMS Gateway Mobile Switching Center
SMS-IW MSC	SMS Interworking Mobile Switching Center
SMTP	Simple Message Transfer Protocol or Simple Mail Transfer Protocol.
SMV	Selectable Multirate Vocoder. An advanced family of variable rate, variable technology vocoder designs available for CDMA2000 systems.
SN	Sequence Number
SNAP	Subscriber Network Application Policy
SND	Sequence Number Downlink in GPRS/GSM.
SND CP	SubNetwork Dependent Convergence Protocol; maps the network protocols to best fit the underlying GPRS transmission capabilities; covers ciphering, segmentation, and compression
SNMP	Simple Network Management Protocol
SNR	Signal-to-noise ratio
SNS	Social Networking Site
SNU	Sequence Number Uplink
SO	Segmentation Offset
SOA	Service Oriented Architecture
SOHO	Soft Handover
SOM	Start-Of-Message. In some layer-3 message structures, a bit is reserved to indicate the beginning of a message. This bit is called a SOM bit.
SON	Self-Optimizing or Self-Organizing Network
SONET	Synchronous Optical NETwork; in North America, corresponding to SDH in Europe. Different Optical Carriers (OC) provide different capacities.
Source eNB	Source Evolved Node B
SPA	Sum-Product Algorithm
Spectrum	The continuum of all radio frequencies, "from DC to daylight".
Spectrum Analyzer	A test instrument which provides a visual display of the amount of energy present on each frequency in a range.
SPI	Security Parameter Index (key identifier)
SPID	Subscriber Profile ID for RAT/Frequency Priority
SPR	Subscriber Priority Repository
SPS	Semi-Persistent Scheduling
SPS-C-RNTI	Semi-Persistent Scheduling C-RNTI
SQL	Structured Query Language. A database format.
SR	Scheduling Request
SR	Service Router

Term Definition

- SR/CQI/ACK** Scheduling Request/Channel Quality Indicators/Acknowledgement
- SRB** Signaling Radio Bearer
- SRCH_WIN_A** The search window size used by a mobile when it is measuring active pilots.
- SRCH_WIN_N** The search window size used by a mobile when it is measuring neighbor pilots.
- SRCH_WIN_R** The search window size used by a mobile when it is measuring remaining pilots.
- SRES** Signed Response
- SRIT** Set of Radio Interface Technologies
- SRNC** Serving Radio Network Controller
- SRNS** Serving Radio Network Subsystem
- SRS** Sounding Reference Signal
- SRSP** Scheduling Request
- SRSP** Standard Radio Systems Plan
- SRV** CC Single Radio Voice Call Continuity
- Srv** Server
- SRVCC** Single Radio Voice Call Continuity
- SS** subscriber station
- SS** SoftSwitch
- SS** Supplementary Service
- SS7** Signaling System 7. The primary method of communication between telecom switches for call coordination and validation purposes. It replaced the insecure in-band tone signalling that allowed hackers to make free calls. Although other more efficient technologies exist for this signaling, SS7 remains dominant because of its security and reliability.
- SSAP** Source Service Access Point.
- S-SCH** Secondary synchronization signal
- SSD** Shared Secret Data. SSD-A and SSD-B are two 64-bit data words stored in a subscriber's phone and also in the HLR of their home wireless system. Although the SSD is not normally sent over the air, it is used in the background to compute responses to various challenges which can authenticate and validate the mobile.
- SSH** Secure Shell
- SSID** SSID subscriber station identification (MAC address)
- SSL** (Secure Sockets Layer)—Cryptographic protocols that provide security over the Internet.
- SSM** SSM subscriber station management
- SSS** Secondary Synchronization Signal
- SSSAR** Service Specific Segmentation and Reassembly Sub-layer
- SSTG** SSTG subscriber station transition gap
- STA** Station
- Static**
Remember James Brown. In audio, a crackling noise which distracts from and interferes with listening.
- STBC** Space-Time Block Code
- STC** space time coding
- S-TMSI** Temporary Mobile Subscriber Identity
- STTD** Space-Time Transmit Diversity
- SU** Scheduling Unit
- SUA** Software Update Automation
- Subframe** Sub-frame
- SU-MIMO** Single-User Multiple-Input Multiple-Output
- Supplemental Channel** In 1xRTT and 3xRTT, a channel dynamically allocated between a user and the system for the purpose of carrying fast data.
- SU-UL-MIMO** Single-User Uplink Multiple-Input Multiple-Output
- SV** interface Interface between the MME and MSC for performing SRVCC Handover
- SVC** switched virtual circuit
- SVD** Simultaneous Voice & Data
- SW** Software
- symbols** Representations of a user's information, but in a more redundant form than the actual bits sent by the user. In CDMA the bits are turned into a larger number of symbols by a convolutional or turbo encoder. At the other end of the link, the symbols are converted back into bits.
- SYNC** Short for Synchronization

Term	Definition
Sync Channel	A CDMA forward link channel, using Walsh code 32, which tells arriving mobiles the current system time, long code state, PN offset of the base station, system identity (SID) and network identity (NID).
SyncE	Synchronous Ethernet
SYS_TIME	System Time, expressed in frames since the beginning of UTC.
System Table	Part of the Preferred Roaming List (PRL). A list of SIDS of all systems a mobile is likely to encounter, in order of desirability within geographic groupings. Used by a mobile when it encounters a new system, to determine whether it should remain or seek a better system.
SyVe	System Verification
T_Add	In CDMA, the threshold signal level above which a mobile wants to add a sector.
T_Comp	In CDMA, a signal strength comparison threshold between a pilots being used (active) and pilots requested but not yet in use (candidates). If a candidate becomes T_COMP stronger than the weakest active, the mobile transmits a new PSMM requesting all desired pilots and reporting their strengths.
T_Drop	In CDMA, the threshold signal level below which a mobile wants to stop using a sector.
T_Tdrop	In CDMA, the "probation timer" which delays the removal of a sector from a handoff, just to see if it will strengthen again.
T-1	See DS-1.
TA	Timing Advance. The amount of time by which a GSM, GPRS, or IS-136 TDMA mobile transmits early in order to achieve on-schedule arrival of its signal at the base station. Timing Advance is intended to exactly compensate the timing delay suffered during radio signal propagation.
TA	Terminal Adaptor.
TA	Tracking Area
TA	Transfer Adapter
TA	Transport Address
TA	Time alignment
TAC	Tracking Area Code
TAC	Type Allocation Code
TAC	Tracking Area Code
TACS	Total Access Cellular System
TAD	Traffic Aggregate Descriptor, in LTE QoS. TAD is a partial TFT. It includes packet filters for a particular L7 activity.
TAF	Terminal Adaptation Function
TAI	Timing Advance Index.
TAI	Tracking Area Identifier
TAIP	Trimble Ascii Interface Protocol. The data format used on serial links of Trimble-brand GPS receivers.
TAP	Transferred Account Procedures
Target eNB	Target Evolved Node B
TAS	Transmit Antenna Switching
TAU	Target Acquisition and tracking Unit
TAU	Tracking Area Update
TB	Tail Bits
TB	Transport Block
TB	TB Transport Block
TBF	Temporary Block Flow. In GPRS and UMTS, a flow of information over one of the fast data channels.
TC	Transport Channel
TCAP	Transaction Capabilities Application Part. It is a transport layer protocol which provides a reliable service with connection.
TCB	Transcoder Bank. In certain manufacturers' BSCs, the subsystem containing the vocoders.
TCH	Traffic Channel
TCM	trellis coded modulation
TCO	Total Cost of Ownership
TCP	TCP Transmission Control Protocol
TCP	Transmission Control Protocol

Term Definition

- TCP/IP** Transaction Control Protocol - Internet Protocol. A packet communications protocol used to administer the operation of the internet and many other private and public digital packet data networks. Sometimes used as an adjective for the type of traffic these networks carry - mixed packet traffic from many users.
- TC-RNTI** Temporary C-RNTI
- TCS** transmission convergence sublayer
- TCS** Traffic Control Server
- TD-CDMA** Time Division-Code Division Multiple Access
- TDD** Time Division Duplex
- TDD** Telecommunication Device for Deaf
- TDL** Tapped Delay Line
- TD-LTE** Time Division-Long Term Evolution or LTE TDD
- TDM** Time Division Multiplexing
- TDMA** Time Division Multiple Access. A type of signal and method of communication in which lots of people can talk on a wireless network by taking turns sending voice bits over radio channels. Each channel is time-shared by multiple users, hence the term time-division multiple access. There are two main versions of this technology, differing somewhat in signal architecture, and each has its own community of users: IS-136 TDMA, and GSM.
- TDMA** Time Division Multiple Access.
- TDOA** time difference of arrival
- TDS** Time Domain Scheduling
- TD-SCDMA** Time Division-Synchronous Code Division Multiple Access
- TE** Terminal Equipment
- TEC** Telecom Engineering Centre
- TEID** Tunnel Endpoint Identifier
- TE-ID** Tunnel Endpoint Identifier
- TEK** traffic encryption key
- TELCO** TELEcommunication COmpany
- TELNET** A terminal communications program.
- TEM** Telecom Equipment Manufacturer
- TF** Transport Format
- TFC** Transport Format Combination
- TFCI** Transport Format Combination Indicator
- TFI** Temporary Flow Identity. Used in RLC protocol to manage transfers.
- TFO** Tandem Free operation
- TFO** Transcoder Free Operation
- TFRI** Transport Format and Resource Indicator
- TFT** Traffic Flow Template: a list of IP addresses and TCP/UDP port combinations used on a specific dedicated bearer
- TFT** Traffic Flow Template
- TFTP** Trivial File Transfer Protocol
- Throughput** The amount of data carried over a data channel per unit time.
- TI** Transaction Identifier
- TIA** Telecommunications Industry Association
- TID** Tunnel Identifier. In GPRS/UMTS, used by GTPs between GSNs to identify a PDP context. A TID consists of an IMSI and a NSAPI.
- Timeslot** Time Slot
- Timestamp** Time Stamp
- TISPAN** Telecoms & Internet converged Services & Protocols for Advanced Networks, a standardization body of ETSI
- TIW** A Canadian wireless operator, Telesystem International Wireless of Montreal. TIW has participated in European 3G spectrum auctions.
- LLI** Temporary Logical Link Identity. In GPRS, it identifies the logical link between the MS and the SGSN; it is derived from the P-TMSI.
- TLV** type/length/value
- TM** Transparent Mode (RLC configuration)
- TM** Transport Mode

Term Definition

- TMD** Transparent Mode Data
- TMN** Telecommunication Management Network
- TMSI** Temporary Mobile Subscriber Identity
- TNI** user-to-network interface (or user-network interface)
- TNL** Transport Network Layer
- TNMSE** Truncated Normalized Mean-Squared Error
- TP** Traffic Processor
- TP** Transmission Point
- TP** Transport Protocol
- TPC** Transmit Power Control
- TPD** Total Power De-rating
- TPMI** Transmitted Precoding Matrix Indicator
- TPU** Traffic Processor Unit
- TR** Technical report
- TR** Tone Reservation
- Traffic Channel** A pathway for the traffic between the two ends of a call. They can be on the forward link (Forward Traffic Channels) or reverse link (Reverse Traffic Channels).
- TRB** Transceiver Block
- TrCH** Transport channel
- TrFO** Transcoder-Free Operation. A system of bypassing unneeded back-to-back vocoding on mobile-to-mobile calls, where the information is already received in vocoded form.
- TRI** Transmitted Rank IndicationUCI Uplink Control Information
- TRX** Transceiver
- TS** Technical Specification
- TS** Time Slot
- TSC** Training Sequence Code
- TSG** Technical Specification Group
- TSG-RAN** TSG Radio Access Network is a specification group at 3GPP
- TSM** Transport Synchronous Module
- TSN** Transmit Sequence Number
- TSN** Transmission Sequence Number
- TSS** Transport Service Switch
- TTA** Telecommunications Technology Association
- TTG** transmit/receive transition gap
- TTI** Transmission Time Interval
- TTL** Time To Live
- TTT** Time To Trigger
- TTY** TeleTYpe writer
- TU** Typical Urban
- Tunneling** The process of encapsulating packets of information for a user and delivering them to the user at a remote location in a different network. Tunneling usually involves transmission of the encapsulated packets over a separate packet network, often a proprietary or private OSSN.
- TUSC** TUSC tile usage of subchannels
- TX** Diversity Transmit Diversity
- Tx** Tx transmit (abbreviation not used as verb)
- Tx** or TX Transmit
- Tx** Transmission
- TXD** TX Diversity Transmit Diversity
- U-** User-
- U** Air interface between MS and BTS
- UCD** uplink channel descriptor
- UCI** Uplink control indicator
- UCI** Uplink Control Information
- UCR** Ultra CDMA Radio for Modcell 4.0
- UCRm** Ultra CDMA Radio for Modcell 1.0-3.0
- UDC** Utility Data Center

Term Definition

- UDI** Unrestricted Digital Information
- UDP** User Datagram Protocol. Located in the transport layer, it is a connectionless mode with practically no functionality.
- UDR** Usage Detail Records
- UE** User Equipment. The phone, handset, or terminal used by a customer on a UMTS system. There will be many UEs in the EU.
- UE Assisted Handover** User Equipment Assisted Handover
- UE Class** User Equipment Class
- UE Context** User Equipment Context
- UEP** unequal error protection
- UGC** User Generated Content
- UGS** unsolicited grant service
- UI** Unnumbered Information, in the GPRS protocol.
- UICC** Universal Identifier Cryptographic Computer
- UIUC** uplink interval usage code
- UL** Uplink (subscriber to base station transmission)
- UL** Uplink signal direction (from mobile station via repeater to base station).
- UL** TFT Uplink Traffic Flow Template
- UL** Uplink (subscriber to base station transmission)
- UL/DL** Uplink/Downlink
- ULAM** Ultra Linear Amplifier Module
- UL-CCH** Uplink Control channel
- UL-SCH** Uplink Shared Channel
- Ultra Mobile Broadband** UMB, Qualcomm's proposed 1xEV-DO rev. C technology, abandoned by Qualcomm in late 2008 due to lack of industry interest
- Um** Radio Interface
- UM** Unacknowledged Mode (RLC configuration)
- UMA** Universal Mobile Access
- UMA/GAN** UMA Generic Access Network
- UMB** Ultra Mobile Broadband, Qualcomm's 1xEV-DO rev. C technology.
- UMTS** Universal Mobile Telecommunications Services. The wideband CDMA transmission format endorsed by the GSM community. The access technology is termed UTRA (UMTS Terrestrial Radio Access). Two versions are available: a frequency division duplex mode using separate frequencies for uplink and downlink, and a time-division duplex mode, with uplink and downlink carried in alternating bursts on a single frequency.
- UMTS LTE** UMTS Long Term Evolution
- UNI** User to Network Interface
- U-NII** unlicensed national information infrastructure
- UniPon** Unified Passive Optical Network
- UNIX** An operating system used by computer systems. Very popular in telecommunications and Information Technology systems due to its reliability, stability, extensive features, and relative compactness. The unix command line interface includes many complex commands and is generally more complex than DOS, but also much more flexible.
- UP** Unitary Precoding
- UPE** User Plane Entity
- U-plane** User plane
- U-plane** User Plane
- uplink** A radio link in the direction from mobile to base station, or from earth station to satellite. In mobile technologies, also called the reverse link.
- UpPTS** The uplink part of the special subframe (for TDD operation).
- UpPTS** Uplink Pilot Time Slot
- UPS** Uninterruptible Power Supply.
- UPT** Universal Personal Telecommunications
- URA** UTRAN Registration Area
- URA_PCH** UTRAN Registration Area_Paging Channel
- URI** Universal Resource Identifier

Term Definition

- URL** Uniform Resource Locator. The address of a client and file in the DNS format. The protocol must be identified first (FTP or HTTP, etc) followed by a colon and then the address. For example, <http://www.howcdmaworks.com>.
- US** Uncorrelated-Scattered
- USAT** USIM Application Toolkit
- USB** Universal Serial Bus. A fast serial port protocol and hardware specification popular in modern computing. Provides hot-insertion and recognition supporting plug-and-play devices. Can be extended to multi-port networks using simple hubs.
- USB-IC** Universal Serial Bus-Integrated Circuit
- USCH** Uplink Shared Channel
- USDS** Universal Subscriber Data Structure
- USF** Uplink State Flag. In GPRS/UMTS, it is used on the PDCH to allow multiplexing of radio blocks from a number of MSs. USF is used in dynamic and extended dynamic medium access modes. USF is used only in downlink direction; it consists of 3 bits.
- USIM** Universal Subscriber Identity Module
- USSD** Unstructured Supplementary Service Data
- US-TDMA** US Time Division Multiple Access standard
- UTC** Coordinated Universal Time, the timing system used by GPS and most wireless networks.
- U-TDOA** uplink time difference of arrival
- UTRA** UMTS Terrestrial Radio Access
- UTRA FDD** UMTS Frequency Division Duplex
- UTRAN** UMTS Terrestrial Radio Access Network
- UuS** (Radio Interface) Stratum
- UW** unique word
- UWC136** Universal Wireless Communications for IS136
- VA** Viterbi Algorithm
- VAD** Voice Activity Detection
- Validation** The process of confirming a user's operational status, i.e., right to use the network. If you don't pay your bill, you'll probably hear "Your account cannot be validated at this time. Please hold for a customer service representative."
- VANC** VoLGA Access Network Controller
- VANC-SeGW** VANC Security Gateway
- Variable Rate Vocoder** A vocoder whose output rate is allowed to vary in step with the audio it is vocoding. During pauses in conversation, its rate drops substantially, thereby saving resources on the radio link.
- VAS** Value-Added Service
- VBS** Voice Broadcast Service
- VC** virtual channel
- VCB** Virtual Circular Buffer
- VCC** Voice Call Continuity
- VCI** virtual channel identifier
- VCN** VoLGA Connection Management
- VCO** Voltage-Controlled Oscillator
- VCVM** Virtual Cluster Virtual Machine
- VGCS** Voice Group Call Service
- Virtual MIMO** Virtual Multiple Input Multiple Output
- VLAN** virtual local area network
- VLR**
Visitor Location Register. The local database maintained at a wireless switch, containing the profiles for all subscribers currently registered on its system. When a mobile registers, the serving switch interrogates the mobile's home-system HLR and copies the relevant information to its own VLR. The HLR is also updated with the system identification of the mobile's current host system to allow incoming call delivery from home system via the current serving system. AMPS, IS-136, and IS-95 systems use IS-41 protocol for intersystem call delivery and handoff. GSM and iDEN systems use the GSM MAP for intersystem call delivery and handoff. Both IS-41 and GSM-MAP use HLR and VLR concepts.
- VLR Area** Visitor Location Register area
- VMS** Voice Mechanism Selection function
- VNI** Visual Networking Index
- VoA** Visited IP Address

Term Definition

- Vocoder** Contraction for Voice Coder. A device which takes digitized speech, usually in 64 kb/s DS-0 form, and converts it into a smaller number of bits more easily transmitted. All wireless voice systems use vocoders to improve their capacity. The vocoders used in CDMA are "variable rate", adjusting their data rate to match loud and quiet passages in the speech.
- VoIMS** Voice over IMS
- VoIP** Voice over Internet Protocol technology enables users to transmit voice calls via the Internet using packet-linked routes. VoIP is also called IP telephony
- VoLGA** Voice over LTE via Generic Access
- VoLGA-RR** Voice over LTE via GAN Radio Resource
- VoLTE** Voice over LTE
- VP** virtual path
- VPC** Virtual Path Connection
- VPCRF** Visiting PCRF
- VPI** virtual path identifier
- VPLMN** Visited Public Land Mobile Network
- VPLS** Virtual Private LAN Service
- VPN** Virtual Private Network
- VRB** Virtual Resource Block
- VRM** VoLGA Registration Managem
- VRR** VoLGA-RR
- VRRP** Virtual Routing Redundancy Protocol
- VSA** Vector signal analyzer
- VSNC** Vendor Specific Network Control Protocol
- VSNP** Vendor Specific Network Protocol
- VSWR** Voltage Standing Wave Ratio
- WA** Wide Area
- WAG** WLAN Access Gateway
- Walsh Codes**
A family of codes used for channelization in IS-95/IS-2000 CDMA systems. On one carrier of one sector of a CDMA system, the Walsh codes serve as the "carriers" of individual users' voice or data streams.
- WAN** Wide Area Network.
- WAP** Wireless Application Protocol. A common standard for presentation and entry of data on wireless phones and terminals.
- WAP** WAP Wireless Application Protocol
- WARC** World Administration of Radio Conference
- WARC** World Administrative Radio Congress
- wave bending** Changing the direction of radio waves, as for example bending at the boundaries of different temperature air masses in unusual weather.
- WB** Wide Band
- WBC** Wireless Broadband Core
- WCDMA** Wideband CDMA. CDMA with a chip rate exceeding 1,228,800 chips per second. In particular, the European-sponsored UMTS UTRA CDMA standard.
- WDM** wavelength Division Multiplexing
- WDN** Wireless Data Network. The portion of a 1xRTT or EV-DO data system which connects the user data packets to outside packet networks such as the Internet.
- WFT** Winograd Fourier Transform
- WG** Working Group
- WI** Work Item
- WiBRO** Wireless BROadband, a South Korean technology variant similar to WiMAX and based primarily on IEEE 802.16(e).
- Wi-Fi** Wireless Internet or IEEE 802.11 standards
- WIM** Wireless Internet Module
- WiMAN** WirelessMAN Wireless Metropolitan Area Networks
- WiMax** Wireless Interoperability for Microwave Access. A fourth-generation broadband radio communications standard based on IEEE 802.16 standards and using OFDM technology.
- WIN** Wireless Intelligent Network
- WINNER** Wireless world INitiative NEw Radio
- WLAN** Wireless Local Area Network

Term	Definition
WLL	Wireless Local Loop
WMAN	Wireless Metropolitan Area Network
WML	Wireless Markup Language
Wn* reference point	(LTE SAE) The reference point between the Untrusted Non-3GPP IP Access and the ePDG. Traffic on this interface for a UE initiated tunnel has to be forced
WP	Working Party
WP8F	Working Party 8F
WPC	Wireless Packet Core
WPD	Waveform Power De-rating
WPS	Wireless Priority Service
WRC	World Radiocommunication Conference
WSS	Wide-Sense Stationary
WSSUS	Wide-Sense Stationary Uncorrelated Scattering
WTLS	Wireless Transport Layer Security
WTSC-G3GSN	Wireless Technologies & Systems Committee-GSM/3G System and Network Subcommittee at ATIS
WWV	USA NIST National Institute of Science and Technology official timing source. A radio station transmitting at 2.5, 5, 10, 15, 20, and 25 MHz. and 60 KHz. with its carrier frequency derived from high-accuracy atomic standards. Prior to the development of GPS, this was the most accurate public timing and frequency reference generally available.
WWW	WorldWide Web (or according to one observer, "World-Wide Wait").
X.121	Address used for X.25/X.75 networks.
X2	Interface between eNBs: Provides interconnection of different manufacturer's eNBs; continuation of S1 services as UE transits to different eNBs; separation of X2 interface Radio Network functionality and transport network functionality to facilitate introduction of future technologies
X2-C	X2-Control plane
X2-U	X2-C X2-User plane
XCVR	Transceiver
Xdsl	Denotes the different variants of DSL – Digital Subscriber Line
XENPAK	10 Gigabit Ethernet Transceiver Package
XFP	10-Gigabit small Form-factor Pluggable
xHTML	Extensible Hypertext Markup Language
XOR	XOR exclusive-or
XPD	cross-polar discrimination
X-Pol	cross-polar
xSON	Extended Self-Optimizing/Self-Organizing Network
Zadoff-Chu	ZC sequences are constant-amplitude, zero auto-correlation ("CAZAC") sequences used in LTE technology to make cells uniquely identifiable.
ZC	Zadoff-Chu sequence
ZCZ	Zero Correlation Zone
ZC-ZCZ	Zadoff-Chu sequences with Zero Correlation Zone
ZF	Zero-Forcing
ZFEP	Zero-Forcing Equal Power
ZTCC	Zero Tailed Convolutional Code